STRATEGIES TO REDUCE STILLBIRTHS IN THE FEZILE DABI DISTRICT, SOUTH AFRICA

by

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DECLARATION OF RESEARCH

I, SESI ROSLINA NOGE, declare that this research report is my own work. It is being submitted for a Doctoral degree in Nursing (PhD) at the University of the Free State, Bloemfontein. It has not been submitted before for any degree or for any examination at this or any other university.

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28 June 2018

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DEDICATION OF RESEARCH

I dedicate this work to the following:

Our almighty God, who gave me the strength and made it possible for me to complete this study; without Him I could never have completed this thesis.

My late mother, Mmanaha Rebecca Lephoto, with sincere gratitude for all the love and care that she gave to me and the lessons that she taught me in life.

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SYNOPSIS OF RESEARCH

INTRODUCTION AND BACKGROUND: The Fezile Dabi district of the Free State province is faced with the challenge of reducing perinatal deaths. The Perinatal Problem Identification Programme (PPIP) tool has been rolled out successfully in the Free State to assist health institutions and districts to identify possible causes of perinatal deaths, and develop preventive healthcare interventions to address the causes identified. However, no study has been done to explore beliefs and practices of mothers who experienced stillbirths, or their family members and midwives working in maternity units with regard to causes of stillbirths, and to compare the outcomes of the application of the PPIP record with the beliefs and practices of the stakeholders during the study period.

AIM: To explore the beliefs and practices of mothers who presented at maternity units of Fezile Dabi district hospitals without foetal heart rate and who gave birth to stillborn babies, their family members or significant others and the midwives working in maternity units, with regard to the causes of these stillbirths, and to develop preventive healthcare strategies to reduce stillbirths.

METHODOLOGY: A qualitative multi-method design was used to collect data through exploring the beliefs and practices of participants on the causes of stillbirths during the study period. Data was also collected through a record review of the PPIP data in the maternity units of Fezile Dabi district hospitals during the study period. The study setting was the homes of mothers who had experienced stillbirths and their significant others, and Interaction, Communication, Learning and Management rooms of Fezile Dabi district hospitals. AtlasTi Version 7 was used to analyse data.

FINDINGS AND CONCLUSION: Of the six themes that emerged, three main themes, namely, empowerment, social norms and flexible environment, were used to analyse and compile a report. Stillbirths are caused by lack of empowerment; and social norms, beliefs, and practices, such as traditional practices, traditional role players, abuse by partners, and traditional restrictions or prescriptions, which contribute to poor attendance of clinics and pregnant women failing to seek medical assistance. The Emancipation Decision-making model and feminist perspective demonstrated that some pregnant mothers were

oppressed and exploited by traditional norms and that empowerment may influence pregnant mothers' healthcare choices positively.

Aspects of an inflexible environment that might have contributed to stillbirths, include healthcare professionals' incompetency, challenges related to emergency medical services, such as transport and call centre services, lack of access to quality healthcare, poor communication and an ineffective referral system, and policies at healthcare sites regarding caesareans. Negative attitudes of healthcare personnel and inadequate operational hours at clinics lead to pregnant mothers failing to attend healthcare facilities or prevent them from seeking assistance when they experience labour, causing stillbirths. The researcher, with the involvement of stakeholders, used the study findings to develop strategies to reduce stillbirths.

RECOMMENDATIONS: Recommendations were made, taking into consideration the involvement of stakeholders, such as nursing education institutions, provincial Department of Health, healthcare personnel and communities who are responsible for the successful implementation of relevant strategies to reduce stillbirths. The recommendations outline the responsibilities of each stakeholder and emphasise the competency of midwives, the creation of a flexible and responsive healthcare environment, the importance of attending antenatal clinics, empowerment of women to report danger signs during pregnancy, person-centred care and healthcare dialogue. Reference is made to further research topics that need to be explored.

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LIST OF ABBREVIATIONS AND ACRONYMS

BANC	Basic antenatal care
DHIS	District Health Information System
EDM	Emancipation decision-making
EMS	Emergency medical service
ESMOE	Essential Steps in the Management of Obstetric Emergencies
ICAM	Interaction Communication Learning and Management
ICM	International Confederation of Midwives
PHC	Primary healthcare
PPIP	Perinatal Problem Identification Programme
SANC	South African Nursing Council
SDG	Sustainable Development Goal
SWOT	Strengths, weaknesses, opportunities, threats
WHO	World Health Organization

CONCEPTUAL DEFINITIONS

Providing conceptual definitions ensures that the researcher and reader interpret concepts in the same way (Botma, Greef, Mulaudzi et al. 2010:57-58). The concepts were selected for their relevance and importance to the problem statement, and are listed in alphabetical order.

Antepartum stillbirth refers to the birth of an infant who shows no signs of life, and of which the death was known to have occurred during the antepartum period (Wood, Pasupathy, Pell et al. 2012:2).

District health service refers to the healthcare provided in line with the district health system, which has been adopted as the vehicle to deliver comprehensive primary healthcare in South Africa. These services include community-based services and services available at mobile/fixed clinics and community health centres. District hospitals also form part of the district health package; this means that services provided in district hospitals are fully integrated with services provided in primary care facilities (Department of Health 2002:3).

District hospital is a first-level referral hospital that forms part of the district health service. Its services include family medicine, rehabilitation, paediatrics, eye care, geriatrics, psychiatry, medicine, surgery, obstetric and diagnostic services, as well as all clinical services that support referrals from community health centres and other surrounding mobile and fixed clinics (Department of Health 2002:3; Kasonde 2010:310). These hospitals provide 24-hour labour and delivery services for intermediate and high-risk mothers, and emergency services. District hospitals refer patients with complications to level 2 or level 3 hospitals, depending on the patient's condition (Department of Health 2007:15).

Fresh stillbirth is the death of an infant in the uterus at 22 or more weeks of gestation, or a dead infant that weighs 500 g or more, born with an intact skin, suggesting that the death occurred within 12 hours of birth (Jammeh, Vangen & Sundby 2010:online).

Intrauterine death refers to the death of an infant in the uterus at 22 or more weeks of gestation, occurring before the onset of labour (Valensise, Felis & Vasapollo 2012:76).

Intrapartum stillbirth is defined as an infant born showing no sign of life, in which death was known to have occurred during labour (Wood et al. 2012:2).

Macerated stillborn is defined as death of an infant in the uterus at 22 or more weeks of gestation, or a dead infant who weighs 500 g or more, born with skin showing signs of degeneration, suggesting that the death occurred more than 12 hours before birth (Jammeh et al. 2010:2).

Maternity unit is a ward or unit that is designated to provide maternity services in a healthcare facility. It provides 24-hour maternal and child services, such as antenatal, delivery (intrapartum), postnatal, neonatal and infant care services (Department of Health 2002:17). In the hospital setting, the unit manages obstetric emergencies, such as eclampsia, multiple pregnancy, cord prolapse, shoulder dystocia, obstructed labour, resuscitation of newborn babies and breech presentation (Department of Health 2002:21).

Midwife is a person who has been admitted to a midwifery education programme that is recognised in the country where he/she is located, who has successfully completed the prescribed midwifery course and has acquired a qualification to be registered to practice (De Kock & Van der Walt 2004:1). It is also defined as a person who has successfully completed a midwifery education programme that is based on the International Confederation of Midwives (ICM) Essential Competencies for Basic Midwifery Practice and framework of the ICM Global Standards of Midwifery Education. Furthermore, a midwife should have acquired the requisite qualifications to be registered and/or has been legally licensed to practice midwifery and use the title midwife, and should also demonstrate competency in the practice of midwifery (ICM 2010:5).

Perinatal mortality is defined as the death of a foetus that weighs 500 g or more, and deaths occurring less than seven days after birth (Lawn, Yakoob, Haws et al. 2009:3).

Perinatal Problem Identification Programme (PPIP) is an audit tool that is used to evaluate perinatal care. It is used to analyse data related to perinatal deaths and to identify possible causes of perinatal deaths and factors that could prevent death. The PPIP record

was developed in the late 1990s and implemented as a strategy to improve perinatal care (Gaunt 2010:101; Rhoda, Greenfield, Muller et al. 2014:160-161).

Preventive healthcare strategies are plans of action that have been developed to assist with the provision of appropriate healthcare for specific clinical conditions and to determine appropriate practices for clients presenting with specific clinical problems (Briss, Zaza, Pappaioanou et al. 2000:36).

Preventive healthcare strategies are developed or reviewed on the basis of recommendations made by stakeholders in response to public health risks, gaps or challenges, or on evidence-based research outcomes (Briss et al. 2000:37).

Preventive strategy is a plan of action that has been developed to include resource allocation, and activities that will assist the specific organisation to achieve its objectives (Muller, Bezuidenhout & Jooste 2011:569). In the context of this study, strategies were developed and implemented to reduce occurrence of stillbirths.

Regional hospital is a second-level referral hospital, also referred to as a provincial or general hospital, which is located in the district, although it does not form part of the district health services package (Department of Health 2007:15). It provides services such as internal medicine, general surgery, paediatrics, obstetrics and gynaecology, dental services, psychiatry and intensive care services. The hospital also receives referrals from the first-level institutions, including providing technical backup and training (Kasonde 2010:31).

Socio-cultural beliefs and practices are traditional norms and values that affect the way and the manner in which pregnant mothers seek or respond to health-related needs or problems. It incorporates the belief system that underlies the perceptions and interpretation of pregnancy-related illnesses in a certain society, thus, contributing to the occurrence of maternal and perinatal mortality (Gazali, Muktar & Gana 2012:12-21).

Significant other is defined as the person who was closest to the mother, and who had supported or had continued to support the mother who had experienced a stillbirth during her pregnancy period. Significant others were identified by mothers and agreed to participate in the study. Evans (2001:224) refers to the association between the influences

of significant others, such as boyfriends, parents, sisters and friends, and pregnant mothers' decision-making about pregnancy. Pregnant mothers' decisions about how to resolve a pregnancy are made in line with their social contexts, which includes the influence of significant others (a family member, a partner, a friend) (Evans 2001:224).

Stakeholders in a healthcare system are people and entities who affect or can be affected by the healthcare system, either positively or negatively. Examples of such stakeholders are policy-makers, healthcare providers, health recipients and significant others/family members (Javanparast, Coveney & Saikia 2009:1472). For the purpose of this study, stakeholders were mothers who were admitted to Fezile Dabi district hospitals and who gave birth to stillborn babies, their family members, midwives who work in the maternity units and in the relevant primary healthcare clinics, and clinical specialists and programme coordinators who are responsible for maternal and child healthcare programmes in the district, including the senior managers and chief directors who are members of the clinical cluster in the Free State province.

Stillbirth is defined as the death of an infant at 22 or more weeks of gestation, or a dead infant that weighs 500 g or more in the uterus. Stillbirth was categorised according to,

- Maternal labour stages (intrapartum or antepartum);
- Foetal (skin) condition (macerated or fresh); and
- Actual foetal weight (Jammeh et al. 2010:2; Pattinson 2013:6).

CHAPTER 1
ORIENTATION TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND

This study explored the beliefs and practices of mothers who presented at maternity units without foetal heart rate and gave birth to stillborn babies, the beliefs and practices of their family members, significant others and the midwives working in maternity units; and investigated the causes of stillbirths. The focus of the study was Fezile Dabi district (FDD) hospitals in the Free State province during the study period.

1.2 CONTEXT OF THE STUDY

Figure 1.1 shows that FDD is in the north of the Free State province, and comprises four sub-districts, namely, Moqhaka, Metsimaholo, Ngwathe and Mafube. FDD has four district hospitals, one regional hospital, 33 fixed clinics, 12 mobile clinics and five community health centres (CHC) (Department of Health, 2012a:125).

FDD hospitals are in rural and semi-rural areas that served a population of approximately 510 932 during the 2012/2013 financial year. Unemployment, together with low socio-economic status, are among the challenges facing these communities. Of the 510 932 people living in the district, 434 292 (85%) were low-income earners who lacked health insurance (Department of Health, 2012a:140). The hospitals receive patients from 50 clinics. Of the five CHCs in the district, only two provide maternity services and, as a result, the majority of births take place at the five hospitals. The clinics provide only antenatal care services for normal pregnancies, and all complicated cases or high-risk antenatal patients are referred to the hospitals for management.

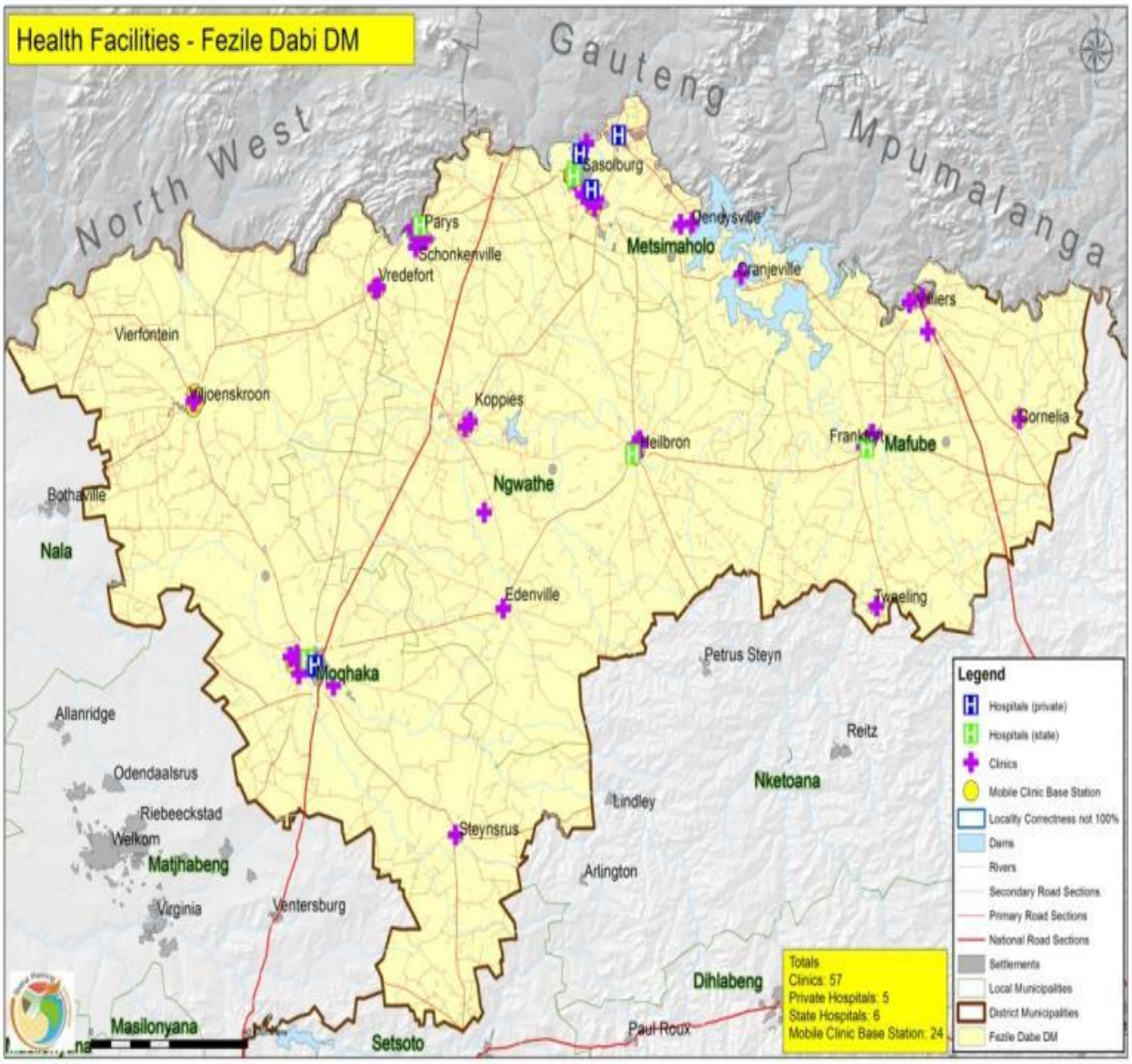


Figure 1.1: Distribution of Fezile Dabi district health services clinics and hospitals

Source: Department of Health (2017a; 2017b:15)

The data relating to perinatal deaths that occur in FDD hospitals are recorded in birth registers at the healthcare facilities, and captured in the District Health Information System (DHIS) and in the Perinatal Problem Identification Programme (PPIP). The PPIP tool was successfully rolled out in all the hospitals in the Free State in the 2012/2013 financial year.

According to the Free State Annual Performance Plan for the financial years 2009/2010 and 2010/2011 (Department of Health, 2012a; 2012b), FDD was one of the districts in the Free State with a high maternal and perinatal mortality rate (at 3.4%) and stillbirth rate (at 2.9%); thus, resulting in poor performance on the achievement of maternal and child health targets; including Sustainable Development Goals (SDG) (Statistics South Africa 2015:6). According to the report on perinatal deaths in South Africa by Statistics South Africa, progress with regard to accelerating the achievement on SDG 3 by 2030, requires counties to focus their attention on preventing deaths that occur during the perinatal period, which includes stillbirths and early neonatal deaths (Statistics South Africa 2015:6). The maternal and child health programme is one of the priority programmes of the Free State province and FDD.

In terms of race, black and white populations dominate the district population, with contributions of 83.2% and 14.8% respectively. Compared to the province as a whole, the district has a lower youth population, and a higher old-age population, as indicated in Figure 1.2, and a higher working population (Department of Health, 2017a:5; 2017b:17).

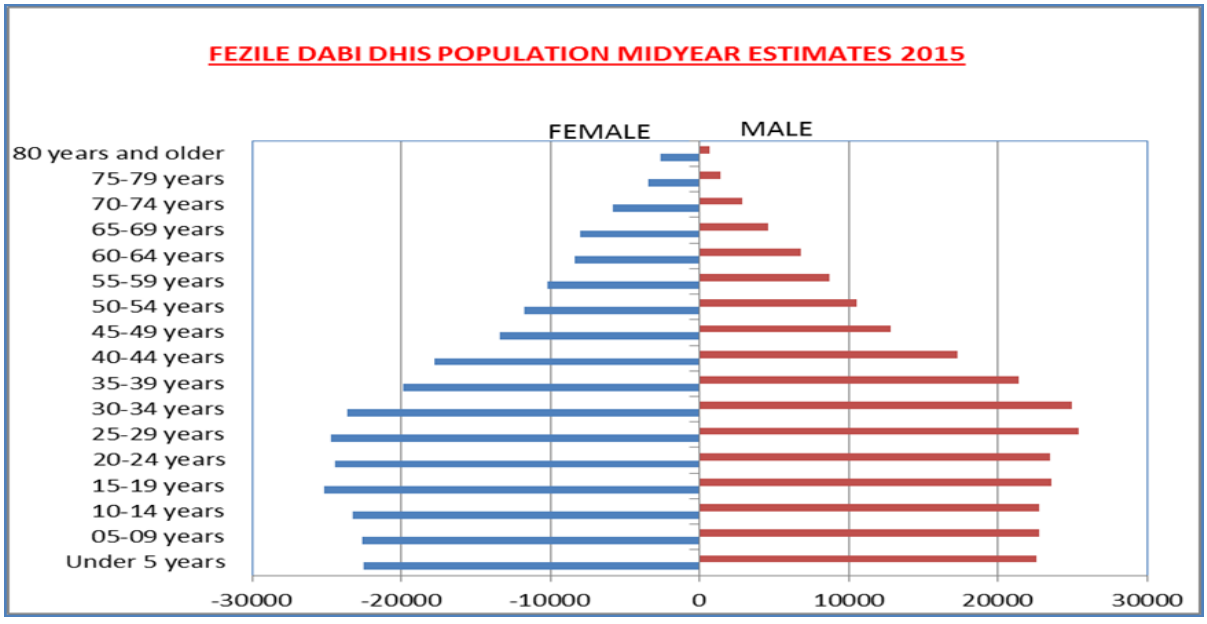


Figure 1.2: Population pyramid of Fezile Dabi district (DHIS midyear estimates 2015)

Source: Department of Health (2017a:5; 2017b:17)

As much as 28% of FDD population live below the poverty line, which may have an influence on the incidence of sexually transmitted infections, such as HIV/Aids. The FDD faces challenges relating to teenage pregnancies, because young girls try to survive by working as sex workers. It is estimated that only 13.3% of the district's total population are members of medical schemes (Department of Health 2017a:5; 2017b:17). A large and increasing number of people live in informal settlements and are unemployed, and such poor living conditions may predispose them to violence, injury and other pregnancy-related health problems, including sexually transmitted infections. Pregnant mothers who live on farms or in rural areas where there are limited or no transport, which are characterised by poor road infrastructure, incomes below the poverty line, illiteracy, poor living conditions and limited or no access to maternal healthcare services, remain a challenge for the district (Department of Health, 2017a:13; 2017b:22-23).

The maternity units of FDD hospitals serve many mothers admitted with unexplained stillborn babies – the majority of these babies were already dead and macerated on admission of the mothers. According to the FDD DHIS reports of 2010/2011, 2011/2012, 2012/2013, rates of stillbirths of the five hospitals were 3.4%, 3.4% and 2.9% for the three years respectively, while total births were 8 522, 7 963 and 8 111 respectively for the three years. As many as 60% of stillbirth incidents in FDD related to admission without foetal heart rate, and 49% of babies were macerated (Department of Health, 2011:112; 2012b:170).

Published data reports that, on average, 40% of stillbirths reported globally are admitted without foetal heart rate and already macerated (Lawn et al. 2009:5). Baqui, Choi, Williams et al. (2011:1) mention that, globally, the burden of stillbirths is estimated to be 3.2 million annually; furthermore, about one third of intrauterine deaths occur during the intrapartum period. According to the FDD PPIP audit report for the 2013/2014 financial year (Department of Health 2013b), on average, 23.7% of stillbirths that were reported occurred during the intrapartum period, and were avoidable.

The PPIP was designed and developed in South Africa as a facility audit tool for perinatal deaths as a result of the country's commitment to achieving Millennium

Development Goal (MDG) 4, which includes SDG 4. The PPIP is mandatory for all healthcare facilities conducting births and caring for newborn babies (Rhoda et al. 2014:160). Information on all births and perinatal deaths that occur in the delivery wards and postnatal wards (stillbirths, early neonatal deaths) are captured on a standardised data capturing form by facility healthcare workers (Rhoda et al. 2014:160-161). The DHIS for South Africa provides data to the national database at the Medical Research Council Unit for Maternal and Infant Health Care Strategies in Pretoria (Rhoda et al. 2014:160). The PPIP is used to track and measure progress through in-depth investigation of the causes and circumstances relating to deaths occurring at public health facilities (Rhoda et al. 2014:160).

PPIP is a facility-based audit tool for improving quality of care to mothers and babies by identifying causes of perinatal deaths, avoidable deaths associated with stillbirths and neonatal deaths, including identifying critical gaps and decisions made regarding interventions, such as facilities' improvement plans (Rhoda et al. 2014:161). Rhoda et al. (2014:161) mention that, if the audit and feedback links to action plans, implementation of the PPIP audit tools was associated with a reduction of up to 30% in perinatal deaths, which indicates that it could be a useful tool for decreasing mortality and improving healthcare quality (Rhoda et al. 2014:161).

All reported deaths are reviewed on a regular basis and minutes of perinatal mortality and morbidity meetings are kept (Rhoda et al. 2014:161). Each facility is obliged to convene regular meetings according to the number of deaths that have occurred. The designated doctor chairs the confidential inquiry into each death, and hospital managers, clinicians and midwives attend (Rhoda et al. 2014:161). The causes of stillbirths and neonatal deaths are divided into the primary obstetric causes and final neonatal causes respectively, and categorised further as avoidable or unavoidable deaths (Rhoda et al. 2014:161). The avoidable deaths are then grouped into patient, medical, personnel, or administration-related deaths, and coded accordingly (Rhoda et al. 2014:161).

Various healthcare interventions, such as the implementation of the three streams of primary healthcare (PHC) reengineering, which aims to strengthen the outreach of maternal and child health services to clinics, have been instituted (Pillay, Makua,

Barron, 2014:5). Other interventions, such as district clinical specialist teams that provide clinical governance support to health facilities, and providing maternal and child healthcare services to address gaps in the management of maternal and child healthcare programmes, have also been put in place (Pillay et al. 2014:6). Furthermore, several policies and protocols have been developed to address the gaps that have been identified. The transport policy on the allocation of emergency medical services (EMS) and designation of maternity and inter-hospital transport services for hospitals and CHCs has been reviewed (Schoon 2013:534).

Even though the implementation of current healthcare interventions to reduce stillbirths has led to a reduction in total stillbirths in the District, from 3.4% to 2.9%, for the 2011/12 to 2012/13 financial years respectively, unexplained intrauterine deaths make up the largest category of underlying causes of stillbirths in FDD (Department of Health 2011:134; 2012a:117).

When unexplained stillbirths are reported at clinical governance meetings, such as morbidity and mortality perinatal meetings (so-called M&M for PPIP), they are merely counted as numbers, without action plans being developed – the focus is on stillbirths that occurred due to avoidable factors, as guided by the PPIP audit report. Unless deaths fall under the PPIP audit report guidelines and are, thus, unexplained, healthcare professionals working in maternity units do not spend much time finding out from mothers what caused the deaths of their unborn babies. The usual practice by healthcare professionals in FDD is to ask mothers when their babies last kicked, and to do further assessments to confirm the death of the unborn babies. Post-delivery, mothers whose babies were stillborn are referred to social workers for psychological and emotional support; however, there is no investigation into the possible causes of unexplained deaths of unborn babies.

1.3 PROBLEM STATEMENT

According to the FDD PPIP audit report for the 2012/2013 financial year (Department of Health 2012a, the primary obstetric causes of perinatal death and stillbirth were mostly given as unexplained intrauterine deaths followed by spontaneous premature labour. Furthermore, the report reveals that avoidable factors related to causes of

perinatal death were mostly inappropriate responses to limited foetal movements, failure to initiate antenatal care, and delays in seeking medical attention during labour. Studies conducted on occurrence of stillbirths propose the following factors, beliefs and practices as possible causes of stillbirths:

- Poor socio-economic conditions that relate to lack of money for transport, and little support from families, especially from the mothers' partners (Bhutta, Darmstadt, Haws et al. 2009:online; Jammeh et al. 2010:4; Pattinson 2013:35);
- Socio-cultural norms and traditions, for example, home births, concealing pregnancy and revealing pregnancy to a traditional healer, traditional care, and the roles of the mother-in-law and husband during pregnancy and birth (Gazali et al. 2012:13-14; Warren 2010);
- Limited access to health facilities, due to hours of service at the facilities (Bhutta et al. 2009:online; Phillippi 2009:219);
- Limited access to healthcare due to communication difficulties caused by language and staff attitudes (Phillippi 2009:219);
- Inadequate or lack of knowledge, illiteracy and ignorance, e.g. fear of medical procedures and lack of awareness of available health facilities (Bhattacharya, Mukhopadhyay, Mistry et al. 2010:1, 3; Pattison 2013:35; Phillippi 2009:219); and
- Unintended pregnancies (Phillippi 2009:219).

A number of antenatal and intrapartum interventions in low-resource settings, such as introduction of maternity homes to address challenges related to accessibility, delays, distances and costs, have shown some evidence of impact on the incidence of stillbirth. There is, however, still much confusion about development and implementation of ideal interventions by a health system, particularly in low and middle-income countries, where 98% of the world's stillbirths occur annually (Bhutta et al. 2009:2). Pattinson (2013:23), in the seventh *Saving Babies* report on perinatal care in South Africa, 2010/2011, suggests that research resources should be directed at exploring the causes of unexplained stillbirths.

Wittmann-Price and Bhattacharya (2008:226) mention that knowledge and information development always occurs in a social context and that context is capable of exerting

unequal power, thereby, influencing mothers, including pregnant mothers, during the healthcare decision-making process negatively. Freedom of choice may be hindered if social norms affect pregnant mothers' decision-making negatively (Wittmann-Price & Bhattacharya 2008:226).

Other social norms, such as traditional norms and practices, may advocate for healthcare options that are incongruent with a pregnant mother's personal knowledge, nevertheless, the mother feels pressured to choose that option (Wittmann-Price & Bhattacharya 2008:226). According to Cook (2010:4-5), lack of choice and control in decision-making by pregnant mothers is likely to be associated with a negative childbirth experience and outcomes. Social norms have the potential to exert oppressive and exploitative rules that prescribe the behaviour of pregnant mothers and, unless pregnant mothers are empowered, they could be obliged to make decisions that are detrimental to their unborn babies **(**Wittmann-Price & Bhattacharya 2008:226-227).

Inflexible healthcare systems that are not conducive and responsive to the needs of pregnant mothers, such as a system that is characterised by rigid guidelines and limited options or resources, may contribute to negative birth outcomes (Cook 2010:19). According to Wittmann-Price (2004:438) and Obeidat (2015:253-260), decision-making about healthcare issues has historically reflected the traditional healthcare practices or social norms of paternalistically derived systems of medicine and academia, in which healthcare providers decide on the healthcare alternative without involving the individual pregnant mother and family.

Phillippi (2009:225) states that healthcare planners should consider the opinions of all relevant stakeholders, among whom mothers who gave birth to stillborn babies, midwives working in maternity units, and families of the mothers who experienced stillbirths, regarding the causes of stillbirths. White, Oorsterhoff and Thi Nguyen (2012:7, 222) support this notion, because it enables pregnant mothers to be involved in the development of their birth plans, which may include their preferences of a birth method that is acceptable to them, and may encourage them to use healthcare facilities during births, thereby reducing stillbirths related to poor utilisation of healthcare facilities. Furthermore, it promotes the development and importance of

cultural inclusivity and sensitivity by healthcare workers when attending to pregnant mothers.

Africa has a rich history of cultural and traditional practices that are predominantly characterised by paternalism and collective decision-making. Due to their circumstances and the beliefs and traditions of the family, pregnant mothers may lack a strong voice during pregnancy. Female patients, including pregnant mothers, are considered to be powerless, voiceless and marginalised (Obeidat 2015:253-260). According to Word Health Organization (WHO 2015:5), the strategy of people-centred care seeks to provide a comprehensive health system design that places people and communities at the centre of healthcare services, by planning in a way that makes health services more comprehensive, responsive and accessible. Furthermore, a people-centred care strategy provides a coordinated method to address a diverse range of healthcare needs, including maternal health services (WHO 2015:5).

Hill, Hunt and Hyrkas (2012:73) state that, if birth outcomes are to be improved, interventions need to focus on the stakeholders' beliefs, experiences and practices about perinatal issues. DeMasi, Bucagu, Tunçalp et al. (2017:197) explain that people-centred care involves healthcare providers respecting the preferences of patients, including those of pregnant mothers, families and communities, and involving them in decisions about their own care. The researcher could not find any studies conducted in the FDD that explored the beliefs and practices of mothers, their significant others and midwives in relation to possible reasons for babies being stillborn.

Among the benefits of a people-centred care approach, which involves understanding individual stakeholders' beliefs, practices, preferences and expectations regarding pregnancy and childbirth, are that stakeholders' satisfaction increases, and quality of care, including maternal and child healthcare services, improve (WHO 2015:5).

1.4 RESEARCH QUESTION, PURPOSE AND OBJECTIVES

The main research question was:

> What are stakeholders' perceptions of causes of stillbirths and what strategies do they think could be developed to reduce the number of stillbirth in the FDD?

Subsequent questions are the following:

- What are perceptions of mothers, significant others, and midwives regarding the causes of stillbirths in the FDD?
- What are the similarities and disparities in the narratives of the different participants?
- How can the number of stillbirths in the FDD be reduced?

The purpose of the research was to explore and describe stakeholders' perceptions about the causes of stillbirths, in order to develop relevant healthcare strategies to reduce the number of stillbirths in the FDD. In order to develop the healthcare strategies, the following was required:

- To describe the causes of stillbirths from the stakeholders' perspectives;
- To describe the similarities and disparities about causes of stillbirths among participating groups;
- To describe recommendations of stakeholders on how to reduce the number of stillbirths;
- To formulate healthcare strategies that aim to reduce the number of stillbirths; and
- To validate strategies with stakeholders.

1.5 CONCEPTUAL FRAMEWORK

Healthcare delivery should become more people-centred, and involve active participation by the patient, family and community in making decisions about healthcare. However, in the context of traditional African cultures, mothers do not usually voice their concerns and preferences. Therefore, the researcher used the Emancipation Decision-making (EDM) model of Wittman-Price (2004:437) to assist her to describe the causes of the large number of stillbirths; this model was considered suitable by the researcher, because pregnant mothers have to make decisions about healthcare issues. The EDM model clarifies the conceptual meaning of emancipation and leads to better patient care, as well as professional development (Wittmann-Price 2004:437). The Wittmann-Price EDM model arose from a long-standing history of

social oppression, which is addressed by both critical social theory and feminist theory (Wittmann-Price 2004:437). Cook and Loomis (2012:159) acknowledge that the choices of mothers or stakeholders about general health issues inform their decisions during pregnancy, and influence the outcomes of the births.

Other studies exploring stakeholders' beliefs and practices about a specific health outcome support the use of Wittmann-Price's EDM model. The model recognises that human behaviour is inseparable from environmental influences and social norms that impose disadvantages and injustice. Furthermore, the model acknowledges that paternalistic oppression, which is promoted by the healthcare system, political environment, and society, is an historical and universal phenomenon, which has a significant effect on mothers; and exerts control over the options available for mothers' health, thereby impacting negatively on health beliefs and practices (Wittmann-Price 2004:440-444; 2006:378). Furthermore, the model is used as a guide to develop healthcare professionals and pregnant mothers in the context of mothers' healthcare, and to promote correct choices and informed decision-making (Wittmann-Price 2004:438).

The sub-concepts of Wittmann-Price's EDM model are empowerment, reflection, personal knowledge, social norms, and a flexible environment (Cook & Loomis 2012:159). The following definitions of the Wittmann-Price's EDM model were used to guide the deductive data analysis of the narrative information collected from the mothers, significant others and midwives in this study.

Empowerment relates to the knowledge and information that individual participants gain through various processes, such as knowledge transfer, sharing, imparting and guiding. It also includes the resources provided and the enabling environment that allows participants to develop or increase their ability to make autonomous decisions about their healthcare (Cook & Loomis 2012:159; Madumo, Havenga & Van Aswegen 2015:186-197; Wittmann-Price 2004:441-442; 2006:378, 381). Goldberg (2009:32) proposes that access to and availability of evidence-based information for pregnant mothers and other relevant stakeholders is imperative for them to make informed maternity health decisions that improve perinatal outcomes.

Empowerment provides individuals and communities with greater control over healthcare-related decisions, and affects health outcomes. Therefore, empowered healthcare professionals should facilitate the empowerment of individual pregnant mothers and community members, to assist pregnant mothers to make informed decisions based on accurate and up-to-date information (Cawley 2012:35). However, Goldberg (2009:32, 35) expresses concern that pregnant mothers receive insufficient information about treatment options and are not afforded the opportunity to participate in making decisions regarding their healthcare. His study revealed that involvement of pregnant mothers in decision-making increased their adherence to treatment plans, and gave them a sense of responsibility for their unborn babies, thus, improving clinical as well as birth outcomes.

Reflection is the process of questioning common practices and beliefs that are based on tradition or authority. This dimension also refers to pregnant mothers' ability to analyse information and engage in dialogue or discussion when making healthcare decisions (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381). Lack of empowerment leads to negative health outcomes, because pregnant mothers are unable to choose what is best for them and for their unborn babies' health; therefore, they are bound by oppression (Wittmann-Price 2004:442).

Personal knowledge relates to the information that people, including pregnant mothers, seek or possess that will assist them to be aware and feel what is happening in the environment around them, in order to make informed decisions about their healthcare. Information that will assist stakeholders to make informed healthcare decisions must be readily available, useful, relevant and accurate (Cook & Loomis 2012:159; Madumo et.al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381).

Social norms include socially related factors, such as socially acceptable standards, social context power, prescriptive social and professional norms, and socio-economic and other factors related to social norms, which affect stakeholders' health decision-making (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381).

Flexible environment is characterised by a conducive and non-judgemental environment that has support systems and resources, which is accessible at all times, and which presents acceptable quality of care and flexible policy guidelines that enable participants to make healthcare decisions (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381). The researcher used this dimension to explore the flexibility of the healthcare system in relation to stillbirths.

1.6 METHODOLOGY

1.6.1 Research design

The study design was qualitative and the researcher used multiple methods to explore the beliefs and practices of mothers who gave birth to stillborn babies, their family members and midwives who work at the maternity units, in order to develop healthcare strategies that aim to reduce stillbirths.

1.6.2 Research paradigm

A research paradigm is a set of beliefs and values that guides research, in terms of defining what should be studied, the types of questions that should be asked, how they should be asked, and rules to be followed when interpreting the answers (Botma et al. 2010:40; Scotland 2012:9-14). For the purpose of this study, the researcher embraced the paradigm or the worldview that is based on philosophical beliefs, namely, feminist ontology, feminist epistemology and feminist methodology (Creswell 2013:19-22; Scotland 2012:9-14).

1.6.2.1 Ontological beliefs or assumptions

Botma et al. (2010:40) and Creswell (2013:20) define ontology as a belief about the nature of reality, which is, in this case, characterised by concern about how individuals view the phenomenon under study, that is, the causes of stillbirth. The researcher's beliefs and practices when she was conducting this study were based on the feminist ontological approach, according to which individual mothers affected experienced the reality of stillbirths. Therefore, when the researcher conducted this study, she collected evidence of multiple realities from individual participants or categories of participants in relation to possible causes of stillbirths. The researcher used in-depth interviews to

collect data from individual mothers who had experienced stillbirths, and from their individual significant others. Focus group interview sessions were conducted with midwives who worked in the maternity units, to collect evidence of multiple, different realities in relation to possible causes of stillbirths.

Information about each participant was transcribed verbatim from the audio recorders to transcripts. During the process of data collection and analysis the researcher remained reflexive, in an attempt to avoid influencing the quality of the evidence collected about multiple different realities. She remained neutral throughout the process of data collection and analysis.

The researcher was also aware of her position as the chief executive officer of some of the hospitals in the FDD and, thus, she requested a knowledgeable, neutral moderator to conduct focus group interview sessions on her behalf. Evidence of the unique reality of each participant and/or group of participants was collected. These multiple realities were analysed according to emerging themes, in line with the sub-concepts of the Wittmann-Price EDM model. The research report indicates the commonalities and disparities amongst participants with regard to their beliefs about and practices in relation to the causes of stillbirths.

1.6.2.2 Epistemological beliefs or assumptions

Epistemological assumptions and approaches are what counts as knowledge or information, including the way the claimed knowledge and information about the phenomenon to be studied (beliefs and practices of participants with regard to causes of stillbirths) is collected (Creswell 2013:20). The epistemological premise informing the research was that mothers, their significant others, and midwives are conscious participants, who can provide a variety of information or data independently about possible causes of stillbirths. The researcher has a strong belief in “situated knowledges”, because the knowers are always in a specific context that may both constrain and enable the knower (Lang 2010:313-332).

Social epistemology is assumed to be positive, but sociality may contribute negatively to knowledge production, with subsequent epistemologies of ignorance and issues of epistemic injustice. Social epistemology is characterised by testimonies that are

inherently interactive and which bring aspects such as trust, credibility, responsiveness and responsibility into focus in knowledge-making and knowledge-circulating practices (Lang 2010:310-332). The nature of the interactive testimonies influences empowerment, reflection, and personal knowledge (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381). Social norms and flexible environments contribute the “situated knowledges” that may either enable or oppress inhabitants of those contexts. Furthermore, feminists believe that power or domination over mothers cause oppression, and they identify oppression as a phenomenon that affects mothers’ decision-making in healthcare and, thus, affects birth outcomes (Wittmann-Price 2004:440).

Consistent with feminist epistemological views, the EDM model regards lack of empowerment, and lack of information that could assist people, in this case pregnant mothers, to make correct informed decisions and choices, including lack of a flexible and non-judgemental environment, as oppressive and exploitative (Wittmann-Price 2004:437-441). The EDM theory also advocates for emancipation of mothers, including pregnant mothers, from oppression through five sub-themes: personal knowledge, empowerment, information empowerment, resource empowerment and reflection. Feminist epistemology claims that, for mothers to have a voice, requires conducive, flexible and non-judgemental environments that encourage informed decision-making (Wittmann-Price 2004:440).

1.6.2.3 Methodological belief or assumptions

Methodology refers to prescribed procedures or rules that specify how the researcher will conduct the study on the topic that she believes must be investigated; while methodological assumptions explain what the researcher believes scientific practice to be (Botma et al. 2010:41, 188). According to Scotland (2012:9), methodological belief determines the strategy or plan of action that lies behind the choice and use of particular research methods. The researcher paid attention to power imbalances, listened to mothers’ voices and experiences, and reflected on participants’ testimonies. In this study, the researcher had to understand participants’ world views and develop subjective meaning from the multiple beliefs and practices through interaction with different participants. During the study, the researcher continuously

recognised and acknowledged how her interpretation flows from own personal, cultural and historical beliefs and practices. The researcher also believes that the nature of reality is inherently meaningful and that people (mothers, their significant others and midwives) have the ability to interpret and act (Botma et al. 2010:41, 187; Creswell 2013:24 -25).

The methodology of the study was inductive in nature; this means that, during data collection, data was collected from the bottom up (from mothers, their significant others, midwives and PPIP records) using multiple methods, such as in-depth interviews, focus groups and record reviews. During the data analysis, coding, categories and themes were build up from bottom up, although deductive reasoning was used when the EDM model was used, where necessary, to develop codes, categories and themes (Creswell 2013:22, 45).

1.6.3 Research techniques

Research techniques are the methods or ways used to collect data, as well as the kind or type of data that is collected (Botma et al. 2010:204). In this study, the researcher used in-depth interviews, focus group interviews, and record review as methods to collect data. Table 1.1 gives an overview of the research objectives, data collection method, and unit of analysis.

Table 1.1: Objectives, research technique and unit of analysis

OBJECTIVES	TECHNIQUE	UNIT OF ANALYSIS
1. Describe the causes of stillbirths according to the stakeholders' perspectives	In-depth interviews	Mothers with stillborn babies, significant others Purposeful selection Until data saturation
	Focus group interviews	Midwives Convenient selection Until data saturation
2. Describe recommendations by stakeholders on how to reduce the number of stillbirths	In-depth interviews	Mothers with stillborn babies, significant others and family members Purposeful selection Until data saturation
	Focus group interviews	Midwives Convenient selection Until data saturation
3. Describe the similarities and disparities among different data sources	AtlasTi computer software was ued to analyse data. Summary data list was used to extract data from audit records. Content analysis (categories) Thematic analysis (codification of emerging themes)	All transcriptions, field notes (narrative data already collected during in-depth and focus group interviews) PPIP audit records reviews
4. Formulate healthcare strategies that aim to reduce number of stillbirths	SWOT analysis, in line with the selected themes	Researcher and supervisors
5. Validate formulated strategies with stakeholders	Validation group discussion interview sessions	Stakeholders who participated in individual interviews and focus

OBJECTIVES	TECHNIQUE	UNIT OF ANALYSIS
		group interviews (mothers, significant others, midwives) Members of maternal health and child technical committee in the FDD (midwives working in FDD hospitals and PHC, maternal and child health consultants, district clinical specialist team, district maternal and child clinical coordinator) Members of clinical cluster meeting to inform policymakers Purposive selection

The researcher used in-depth interviews with mothers and significant others, and focus group interviews with midwives, to collect data. During the individual, in-depth interviews and focus group interviews, the researcher recorded conversations with the permission of the participants (Botma et al. 2010:205). Review of the PPIP records of mothers who participated in the study provided information about the causes of stillbirths as recorded by the midwives.

1.6.4 Units of analysis and sampling

The study population consisted of three groups, namely, mothers, significant others and midwives, and PPIP records.

Purposive sampling was used to select mothers who had been hospitalised and who had given birth to stillborn babies during the 2012/13 financial year. The researcher identified potential participants and obtained their contact details from birth records. During the first home visit, the researcher recruited participants by explaining the purpose of the research and asking the mothers to participate in the research. Addendum 5 and Addendum 6 provide examples of the information letters handed to mothers and significant others respectively. The mothers identified the significant other during the same visit. Follow-up appointments with the mother and significant other confirmed participation. The time between the stillbirth and data collection allowed sufficient time for participants to accept and adapt to the death of a child, and thereby minimised the trauma of reliving the event.

Convenient sampling was used to select midwives to participate in the study. Prior to the focus group interview sessions, the researcher explained the purpose of the research and asked them to voluntarily participate in the study. Addendum 4 and Addendum 4.1 provide examples of the information letter and informed consent form, respectively, which were handed to individual midwives. The researcher retrieved the PPIP records of those mothers who had consented to participate in the research, extracted relevant data from the records, and captured it electronically. Chapter 2 provides detailed information related to the research design, research techniques and units of analysis, which include the target population and the study sample.

1.7 PREPARATORY PHASE

After obtaining permission from the Free State Department of Health (Addendum 11) and approval from the Health Science Ethics Committee of the Faculty of Health Sciences of the University of the Free State (Addendum 12), the researcher underwent training on conducting interviews; the training continued until the researcher was competent. In-depth individual as well as exploratory focus group interviews provided opportunities to evaluate the skill of the interviewer and explore the clarity and specificity of the two broad main questions. An experienced moderator conducted focus group interviews. Data was extracted from two PPIP records to test the functionality of the summary data sheet that had been developed (Addendum 1). Detailed discussions of the study's exploratory processes will be presented in Chapter 2.

1.8 DATA COLLECTION

The researcher recruited participants during initial home visits and made follow-up appointments with the mothers and significant others. Individual interviews were conducted at the participants' homes or another place of their choice, using the local language, Sesotho, as preferred by the individual participants, while the focus group interviews were conducted in English at FDD hospitals.

The researcher conducted the in-depth interviews after she had been assessed and found to be competent. Another skilled interviewer who works in psychiatry and who

was not associated with healthcare delivery in FDD conducted the focus group interviews with the midwives. The researcher is well known to the midwives in FDD and was of the opinion that her presence could contribute to biased information. With the permission of the participants, all interviews and focus group interviews were audio recorded, by the researcher in the case of individual in-depth interviews, and by the assistant moderator in the case of focus group interviews. The assistant moderator was the quality assurance coordinator; she has experience of maternity and had worked in one of the hospitals in the district until she was promoted to work in quality assurance. Observations during data collection were noted and recorded.

The completed PPIP records of participating mothers were retrieved from their files at the hospital. The summary data sheet was developed and used to extract data related to the causes of stillborn babies from the PPIP records. Development of the summary data sheet was informed by the type of data that each PPIP record or audit tool requires, and guides each midwife to complete the form for each stillbirth or neonatal death that occurred, providing data such as the primary cause of death, final cause of death and avoidable cause of death. Chapter 2 will provide a detailed description of the data collection procedure.

1.9 DATA ANALYSIS

Data analysis is a process whereby a researcher prepares data for analysis, analyses the data by moving deeper into understanding it, makes meaning of the data, and presents the data in an understandable format (Botma et al. 2010:220). Data analysis usually occurs concurrently with data collection (Botma et al. 2010:230-234; Creswell 2013:333).

The researcher used AtlasTi Version 7 to code the data deductively according to the constructs of the EDM model. The constructs of the EDM model served as themes, with related categories and sub-categories as identified by the researcher and co-coder. A SWOT analysis (strengths, weaknesses, opportunities and threats) per theme highlighted priorities to consider while developing the strategies.

1.10 DEVELOPMENT OF THE FRAMEWORK

After collecting and analysing data on the beliefs and practices of mothers, their significant others and midwives, and from the PPIP records, with regard to the causes of babies being stillborn in the maternity units, the researcher developed preventive healthcare strategies with the aim of reducing stillbirths.

According to Wikipedia, the W.K. Kellogg logic model, as described in Chapter 7, Figure 7.1, guided the development of the preventive healthcare strategies (W.K. Kellogg Foundation 2004:2).

1.11 VALIDATION OF HEALTHCARE STRATEGIES

Relevant stakeholders, namely, midwives, mothers and their significant others (participants in the study), and members of the clinical cluster (senior managers and middle managers in the Free State) verified the proposed strategies. During the validation meeting, the researcher explained the research and findings to all stakeholders. Chapter 7 will provide more detail on the development, validation and finalisation of the developed preventive healthcare strategies that aim to reduce stillbirths in the FDD.

1.12 ETHICAL CONSIDERATIONS

To ensure that the risk assessment and benefits of the research had been taken care of, the research protocol was submitted to the Health Sciences Research Ethics Committee of the University of the Free State and Free State Department of Health Research Committee, and approval was granted before the researcher conducted the exploratory study (Addendum 11 and Addendum 12 respectively). Furthermore, the researcher complied with the principles of respect, non-maleficence, beneficence and justice throughout the study (Botma et al. 2010:346-347; Ebbesen 2011:209). Chapter 3 will contain a section on the ethical considerations and applications of this study.

1.13 VALUE OF THE STUDY

Although the FDD experiences a large number of mothers who report at maternity units and give birth to stillborn babies, no formal research has been conducted to

explore what stakeholders identify as causes of stillbirths. The national Department of Health, the Free State Department of Health, the FDD and the five hospitals in the district identified maternal and child healthcare as one of their priority areas, and expressed that they would like to improve maternal and child healthcare. Hospital management, district management and the provincial Department of Health might use the formulated and validated strategies with the intention of improving maternal and child healthcare services, thereby reducing the number of stillbirths in FDD. Knowledge gained through this research could aid appropriate planning and the development of district-specific preventive healthcare strategies to address factors contributing to the occurrence of stillbirths in the district.

The findings of the study would benefit the community at large, and especially mothers, because this research will help their voices to be heard. This study highlights the causes of stillbirths as identified by mothers, significant others, and midwives, and strategies can be planned accordingly. The validation interview sessions, which included relevant role players, assisted further to develop the preventive healthcare strategies that address valued priorities of or choices by individuals and planned “with them”, not “for them”.

Dissemination of the research findings could raise healthcare professionals’ awareness of real causes of unexplained stillbirths, as reported by the communities they serve. Being aware of the causes may improve their way of rendering care. Furthermore, this research created a platform for continuous consultation with relevant stakeholders and encourages further research in this field. Other healthcare services, including resources and activities, could be adjusted to meet the needs or to become relevant to those who receive them. Preventive healthcare strategies that are developed are intended to improve the achievement of SDGs 4 and 5, as set by the WHO, which refers to lowering maternal and child mortality rates.

The EDM model and feminist approach used in this study advocate for change in social norms and practices, such as the paternalistic approach and traditional and cultural practices that traditionally dominate healthcare systems (Obeidat 2015:253-260). This study is intended to assist healthcare professionals and policy-makers to recognise the importance of mothers’ empowerment, which might ultimately challenge the status

quo, which does not emphasise the importance of the EDM model and a feminist approach when caring for pregnant mothers. Furthermore, the outcome of the study is intended to demonstrate that application of the EDM model promotes humanistic nursing care, specifically when applied to the decision-making process, and if it includes emancipation. The study might also benefit patient care as well as professional nursing development (Wittmann-Price 2004:437).

The value of the study is also intended to lie in its assistance to relevant authorities to emphasise the empowerment of pregnant mothers, by providing them with quality service, resources and information, and inviting them to participate in their healthcare planning and decision-making, and encouraging them to take responsibility for their own health. Empowerment could also enable them to make informed decisions that accord with their own values and preferences, which might ultimately improve their quality of life.

1.14 TRUSTWORTHINESS OF THE STUDY

The researcher enhanced the trustworthiness of the findings by ensuring the credibility, dependability, confirmability, transferability and authenticity in the research, which are criteria for trustworthiness (Creswell 2013:146). The rigor of the qualitative research is described by trustworthiness, which ensures the extent to which the study findings can be valued. The detailed description of the study's trustworthiness, including the four epistemological standards of trustworthiness, will be discussed in Chapter 2.

1.15 OUTLINE OF THE STUDY

This study consists of the following eight chapters.

CHAPTER 1

This chapter provided the introduction, including information on the background to the study, problem statement, research questions, purpose and objectives of the study, value of the study, methodology, conceptual framework and outline of the research report.

CHAPTER 2

The chapter will outline the methodology used in the study. The information will include a description of the research design used, research techniques, population, sampling and data collection. Measures used to provide trustworthiness and ethical principles will be discussed.

CHAPTER 3

The chapter will provide information on the data analysis process followed. The researcher used AtlasTi computer software to analyse the transcripts of the individual in-depth and focus group interviews. The emancipatory decision-making model directed the deductive coding of the data, but allowed for emerging themes. Frequency of similar or related statements was captured and will be portrayed in tables. Due to the enormous volume of data, the researcher, in collaboration with her study supervisors, reduced the data that this thesis reports on by only reporting sub-categories with 10 or more statements. Commonalities and disparities were applicable to the reduced data. The researcher followed the same process with the participants' narrative data on their suggestions for ways to address the high number of stillbirths in the FDD.

CHAPTER 4

This chapter will portray the themes, categories and sub-categories related to empowerment. Findings relating to causes of and ways to prevent stillbirths as raised by different participants (mothers, significant others, midwives and record review) will be displayed per sub-category, interpreted and discussed under their respective themes. Literature will be used to substantiate the narratives of the participants. The discussion will highlight commonalities and disparities among participating groups. Recommendations for addressing identified gaps related to the findings of the study will be made.

CHAPTER 5

Sub-categories and direct quotations from participants will be reported to explain how social norms influence decision-making related to the healthcare of pregnant mothers.

This chapter will highlight variance and consistency regarding social norms among the participating groups, and describe recommendations to limit the number of stillbirths.

CHAPTER 6

In this chapter, entitled Flexible environment, the researcher will expose how an inflexible environment contributes to the high number of stillbirths in the FDD. She will emphasise the consistency or differences between the categories and sub-categories and across the different categories of participants. She will report on the way the literature overview supports the findings of the causes of as well as possible solutions for creating flexible healthcare environments.

CHAPTER 7

This chapter will present a synthesis of the preventive healthcare strategies that may reduce the number of stillbirths in the FDD. The researcher conducted a SWOT analysis of the information gained from the participants on empowerment, social norms, and flexible environments. The content of each SWOT analysis was used to populate the W.K. Kellogg Foundation logic model (2004). Amendments that emanated from the validation meeting were used to finalise the proposed strategies on how to reduce the high number of stillbirths in the FDD.

CHAPTER 8

The chapter will present a conclusion and further recommendations, and discuss the contribution of the study findings to nursing theory. It will also offer a discussion related to the limitations of the study.

1.16 CHAPTER SUMMARY

Chapter 1 provided the introduction and orientation to the study, including the background, problem statement, research questions, purpose and objectives of the study, value of the study, methodology, conceptual definition, conceptual framework and outline of the research report. Furthermore, this chapter provided guidelines on what the rest of the study report, per chapter, will discuss or consist of.

1.17 CONCLUSION

The next chapter will outline the methodology used in the study. The information will include a description of the research design used, research techniques, population, sampling and data collection. Measures used to ensure trustworthiness and ethical principles will also be discussed.

CHAPTER 2
RESEARCH METHODOLOGY

2.1 INTRODUCTION

In this chapter, the researcher will discuss the qualitative research methodology used for this study, including the research design, research techniques, units of analysis, the preparatory phase, data collection process and trustworthiness of the study as the first phase. The short outline of the second phase of the study, which included development and validation of the preventive strategies and ethical considerations, will receive attention.

The purpose of the research was to explore and describe stakeholders' perceptions regarding the causes of stillbirths, in order to develop relevant healthcare strategies to reduce the number of stillbirths in the FDD. The following research objectives aided in achieving the aim of the research, namely,

- To describe the causes of stillbirths from the stakeholders' perspectives;
- To describe the similarities and disparities among participating groups;
- To describe recommendations by stakeholders on how to reduce the number of stillbirths;
- To formulate healthcare strategies that aim to reduce number of stillbirths; and
- To validate formulated strategies with stakeholders.

2.2 RESEARCH DESIGN

The researcher used a qualitative approach with multiple methods of data collection to explore and describe what stakeholders perceive as causes of stillbirths, and to develop strategies to decrease the number of stillbirths in the FDD. The multiple or mixed methods approach was used by the researcher to combine the qualitative and qualitative data in the study (Polit & Beck 2016:577). In this study, the researcher collected the data through in-depth interviews, focus groups and a record review. The purpose of using the multiple method approach was to assist the researcher to

triangulate the different data sources, in order to obtain different but complementary data about the phenomenon under study (causes of stillbirths) (Polit & Beck 2016:577).The three sets of data (from in-depth interviews, focus group interview sessions and record reviews) were collected and analysed separately, and linked together using tables and graphs during presentation and interpretation (Polit & Beck 2016:577).

Yeasmin and Regmi (2013:397) support the essence of adopting a qualitative multi-method design, as it seeks to understand the social reality of individuals, groups and cultures by exploring behaviour and experiences of the people or phenomena in their/its natural settings, with the purpose of making sense of it, or interpreting it in terms of the meanings people bring to them.

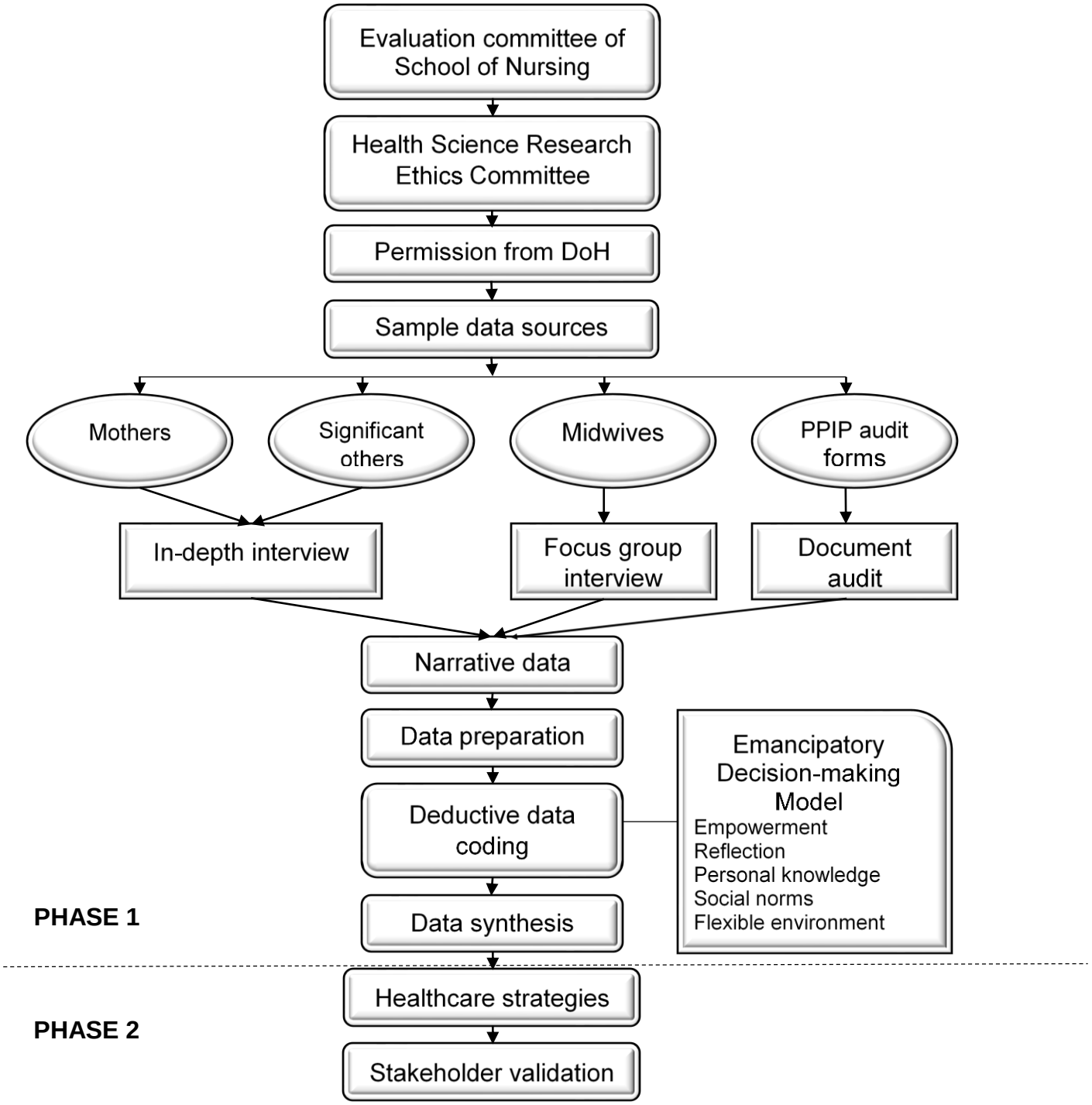
Figure 2.1 shows the systematic approach used to describe the causes participants perceived as causing the large number of stillbirths in the FDD. By interpreting and making meaning of participants' experiences, the researcher highlighted the significance of their collective experience. Doing so enabled the researcher to explore the depth, richness and complexity inherent in the phenomenon (Burns & Grove 2009:51) – in this case, the perceived causes of stillbirths. Furthermore, qualitative research design is a strategy that moves from underlying philosophical assumptions, as outlined in Chapter 1, to specify elements, such as participants, data collection methods and data analysis to be done (Maree 2016:72).

Morse (2012:21, 86) supports using the multi-method approach to understanding participants' perspectives, beliefs, practices, values and behaviour about causes of stillbirth. The benefit of the multi-method design used was to enable the researcher to merge data collected through different techniques (triangulation) and different sources, thereby enhancing the researcher's understanding of the phenomenon (Polit & Beck 2016:493).

Multiple participants, namely, mothers who had had stillborn babies, their significant others, and midwives, participated in the study. Three different methods, namely, in-depth interviews, focus group interviews, and a document audit were used to collect data. Although the study was a qualitative study, some selected data of this study was quantified and will be presented in graphs and tables, to assist readers to understand

the commonalities and similarities with regard to causes of stillbirths and what could be done to prevent the occurrence of stillbirths, as mentioned by participants. This understanding was crucial, in that it assisted the researcher to identify strengths, weaknesses, opportunities and threats that the researcher could use address to develop preventive strategies.

The study process comprised two phases, as illustrated in Figure 2.1. The purpose of the first phase was to make meaning of the stakeholders' perspectives regarding the causes of stillbirths and to explore how they think the number of stillbirths could be reduced. The design and methodology of Phase 2 (development and validation of healthcare preventive strategies) will be discussed in more detail in Chapter 7.



DoH – Department of Health

Figure 2.1: Flow diagram indicating design process followed

2.3 IN-DEPTH INTERVIEWS

The in-depth interviews were unstructured and the researcher aimed to understand or uncover the participants' perceptions of what caused their babies to be stillborn, and what could be done to prevent it from happening again. The in-depth interview technique was chosen because it assisted the researcher to see the participant face to face, so that valuable non-verbal communication could be noted. Maree (2016:92) confirms that the in-depth interview technique is used to assist researchers to obtain rich data in order to understand the study phenomenon. In-depth interviews promote spontaneous and self-revealing, rich information from individual participants.

2.3.1 Population and sampling

Sampling refers to the process of selecting individuals or groups of people, events, behaviour or other elements, or a portion of a certain population, with the purpose of representing the entire population (Botma et al. 2010:99; Maree 2016:84). In-depth interviews were conducted with two groups of people, namely, mothers who had experienced stillbirth, and their significant others.

2.3.1.1 Mothers

The population size is the total number of annual births per year, namely 8 200 on average; the total number of mothers of childbearing age (which was, according to the birth register, from the age of 12), was 182 214 (Department of Health, 2012a). The target population included mothers who had given birth to stillborn babies in the maternity units of FDD hospitals during the 2012/2013 financial year, which had been, according to FDD DHIS reports for the 2010/2011, 2011/2012 and 2012/2013 financial years, 268 on average. The total number of mothers who gave birth to stillborn babies in the maternity units of FDD hospitals during the study period (from 1 April 2012 to 31 March 2013) was 151, according to FDD DHIS report for the 2012/2013 financial year (Department of Health, 2012a).

In qualitative research, purposive sampling is defined as a strategy where the researcher selects study participants and sites based on the researcher's predefined selection criteria that are relevant to address specific research questions (Creswell

2013:156). Maree (2016:86) describes purposive sampling as a strategy used to select members of the sample with the purpose of representing the study phenomenon, the group, location or the type in relation to the key criterion. For this study, inclusion criteria were mothers who,

- Had been admitted to FDD hospitals without foetal heart rate;
- Had given birth to stillborn babies;
- Resided in the FDD;
- Were available or traceable;
- Were ready and willing to talk about their experiences of the deaths of unborn babies; and
- Agreed to participate in the study;

Purposive sampling benefited the study because of its relevance to the research questions (Maree 2016:85; Polit & Beck 2016:493), and because the mothers gave relevant and rich information.

The researcher collected data three to four years after the mothers had experienced stillbirths, to allow for a grief period and acceptance of the death of a child. The researcher acknowledges that it remains painful to talk about a stillborn baby, and that strong emotions may emerge during interviews. Therefore, a social worker was on standby to counsel mothers who had not yet accepted the stillbirth.

The researcher retrieved the names of potential participants from the birth registers at the district hospitals.

2.3.1.2 Significant others

Purposive sampling was used, because the researcher was only interested in significant others of those mothers who had experienced stillbirths (Maree 2016:85; Polit & Beck 2016:493). The mother identified the significant other after she agreed to participate in the study. If the significant other was not available, or refused to participate in the study, the mother was excluded from the study.

In total, 36 significant others met the selection criteria and were interviewed. Inclusion criteria were as follows:

- Significant others who supported mothers who had given birth to stillborn babies during pregnancy at FDD hospitals;
- Who resided in the FDD;
- Who were available or traceable;
- Who agreed to participate in the study; and
- Who signed informed consent forms during the study period.

2.3.1.3 Recruitment of mothers and significant others

The researcher arranged and agreed telephonically with the chief executive officers of the five hospitals in the FDD about the arrangements for conducting research and the documents that would be provided by in their respective hospitals. The documents indicating that the Free State Department of Health and the Health Sciences Research Ethics Committee of the University of the Free State had approved the study were emailed as attachments to all the chief executive officers. The arrangements for conducting research at their respective hospitals were made through telephone calls, individual discussions and emails.

After consulting with all the chief executive officers of the hospitals in the FDD, the researcher arranged with the managers of the records departments to access health records, and with managers of maternity units to access maternity birth registers and admission registers.

The researcher visited the first hospital's maternity unit and requested access to the admission registers and birth registers for the 2012/2013 financial year. The information of all mothers who had given birth to stillborn babies in the maternity units during the 2012/2013 financial year was extracted from the birth and admission registers of all five hospitals, as indicated in Table 2.2. The researcher compiled the necessary information, such as names and surnames of the mothers, dates of birth of the mothers and their stillborn babies, registration of the mothers, the names of the hospitals, addresses of the mothers and their next of kin, and their telephone contacts, as well as other information that could assist the staff from the health records department to retrieve health records without difficulty, and to enable the researcher to trace the mothers. The researcher rearranged, typed and compiled lists with all the

information received from the five hospitals for each mother. Addendum 14 is an example of the form that was used to compile the sampling grid.

One copy of each list was retained, and the original lists were sent to the respective hospitals' health records departments to retrieve the health records as listed and to confirm the availability of completed PPIP record forms. The managers of the health records departments of each hospital notified the researcher telephonically on completion of their task. Table 2.1 indicates the number of health records requested and retrieved and the number of participants per hospital. According to the original lists that were compiled for all five hospitals, 151 mothers' health records were supposed to be retrieved, but only 95 health records were retrieved.

Table 2.1: Number of health records requested and retrieved and number of participants per hospital

Hospital	**Number of files requested**	**Number of files retrieved**	**Number of files without PPIP forms**	**Number of incomplete PPIP forms**	**Number of PPIP forms complete**	**Number of mothers interviewed**	**Number of midwives who participated**
Tokollo District Hospital	16	9	0	0	9	9	4
Mafube District Hospital	24	11	2	1	8	8	3
Fezi Ngubentombi District Hospital	37	19	6	4	9	7	4
Parys District Hospital	21	12	2	1	9	4	3
Boitumelo Regional Hospital	53	44	19	7	18	8	5
TOTAL	**151**	**95**	**29**	**13**	**53**	**36**	**19**

Of the 95 health records that were available and retrieved, 29 did not have PPIP audit forms and 13 had incomplete audit PPIP forms. All 42 names were removed from the

lists. Mothers were selected if their files contained completed PPIP audit forms. Information was cross-referenced to ease tracking of individuals. The researcher arranged with each hospital to make photocopies of the PPIP forms of the mothers who had given birth to stillborn babies and who met the selection criteria. The copies of the PPIP forms were kept in the researcher's office in a locked cupboard. Each copy was shredded immediately after each mother and her significant other had been interviewed and the information from her PPIP form had been extracted to the summary data sheet. The original form remained in the individual participant's (mother's) health record, where it is accessible when needed for a paper trail of data.

The researcher used the available contact details of the remaining mothers to trace them and make appointments to visit them at home. Of the 53 retrieved health records, only eight were traced through their telephone contacts or their next of kin telephone contacts. Of the eight that were traced, four had relocated and no longer resided in the FDD. The researcher decided to trace the remaining 39 potential participants through home visits.

To establish and strengthen a trusting relationship with the sampled mothers, the researcher used a magnetic emblem of the Department of Health on her vehicle that could easily be identified by community members. While tracing through home visits, the researcher wore her Department of Health identification card with a departmental emblem, her name and surname, but no job title. She endeavoured to establish a trust relationship by introducing herself and apologising for the inconvenience of the unexpected visit. The researcher was aware that she was a guest in their homes. She explained the purpose of the interview and requested their participation in the research (Creswell 2013:173).

During the home tracing visits, all mothers identified one person who was closest to them, who supported them or had continued to support them during their perinatal period, and who met the inclusion criteria. They provided the contact telephone numbers and home addresses of those identified as their significant others, so that the researcher could make an appointment for a visit. The researcher thanked all mothers who gave her the opportunity to meet them. Arrangements were made to contact those

mothers who were unavailable during the tracing visit, and one repeat visit per participant was done if there was a possibility of contacting the potential participant.

The researcher made appointments with the mothers and significant others who had consented to participate and reassured them that she would remind them telephonically prior to the interviews about the date and time for their interviews. Both mothers and their significant others were interviewed per appointment; they signed informed consent forms during the second visits, prior to the in-depth interviews. They were assured that they could withdraw at any given time and that a social worker was available for counselling if they needed it.

Data saturation was to be used to determine the sample size. Data saturation is the level where no new or relevant data (information) would be emerging from the mothers and when the researcher was convinced that redundancy had been achieved (Botma et al. 2010:200).

The number of mothers that were recruited, agreed to participate and met the selection criteria, was nine for Tokollo District Hospital, eight for Mafube District Hospital, seven for Fezi Ngubentombi District Hospital, four for Parys District Hospital and eight for Boitumelo Regional Hospital. The number of mothers who were to be interviewed per hospital was to be determined by the saturation level. The total number of mothers who were ultimately interviewed is 36.

Data gathering continued per hospital until data saturation was reached. Data saturation per hospital was important, because each hospital is distinct, due to its unique a) catchment population, b) geographical layout and access to healthcare facilities, c) resource allocation and utilisation, d) quality of care, and e) leaders and managers.

2.3.2 Exploratory interviews

Cridland, Phillipson and Brennan-Horley (2016:1779) support the notion that a skilled interviewer is an important consideration in conducting interviews. Furthermore, they recommend that, at a minimum, interviewers should be well acquainted with the interview guides and be familiar with the interview process. Other personal characteristics, such as patience, an open and empathetic attitude, and an ability to

listen, are recognised as valuable. Skilled and knowledgeable healthcare professionals of the School of Nursing, who have PhD degrees in nursing, facilitated the researcher's learning related to interviewing skills. The training was student-centred and afforded numerous opportunities to practice and become competent.

After mastering interviewing skills, the researcher conducted an exploratory interview to test the two broad, main open-ended questions. She obtained voluntary informed consent forms from all the participants prior to the exploratory study. For the purpose of this study, only the two broad, main questions were used for the in-depth interviews.

An exploratory interview was conducted at Tokollo District Hospital with two mothers and their significant others, to test the accuracy, reliability and validity of the researcher as a interviewing tool, which included the researcher's skills as an interviewer, and the broad questions that had been developed. The process of identification and recruitment as described in the preceding section was followed.

The following two broad, unstructured, open-ended, in-depth questions were used to conduct an in-depth interview with an individual mother during the exploratory study. The questions were as follows:

- *Tell me why you think your baby died?*
- *What do you think could have been done to prevent the death of your baby?*

Subsequent to the above-mentioned interview, the following two broad, unstructured, open-ended, in-depth questions were used to conduct an in-depth interview with individual significant other during the exploratory study:

- *Tell me why you think your family or wife's baby died?*
- *What do you think could have been done to prevent the death of the baby?*

During the interviews, the researcher tried to avoid asking any additional questions, and only requested participants to elaborate further or to clarify, as guided by the participants' responses to the questions. None of the exploratory in-depth interviews exceeded one and a half hours. The exploratory in-depth interviews were conducted in local languages, which were English, Zulu, Afrikaans and Sesotho, as preferred by the individual participants. The researcher translated and rechecked the accuracy of

the transcripts against the audio recordings. The transcripts were checked against the voice recordings of participants by a person who is proficient in the local language and English.

The in-depth interview with the first mother took place at her house, while the one conducted with her significant other took place at the ICAM room of Tokollo Hospital, as agreed by both of them during the first visit. In-depth interviews with the mother and her significant other took place at the different venues as requested by the significant others. The reason given by the significant other for choosing the particular venue was that the hospital was near to his workplace, and he was available during lunch; the other reason was that his home comprised only one room and there was no privacy.

Audio recorders were used to record each interview session, with each participant's permission. The second mother was visited and requested to identify her significant other, and she identified her friend. The above-mentioned procedure was followed with the second mother and her significant other; the interview with the significant other took place at the house of the friend, as arranged and agreed with her.

The researcher transcribed all four voice-recorded interviews and added field notes and reflections as part of the data script. The study supervisors reviewed the transcriptions to, (a) evaluate the researcher's interview skills; (b) check whether there was a need to revise the questions before the commencement of the main study; and (c) to check whether the interviews produced the required data. After review of both transcripts (interview skill), they commented that there was a need for the researcher to apply more interviewing techniques, e.g. probing, reflecting, summarising and paraphrasing. Furthermore, they advised against using closed-ended questions, which encouraged participants to give responses such as yes and no.

The researcher was advised to conduct another in-depth interview and submit the transcripts for evaluation again. The reviewers were satisfied with the interviewing skills and that the questions had elicited the expected information. The supervisors recommended that the first and the second exploratory in-depth interviews' data formed part of the final data set.

2.3.3 Preparation for in-depth interviews

At least a day before the interview, each participant (mother or significant other) was called and reminded about the date, time and venue for the interview. Prior to the first interview, the researcher arranged with the social worker at the particular hospital to be available during data collection sessions for participants who might need her services during and after the interviews.

2.3.4 Data collection via in-depth interviews

During the process of collecting the data via the individual in-depth interviews, the researcher applied the in-depth interview technique, including creating a pleasant and conducive environment, explaining the nature and purpose of the study and ensuring that voluntary consent forms had been signed. Broad questions were then asked and continuous, high-quality interviews and data collection were ensured.

The researcher is a Sesotho-speaking person who grew up and works in the Free State province among people who speak various languages, such as Sesotho, Zulu, Xhosa, Afrikaans and English; therefore, she is familiar with local languages. In this study, Sesotho was the preferred language of individual participants for conducting in-depth interview sessions, although several other options were offered by the researcher.

During each interview, the following was done, in line with in-depth interview technique requirements (Botma et al. 2010:207-210; Creswell 2013:163-176):

- The purpose of using audio recorders as well as making notes during the interview were explained and permission to use it was obtained from all the participants.
- The audio recorders were placed strategically between the researcher and the participant, so that the discussions could be recorded clearly.
- Consent forms were signed voluntarily and confirmed on the audio recordings with all participants.
- All participants were reminded about their freedom to withdraw at any time;

- Participants were informed that the length of the in-depth interview would not exceed one and a half hours.
- Before the first interview question was posed, the researcher acknowledged that the topic of the interview was sensitive to the participant.
- All participants were requested to open up and share their beliefs and practices with regard to the possible causes of the death of the baby.

The following broad questions were asked during interviews:

- *Tell me why you think your baby died?*
- *What do you think could have been done to prevent the death of your baby?*

To ensure continuous, high-quality interviews and data collection, the researcher did the following:

- Listened, digested and comprehended participants' answers and probed accordingly to seek clarity or to encourage further elaboration;
- Picked up what participants said and exercised judgment or formulated relevant questions, where necessary;
- Made mental notes of points raised and returned to them at a later stage to seek clarity or elaboration;
- Demonstrated and displayed professional confidence of knowing, empathy and understanding during the interviews;
- Strengthened participants' trust by appearing comfortable with the interview situation and with what participants said during the interviews;
- Shared some jokes with participants or lightened a situation with humour, as part of facilitating the interview process;
- Responded and dealt with different interview situations, e.g. sensitive and emotional discussions or areas; and
- Probed without pressurising (Botma et al. 2010:207-210; Creswell 2013:163-176).

Other common techniques that were used, such as probing questions and clarity-seeking questions, as outlined in Addendum 14 and Addendum 15, were as follows.

Example 1

***Interviewee**: Even if I ask my friends, they had never heard or experienced what I went through.*

***Interviewer:** It sounds like you went through terrible situation, can you please tell me more about that?*

***Interviewee**: I was shouted just for asking to see my dead baby... I really don't blame the hospital for losing that baby, but the only bad thing is the treatment that I experienced for those nurses after losing the baby, it was terrible treatment.*

***Interviewer:** Mmm. [with sympathy and disappointment in her voice]*

Example 2

***Interviewee:** With the second pregnancy, the baby was born prematurely... I experienced lower abdominal pains for two days and on the third day I started experiencing strong pains, I then called an ambulance... I was then admitted to the hospital... After examination I was told that my baby was already dead.*

***Interviewer**: You mentioned that pains started two days and that you decided to seek medical assistance on the third day. Can you please tell me what made you take that decision?*

***Interviewee:** I thought it was just pains they will pass, but I was also waiting to go to the clinic on Thursday, which was the antenatal clinic day.*

***Interviewer**: Mmm.*

The researcher guided the participants through the research topic and objectives and not through the research themes. After asking the two broad questions, the researcher avoided asking any additional questions. She used verbal and non-verbal probes to follow up responses to the broader questions, in order to obtain or explore more information, explanations or clarity, and give descriptions about the beliefs and practices of all the participants about causes of the stillbirth.

Before the interview was concluded, the participant was offered an opportunity to add anything to the conversation. Her emotional response to the interview was considered and the services of the social worker was offered. Out of 36 mothers, 36 significant others and 19 midwives who participated in the study, only seven mothers made use of the services offered by the social worker; the rest indicated that they did not need the services offered.

After closing the interview, the researcher switched off the audio recorder, thanked the participant for taking part in the study, told her/him how her/his participation contributed to the research and reassured them about the confidentiality of the information they had shared. All participants were given the chance to ask questions related to the interview. The researcher departed only when the participant was emotionally calm and was feeling good and ready to mix with others. After the individual interviews, the researcher reflected in her diary on what she had experienced, heard, saw, and felt during the interviews. Other important information, such as seating arrangements, non-verbal behaviour, thoughts, and emotions experienced, were noted (Botma et al. 2010:217-219).

The above-mentioned sequence was applied to all mothers and their significant others. When the mothers and their significant others resided in one home and were available on the same date, their first visits and interviews followed one another, though the times differed. In such situations, the researcher requested a private room, where both first visits and interviews were held for individual participants, starting with the mothers.

To interview significant others, the following broad questions were asked during interviews:

- *Tell me why you think your family or wife's baby died?*
- *What do your think could have been done to prevent the death of the baby?*

2.3.5 Data analysis

Data analysis was ongoing and involved an iterative process of organising, coding, interpreting and reporting (Maree 2016:109). The researcher converted the recorded data into text (written transcripts and field notes), as described by Creswell (2013:182-

183). Different primary documents were organised in line with types of sources of data, such as mothers, and imported into the AtlasTi™ Version 7, which is computer software for data analysis (Creswell 2013:182-183).

The researcher and co-coders, who were also study supervisors, used Wittmann-Price's EDM conceptual model to analyse the narrative data collected from the mothers, significant others, and midwives, deductively (Botma et al. 2010:195). Through an iterative process, the researcher and co-coders agreed on clear distinctions between the constructs of the EDM model, because participants' statement could only be allocated to a single theme. This iterative process enhanced meaning-making of the data. Although emerging themes were linked with pre-existing sub-concepts of Price's EDM model (deductive analysis), the linking did not limit the analysis to its sub-concepts, instead, inductive analysis was also used, which made the emergence of additional emerging themes possible if some of the emerged themes did not fit the model. Figure 3.1, data analysis steps, in Chapter 3, indicates emerging themes that were linked to pre-existing sub-concepts of Price's EDM model, but which also opened other emerging themes that do not fit the model.

2.4 FOCUS GROUP INTERVIEWS

A focus group is a group interview process that is used to collect qualitative data from a number of participants with the purpose of gaining and understanding thoughts, perceptions, attitudes, beliefs and practices about a particular phenomenon (Krueger & Casey 2002:4). In this study, it involved midwives working in the maternity units, and a carefully planned group interview that focused on in-depth discussions about the causes of stillborn babies (Botma et al. 2010:210).

2.4.1 Focus group interview technique

The researcher selected the focus group interview technique, because Shelton, Smith and Mort (2014:273) state that it is an ideal technique to explore cultural issues, such as the prevailing norms, values, beliefs and practices within a certain population. Furthermore, Shelton et al. (2014:273) mention that the interaction of group members during the process of focus group discussion stimulates ideas and, as a result, new

information emerges. The technique is also efficient, in that viewpoints of many participants could be obtained in a short time (Polit & Beck 2016:511). The focus group interview technique enabled the researcher to obtain primary data on the beliefs and practices of midwives regarding the causes of stillbirths.

Alghamdi and Jarrett (2015:716) support the notion that a focus groups interview is an appropriate method of data collection, as it allows midwives to interact in a group setting while the moderator facilitates a more detailed discussion of the topic. The focus group technique was appropriate for this study, because it generated rich information that answered the research questions.

The researcher is a chief executive officer of two district hospitals in the FDD, and is known to almost all the midwives, therefore, a neutral moderator was needed to allow the midwives to freely talk about their experiences, beliefs and practices with regard to possible causes of stillbirths, without feeling that they had to please the researcher. An experienced, neutral and skilled moderator who knew how to deal with group dynamics conducted the focus group interviews. She has a PhD in nursing, had a Master's degree in therapeutic communication, and teaches psychiatry for nurses at a university. Shelton et al. (2014:273) confirm that focus group discussions should be facilitated by a skilled moderator who encourages interaction and discussion within the group, to ensure collection of quality data. Prior to the focus group interview sessions, the moderator engaged an assistant moderator to assist her with logistical arrangements before and during the process of data collection. A midwife who worked as a quality assurance clinical coordinator in one of the district hospitals, acted as an assistant moderator for the focus group interviews.

The researchers organised with respective hospitals' management to conduct focus group interviews with midwives working in the maternity units of the FDD hospitals. The researcher only interacted with the moderator on two occasions, using emails and the telephone, when she requested her to conduct the focus group interview sessions. Secondly, the researcher visited the moderator at the University of the Free State to discuss the arrangements, procedure to be followed and other logistics prior to the focus group sessions. The researcher interacted with the assistant moderator only once prior to the focus group interview sessions, when she was approached and

requested to assist the moderator with the focus group interview session process. The assistant moderator was informed about her responsibilities with regard to the focus group interviews. She was also informed about the availability of the moderator, and dates, times and venues that had already been confirmed with all relevant stakeholders.

2.4.2 Population and sampling

Shiferaw (2017:54-55) defines a study population as all subjects, individuals, and anything that could be explained, on whom the study is going to be conducted; the study sample is the study participants selected from the study population. This study population also involved all midwives working in the maternity units of FDD hospitals. Convenience sampling was used to select the individual midwives who took part in the focus group interview sessions. Saturation of information during data collection determined the sample size of midwives who participated in the focus group interview sessions.

2.4.2.1 Midwives

The population was the total number of midwives working in FDD hospitals, which was a total of 315 midwives. The target population was those midwives working in the maternity units of FFD hospitals, namely, 53 midwives. Convenience sampling is defined as the sampling strategy that allows the researcher to use the most conveniently available and relevant (accidental) participants or participants who are recruited from the particular setting or institutions for data collection (Polit & Beck 2016:492). Convenience sampling was chosen because midwives working in the maternity units of FFD hospitals were available and were relevant participants – they could answer the research question. Furthermore, this sampling method was convenient, because the study involved a phenomenon that relates only to the maternity setting, where midwives are fully involved (Maree 2016:85; Polit & Beck 2016:493).

The researcher arranged and agreed with the chief executive officers of the five hospitals in the FDD on a suitable date and time that focus interview discussions would be held with their respective personnel (midwives). The researcher used the telephone

and emails to arrange a suitable time, date and venue with managers of maternity units and heads of nursing of the hospitals, to conduct focus group interviews.

Appointments were made with maternity unit managers to visit the unit in the morning, immediately after report taking on the day, when the shifts changed (in order to reach the night and day-shift staff). The usual routine in FDD hospitals is that, every day, after morning ward rounds (walking from patient to patient), all nurses (day and night nurses) gather together to pray, and give other reports that could not be given in the presence of patients, including reading of policies and circulars. The researcher used those morning gathering sessions, though she did not spend more than the allocated 20 minutes at each hospital, to ensure that service provision was not disrupted. During the first visits, midwives were addressed as a group in an office, where they were informed about the purpose of the study, their responsibility, that participation was voluntary, that support would be available, and that a moderator would be present for interviews, and an assistant moderator for logistical arrangements.

Midwives who were present agreed to participate in the focus group interviews. Some of them indicated that they would not be available, as they would be working shifts on the date scheduled for the focus group interview. It was agreed that these midwives would not sign voluntary consent forms, as they would not be available. Some of the midwives indicated that, although they would not be on duty on the date scheduled for focus group interviews, they would attend, because they would like to participate.

During the first visit, 11 midwives signed voluntary informed consent forms, while others indicated that they would sign on the day of the focus group discussion, subject to their availability. Those who signed informed consent forms on the first visit were reassured that they could withdraw at any time. The midwives were informed that all five hospitals in the FFD needed to be represented in each focus group discussion by at least one midwife. Table 2.2 shows the population and sampling of the focus group participants.

Table 2.2: Population and sampling of the focus group participants

Hospital	Midwife population	Number of participants			
		Focus group 1	Focus group 2	Focus group 3	Total
Tokollo District Hospital	8	2	1	1	4
Mafube District Hospital	7	1	1	1	3
Fezi Ngubentombi District Hospital	11	1	1	2	4
Parys District Hospital	8	1	1	1	3
Boitumelo Regional Hospital	19	1	2	2	5
TOTAL	**53**	**6**	**6**	**7**	**19**

The total number of midwives who were available, who met the selection criteria and who agreed to participate, was 19. Included in the study were midwives who:

- Worked in maternity units at FDD hospitals;
- Were available;
- Had agreed to participate in the study; and
- Had signed informed consent forms during the study period.

Subsequently, the interview date, venue and time of the focus group interviews were communicated to the chief executive officers, heads of nursing, and unit managers of all five hospitals, as well as the moderator and assistant moderator of the focus group interviews.

2.4.3 Exploratory focus group interview

Experts reviewed the broad questions prior to the first focus group interview. The first focus group interview served as an exploratory study. Because the questions did not change, the data formed part of the total data pool (Botma et al. 2010:211-214). Quality control with regard to the accuracy, validity and reliability of the broad questions was

done prior to the data collection process by the experts, and feedback and guidance were given (Botma et al. 2010:214).

2.4.4 Preparation for focus group interviews

The researcher visited the moderator and agreed about and discussed all logistics related to the focus group interviews, such as the documents that the moderator would need, the need for availability of the assistant moderator, date, venue, time and other matters.

Participants were reminded about the focus group interviews via telephone and emails. The researcher informed relevant chief executive officers and managers that they would be responsible for transportation of all participants.

2.4.5 Data collection via focus group interview

On the day of the data collection, the moderator arrived early at Boitumelo Hospital where the focus group interview sessions were scheduled to take place; she arrived before the participants arrived. She checked the seating arrangements and tested the functionality of the two voice recorders with the assistant moderator. All midwives of the five hospitals who were available and willing to participate were brought together by different vehicles as arranged by the researcher. The majority of participants arrived at the time agreed upon.

The assistant moderator verified that each participant had signed a voluntary consent form before they could join the focus group interview sessions. Those who already signed informed consent forms at the first visit were reassured that they could withdraw at any time.

Before the start of the first focus group interview session, midwives were reminded by the the assistant moderator that all five hospitals in the FFD should be represented in each focus group discussion. Midwives then divided themselves and ensured that at least one midwife per hospital was represented in a group to participate in the discussions.

A restroom with chairs was available for midwives who waited to participate while their colleagues were involved in the group discussions. Furthermore, there was morning tea (refreshments) for participants waiting in the restroom.

Before the focus group interviews, the assistant moderator ensured the following, as part of her required responsibilities (Krueger & Casey 2002:50):

- She arranged the ICAM (Interaction Communication Learning and Management) room with chairs, audio recorders, bottles of water and glasses before the arrival of all participants.
- Two audio recorders were tested before the focus group interviews.
- She arranged chairs for participants in a circle, that is, in such a way that participants would face each other to facilitate maximum interaction among the participants, as agreed with the moderator.
- At the front and back door of the ICAM room two notices, “Do not enter interviews in progress”, were displayed to avoid interruption.
- She welcomed participants as they arrived and showed them the restrooms.
- She verified that each participant had signed a voluntary consent form. Those who needed to sign voluntary consent forms were given an explanation; they also received an information leaflet and signed the consent form.
- She served refreshments to participants before and after the interviews.

The moderator then managed and directed each focus group interview session in line with the following focus group interview technique requirements as part of her responsibilities (Botma et al. 2010:211-215; Krueger & Casey 2002:4-6):

- The seating arrangement for the focus group discussions was in a circle, with participants facing each other, to facilitate maximum interaction.
- The assistant moderator sat outside the circle, outside direct view of participants, to ensure that her presence did not distract participants.
- The moderator and the assistant moderator ensured that the environment was quiet and comfortable for the focus group interviews to proceed, by closing both entrances to the ICAM room.

- The room was big enough to accommodate all the participants and was well ventilated.
- For each focus group, the moderator welcomed and thanked participants for attending the session.
- Prior to each focus group discussion, the moderator made small talk to create a warm and friendly atmosphere.
- The moderator introduced herself and her assistant moderator to the participants. Participants were requested to introduce themselves.
- The role and importance of the assistant moderator in the focus group interview were explained to the participants.
- Participants were requested to switch off their cell phones prior to the group discussions to ensure that there would be no distractions.
- The research topic, nature and purpose of the research were introduced to the participants.
- The purpose of the study and basic ground rules to be observed by all participants were explained.
- Participants were told that they were free to participate and that there were no wrong or right answers, and what was required from them was their different viewpoints.
- They were informed that one participant would be expected to talk at a time.
- The moderator confirmed with participants the preferred local language to be used, and they all agreed that English would be the preferred language.
- Permission to use the audio recorder during the focus group interview was reaffirmed before the interview commenced.
- The audio recorders were placed strategically between the moderator and participants, so that the discussion could be recorded clearly, which would facilitate transcription.
- Participants were informed that notes would be taken during the interview discussions for the purpose of verification only.
- Furthermore, participants were informed that the length of the in-depth focus group interview discussions would not exceed one and a half hours.

- After the participants were given all the information about the focus group, and they had agreed to the conditions attached, both audio recorders were switched on.
- Signed voluntary consent was confirmed on the audio recorders and participants were reminded about their freedom to withdraw at any time.
- The moderator reaffirmed the confidentially of their information with the participants, and that their names would not be written anywhere in the report.

After acknowledging the sensitivity of the topic to the participants, the first broad, unstructured, open-ended, in-depth question was posed to the participants, as follows:

> *Tell me what do you think contributed to the occurrence of unexplained stillborn babies in your respective hospitals?*

After the participants had exhausted all the information with regard to what they thought were the possible causes of unexplained stillborn babies, and the moderator concluded that the group had reached redundancy, the second unstructured, open-ended, in-depth question was posed to the participants, as follows:

> *What do you think could have been done to prevent the occurrence of unexplained stillborn babies?*

During the focus group interviews, the moderator managed and directed the discussion in such a way that one participant did not dominate the discussions, and she ensured that all members of the group participated. The moderator used the following techniques to enhance the quality of the data:

- She kept the group focused throughout the discussion process by utilising her skills to encourage or stimulate maximum participation and feedback from the participants.
- She used probing techniques to seek opinions or to learn more about the group's beliefs and practices with regard to the topic of interest, to encourage group members to clarify, describe, elaborate on, explore and explain their beliefs and practices with regard to the occurrence of unexplained stillborn babies.

- She requested clarification of some responses and reframed questions to obtain clarity and meaningful responses.
- She remained neutral when responding to comments made by participants, managed to identify non-verbal communication or body language from the group, and attended to them during the discussion.
- She summarised the discussions from time to time in consultation with the group and used verbal and non-verbal probes to follow up responses from the broad questions.
- She continued with the interview until all ideas had been exhausted.
- She made participants aware that they are nearing the end of the session and requested them to reflect on the entire discussion by giving their opinions or stating their positions on the most probable causes of the occurrence of unexplained stillborn babies.
- She followed up on some of the statements to obtain clarity or verification before closing the discussion.
- She summarised the discussions with the purpose of confirming, adding to or removing some of the points (Botma et al. 2010:210-215; Krueger & Casey 2002:4-6).

Examples of other techniques, as outlined in Addendum 16, which were used by the moderator during focus group interview sessions, are as follows:

> ***Midwife****: The other things that might have contributed to the occurrence of unexplained stillborn babies is lack of knowledge, ignorance and those with unwanted pregnancy.*
>
> ***Moderator****: You mentioned that other stillborn babies occurred because of ignorance and lack of knowledge, who do you think was ignorant? Can you explain more about that?*
>
> ***Midwife****: All health professionals need to be capacitated by attending refreshers courses or intensify the ESMOE [Essential Steps in the Management of Obstetric Emergencies] training.*

***Moderator**: You mentioned that all heath professional need to be trained, can you clarify to us who are these health professionals?*

***Midwife**: The other problem that we are encountering as health professionals is that, some pregnant mothers do not want to comply with prescribed medicine. When one check their treatment for compliance one will discover that they take wrong dosage, preferably lower dosage than what is prescribed.*

***Moderator**: Mmm. So, you are saying, mismanagement of chronic illnesses is another issue and that everybody must pull their weight.*

***Moderator**: Mmm… Let me recap. Did you say the causes of occurrence of stillborn babies were related to late presentation, infections and ignorance?*

***Moderator:** Okay, ladies, what next do you think could have been done or can be done to prevent the occurrence of unexplained stillborn babies in your hospitals?*

After ending the interview, the moderator switched off the audio recorders and thanked the participants for taking part in the discussion. The participants were told how their contributions would assist the researcher and they were reassured about confidentiality and the use of the data.

The moderator reminded the participants about the validation meeting that would be held with all the stakeholders after the completion of all interviews, and that their attendance would be valued. Participants were told that the researcher would communicate the date and time of the feedback session to them through their managers. Each focus group was informed and reminded about the confidentiality of the information collected and, furthermore, requested to refrain from discussing this information with others.

The moderators thanked the participants for attending the session and wished them good luck in their respective areas of work. The moderator only allowed the participants to leave the room once they were emotionally calm and were feeling ready

to leave the room. When they were ready to leave the room, they left and took the refreshments that had been prepared.

Immediately after each focus group interview, the moderator wrote field notes as part of data collection. The field notes included what she had heard, saw, felt and experienced in terms of her thoughts about the discussion process, seating arrangements, participants' non-verbal behaviour, themes that were striking, the order in which participants spoke, as well as group dynamics.

After the first focus group had been released and field notes completed, the next focus group followed. The procedure for conducting all focus group interviews followed the same process as above. Each focus group interview was held or conducted until no new information was forthcoming from the group.

Each focus group interview consisted of not less than six and no more than eight midwives, who represented all five hospitals in the FDD (Botma et al. 2010:210-211). The number of participants per group maximised the group dynamics in each group and allowed each participant the chance to participate fully during the group discussions (Botma et al. 2010:210-211). The participants managed to generate intense discussions; as a result, much information with regard to the possible causes of unexplained stillborn babies was collected. The small groups also made it easier for the moderator to observe non-verbal cues during the discussions (Krueger & Casey 2002:4; Botma et al. 2010:210-211).

Each focus group consisted of six to seven participants and each hospital was represented by one or two midwives – this arrangement permitted clinical services to continue in the maternity units while the interviews were in process (Botma et al. 2010:210-211). The first and second focus groups had six participants each, while the third focus group had seven participants. Focus group interview sessions were conducted at Boitumelo Regional Hospital, and not at Tokollo Hospital, as planned, due to challenges relating to a shortage of midwives at the regional hospital.

Data collection continued until no new or relevant data (information) emerged from the midwives, and when the researcher was convinced that redundancy had been achieved. No new data emerged from the third group, and the researcher and

moderator concurred that data saturation had been reached. Focus group interview sessions were conducted after all individual interview sessions had been conducted with mothers and their significant others. The focus group interview sessions were conducted on one day, during the week, and the first session started at 10;00; the last session ended at 15:00.

2.4.6 Analysis of focus group data

The process that was applied to analyse the data collected by means of in-depth interviews was used to analyse the data collected from the focus group interviews.

2.5 PPIP RECORD REVIEW

2.5.1 Record review technique

Retrospective record review is a research technique whereby a researcher extracts information pertinent to the research question from pre-recorded documents (Vassar & Holzmann 2013:online). The technique was used to collect data from the PPIP records of mothers who participated in the study. Retrospective record review contributed to source triangulation, thereby, enhancing trustworthiness of the study.

2.5.2 Record reviews population and sampling

The study population refers to all the possible research participants or elements of the research interest, and the study sample consists of a certain number of study participants who are selected from the study population (Shiferaw 2017:54-55). This study collected all PPIP records of mothers who had experienced stillbirths during the study period. The PPIP records were purposively selected and the sample size or number of PPIP records collected was determined by the level of saturation with regard to the information collected from mothers who had experienced stillbirths, with regard to causes of stillbirths.

2.5.3 Exploratory record reviews

The summary data sheet was developed to capture the data related to the causes of stillbirths on the PPIP records collected, and was tested after the in-depth interviews

had been conducted with both mothers and their significant others. The summary data sheet (Addendum 1) was used to extract data from the PPIP records. The review was done to determine if the summary data sheet enabled the researcher to capture the core elements of the causes of death.

The documents and all the data that were collected were reviewed by the study supervisors. They did not recommend any changes to the broad questions developed or the summary data sheet. Furthermore, the supervisors did not recommend any improvements to the researchers' interviewing skills. The data from the exploratory studies became part of the data pool, as no changes were necessary (Botma et al. 2010:207).

2.5.4 Preparation for record review

The PPIP code list Version 3.0 guideline was used to interpret causes of deaths written in codes on the forms. The district specialist midwife checked and confirmed that the PPIP code list was interpreted correctly.

2.5.5 Record review data extraction and analysis

After conducting interviews with individual mothers, the information about stillbirths was extracted from the PPIP records and recorded on the summary data sheet that had been developed. The researcher extracted the data after interviewing each mother, to avoid the researcher being influenced by the information on the PPIP record. This sequence was followed throughout the research process, in an attempt to minimise the researcher being influenced by medical information.

Each mother's code or unique number was written next to the information extracted from her PPIP record in the PPIP summary data sheet that had been developed. Both the completed PPIP record and the summary data sheet contained information, such as the primary causes of death, final causes of death and avoidable causes of death, which were extracted from the participants' completed PPIP record and transferred to the PPIP summary data sheet.

To ensure high quality of data, the researcher double-checked the extracted data against the PPIP records of individual participants. Interpretations of the codes (nature

or types of causes of death) appearing in the completed PPIP records were also checked and confirmed against the PPIP code list guideline. After the researcher had satisfied herself that the correct data was extracted and aligned with the correct, allocated number, then the copy of the PPIP record was destroyed through the use of a shredder that was available in the researcher's office.

2.5.6 Record review data analysis

The data analysis for the record review was conducted almost concurrently with data collection. The causes of the stillbirths were coded and clustered according to the PPIP manual.

2.6 MEASURES TO ENSURE TRUSTWORTHINESS

Polit and Beck (2016:557) define trustworthiness as measures or standards that need to be implemented or followed by researchers when they conduct qualitative studies, to comply with quality standards. Epistemological standards or criteria that should be considered to enhance the trustworthiness of qualitative studies are truth value or credibility, applicability or transferability, consistency or dependability, neutrality or confirmability and authenticity (Botma et al. 2010:233; Creswell 2013:246; Polit & Beck 2016:559-560).

2.6.1 The truth value or credibility standard

Truth value or credibility refers to confidence in the truthfulness of the data collected and interpreted; it is about conducting the research in such a way that the believability of the findings is enhanced, and taking steps to demonstrate the credibility or truthfulness of the data collected and interpreted (Botma et al. 2010:233; Polit & Beck 2016:559).

To enhance the truth value or credibility of the study, the following measures were implemented (Botma et al. 2010:233; Madumo et al. 2015:189; Maree 2016:123):

- Qualitative multi-method design was used to explore the beliefs and practices of participants, and by doing so the research questions managed to fit the chosen research method and design. Participants were requested

to share their beliefs and practices in relation to the causes of stillborn babies.

- Data on beliefs, experiences and practices of stakeholders were obtained and their viewpoints were incorporated in the developed preventive healthcare strategies, to improve preventive healthcare strategies that seek to decrease the number of stillborn babies.
- Purposeful sampling, which was used to select mothers (relevant and targeted participants who had experienced the incident) who had been hospitalised and gave birth to stillborn babies during the 2012 financial year, which is the study period, and their significant others in the FDD, was well defined.
- Participants (mothers, their significant others and midwives) who had experienced the phenomenon that was being studied were able to give relevant and rich information, which the researcher used to analyse and interpret the findings.
- During data collection, methods of double-checking, such as listening to the audio recorders against the transcripts, and comparing transcriptions against translations, ensured completeness and accuracy of the data.
- Frequent debriefing with the study supervisor and the co-supervisor was done during the research process, who asked questions related to methods used and interpretations, and gave the researcher the opportunity to respond.
- The credibility or truthfulness of the study was also ensured through data triangulation, by conducting individual in-depth interviews and focus group interviews and doing a record review.
- To strengthen the truth value further, the study was conducted by a researcher who is a midwife and who has knowledge and experience in this area, who bracketed her existing knowledge and preconceived ideas and looked at the phenomenon to avoid bias, approached it with an open mind and, especially, separated her personal beliefs about the causes of stillbirths from the participants' beliefs and practices in relation to causes of stillbirths.

2.6.2 Applicability or transferability standard

Transferability refers to the potential for extrapolation or the extent to which the findings from the data can be transferred to or have applicability in other, different groups or settings (Botma et al. 2010:233; Polit & Beck 2016:560). Maree (2016:24) states that quality research findings are applicable or transferable when readers or researchers make connections between elements of the study and their own experience or context.

To enhance applicability or transferability of the study, the following measures were implemented (Botma et al. 2010:233; Creswell 2013:252; Maree 2016:124; Polit & Beck 2016:560):

- The study participants were linked with the context being studied, in that mothers who had experienced stillborn babies, their significant others and midwives working in the maternity units of the FDD were included and closely linked with the context being studied. The researcher described the study context in detail in Chapter 1.
- The study contexts, participants and research designs were described in detail in the preceding sections, to enable readers to determine transferability. The study participants and sites were selected using purposive and convenient sampling, which are described in detail in Sections 2.3.4 to 2.5.2 respectively.
- Furthermore, a rich and dense description of data in relation to the beliefs and practices of the participants about the causes of stillborn babies were collected, analysed and interpreted by the researcher.
- Data collection from all groups of participants was done until data saturation had been reached.

2.6.3 Consistency or dependability standard

Dependability refers to the extent to which the research findings will be consistent if the same participants in a similar context are used when conducting research. It is also referred to the stability of the data over time in the same conditions (Botma et al. 2010:233; Polit & Beck 2016:559).

To enhance consistency or dependability of the study, the following measures were implemented (Botma et al. 2010:233; Creswell 2013:252; Madumo et al. 2015:189; Maree 2016:124; Polit & Beck 2016:560):

- Detailed descriptions of the methodology used were given, to enable replication of the study. Triangulation of research methods, such as in-depth interviews, focus group interviews and a record review, was done to ensure consistency.
- The accuracy of the transcriptions was verified by listening to the recordings while reading the transcriptions.
- A paper trail is available, and data was read and reread before coding was started. Data was recoded to the satisfaction of the researcher and co-coder.
- The two study supervisors checked the dependability of the research by conducting an audit trail (analysing the type of data and the way data had been collected) and tracing the data collected from the source with the assistance of the computer software**.**

2.6.4 Neutrality for minimising subjectivity, or confirmability standard

Neutrality is the process by which freedom from bias or the degree of neutrality is enhanced, by allowing participants to shape the findings of the study during research (Botma et al. 2010:233; Maree 2016:125). Polit and Beck (2016:560) define neutrality or confirmability of a qualitative study as measures that are implemented to increase a researcher's objectivity; it includes the quality of the research process.

To enhance neutrality or confirmability of the study, the following measures were implemented (Botma et al. 2010:231, 233; Creswell 2013:252; Madumo et al. 2015:189; Maree 2016:125; Polit & Beck 2016:471, 558, 560; Probst 2015:37):

- The research process was described in detail and audited by the two research supervisors. An audit trail is available for verification.
- Triangulation of data was done by using multiple data sources, namely, mothers who had had stillborn babies, their significant others, midwives who work in the maternity units, and PPIP records.

- The researcher applied reflexivity, by continuously reflecting on her experience and knowledge related to the causes of occurrence of stillbirths, and she remained aware of possible biases and preconceived ideas. In each phase of the research, the researcher used bracketing, by continuously identifying and holding in abeyance her preconceived ideas, beliefs and opinions about the possible causes of stillbirths, in other to avoid possible bias.
- The researcher is a midwife with extensive knowledge and experience in this area; nevertheless, she tried and managed to bracket her existing knowledge and preconceived ideas and considered the phenomenon without bias.

The data related to the causes of stillbirths was extracted from the PPIP record to the summary data sheet that had been developed only after the in-depth interviews had been conducted with both mothers and their significant others, to avoid information from the PPIP tool influencing the researcher's attitudes toward the participants.

2.6.5 Authenticity standard

Authenticity refers to the extent to which the researcher shows different or a range of realities, such as the feelings and the tone of the participants during the interview sessions and group discussion sessions (Botma et al. 2010:234; Polit & Beck 2016:560). The researcher enhanced authenticity of the study by implementing the following measures during data collection and analysis (Botma et al. 2010:234; Polit & Beck 2016:560):

- All audio recordings (36 for the mothers, 36 for their significant others and 3 for focus group interview sessions) were transcribed by the researcher. Transcriptions for mothers and their significant others were first transcribed in the African language, and then translated to English by the researcher.
- The researcher transcribed all data verbatim from the audio recordings.
- All transcripts and translations were checked for completeness and accuracy by a quality assurance coordinator, who is a registered midwife by profession. The quality assurance coordinator is a Lesotho citizen with South

African residency. She has extensive knowledge of the African language (Sesotho) that was mostly preferred and used by mothers and significant others during data collection. She also had good knowledge of English, and the researcher used this knowledge to translate 72 transcripts to English.

- Different realities, such as feelings or remarks from participants, were written down during the capturing of field notes. Participants' expressions and emotions were added to the data, for example, if a mother cried or remained silent for a while.
- Participants' feelings were promoted by developing unstructured interview guides, and allowing them to explore their beliefs and practices with regard to the causes of the occurrence of stillbirths.

2.7 DEVELOPMENT AND VALIDATION OF PREVENTIVE HEALTHCARE STRATEGIES

After collecting and analysing data on the beliefs and practices of mothers, their significant others and midwives, and reviewing the PPIP record reviews with regard to the causes of occurrences of stillborn babies in the maternity units, the researcher developed preventive healthcare strategies aimed at reducing stillbirths.

Developing preventive healthcare strategies was based on the collection and analysis of adequate data related to the beliefs and practices of mothers, their significant others and midwives, and information provided by the PPIP record reviews with regard to the causes of occurrence of stillborn babies by the researcher.

The researcher used the W.K. Kellogg Foundation theory of change model, described in Chapter 7, Figure 7.1, to develop preventive healthcare strategies that are intended to reduce stillbirths in the FDD. The logic model involves systemic planning through sharing information with relevant stakeholders (W.K. Kellogg Foundation 2004:2). The model consists of six areas, namely, (1) the problems or issues identified, (2) the community needs or assets, (3) the desired impact, (4) influential factors, (5) strategies, and (6) assumptions with regard to what is available to assist the realisation of expected outcomes (W.K. Kellogg Foundation 2004:1-3).

The preventive healthcare strategies were developed in line with the six areas of the logic model in relation to causes of stillbirths as reflected by participants during data collection. To develop the preventive healthcare strategies, the researcher followed the following systemic ways of the logic model (W.K. Kellogg Foundation 2004:2-34):

- All possible causes of occurrences of stillborn babies, as mentioned by participants, were identified, and preventive healthcare strategies to address them were developed.
- The resources needed to achieve expected or desired results (output, outcome and impact) were linked to relevant preventive healthcare strategies.
- Expected, desired results for each strategy identified (output, outcome and impact) were identified and documented in line with the logic model.
- During the development of the preventive healthcare strategies, the research was able to identify possible influential factors that may affect the implementation of the preventive healthcare strategies positively or negatively.
- The researcher managed to identity the assumptions that could possibly make the implementation of the preventive healthcare strategies easier when they are available (assumptions) or used and difficult when not used or not available.

Chapter 7 will outline more information with regard to the preventive healthcare strategies developed.

After developing preventive healthcare strategies, two validation group discussion sessions were conducted by the researcher with a group of participants who had participated in the individual interviews (mothers and significant others) and FDD healthcare professionals, who included the midwives who had participated in the focus group interview sessions. The purpose of the validation group discussion sessions was to give feedback to all stakeholders with regard to the results of data collected. Another purpose was to obtain stakeholders' inputs with regard to the preventive healthcare strategies that had been developed with the intention of reducing stillborn babies.

The third validation group discussion was conducted with members of the clinical cluster of the Free State province. The purpose of this discussion was to present the study outcomes and recommendations, with the intention of informing the policy-makers and seeking their inputs in the preventive healthcare strategies that had been developed for the FDD.

The logic model reflects a group process and shared understanding among stakeholders. W.K. Kellogg Foundation recommends that, when using logic model, as many as possible of the key stakeholders must be involved, and they must be inclusive, collaborative and actively engaged (W.K. Kellogg Foundation 2004:7). The number of participants in the validation interview sessions was determined by the availability of stakeholders who had been recruited.

The researcher guided the three groups of stakeholders through the process of validation group discussion sessions, as indicated in Figure 7.1, Chapter 7, using the Kellogg logic model, which promotes active participation by all stakeholders in the discussion (W.K. Kellogg Foundation 2004:5).

New information or inputs related to the validation of the preventive healthcare strategies was added. Chapter 7 will present the detailed procures followed, such as recruiting the participants, conducting validation group discussion, information presented to the stakeholders and information added.

2.8 ETHICAL CONSIDERATIONS

Ethical considerations were important aspects of this research due to the sensitive nature of the topic. To address potential risks that might surface during the research process, the ethical principles of respect, beneficence, non-maleficence, and justice were taken into consideration (Botma et al. 2010:344). Haahr, Norlyk and Hall (2014:6) and Polit and Beck (2016:139) define ethical considerations as standard guidelines or principles that researchers are expected to comply with when conducting research. Furthermore, ethical standards or principles guide researchers' actions during unexpected situations, therefore, there is a great need for researchers to continuously focus on the application of ethics (Haahr et al. 2014:6).

2.8.1 Principle of respect

Respect refers to the right to autonomy and full disclosure. Its states that, ethically, individuals need to be treated as autonomous entities, and that all people with diminished autonomy should be protected when involved in a study (Botma et al. 2010:345; Haahr et al. 2014:6; Polit & Beck 2016:139).

The principle of respect for autonomy refers to each individual's right to make choices and take actions based on personal values and beliefs, and this right obligates researchers to disclose information, ensure that this information is understood and that the decision to participate in research is based on voluntariness and understanding (Haahr et al. 2014:6).

To comply with ethical principles of respect, which address self-determination or autonomy and full disclosure, the following was done by the researcher during the study (Botma et al. 2010:345-346; Haahr et al. 2014:6-13; Polit & Beck 2016:140-141):

- Participants were informed about their right to withdraw from participating in the research. Even if they had agreed to participate, they could change their minds at any time, and their non-participation or withdrawal from this study would not prejudice them in any way. Written, voluntary, informed consent was obtained from all participants prior to interviews.
- To prevent coercion due to professional position, the researcher visited and interviewed participants at their respective homes, where she took the role of a visitor. Furthermore, when visiting and interviewing mothers and their significant others, the researcher introduced herself as an official of the Department of Health, not as a chief executive officer of a hospital. A neutral moderator was requested to conduct all three sessions of the focus group interviews.
- All participants were approached and requested to take part in the study without being promised any remuneration.
- The aim and purpose of the study were explained and discussed with all who agreed to participate.

- Explanations with regard to the nature of the study, purpose and participants' involvement were discussed and included in the information leaflet that was provided to each participant during the study, and which was in their own language.
- To ensure full disclosure and confidentiality, the nature of the study was explained to all participants.
- The researcher ensured that no personal information that could identify participants was included as part of the data presentation and discussions. Participants were reassured that data, such as audio recordings and transcripts, would be stored safely.
- Participants were informed that they had the right to refrain from or decline to answer questions, even if they had agreed to participate.
- Participants were informed about the procedures that would be followed once they had agreed to participate, such as signing voluntary consent forms, the time an interview would last, the interview place and the person who would conduct the interviews.
- Participants were informed about the possible risk and benefit of participating in the study.
- Participants were informed about how confidentiality would be maintained and that the results would be used anonymously for the research purpose.
- Participants were informed that the study had been ethically approved; the contact numbers of the Health Sciences Research Ethics Committee of the University of the Free State and the Free State Department of Health were provided in the leaflet, in case they needed more information about the study.
- Permission to conduct the research, and use of data was obtained from the Free State province Department of Health.
- Members of the families of participants were requested to allow the interview to take place in private.
- Focus group interview discussions with midwives who participated in the study were conducted in the closed ICAM room.
- Participants were reassured that the information that was to be collected would not be linked to the names of individuals.

- All files or records, including the PPIP records that had been obtained from the different hospitals, were registered and signed for by the researcher and the relevant officers. The same procedure was followed when the records were returned, to ensure protection of the data.
- The confidentiality of all the patients and employees was maintained by not attaching names to any data that was collected. Data collected was linked to individual patients or staff by codes or unique numbers.

2.8.2 Principle of beneficence

The principles of beneficence refer to all forms of actions intended to benefit others, including the researcher's obligation to minimise harm and maximise benefits, or do good to the participants by balancing such benefits against potential risks (Townsend, Cox & Li 2010:623; Haahr et al. 2014:6; Polit & Beck 2016:139). The principles of beneficence applied by the researcher benefited participants directly and indirectly, even if some of the benefits would possibly only be realised in the future.

To comply with ethical principles of beneficence, which address benefits and freedom from harm or doing good, the following was done by the researcher during the study (Botma et al. 2010:346-347; Haahr et al. 2014:6-13; Polit & Beck 2016:139-140; Townsend et al. 2010:623):

- Participants were assured about the researcher's honesty and sensitivity to their emotions, and they were allowed to vent their feelings and frustrations without fear during the interview sessions.
- The possible indirect or future benefits of the research as outlined in the purpose included the reduction of occurrence of stillbirths by developing preventive healthcare strategies.
- Other direct benefits of participating in the study were related to the health information and knowledge that participants gained from the researcher during the interview sessions.
- Other participants, through participation, had the opportunity to make contributions to the development of strategies that could decrease the occurrence of stillbirths, which would benefit all stakeholders in the future.

- The potential risk of participating in the study was the possibility of triggering participants' emotions resulting from experiencing stillbirth. The risk for some participants was less than the benefits, because, by participating in the study, they could get access to emotional counselling that they had not received after the birth, and they could ask questions that they had not been able to ask health workers after the birth.
- Other direct benefits were realised when participants who opted to utilise the services of the social workers in the district to deal with the emotional and psychological consequences of participating in the study, were referred for counselling.

2.8.3 Principle of non-maleficence

The principle of non-maleficence is closely related to the principle of beneficence, in that it asserts an obligation to avoid inflicting harm intentionally, as well as an obligation to withdraw from or discontinue the study if it damages or violate participants' rights. The principle also advocates for commitment by researchers to avoid, prevent or minimise harm and adverse incidents. Furthermore, the principle indicates that participants should not be exposed to unnecessary risks or discomfort during the research process (Ebbesen 2011:209; Polit & Beck 2016:139).

During the study, the researcher complied with the ethical principle of non-maleficence, which demonstrates her obligation to avoid inflicting harm intentionally, as follows (Haahr et al. 2014:6-13; Polit & Beck 2016:139):

- Participants were interviewed almost four years after the stillbirth incident, to minimise emotional harm or to avoid potential emotional harm when they were required to recall the traumatic event of a stillborn baby.
- Participants who wanted to utilise the services of a social worker to deal with the emotional and psychological consequences of participating in the study, or other health-related issues triggered by participating in the study, were offered services immediately.
- During the interviews with mothers and significant others, when participants were emotionally and psychologically affected – even crying – the researcher

paused and, before she continued with the interview process, she asked individual participants whether she could continue with the interview process, or whether she should stop the process. During the focus group interviews none of the midwives became visibly psychologically or emotionally affected.

- The researcher needed debriefing sessions to deal with her own emotional experiences in relation to data collected. The researcher was able to have continuous debriefing sessions every time she discussed her emotional and psychological feelings with the study co-supervisor and supervisor during the collection and transcribing of data.
- During each supervisor session, when the researcher presented the data collected, codes, categories and themes developed for verification, she was encouraged to discuss her emotional and psychological feelings with regard to the study. The debriefing was initiated by the study supervisors, who asked questions such as, how do you feel about the information you collected? These questions promoted emotional and psychological healing for the researcher.

2.8.4 Principle of justice

The principle of justice ethically guides researchers by stating that research will be conducted only if there is an element of justice and fairness with regard to who will benefit from the outcome of the results. (Botma et al. 2010:347). The principle of justice also refers to ethical decision-making that will ensure application of fairness, equality and impartiality during the research process (Haahr et al. 2014:6-13).

To comply with ethical principle of justice, which addresses the elements of justice and fairness, the following was done by the researcher during the study (Botma et al. 2010:347; Haahr et al. 2014:6-13; Polit & Beck 2016:139):

- The right to fair treatment and justice was ensured by inviting all participants to withdraw from the interviews if they wished to do so, without being prejudiced.
- The selection of all participants was based on the requirements of the research question, as well as the inclusion criteria that had been set.

- Selection of the venue for interviews and language used during the interview process was done according to the individual participants' preferences.
- To ensure that the risk assessment and benefits of the research were taken care of, the research protocol was submitted to the Health Sciences Research Ethics Committee, Faculty of Health Sciences of the University of the Free State, and Free State Department of Health Research Committee, and approval was granted before the researcher conducted the exploratory study.

2.9 Chapter summary

A qualitative multi-method design was used to collect data from all participants. Research techniques, such as in-depth interviews, focus group interviews, and a record review, were used with mothers and their significant others, midwives and patient records respectively. Data collection was done by the researcher with the support of an independent moderator. During the data collection process, measures to ensure trustworthiness and compliance with ethical principles were applied or respected.

2.10 Conclusion

In this chapter, the methodology that was used was discussed in detail. Data analysis will be discussed in the next chapter**.**

CHAPTER 3
DATA ANALYSIS

3.1 INTRODUCTION

The previous chapter outlined the research design and methodology that was used to conduct the study. This chapter will deal with data analysis, which will include presentation of analysed data, and interpretation of analysed data with regard to causes of stillbirths and ways to prevent occurrence of stillbirth. Data analysis is a process that is used by researchers to make sense of the data collected. In qualitative research, data analysis processes include preparing and organising the data for analysis, and conducting analysis by moving deeper into an understanding of the data. It also involves reducing the data to themes, categories, and sub-categories through a process of coding and condensing the codes, and finally presenting it, thereby interpreting and constructing meaning from the large amount of data (Botma et al. 2010:220; Creswell 2013:179-180).

During the process of data analysis, transcriptions of individual interviews with participants and focus group interviews, field notes and completed summary data sheets were analysed to ensure that it had been reduced and reconstructed into a manageable format that would make reporting possible (Botma et al. 2010:221).

Data analysis was almost always conducted concurrently with collection of data, in that it started soon after the first individual in-depth interviews were conducted. To exclude all possible preconceptions of phenomena related to causes of stillborn babies, the researcher used reflexivity, bracketing and sensing when she started to analyse and interpret participants' interview information (Probst 2015:37, 38).

Reflexivity refers to awareness of one's subjectivity, which can be understood as a process of self-examination (exploring one's assumptions, emotional reactions, cultural positioning). Reflexivity is also understood as awareness of the influence the researcher has on the people, and recognising how the research experience affects the researcher (Probst 2015:37, 38). As mentioned in Section 2.6.4, the researcher applied reflexivity by continuously remaining aware of her personal assumptions, in

order to minimise subjectivity and bias and increase objectivity during the data analysis process. Reflexivity assisted the researcher to conduct continuous self-monitoring and self-justification, to ensure that others believe in the data being analysed and interpreted (Probst 2015:37, 38).

Bracketing is a way to enhance objectivity and thereby eliminate or minimise subjectivity; it is also seen as a means to expose false claims of objectivity (Probst 2015:37, 38). The researcher applied bracketing during the data analysis and interpretation process by continuously trying to hold back her preconceived ideas, beliefs and practices with regard to the causes of stillborn babies.

Furthermore, the researcher applied intuition by continuously remaining open and focused, and analysed the data as experienced by participants, including non-verbal information (Probst 2015:37, 38). The researcher replayed the audio recordings, typed the interviews and transcribed the interview accounts verbatim. An independent person compared the audio recordings to the transcription for accuracy. The independent person signed a confidentiality clause before she started with the process of checking – refer to the confidentiality clause form, Addendum 18.

Significant statements or quotations from the participants were used to organise data into codes, categories, sub-categories and emerging themes. Furthermore, data were coded, categorised and linked to the identified themes (Botma et al. 2010:226). Emergent themes were linked to the pre-existing model or framework (deductive analysis), but not limited to the available model or framework (inductive analysis). Data analysis reduced data into a manageable format that would make reporting possible. Furthermore, data analysis was done to assist the researcher to identify disparities and commonalities among stakeholders with regard to perceived causes of occurrence of stillbirths (Botma et al. 2010:221).

AtlasTi™ computer software was used to analyse data by organising text, coding and categorising it and developing themes. The software captured the data that was in sentences and paragraphs into codes, categories, sub-categories and themes. The program enabled the researcher to reduce data into meaningful segments of data, to code and name them. The researcher also combined the codes, categories and sub-categories into broader themes. It enabled the researcher to search, retrieve and

browse all relevant data segments (quotations). Furthermore, the program allowed all the users to export the documents to other programs, and to allow others (co-coder or study supervisors) to work on the same project and compare each others' coded data. To ensure critical analysis of data and identification of disparities and commonalities, the researcher underwent training at the University of the Free State on thematic analysis of data and use of AtlasTi™ computer software program Version 7. The steps shown in Figure 3.1 describe how the researcher analysed the data.

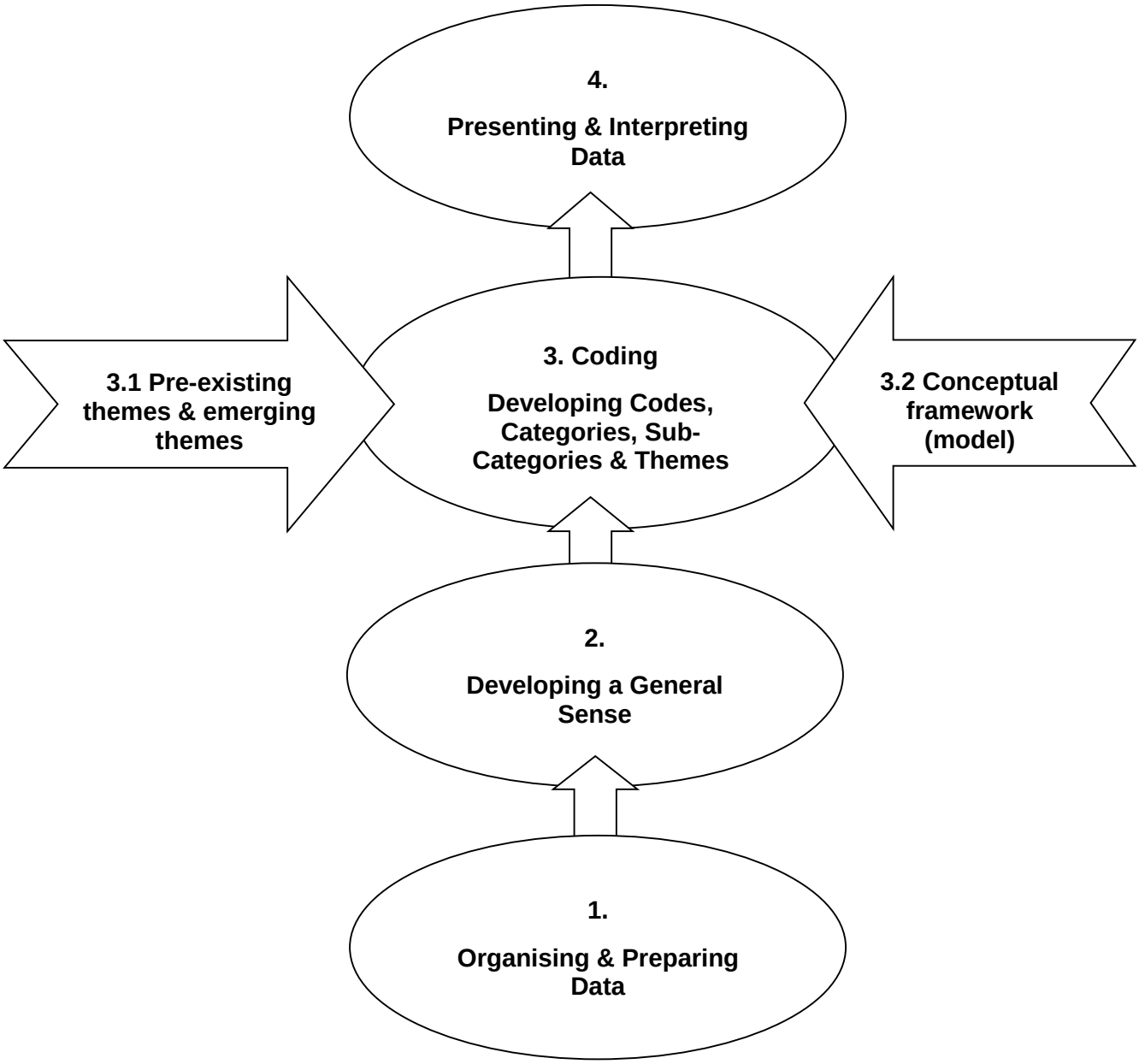


Figure 3.1: Data analysis steps

Figure 3.1 shows the sequential steps of the general data analysis approach for in-depth interviews and focus group interviews as suggested by Botma et al. (2010:220-229) and Creswell (2013:179-206).

3.2 Steps of data analysis approach

3.2.1 Organising and preparing data

- The data was organised by creating computer files according to the different sources of information, such as mothers, their significant others and midwives, and from the retrospective record review.
- The data was also organised for analysis by transcribing interviews, typing field notes and sorting data according to different types or sources of information, which included mothers, their significant others and midwives, as well as retrospective record review. Each participant's interview transcription, PPIP audit data and field notes were allocated the same numerical value (code).
- All transcriptions and all other data (primary documents) were then imported into the computer software program files for analysis.

Table 3.1 lists data organised and imported into the computer software program for analysis.

Table 3.1: Data captured in computer software

Source of data	Primary documents to be analysed	Number of primary documents	Identification codes in numerical values
In-depth interviews with 36 mothers	Interview transcriptions and field notes for each of the 36 mothers	36 transcriptions and 36 field notes of mothers	From 1 to 36 for both transcriptions and field notes for mothers (1 = the first mother and 36 = the last mother interviewed)
In-depth interviews with 36 significant others	Interview transcriptions and field notes for each of the 36 significant others	36 transcriptions and 36 field notes of significant others	From 1.1 to 1.36 for both transcriptions and field notes for significant others (1.1 = the fist significant other and 1.36 the last significant interviewed)
Midwives focus group interviews sessions	Focus interview transcriptions and field notes	3	1 to 3
PPIP records (health records)	Summary data sheet	1	1 to 36

3.2.2 Developing a general sense of the data

All transcriptions and field notes were read repeatedly, so that the researcher could develop a sense of the overall meaning, feeling, beliefs and practices of the participants with regard to the perceived causes of babies being stillborn.

3.2.3 Development of codes, categories, sub-categories and themes

- The researcher used AtlasTi to assign codes to segments of information that are of interest (AtlasTi™:7).
- Some codes assigned to information were combined to form a broad unit of information, called categories, sub-categories and themes, hence, the name, thematic coding.
- The transcripts or all primary documents imported into the AtlasTi computer software were coded by reducing it into meaningful context or codes.

- During the coding process, all codes were given equal importance, irrespective of whether they contradicted the prefigured or pre-existing themes.
- While coding, the researcher captured the richness of information from the participants' conversation in sentences and paragraphs (significant statements from transcripts); and all matching or related codes, categories, and sub-categories were divided into themes.
- Codes, categories, sub-categories and themes were supported by the multiple perspectives of the individual participants, as well as quotations (as reflected in the transcriptions in Addenda 14, 15, and 16).
- The themes or major findings emerging from the matching categories, sub-categories and codes were then linked to the five sub-concepts of Wittmann-Price's EDM model. These sub-concepts were used to create headings in the report of findings.
- The themes were not limited to pre-existing themes, but were open to additional emerging themes if some of the emerging themes did not fit to the model.

Saldaña (2013:14) mentions that themes are outcomes of coding, categorisation, or analytic reflection, and the process of developing themes is referred to as thematic analysis or theming the data. The names of codes, categories and sub-categories originated from the segments that described the information in relation to participants' views and personal experiences, and information related to the five sub-concepts of Wittmann-Price's EDM model. The five concepts as described or defined by Wittmann-Price's EDM model were used to code and name codes, categories and sub-categories. The following are the criteria per concept that the coders used to code the data – the concept definitions or descriptions that were used were as follows.

Empowerment theme

- Knowledge and information gathered by participants through transferring, sharing, imparting and guiding;
- Resources provided, including an enabling environment that allowed participants to develop or increase their abilities; and

- Provision of resources, tools and environment for capacity building and enhancing self-esteem (Cook & Loomis 2012:159; Madumo et.al 2015:186-197; Wittmann-Price 2004:441-442; 2006:378, 381).

Reflection theme

- Critical thinking or cognitive awareness by all participants;
- Dialogue;
- Questioning practices that are based on tradition or authority; and
- Analytical thinking or the ability to analyse information (Cook & Loomis 2012:159; Madumo et al. 2015:186-197 Wittmann-Price 2004:441; 2006:378, 381).

Personal knowledge theme

- Knowledge of self-awareness and self-feelings;
- Ability to understand; and
- Knowledge and experience (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381).

Social norms theme

- Socially acceptable standards;
- Social context, power and influence;
- Prescriptive social and professional norms; and
- Socio-economic factors (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381).

Flexible environment theme

- Environment that is responsive to society's health needs;
- Non-judgemental environment that will result in positive outcomes;
- Flexible policies and guidelines;
- Attitudes and behaviour;
- Health facilities operating times and days;
- Quality of health services; and

- Acceptable and accessible health services and resources (Cook & Loomis 2012:159; Madumo et al. 2015:186-197; Wittmann-Price 2004:441; 2006:378, 381).

3.2.4 Presenting and interpreting data

The numerical and narrative format of the data allowed the researcher to discuss themes, categories and sub-categories in detail to convey the findings. During the report writing, the researcher used the themes, categories and sub-categories to structure the report. The report was compiled to convey the richness of the data and the researcher's deep understanding of the phenomenon under study. A co-coder went through the above-mentioned process of data analysis independently from the researcher.

The researcher and co-coder reached consensus through discussion and reiteration. Six themes emerged from the initial data analysis. Ultimately, only three of the themes that are aligned to the EDM model were used to discuss the study findings.

3.3 REDUCTION AND RECONSTRUCTION OF DATA ANALYSED AND DISPLAYED

The researcher converted raw, textual data into more manageable and user-friendly, concise data tables, as seen in Tables 3.2 to 3.10. Watkins (2017:3) explains that data tables can be used to reduce and construct data into individual responses, and then collective responses, focusing on the research question. Ultimately, the categories, sub-categories and themes were reduced and reconstructed into a more manageable and user-friendly format, which the researcher used for discussion, presentations and compiling the research report (Watkins 2017:3).

The initial analysis of the data relating to the causes of babies being stillborn, prior to the reduction and reconstruction, resulted in six themes, 18 categories and 83 sub-categories, as displayed in Tables 3.2 to 3.7. Out of the six themes that emerged, namely, empowerment theme, reflection theme, personal knowledge theme, social norms theme, flexible environment theme and other factors theme, only three themes

that were aligned to the five sub-concepts of the EDM model were discussed and the other two were omitted as part of the data reduction process.

Table 3.2 indicates causes of stillbirths related to empowerment theme prior to reduction of the data.

Table 3.2: Empowerment theme: data prior to reduction of data

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Knowledge and information	Danger signs during pregnancy	**21**	7	2	**2**	**32**
	Routine pregnancy care	5	1	4	0	10
	Abdominal pains	6	3	0	0	9
	Health education and incorrect advice	0	0	6	1	7
	Dangers of substance abuse during pregnancy	3	2	0	0	5
	Antenatal care	3	1	0	2	6
	Incompetency of birth attendants	0	0	3	0	3
	Clinical procedures performed	2	0	1	0	3
	Dangers of premature bearing	2	0	0	0	2
	Different levels of care	2	0	0	0	2
	Importance of family planning	0	1	0	0	1
	Maternal medical conditions	10	10	1	10	31
	Asphyxia	10	7	0	5	22
	Unexplained intrauterine deaths	0	0	0	12	12
	Congenital abnormalities	2	1	1	1	5
	Delayed care	0	0	2	0	2

	Procedure related	1	1	0	0	2
	Shock and asthmatic attack	1	0	0	0	1
	Strenuous work situation	1	0	0	0	1
	Substance abuse	1	0	0	0	1
	Hypothermia	0	0	1	0	1

The empowerment theme was included for discussion after the data reduction process.

Table 3.3 indicates causes of stillbirths related to personal knowledge theme prior to reduction of the data.

Table 3.3: Data on stillbirths related to the personal knowledge theme, prior to reduction of data.

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Ability to understand	Pregnancy-related issues	0	0	2	0	2
	Ignorance	0	0	2	0	2
	Abdominal pains	1	0	0	0	1
Self-awareness and self-feeling	Inexperienced health professionals	0	0	4	0	4
	First pregnancy	4	0	0	0	4
	Incompetency of birth attendants	1	1	0	0	2
	Signs of labour	2	0	0	0	2
	Dangers of premature bearing down	0	1	0	0	1
	Danger signs during pregnancy	7	0	0	0	7
	Signs of hypertension during pregnancy	4	1	0	0	5
	Signs of labour	3	0	0	0	3
	Signs of labour pain	5	1	1	0	7
	Confused	2	0	0	0	2
	Aware of hereditary illnesses	0	0	2	0	2
	Signs of pregnancy	1	0	0	0	1

The personal knowledge theme was not included for discussion after the data reduction process.

Table 3.4 indicates reflection theme, categories and sub-categories after initial analysis of the data, prior to its reduction and reconstruction.

Table 3.4: Data on stillbirths related to the reflection theme prior to reduction of the data

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Engage in dialogue	Failure to ask for clarity	7	0	0	0	7
	Failure to ask for reasons	3	0	0	0	3
Question practices based on tradition of authority	Failure to act	2	1	2	0	5
	Failure to ask for clarity	2	0	0	0	2
	Failure to ask for the reasons	1	0	0	0	1

Reflection theme theme was not included for discussion after the data reduction process.

Table 3.5 displays data related to the social norms theme with categories and sub-categories, before reduction of the data.

Table 3.5: Data on stillbirths related to the social norms theme prior to reduction of the data

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Socially acceptable norms	Traditional practices and beliefs	20	31	5	0	56
	Traditional role players	15	4	3	0	22
	Religious practices and beliefs	4	2	1	0	7
Social context and power	Abuse by males or partners	24	18	0	0	42
	Traditional role players	3	4	0	0	7
	Teenage pregnancies	0	2	2	0	4
	Dependency	2	2	0	0	4
	Traditional practices and beliefs	0	0	2	0	2
	Healthcare professionals	1	0	0	0	1
	Traditional restrictions and prescriptions	0	9	1	0	10
Prescriptive and professional norms	Traditional role players	1	6	1	0	8
	Traditional practices and beliefs	2	0	0	0	2
	Healthcare professionals	1	0	0	0	1
Non-compliance to prescriptive and professional norms	Healthcare professional standards	0	4	5	0	9
	Traditional practices and beliefs	1	0	0	0	1
	Triage system	1	0	0	0	1
Socio-economic factors	Employment and financial support	4	5	0	0	9
	Distance	2	4	0	0	4
	Strenuous working conditions	3	0	0	0	3

Social norms theme was included in the discussion after the data reduction process.

Table 3.6 indicates the flexible environment theme with categories and sub-categories prior to the data reduction process.

Table 3.6: Data on stillbirths related to the flexible environment theme prior to data reduction

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Policies and guidelines	Not sufficient access to healthcare	1	0	3	0	4
Environment	Lack of EMS and transport-Poor response time	6	1	4	0	11
	Inaccessibility of healthcare	2	6	2	0	10
Health facilities operating times and days	Inaccessibility of healthcare	10	3	1	0	14
Attitude and behaviour	Poor communication and information sharing	3	5	7	0	15
	Lack of attendance	9	0	0	0	9
	Blaming accusations	7	0	0	0	7
	Relationship poor	0	0	2	0	2
Quality of health services	Failure to notice	13	1	0	4	18
	Failure to interpret	15	15	12	5	47
	Failure to act or manage	11	12	3	1	27

Acceptable and accessible health services and resources	Lack of EMS and transport	10	5	6	0	21
	Unskilled healthcare professionals	1	2	8	1	12
	Equipment	0	0	2	1	3
	Medicine	1	1	0	0	2
	Rural health services	2	0	0	0	2

The theme, flexible environment, was included in the discussion after the data reduction process.

Table 3.7 indicates data on the theme, other factors, with categories and sub-categories, prior to the data reduction process.

Table 3.7: Data on stillbirths related to the theme of other factors, prior to data reduction

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Social factors	Strenuous exercises	2	3	0	0	5
	Stress	2	1	0	0	3
	Unwanted pregnancy	1	2	0	0	3
	Congenital abnormalities	1	0	0	0	1
	No support from the mothers' mothers	0	1	0	0	1
	Substance abuse	0	0	0	1	1
Natural disaster	Shock	4	1	0	0	5

The theme of other factors was excluded from the discussion after the data reduction process.

Tables 3.8 to 3.10 indicate three themes that were used to present the findings after data reduction. Table 3.8 displays the empowerment theme, categories and sub-categories after data reduction.

Table 3.8: Empowerment theme, categories and sub-categories after data reduction

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Knowledge and information	Lack of knowledge related to danger signs during pregnancy: • Premature ruptured membranes • Antepartum bleeding • Footling presentation • Post maturity • Reduced foetal movement	21	7	2	2	32
	Lack of knowledge related to routine pregnancy care	5	1	4	0	10
	Lack of knowledge related to maternal medical conditions • Hypertension • Infection • Kidney failure • Anaemia • Cervical incompetency	10	10	1	10	31
	Lack of knowledge related to asphyxia • Related to cord around the neck • Due to aspiration	10	7	0	5	22
	Unexplained intrauterine deaths	0	0	0	12	12

Table 3.9 displays the social norms theme, categories and sub-categories after data reduction.

Table 3.9: Social norms theme after data reduction

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Socially acceptable norms	Traditional beliefs and practices: Socially acceptable norms: • Traditional healers • Traditional medicines • Witchcraft Traditional prescriptive social and professional norms: • Use of traditional healers • Use of traditional medicines • Witchcraft Noncompliance to prescriptive social and professional norms: • Traditional healers • Traditional medicines • Witchcraft	23	31	7	0	61
	Traditional role players • Elders • Ancestors • Home birth attendants • In-laws • Neighbours	19	14	4	0	37
Social context and power	Abuse by male partners	24	18	0	0	42
Prescriptive social and professional norms	Traditional restrictions and prescriptions Dietary restrictions Prescriptive clothing Family planning restrictions	0	9	1	0	10

Table 3.10 displays the flexible environment theme, categories and sub-categories after data reduction.

Table 3.10: Flexible environment theme, categories and sub-categories after data reduction

CATEGORIES	SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
		MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Environment	**Lack of EMS and transport** 1. Response time • EMS delay • Response time long - long waiting time • Call Centre not accessible 2. Shortage of EMS and public transport	16	6	10	0	32
	Inaccessible healthcare 1. Environment not responsive to health needs • Antenatal visits frequency. Antenatal care services not accessible • Public transport not accessible • EMS not accessible. Municipal infrastructure challenges • Inaccessibility of caesarean section services 2. Health facilities operating times and days • Unattended due to specific days of operation • Unattended due to specific hours of operation • Clinics hours of operations • Barrier to access health care 3. Inflexible policies and guidelines • Referral policy	13	9	6	0	13

	• Implementation of designated sites for caesarean section					
Attitude and behaviour	Poor communication and information sharing • Barrier to health information • Poor communication (shouting) • Ill-disciplined personnel	3	5	7	0	15
Quality of health services	Failure to notice • Reduced foetal movement • Pregnancy early • Congenital abnormalities during pregnancy • Premature labour • Poor uterine fundal growth • Foetal distress • Placenta abruptio	13	1	0	4	18
	Failure to interpret, which translated into wrong decisions or management, such as the following: • Mothers not attended to during childbirth • Delay in taking clinical decision • Failure to refer to the high-risk clinic • Vital signs not taken in line with the protocols • Delay in referring to the next level of care • Intrapartum foetal monitoring not done • No response to history of reduced foetal movement • EMS delays • Failure to refer to the next level of care • Failure to admit mother who was in labour • Incorrect triaging • Long waiting time • Noncompliance to clinical protocols	15	15	12	5	47
	Failure to manage or act, which translated into mismanagement	11	12	3	1	27

	• Mismanagement of chronic illnesses during pregnancy • Mismanagement of antepartum bleeding • Mismanagement of post maturity • Mismanagement of foetal distress • Mismanagement of early ruptured membranes • Mismanagement of prolonged labour • Mother with big baby mismanaged					
Acceptable and accessible health services and resources	Unskilled healthcare professionals	1	2	8	1	12

3.3.1 Display of reduced and reconstructed data on possible causes of stillbirth

Tables 3.8 to 3.10 indicate the structure of data analysed, reduced and reconstructed into a manageable size: themes, categories and sub-categories from different sources of data are displayed.

3.3.2 Data reduced, reconstructed and displayed to interpret findings, commonalities and disparities on prevention of stillbirths

The initial analysis of the data, prior to the reduction, relating to the prevention of stillborn babies is displayed in Addendum 20. The reduced data was structured further and displayed to ensure easy interpretation of findings and identification of commonalities and disparities amongst participants on prevention of stillbirths. Tables 3.11 to 3.13 indicate data in sub-categories after being reduced, reconstructed and displayed.

Table 3.11 indicates reduced data on preventive measures related to lack of empowerment that could have reduced stillbirths.

Table 3.11: Reduced data on actions that could have been taken to reduce stillbirths related to lack of empowerment

SUB-CATEGORIES	PARTICIPANTS			
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL PARTICIPANTS
People-centred care and health dialogue	7	10	2	19
Capacitate healthcare personnel	3	4	13	20

Table 3.12 displays reduced data related to social norms on actions that could have been taken to reduce stillbirths.

Table 3.12: Reduced data on actions related to social norms that could have been taken to reduce stillbirths

SUB-CATEGORIES	PARTICIPANTS			
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL PARTICIPANTS
Traditional role players: • Traditional home birth attendants • Elders • Ancestors • Religious role players • Stepmothers	4	7	0	11
Traditional belief and practices: • Traditional medicine • Wrapping waists • Performing rituals • Traditional healers and clinics • Traditional healers • Comply with prescribed treatment • Attend clinics • Not to attend social gatherings • Use traditional birth control	0	15	0	15

Table 3.13 shows reduced data related to inflexible environment on preventive measures that could have been taken to reduce stillbirths.

Table 3.13: Reduced data on preventive measures that could have been taken to reduce stillbirths related to inflexible environment

SUB-CATEGORIES	PARTICIPANTS			
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL PARTICIPANTS
Improve access to healthcare facilities	8	4	0	12
Discipline undisciplined healthcare personnel	3	3	4	10
Health professionals to notice, interpret and act Notice: • foetal distress • high-risk mothers • genetic abnormalities early on • prolonged labour Interpret: Abnormalities, and refer according to protocol Manage: • chronic illnesses • foetal distress • patients in line with protocols • second stage of labour during emergency	13	2	1	16
Provide resources to address gaps identified: • Skilled clinical personnel • EMS transport • Equipment	5	4	9	18
Improve access to the healthcare facilities	8	4	0	12

3.4 CHAPTER SUMMARY

This chapter presented the findings, after data analysis, including categories, sub-categories and themes that had emerged during analysis. The data was reduced further and reconstructed into a manageable size, to enable the researcher to present

and discuss the findings. The themes that are displayed and presented after reduction of the initial data, are the themes of empowerment, social norms and flexible environment. After reduction of data, categories and sub-categories were also displayed and presented in line with their respective themes.

3.5 CONCLUSION

The next chapter will discuss findings per sub-category under the empowerment theme in relation to causes of and what could be done to prevent stillbirths, as mentioned by mothers, significant others and midwives, and reported in the records. Commonalities and disparities identified between participants will also be presented and discussed. Recommendations for addressing the occurrence of stillbirths will be outlined.

CHAPTER 4
EMPOWERMENT: LITERATURE REVIEW AND DISCUSSION

In this chapter, findings per sub-category will be interpreted and discussed. Sub-categories will be displayed under the empowerment theme in relation to causes of stillbirths as given by different participants (mothers, significant others, midwives) and as noted in the records. Participants' opinions and recommendations in response to a question about what could have been done to prevent the stillbirths, will be interpreted and discussed.

Commonalities and disparities between information provided by participants and that contained in the literature that were identified, will also be interpreted and discussed. Due to the large number of responses given by participants, only those causes of babies being stillborn that were mentioned at least 10 times were included in the text; however, all the responses may be viewed in Chapter 3.

4.1 EMPOWERMENT

Empowerment is defined as the expansion of an individuals' ability and freedom to make life choices. It is also a process that occurs over time, and which considers mothers to be agents who have the ability to formulate choices, control resources, and take health-related decisions that affect important life outcomes (D'Souza, Karkada, Somayaji et al. 2013:online).

The Wittmann-Price EDM model's empowerment principle defines empowerment of mothers as a system of beliefs that assists mothers to access healthcare information and knowledge that is available, and which will assist them to make health decisions and attain positive health outcomes in an independent manner (Luszczynska, Durawa, Scholz et al. 2012:163). D'Souza et al. (2013:online) state that gender influences and other societal perceptions characterised by male domination exclude mothers from health decision-making. Furthermore, these authors support the notion that knowledge is one of the key factors that enables pregnant mothers to be aware of their rights and

health status, so that they seek appropriate health services timeously. It is evident from the data of this study that some mothers made healthcare choices that had detrimental healthcare outcomes, because they lacked adequate information and knowledge that could have assisted them to take correct, informed healthcare decisions. Thus, some participants in this study were oppressed by a lack of knowledge and information about maternal medical conditions that can occur during pregnancies, asphyxia, danger signs during pregnancy, foetal movement monitoring, unexplained intrauterine death and routine pregnancy care that is available. The following comment by one of the mothers who had experienced stillbirth (a participant) is an indication that the mother lacked knowledge and information, which ultimately resulted in the stillbirth.

> *Sometimes I would feel him playing, but most of the time he would be quiet, but I was not bothered, because I did not know anything.*

Table 4.1 indicates the commonalities and disparities amongst participants with regard to causes of stillbirths per sub-category under the empowerment theme. Sub-categories are in descending order according to the total number of responses.

Table 4.1: Empowerment theme: sub-categories

EMPOWERMENT THEME SUB-CATEGORIES	PARTICIPANTS				TOTAL PARTICIPANTS
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Danger signs during pregnancy	21	7	2	2	32
Maternal medical condition	10	10	1	10	31
Asphyxia	10	7	0	5	22
Unexplained intrauterine death	0	0	0	12	12
Routine pregnancy care	5	1	4	0	10
TOTAL					**112**

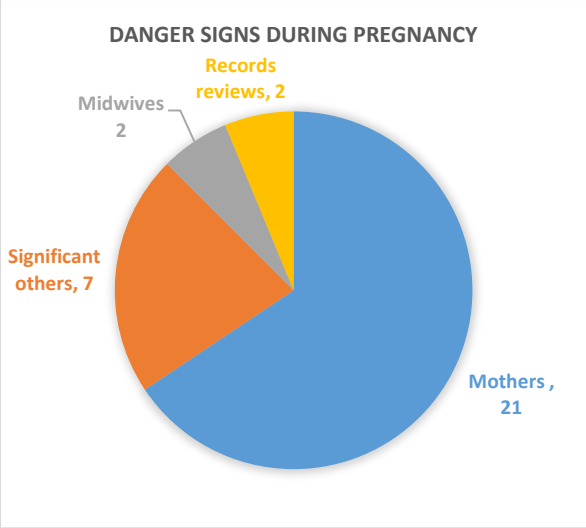
The literature review and discussion of findings follow the sequence in Table 4.1.

4.2 DANGER SIGNS DURING PREGNANCY

Failing to recognise and/or a lack of information and knowledge about danger signs during pregnancy is the sub-category that elicited the most responses, namely, 32. Sianchapa (2013:43) defines danger signs in pregnancy as signs or symptoms that pregnant mothers see or feel that indicate that something is wrong with them or with the pregnancy. Awareness of the danger signs of obstetric complications is the essential first step that must be taken to ensure appropriate and timely referral to relevant obstetric and new-born care facilities (Bogale & Markos 2015:1-9).

Danger signs and symptoms mentioned by participants during data collection were post maturity, prematurely ruptured membranes, reduced foetal movement, antepartum bleeding, footling presentation, and premature labour. The proportions of these responses and statements by participants are indicated in Figure 4.1.

On all figures, the font colours of the responses correspond with the colours indicated for each participant category in the pie chart. Mothers are indicated by M, significant others by S, registered midwives by RM, and R indicates information obtained from the record review.



I am sure it started when I was not feeling well and my unborn baby was not playing as he used to... I did not go to the clinic because my comeback date was still far and I did not think that there was something wrong with the baby. (M)

Such mothers remain uninformed and they also lack knowledge that must assist them to respond to danger signs during pregnancy. (RM)

She did not even respond to all the abnormalities she felt. (S)

When I was pregnant I used to have repeated lower abdominal pains... I was more than nine months pregnant [post maturity]. (M)

Pregnant mothers are not informed about danger signs in pregnancy. (S)

Lack of knowledge. (S)

I was more than seven months pregnant when I had ruptured membranes... I did not know what was happening and I ignored it, and went to sleep because I did not even experience any pains. (M)

Lack of knowledge and information with regard to importance of responding to danger signs during pregnancy was the cause. (S)

They lack important pregnancy-related knowledge and information that will assist them to identify any abnormalities so that they can report early at the health facilities. (RM)

One day, when I was sitting at home, the baby's feet came out... I did not experience any pains by that time, but I immediately went to the hospital again. (M)

Truly speaking, I did not have time to do the monitoring regularly as it was supposed to be done, daily for 15 minutes. (M)

Lack of knowledge and information with regard to importance of responding to reduced or absence of baby's movements during pregnancy. (S)

Inappropriate response to foetal movement. (R)

The other issue was that, when I was pregnant with that baby, she did not play actively like the first baby, but I thought that she was lazy as a result I did not realise, even when she was not alive anymore. (M)

Lack of knowledge and information related to importance of responding to reduced foetal movements. (S)

Figure 4.1: Danger signs mentioned by participants

The statements by mothers, significant others and midwives, and the record review, confirm that inappropriate responses to danger signs during pregnancy may contribute to stillbirth, as indicated by Figure 4.1.

According to Aborigo, Moyer, Gupta et al. (2014:81), obstetric danger signs during pregnancy include vaginal bleeding, vomiting, headaches, dizziness, oedema of the legs, abdominal pains, waist pains, fever, prolonged labour, and reduced or absence of foetal movement, the pregnant mother looking pale, broken water and breathing difficulties.

Several authors report that one in every four mothers could not list any of the five basic danger signs (Aborigo et al. 2014:81; Bogale & Markos 2015:1-9; Mbalinda, Nakimuli, Kakaire et al. 2014:1-7). However, mothers who had experienced birth complications in prior pregnancies were more likely to be aware of obstetric danger signs than primigravida (Aborigo et al. 2014:81; Bogale & Markos 2015:1-9; Mbalinda et al. 2014:1-7). Mothers and significant others agreed that the causes of stillbirth were mostly related to the mothers' failure to respond timeously to danger signs during pregnancy. Both groups of participants, furthermore, confirmed that mothers did not receive health education at antenatal care clinics about danger signs that they needed to be aware of, including the actions that they were expected to take when they experience danger signs during pregnancy.

In this research, only two statements, one by a midwife and one from the record review, confirmed that mothers who experienced stillbirths did not have information and knowledge about issues related to pregnancy and, as a result, they delayed seeking medical assistance. From the findings it is evident that, even though health education with regard to pregnancy issues, including danger signs during pregnancy, is done, it may not always be adequate. The process that midwives use to share or agree on information with a pregnant mother should be investigated further, as it does not provide pregnant mothers with the relevant information they need to refer to when making health decisions.

The results indicate that some mothers failed to respond to danger signs during pregnancy because of previous experience. Because pregnant mothers associated labour pains with ruptured membranes, they put off seeking medical assistance,

because they were waiting for membranes to rupture. Furthermore, some mothers indicated that they interpreted reduced foetal movements as their babies being lazy. Peat, Stacey, Cronin et al. (2012:445-446) define maternal foetal movement as a commonly used and simple means of assessing foetal well-being. Decreased foetal movement is an indicator of possible adverse perinatal outcomes (Gilchrist 2014:406; Olagbuji, Igbaruma, Akintayo et al. 2014:489).

In this study, failure to monitor foetal movement and to make an alternative interpretation of the reasons for reduced foetal movements lead to delays in help seeking, or inappropriate responses to reduced foetal movement. Peat et al. (2012:445-446) and Olagbuji et al. (2014:489) state that about a quarter of mothers presenting with reduced foetal movement have pregnancy complications, such as intrauterine growth restriction or preterm delivery, which increase the risk of stillbirth. Regular monitoring of foetal activity may assist with early identification of risk and may improve pregnancy outcomes.

Some mothers confirmed that, although they were told to monitor foetal movement, they had not realised that it was important to do so. Based on the results of this study, the quality of health education given to pregnant mothers at the antenatal clinic is, therefore, questionable. Significant others did not link the inappropriate response to reduced foetal movements with the cause of stillbirths, while the mothers did.

Peat et al. (2012:445-447) found that pregnant mothers do not possess optimum knowledge and information about danger signs during pregnancy, because 90% of those surveyed in the third trimester could not recall receiving information about when to seek advice regarding their baby's movements, and 5% could not remember what they had been told about danger signs during pregnancy. Registered midwives contribute to the oppression of pregnant mothers, because Olagbuji et al. (2014:489) and Majrooh, Hasnain, Akram et al. (2014:online) discovered that only 9% of 171 selected healthcare facilities' pregnant mothers participating in their studies were required to record foetal movement, while history-taking was done for less than 50% of 171 selected facilities' pregnant mothers. As study by Maputle and Mothiba (2006:16), which was conducted in Limpopo on monitoring of reduced foetal

movement, revealed that 42% of 97 pregnant mothers indicated that they never received prenatal education during antenatal care visits.

This study's findings concur with findings by Maputle and Mothiba (2006:16) and Eldridge (2016:608), where it is evident that health education about pregnancy issues, including danger signs during pregnancy, is not done adequately at antenatal clinics. Consistent with the study by Maputle and Mothiba (2006:19), this study found that mothers and health professionals interpret reduced foetal movement differently, which means that babies, whom health professionals interpret as being in danger, are considered to be lazy or sleeping by pregnant mothers. Therefore, there is a need for health professionals to familiarise themselves with terms or terminology mothers will understand when they receive health education. The following statements by mothers confirm that misunderstandings with regard to the interpretation of reduced foetal movement and lazy or sleeping unborn babies may cause stillbirths.

> *The other issue was that when I was pregnant with that baby, she did not play actively like the first baby but I thought that she was lazy as a result I did not realise even when she was not alive anymore.*
>
> *My grandmother told me to continue drinking the medicine and she said that it might be the baby was asleep or she was lazy.*

According to Eldridge (2016:608) and Peat et al. (2012:445-449), inadequate responses by healthcare professionals to a history of reduced foetal movement, coupled with pregnant mothers' lack of knowledge and information, contributed to almost 25% of stillbirths. Between 25% and 43% of mothers who present with decreased foetal movement at health facilities experience stillbirth (Eldridge 2016:608; Peat et al. 2012:445-449).

This study found that, although some pregnant mothers arrived at a healthcare facility at a time when foetal heart rate could still be detected, not all the unborn babies survived, because health professionals failed to notice signs of foetal distress. The following comments were made by one of the mothers:

> *When my legs and stomach became very sore I could also feel that my unborn child was also not moving as he used to... I visited the clinic, that's*

where I usually went for check-ups... I then told them that I do not feel the baby moving well anymore... They checked me and said everything was fine, the heartbeat was there and everything was fine although I could still feel that my baby was not moving well.

I thought that they were going to send me to the hospital for further management or just to confirm with sonar... That was never done.

I went to the clinic as well as to the private doctor and told him that my baby was not playing as he used to... I also showed him that my feet and abdomen were swollen and painful, but I was told that everything is still okay.

I think nurses and doctors failed me because they decided about the operation earlier on but they did not perform it... Therefore, they delayed to protect my baby.

That some of the mothers still needed to be empowered is indicated by their reference to only seeking medical assistance after membrane rupture. Others indicated that they would seek medical assistance if membrane rupture was followed by abdominal pains. According to the findings, it is clear that mothers and significant others were not empowered, because many of them responded inappropriately to danger signs during pregnancy and labour.

Sirak and Mesfin (2014:165) confirm that premature rupture of membranes contribute to stillbirths and neonatal deaths; this resulted in a more causes of perinatal mortality rate of 107 per 1 000 live births than premature rupture of membranes. Aforementioned authors suggest that pregnant mothers should be well informed regarding maternal, foetal and neonatal complications relating to premature rupture of membranes, so that proper and timely management can be provided.

This study supports the findings of numerous authors who report that lack of maternal knowledge regarding danger signs is associated with negative birth outcomes due to a delay in seeking help (Bogale & Markos 2015:1-9; Hailu & Berhe 2014:7; Peat et al. 2012:445-449; Sianchapa 2013:43; Saaka, Aryee, Kuganab-lem et al. 2017:1-19; Wright, Biya & Chokwe 2014:online). Several other authors agree that pregnant

mothers lack knowledge and information about danger signs during pregnancy, which can lead to inappropriate health decision-making as a result of low general education or health-literacy levels. Therefore, there is a need for pregnant mothers to report for routine antenatal care, to empower them in relation to issues related to pregnancy and childbirth, including danger signs (Akililu-Solomon, Town, Amanta et al. 2015:269; Aziem, Ali, Duria et al. 2010:179; Bogale & Markos 2015:1-9; Hailu & Berhe 2014:1-7).

Contrary to the findings of this study, the results of a study conducted to determine the effectiveness of a pregnancy leaflet to promote health in South Africa, revealed that health personnel often take it for granted that educated pregnant mothers have the ability to read and understand health-promoting materials. However, the majority of educated mothers, and mothers who had not received formal education, found it difficult to communicate with health personnel, because of a lack of understanding of basic health terminology, or because of a low health-literacy level (Wright et al. 2014:online).

Another contrary finding is that of Chuwa, Mwanamsangu, Brown et al. (2017:online), who mention that non-cephalic presentation, such as breech presentation, footling and other conditions may cause stillbirth due to difficulty in delivery of a malpresented infant, leading to prolonged labour, foetal distress and death – death is, thus, not because of lack of knowledge about danger signs during pregnancy. The study findings of Singh, Gupta, Verma et al. (2017:1069) and Sugai, Gilmour, Ota et al. (2017:online) also contradict that of this study. These authors revealed that prolonged pregnancy, post maturity and prematurity have always been regarded as high-risk conditions, as they are associated with increased likelihood of stillbirths.

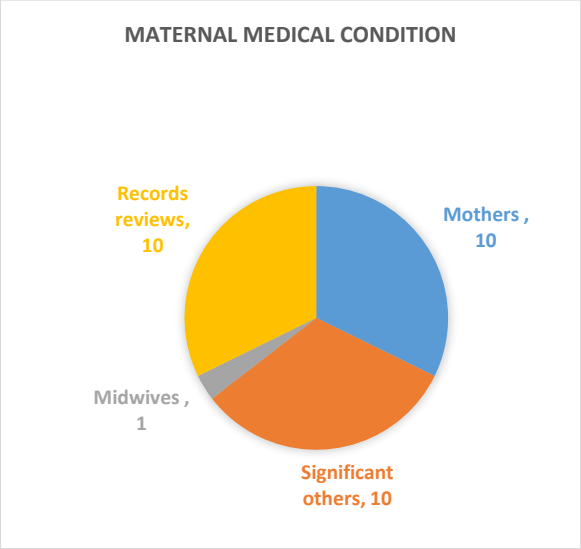
4.3 MATERNAL MEDICAL CONDITIONS

Maternal medical conditions is the sub-category that elicited the second-most responses, namely, 31. Mothers and significant others, as well as the PPIP records, all indicated that maternal medical conditions contributed to the deaths of unborn babies. Although the information about the causes of stillbirths on the PPIP records were captured by midwives at their respective hospitals, only one statement about

maternal medical conditions was captured during the focus group interviews, as indicated in Table 4.1 and Figure 4.2.

Maternal conditions mentioned by participants as causing stillbirths were hypertension, infection, kidney failure, obstetric cervical incompetency and anaemia. Although mothers in this study indicated that they were told by midwives that the cause of the deaths of their babies was mainly hypertension, midwives did not mention that hypertension in pregnancy is the main cause of stillbirth – midwives only mentioned infection, which was mostly related to early ruptured membranes and other infections.

Figure 4.2 indicates the frequency of statements by participants in relation to the sub-category maternal health conditions. Mothers, significant others and the record review confirmed that hypertension contributed to stillbirths. Mothers and significant others indicated that the causes of stillbirths were mostly related to HIV and Aids infection and, to a lesser extent, other infections. Significant others, midwives and the record review confirm that some stillbirths were related to other maternal medical conditions, such as antepartum bleeding (danger signs), kidney failure and obstetric cervical incompetence.



I think that the baby died because of hypertension. (M)

Hypertension. (R)

I think her baby died because of the high blood pressure. (S)

They told me that my baby died because of repeated infections that I had. (M)

She had repeated infections because of her HIV positive status. (S)

The other thing that might have contributed to the occurrence of unexplained stillborn babies is the infections, possibly related to early ruptured membranes or other infections. (RM)

She had vaginal bleeding and complained that she does not feel her baby's movement... The main problem was vaginal bleeding. (S)

Other stillborn babies are caused by the antepartum bleeding. (RM)

Placenta abruption. (R)

We were told that she had a kidney failure then she was transferred to Kroonstad for further management. (S)

Cervical incompetence. (R)

Figure 4.2: Maternal medical condition sub-category

The findings of this study confirm what several other authors had found, namely, that maternal diseases, such as hypertension, trauma, infection and diabetes, cause stillbirth (Baqui et al. 2011:1471, Goldenberg, Saleem, Pasha et al. 2016:135; Sama, Feteh, Tindong et al. 2017:online). According to Baqui et al. (2011:1471-1482), hypertensive disorders contribute to 11% of stillbirths in Bangladesh. Their findings are supported by Engmann, Garces, Jehan et al. (2012:585-589), who state that most stillbirths are caused by hypertension. A study on incidence of stillbirths conducted at the Jos University Teaching Hospital in Nigeria indicates that the majority of stillbirths that were reported, were caused by abruptio placentae (17.7%), followed by hypertensive disorders of pregnancy (12.7%) and maternal HIV infection (10.7%) (Mutihir & Eka 2011:11).

A study by Ntuli and Malangu (2012:144) reveals that, out of a total number of births of 5 597 during the study period, the stillbirth rate was 38.4 per 1 000 births, with 71% being macerated, and of these, 50% were unexplained intrauterine deaths, 18% were due to maternal hypertensive disease, and 14% resulted from placenta abruptio. Furthermore Ntuli and Malangu (2012:144) found that, among the fresh stillbirths group, 20 (32%) were due to maternal hypertensive disease and 15 (24%) placenta abruptio. Allanson, Muller and Pattison (2015:3-7) found that, in a study of 23 503 births, unexplained intrauterine deaths and hypertensive disorder were the most common obstetric causes of perinatal death. According to *Saving Babies 2012 to 2013 Ninth report on perinatal care in South Africa* (Pattinson & Rhoda 2014:11), the top three causes of perinatal deaths in the higher levels of care are complications of hypertension, antepartum haemorrhage and spontaneous preterm labour.

Prenatal and intrapartum infections also contribute to stillbirths (Baqui et al. 2011:1471; Engmann et al. 2012:585-589; Goldenberg et al. 2016:135). A study conducted in Ghana reveals that the most common causes of antepartum stillbirths were infections, such as syphilis and HIV. In Bangladesh, 11% of stillbirths are caused by maternal infections (Baqui et al. 2011:1471). Mother-to-child transmission of HIV is

still regarded as a major public health challenge, and it is important that mothers possess knowledge of HIV transmission during pregnancy, and know how to prevent it (Sama et al. 2017:online). Engmann et al. (2012:585) also support the idea that major causes of stillbirths are infection; they found that infection accounted for 37% of reported stillbirths.

Kidney disease is a growing healthcare problem during pregnancy, as it develops into eclampsia, which leads to poor maternal and foetal outcomes. Consistent with this study, Prasad, Gupta, Bhadauria et al. (2015:194) demonstrated that cases of pregnant mothers with severe kidney failure are related to foetal loss or stillbirth. According to Tsai, Lin, Chong et al. (2009:666), cervical incompetence or insufficiency of the uterine cervix to retain pregnancy until term contributes to loss of pregnancy or to stillbirth, and such mothers may have an increased risk of a similar event in subsequent pregnancies.

Consistent with this study's findings, Chuwa et al. (2017:online) state that maternal antepartum haemorrhage (danger signs) and concealed abruptio placentae are among the maternal medical conditions that contribute to stillbirth. Rajeshwari and Poornima (2015:13764) and Saini, Mukhmohit and Mittal (2016:1719) describe a statistically significant association between the anaemic status of the mother and occurrence of stillbirth. Furthermore, abovementioned authors highlight that an improvement in the haemoglobin level improves the pregnancy outcome.

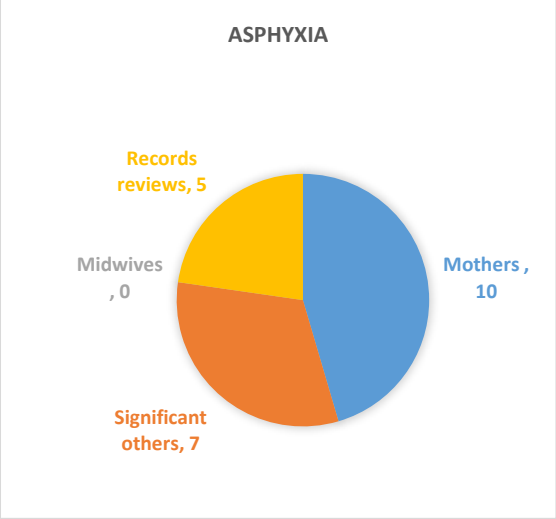
4.4 ASPHYXIA

Spector and Daga (2008:315) define birth asphyxia as the failure to establish breathing. Asphyxia relates to factors that contribute to the failure of unborn babies to breathe, which were described by participants as cord around the neck or meconium aspiration. Globally, asphyxia accounts for an estimated 900 000 deaths each year, and it is one of the primary causes of perinatal death (Spector & Daga 2008:315).

This study showed that information obtained from mothers, significant others and the record review agreed that the majority of stillbirths that were reported were caused by dangers signs, followed by medical conditions and asphyxia due to cord presentation, cord around the neck or meconium aspiration during the intrapartum period. Mothers

and significant others confirmed that they were informed what had contributed to stillbirths by health professionals after the incident.

Information about the cause of stillbirth recorded in the PPIP records was captured by midwives at their respective hospitals, and cord around the neck or asphyxia as the causes of stillbirth were captured as indicated in Figure 4.3.



When I arrived I was told that my unborn baby passed on because she had a cord around her neck. (M)

I also suspect that my baby aspirated meconium during birth because there was no one to assist me and my baby, I mean even to attempt to suction the baby. (M)

Aspiration. (S)

Intrapartum asphyxia. (R)

Cord around the neck. (R)

The following day we were informed that the baby passed on and the cause of the death was the umbilical cord that was around the neck. (S)

Figure 4.3: Asphyxia sub-category

According to Tabassum, Rizvi, Ariff et al. (2014:1430-1433), some of the factors that contribute to stillbirth associated with birth asphyxia are cord around the baby's neck or presentation, premature delivery, large baby size, prolonged or difficult labour and breech delivery. Ronsmans, Chowdhury, Koblinsky et al. (2008:269) acknowledge that health professionals still have gaps in their knowledge with regard to healthcare delivery during the intrapartum period, particularly regarding the prevention and management of birth asphyxia. They recommend that the presence of skilled healthcare professionals at birth is a critical approach that should be followed.

Contrary to this study, various authors (Kasturi, Marathe & Manjunath 2014:105; Mahendra, Pushpalata, Vijayalakshmi et al. 2015:176; Sangwan, Siwach, Mahendroo et al. 2014:507) claim that nuchal cord does not contribute to stillbirth, as they found no significant difference between babies with and without a nuchal cord regarding several criteria: the Apgar score at one and five minutes, neonatal intensive care unit

admissions, and neonatal morbidity. Neither Sangwa (2014:507) nor Kasturi et al. (2014:105) recommend routine ultrasonic nuchal cord detection.

4.5 UNEXPLAINED INTRAUTERINE DEATH

Wood, Chen, Ross et al. (2008:726) and Tavares, Da Silvaa, Gonik, McMillan et al. (2016:6058) define unexplained intrauterine death as stillbirth lacking an accepted method or identifiable cause for determining the precise cause of death. Unexplained intrauterine death is classified as fresh, unexplained intrauterine death and macerated, unexplained intrauterine death, as outlined in the PPIP records.

The research findings reveal that mothers, significant others and midwives were able to explain the cause of death for each stillbirth, contrary to the information contained in the records, which classified the majority of stillbirths as from unexplained causes. The findings showed that the majority of the midwives could not establish the cause of stillbirths when they completed the PPIP record. Smith, Shah, White et al. (2017:194) and Lamont, Scott, Jones et al. (2015:10) mention that stillbirths of which the causes are unexplained continue to make a considerable contribution to perinatal mortality rates. Mothers who experienced stillbirth in the initial stages of their pregnancy have a higher risk of unexplained stillbirth in subsequent pregnancies, despite interventions, such as cessation of smoking during pregnancy and increasing inter-pregnancy intervals.

A study conducted in the United Kingdom on previous caesarean delivery and the risk of unexplained stillbirth found that mothers who had had a previous caesarean delivery were at increased risk of experiencing an unexplained stillbirth in their next pregnancy. However, further research is recommended to improve understanding of the mechanisms that might link previous caesarean delivery and the risk of stillbirth (Moraitis, Oliver-Williams, Wood et al. 2015:1467).

The rate of unexplained stillbirth varies between 27% and 75% (Kapurubandara, Melov, Shalou et al. 2017:online; Sutan, Campbell, Prescott et al. 2010:311). Sutan et al. (2010:311) hypothesise that stillbirths are classified as unexplained because of incompetence and lack of understanding by some healthcare providers. The number of unexplained stillbirths can be reduced if health professionals are competent, skilled

and experienced in maternal history-taking. Causes of unexplained stillbirth may be identified by accurate foetal autopsy and placental examination (Bonetti, Ferrai, Trani et al. 2011:231; Hirst, Ha & Jeffery 2012:62).

Scotland's Perinatal and Infant Mortality and Morbidity Report of 2004 indicates that 72.6% of stillbirths were classified as unexplained due to an incomplete understanding of the physiology of the foetal placental unit, inadequate diagnostic evaluation of placental histology and foetal autopsy, and poor reporting of associated risk factors by health professionals (Sutan et al. 2010:311). The literature review on possible causes of unexplained stillbirths is very limited, as the only information available from literature relates to possible risk factors associated with causes of unexplained stillbirths. Therefore, further research is suggested to establish the real causes of and reason for the high number of reported but unexplained stillbirths.

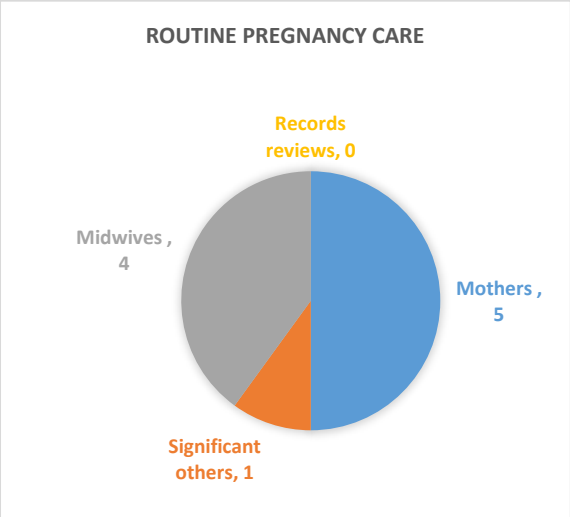
4.6 ROUTINE PREGNANCY CARE

The purposes of routine antenatal or pregnancy care are, among others, (a) prevention and treatment of any complications, (b) emergency preparedness, (c) satisfying any unmet healthcare needs, (d) encouraging (male) partner involvement in antenatal care, (e) meeting the social, emotional and physical needs of the pregnant mother, and (f) providing patient education (Kisuule, Kaye, Najjuka et al. 2013:1–7). According to the Guidelines for Maternity Care in South Africa (Department of Health 2007:19), the objectives of providing routine antenatal care are to achieve the best possible pregnancy outcomes for pregnant mothers and their babies through providing healthcare services such as screening for pregnancy problems, assessment of pregnancy risk, treating problems that may arise during the antenatal period, giving medications that may improve pregnancy outcomes, providing information to pregnant mothers, and physical and psychological preparation for childbirth and parenthood.

During antenatal care routine visits, according to the National Collaborating Centre for Mothers' and Children's Health (2008:12), pregnant mothers should be offered information based on the currently available evidence, together with support to enable them to make informed decisions about their care. During antenatal care visits, the information should be given in a form that is easy to understand by individual pregnant

mothers, and it should include explanations about the purpose and benefits of any test or procedure to be performed (National Collaborating Centre for Mothers' and Children's Health 2008:12-14). The healthcare professional should ensure that the mother has understood this information and has sufficient time to make an informed decision (National Collaborating Centre for Mothers' and Children's Health 2008:12-14). Detailed essential information on topics such as danger signs and symptoms of pregnancy, self-care in pregnancy, individual mothers' birth plans, newborn and infant care, and future pregnancies and contraception is provided to all pregnant mothers, verbally and in the form of written or illustrated cards or pamphlets (Department of Health 2007:26-27).

Figure 4.4 reports statements by the mothers and midwives involved in this study, which confirm that lack of knowledge and information with regard to routine pregnancy care may have contributed to the stillbirths they experienced.



Most of the mothers when they are admitted at the hospitals they lack important information and knowledge related to pregnancy. (RM)

The whole community must get educated on how pregnant mothers need to be handled or handle themselves otherwise nurses alone will not be able to address the challenges of unexplained stillborn babies occurring in our health facilities. (RM)

With my first pregnancy nurses at the clinic did not tell me what to expect or even what to report. (M)

I meant that she did not have any knowledge of what to expect during labour. (S)

When pregnant mothers are not informed or not knowledgeable about issues related to pregnancy care. They also not adhere to the treatment because they don't know the reason. (RM)

Figure 4.4: Routine pregnancy care sub-category

The results reveal that mothers and midwives confirmed that the majority of the reported stillbirths may be related to lack of knowledge and information about routine pregnancy care, as reflected in Figure 4.4. The findings also show that the record

review did not link the cause of stillbirths with lack of knowledge and information about routine pregnancy care, because the way it is currently designed means it does not capture all the issues raised by participants.

Furthermore, pregnant mothers still experience challenges related to accessing information about their pregnancies, irrespective of whether they attended antenatal clinics or not. Even those who were admitted to hospital prior to the baby's birth did not receive health information about pregnancy care. Some of the comments by mothers confirmed that they were deprived of information and knowledge with regard to routine pregnancy care.

> *Later on I was discharged back home, without giving me any information of what to do with the pregnancy moving forward.*
>
> *With my first pregnancy, nurses at the clinic did not tell me what to expect or even what to report.*

Mothers and midwives had different opinions about the pregnant mothers who were most affected by lack of knowledge and information about routine pregnancy care. According to the mothers, those affected most were mothers who were pregnant for the first time (primigravida), while midwives indicated that pregnant mothers who resided in rural areas, on farms, lacked knowledge and information. Other comments by mothers and midwives confirmed that lack of knowledge and information on routine pregnancy care contributed to stillbirths.

> *It was my first pregnancy therefore I did not have knowledge with regard to pregnancy-related issues. (M)*
>
> *Most of pregnant teenagers and pregnant mothers who reside in the farms lack knowledge and information related to pregnancy. (RM)*

If the causes of stillbirths are to be addressed, healthcare professionals have to engage in health dialogue with pregnant mothers and their significant others in an effort to distribute accurate information regarding the care of pregnant mothers.

Findings of this study support that of Elavarasan, Padhyegurjar, Padhyegurjar et al. (2016:59), who found that knowledge and awareness among beneficiaries of maternal

healthcare, such as antenatal care, were inadequate, particularly in relation to routine antenatal care, danger signs of pregnancy, and preparation for emergency labour. Participants in the study by Elavarasan et al. were pregnant mothers who had attended antenatal clinics, and the majority of them were educated up to secondary-school level.

Contrary to this study's findings, Haddrill, Jones, Mitchell et al. (2014:online) report that some mothers in their study were unwilling to accept the fact that they were pregnant, and they, therefore, refused or ignored routine pregnancy care, as an avoidance coping strategy. Haddrill et al. (2014:online) explain that access to routine antenatal care was influenced by mothers' willingness to embrace their pregnancies, particularly young mothers, whose attitudes were influenced by social aspects of pregnancy, such as fear of disapproval and rejection by community members. Pregnancy becomes public property once disclosed, and as a result teenage mothers indicated that they were afraid of being judged or stigmatised by community members (Haddrill et al. 2014:online).

Mesfin and Farrow (2017:online) report on a study conducted in Ethiopia, in which the main reasons for non-attendance of routine pregnancy care clinics were related to lack of knowledge about the need for attendance, lack of time, and the fact that pregnancies were unplanned. Other pregnant mothers view routine antenatal care as a service for those who are ill or have dangerous health problems during pregnancy and, therefore, unnecessary for healthy pregnant mothers (Hagey & Rulisa 2014:97; Hatherall, Morris, Jamal et al. 2016:1-1).

Hagey and Rusila (2014:97) support Mesfin and Farrow's (2017:online) findings, by reporting that the majority of midwives identify lack of knowledge as the barrier to pregnant mothers attending routine antenatal care timeously. Furthermore, Hagey and Rusila (2014:97) mention that, due to lack of knowledge about the importance of attending routine antenatal clinics, some pregnant mothers with previous birth experience do not report for routine antenatal care visits, even when they know the timing of antenatal care – this is the case with mothers who have had multiple pregnancies, in particular.

According to Hatherall et al. (2016:1-1), pregnant mothers still experience difficulties with the referral system, resulting in a barrier to routine antenatal care. Consequently, the option of self-referral is low, and causes the start of the minimum standard of expected routine antenatal care to be delayed for some mothers (Hatherall et al. 2016:1-1). The following quotation by a mother demonstrate that inflexibility of the health environment may cause stillbirths.

> *We are not allowed to go to the hospitals without the referral letters from the clinics unless we are already in labour.*

Hofmeyr and Mentrop (2015:92) mention that experience of the implementation of the basic antenatal care (BANC) programme in South Africa is that failing to have frequent antenatal visits in late pregnancy is commonly identified as an avoidable cause of perinatal mortality. Infrequent antenatal care clinic visits, especially in the third trimester, may lead to missed opportunities to intervene in response to diagnoses such as pre-eclampsia, foetal growth impairment and reduced foetal movements (Hofmeyr & Mentrop 2015:92).

Kisuule et al. (2013:1–7) state that, in Uganda, pregnant mothers who report for antenatal care late in their pregnancies were not well informed about the right gestation age at which they should make their first antenatal care visit, nor the importance of early attendance to receive antenatal care. Consequently, they missed the opportunity to detect infectious diseases early on, and to receive health education. In Pakistan, the quality of assessment, treatment and counselling at PHC facilities was found to be extremely poor, which resulted in low client awareness about the importance of antenatal care and self-empowerment for decision-making about seeking medical assistance (Majrooh et al. 2014:online).

Gottfredsdottir, Steingrímsdóttir, Björnsdóttir et al. (2016:71) mention that mothers who experienced negative birth outcomes, or who had had very difficult birth experiences, were more likely to report that, during routine antenatal clinic visits, insufficient time had been spent on provision of health information. Entsieh and Hallström (2016:1) point out that, in Sweden, prenatal needs for early parenthood preparation of first-time expectant parents reflected routine pregnancy or antenatal education that includes male partners, information about parenting skills, and ways to

seek support and help from health professionals or health facilities when the need arises.

4.7 COMMONALITIES AND DISPARITIES ON CAUSES OF STILLBIRTH

Commonalities and disparities with regard to causes of stillbirth mentioned by different categories of participants were analysed and are displayed in Figure 4.5. Both commonalities and disparities were discussed and used by the researcher to develop recommendations and strategies that will be implemented collectively by stakeholders to reduce stillbirths.

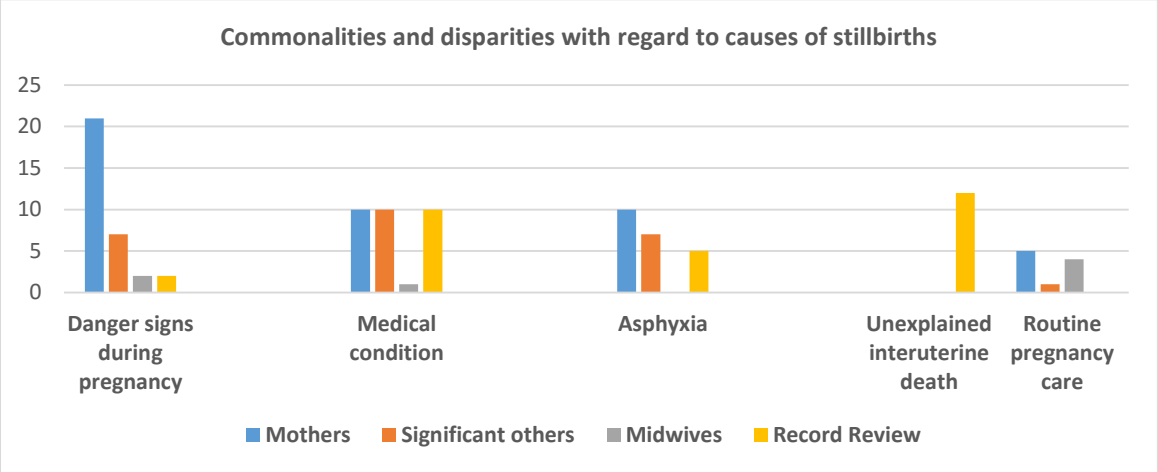


Figure 4.5 : Commonalities and disparities regarding causes of stillbirth as identified by participants

The commonalities are that the majority of mothers and significant others mentioned that the causes of stillbirth were mostly related to the mothers' lack of knowledge on danger signs during pregnancy, maternal medical conditions and asphyxia due to cord around the neck or meconium aspiration during the intrapartum period. The review of records confirmed that medical conditions and unexplained deaths contributed to stillbirths.

The disparity that was identified was that very few midwives mentioned that the causes of stillbirth were related to the mothers' lack of knowledge on danger signs during pregnancy, maternal medical conditions, and lack of knowledge on routine pregnancy care issues. Another disparity was that midwives did not link the cause of stillbirths to

asphyxia due to cord around the neck or aspiration, or to unexplained deaths, while record reviews did not ascribe the cause of stillbirth to lack of knowledge and information about routine pregnancy care.

Another common factor in the study findings is that mothers and significant others did not link the cause of stillbirths to unexplained deaths – the disparity is that only the record review described stillbirths as unexplained deaths.

4.8 VIEWS ON WAYS TO PREVENT STILLBIRTH

Views and opinions of participants with regard to what could have been done to prevent the stillbirths were analysed and displayed, and are discussed and used to develop strategies and recommendations that will reduce the stillbirths. Participants mentioned that, to prevent stillbirths, the main actions that need to be taken are capacitating healthcare personnel and addressing issues related to people-centred care and health dialogue.

The commonalities and disparities amongst participants' opinions about what can be done to prevent stillbirths per sub-category under the empowerment theme are indicated in Table 4.2.

Table 4.2: Participants' opinions regarding what could be done to prevent stillbirths, in sub-categories

SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL RESPONSES
Capacitate healthcare personnel	3	4	13	20
People-centred care and health dialogue	7	10	2	19

4.8.1 Capacitate healthcare personnel

Capacity building is critical for scaling up the midwifery workforce and improving maternal and child health services, because SDG No. 5, which talks about reducing

the child mortality rate, including the perinatal mortality rate, cannot be achieved unless midwives and midwifery organisations come together to support midwifery education (Dawson, Kililo, Geita et al. 2016:180–188).

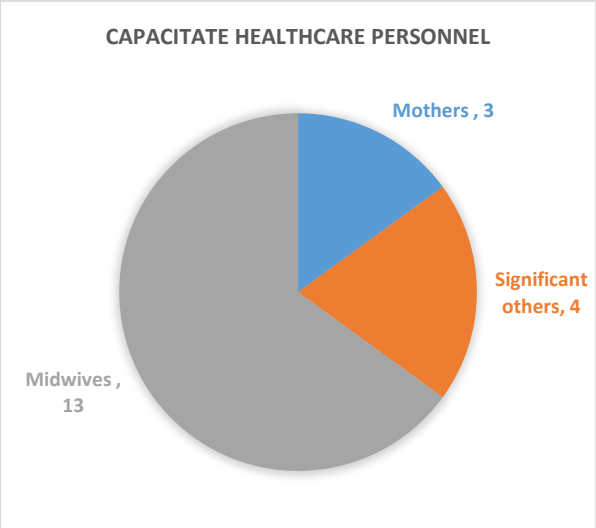
The majority of midwives who participated in this study acknowledged that healthcare professionals (midwives, medical officers and emergency service personnel) need continuous training, through refresher courses, and must be trained on advanced antenatal care, to sharpen their skills. Midwives' comments confirmed that lack of capacity and incompetence amongst health professionals, including emergency service personnel, caused stillbirths.

> *I mean that all midwives, doctors and EMS [emergency medical service] personnel need to attend refreshers course, which include ESMOE training that is currently conducted by one of our district specialist team.*
>
> *If we can ensure that all our midwives working with pregnant mothers are all trained in the advanced antenatal course that will assist to address the occurrence of unexplained stillborn babies in our health facilities.*

Midwives suggested that midwives and medical officers must be allocated to health facilities on the basis of experience and competency. To facilitate the continuous empowerment of health professionals, they suggested that clinical outreaches to district hospitals need to be strengthened. Furthermore, they suggested that midwives be rotated across the levels of care in the district – doing so can help to capacitate them. The following were some of the responses by the midwives during focus group interview sessions; these comments acknowledge that health professionals were incompetent and that they need to be capacitated.

> *Our regional hospital doctors need to do outreaches to the district hospitals to capacitate and continuously support each other on management of pregnant mothers.*
>
> *To assist with capacity or skilling of midwives I think rotation of the midwives working at the antenatal clinics with those working in the hospital maternity units will be the ideal.*

The statements by the mothers, significant others and midwives confirm that, in order to prevent stillbirths, there is a need to capacitate health professionals in health facilities, as shown in Figure 4.6.



The clinic nurses also must be taught how to diagnose pregnant mothers early enough, because, to me, if they can be taught they will know. (M)

The clinic nurses must be trained so that they can have a skills to identify pregnant mothers with psychosocial stress early. (S)

I think we need to start at the antenatal clinics. (RM)

We really need to ensure that our midwives at the antenatal are capacitated. (RM)

I don't know, but what I realised was that nurses and doctor were unable to control or manage my blood pressure when I was pregnant. They need to be trained because even if they discharged me the blood pressure was still not controlled. (M)

The clinic personnel should also be trained to manage pregnant mothers who present with hypertension, so that they can refer patients timeously. (S)

I think they really need to be trained on how to deal with people they can really fail to manage cord that is around the neck. (S)

There is a need to ensure that inexperienced midwives and doctors are not allowed to work alone in the maternity units, they must always be allocated with experienced ones. (RM)

Yes, the other issue that we also need to do is to ensure that there is continuous development of all midwives and medical doctors, because of things that are changing, such as disease burden that are coming with new protocols. (RM)

Figure 4.6: Capacitate healthcare personnel sub-category

Contrary to this study's findings, which indicate that midwives lacked maternal health services skills, and that there was a need to capacitate them, Renfrew, McFadden, Bastos et al. (2014:30-34) define midwives as skilled, educated, trained and knowledgeable health professionals associated with improved birth outcomes. This study agrees with Stellenberg and Ngwekazi (2016:online), who acknowledge that, although midwives are expected to be competent, independent, responsible and accountable, and expected to practice at the level prescribed, there are still competency gaps, such as failure to assess patients properly, failure to recognise the problem and failure to follow standard clinical protocols – these shortcomings apply to PHC midwives, in particular.

Ojofeitimi, Orji, Asekun-Olarinmoye et al. (2009:25) call for interventions, such as regular in-service training of all cadres and a review of curricula of all health cadres, so that there is an emphasis on stillbirths and greater efforts to improve practical activities during obstetrics and paediatrics placement of students, because midwives have low levels of knowledge of the management of pregnant mothers. In this study, mothers and significant others mentioned the need to be informed about aspects such as danger signs, what to report, when to report, and routine care. Clearly, there is a need to engage in health dialogue with pregnant mothers.

This study supports Stellenberg and Ngwekazi (2016:online), who state that midwives are unable to manage hypertensive pregnant mothers. According to Stellenberg and Ngwekazi (2016:online), midwives possess insufficient knowledge about the management of hypertension disorder during pregnancy, and there is a need for continuous professional development in midwifery, regarding both theory and clinical practice. It is, therefore, of paramount importance that the current standardised guidelines for maternity care in South Africa are available and accessible, so that midwives can upgrade their skills, and that their competency is tested accordingly, including existing algorithms.

Mirkuzie, Sisay, Reta et al. (2014:online) claim that maternal and perinatal mortality rates will continue to increase unless measures are taken to capacitate midwives in charge of maternity obstetric units. Practicing midwives should, preferably, have

qualifications in advanced midwifery, and must attend continuous refresher courses to enforce competence, both in theory and in practice.

Lack of competence in providers could be attributed to gaps in pre-service curricula, lack of continuing education, frequent rotation, and limited in-service training (Mirkuzie et al. 2014:online). Mirkuzie et al. (2014:online) suggest addressing the challenge of incompetent midwives by introducing aggressive measures and expediting action to improve the knowledge of midwives, especially those working at the PHC level.

Lack of competence in healthcare workers can be addressed by skills-based training approaches, supportive supervision and mentoring programmes (Dickson, Kinney, Moxon et al. 2015:7). Furthermore, Dickson et al. (2015:7) state that the quality of care providers can be increased by improving the quality of midwifery education and regulation, and by expanding the role of professional associations. The regulatory authority could also strengthen the midwifery workforce by implementing relicensing systems based on competence and continuous professional development (Dickson et al. 2015:7).

A study conducted in Ethiopia on task analysis performed by recently qualified midwives to generate evidence for strengthening midwifery education, practice, and regulation confirms that there were significant competency gaps in the content and quality of midwifery education in the areas of obstetric complications and prevention of mother-to-child transmission of HIV. Midwives performed poorly in assisted delivery, partograph use, and integrated management of childhood (Yigzaw, Carr, Stekelenburg et al. 2016:181-186). Yigzaw et al. (2016:181-186) recommend that task analysis is performed periodically by recently qualified midwives, to identify low levels of competence in specific areas (family planning, antenatal care, normal delivery, postpartum care and essential new-born-care services), thereby informing continuous improvement of midwifery education and practice.

4.8.2 People-centred care and health dialogue

People-centred care and health dialogue is defined as care provision that is consistent with the values, needs, and desires of patients, which can be achieved by understanding patients' experiences and involving them in healthcare discussions and

decision-making for better health outcomes (Constand, MacDermid, Bello-Haas et al. 2014:online). Wright et al. (2014:online) define people-centred care and health dialogue as pregnancy-related discussions or shared decision-making with the aim of conveying basic information regarding healthy lifestyle choices and preventive healthcare, in order to promote the health of the mother and foetus.

Participation of an individual mother in healthcare is one of the approaches of person-centred care dialogue, which is based on her experiences, values, preferences and need. Thorarinsdottir and Kristjansson (2014:130) state that person-centred care and health dialogue ensure that mothers participate in their own care and that health professionals do not act on behalf of and for the good of other persons, thereby oppressing or disempowering them.

A people-centred approach is aimed at directing attention to community health needs, which include pregnant mothers through their involvement and voices, based on their health experience and knowledge (Sheikh, Rantson & Gilson 2014:II1-II5). Sheikh et al. (2014:II1-II5) suggest that people centredness is a requisite of the PHC approach, which advocates for the provision of quality health for all through empowerment and decision-making.

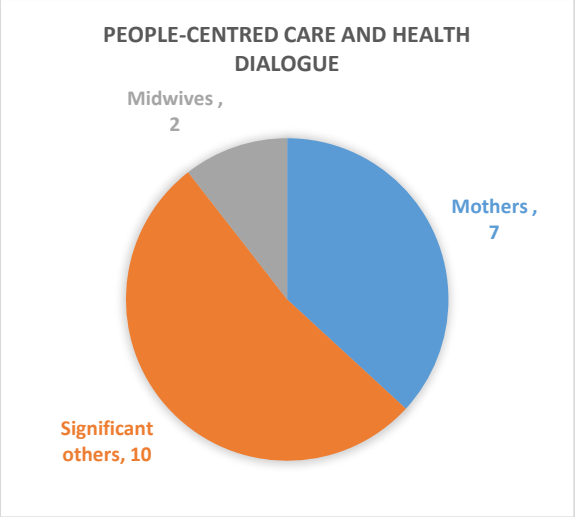
According to Bodenheimer, Ghorob, Willard-Grace et al. (2014:168), an effective people-centred care approach recognises the knowledge that patients, including pregnant women, can contribute to the collective decision-making healthcare plan. Healthcare workers, including midwives, need to know that patients are not told what to do, but are engaged in shared decision-making, which respects their different cultures, experiences and knowledge (Bodenheimer et al. 2014:168). Therefore, engaging patients through shared decision-making about their care may address stillbirths that are related to failure to implement a people-centred care approach.

In this study, mothers and significant others indicated that health professionals should all address their knowledge needs in a culturally sensitive manner. Furthermore, they suggested that every training event should encompass information on the benefits or importance of compliance to certain prescripts.

Thorarinsdottir and Kristjansson (2014:130-140) explain that person-centred care and participation through dialogues include involvement and participation in mothers' own healthcare, working together with healthcare professionals by sharing both their powers in decision-making. Through the process of people-centredness, health professionals are expected to ensure that they respect or address pregnant mothers or their families as unique individuals, approaching them from a holistic perspective, and entering their worlds by understanding their concerns, experiences, needs and preferences (Thorarinsdottir & Kristjansson 2014:130-140). Furthermore, person-centred care advocates for the establishment of a therapeutic relationship and sharing power and information (Thorarinsdottir & Kristjansson 2014:130-140). Tunçalp, Were, McLennan et al. (2015:1046) indicate that the WHO vision on the Global Strategy for Mothers', Children's and Adolescents' Health (2016–2030) defines quality of care as healthcare services provided to individuals and communities, and which includes a people-centred care approach that takes into account preferences and aspirations of individual service users and their cultures.

Furthermore, to ensure successful implementation of person-centred care and health dialogue, health professionals need to develop communication skills, such as active listening, respect, and empathy; health professionals applying these skills will enable pregnant mothers to make informed choices and share in decision-making (Thorarinsdottir & Kristjansson 2014:130-140).

According to the results of this study, some pregnant mothers who had stillbirths were unlikely to have been empowered. Even those who attended clinics regularly still lacked information and knowledge that could have assisted them to take an informed health decision which could have ensured a positive birth outcomes. Figure 4.2.2 shows statements by the mothers, significant others and midwives, to a lesser extent, confirming the need for patient-centred care and health dialogue approach.



The nurses at the hospitals and clinics should also make us aware about the dangers of inactive baby in the uterus. (M)

By attending clinic she will learn other health-related issues that will assist her to look after herself during her pregnancy, know what to report to the nurses or when to respond to other danger signs. (S)

When nurses tell us what to do when we are pregnant we need also to take instructions at all times, but they must also explain the benefits of compliance, not just to do. (M)

The other thing is that these mothers need to be trained about the importance of attending clinics and dangers signs that they need to respond to when they are pregnant. (S)

I think most mothers still need to be informed about importance of attending antenatal clinic early enough. (S)

Nurses should give us as much information as they can during pregnancy... We need to know how to handle pregnancy in a proper way and the consequences that might occur during pregnancy. (M)

Furthermore, more information should be given to all pregnant mothers at the clinics as part of empowerment. (S)

Nurses at the clinics should inform pregnant mothers what to expect as well as those things that they need to report immediately... They should not assume that we know everything. (M)

Nurses need to give health education to pregnant mothers on all those things they need to avoid or stop doing, like driving continuously even if a person is eight to nine months pregnant... They should not take it for granted that they would know about those things. (S)

The issues related to HIV-positive status and what it does to the pregnant mothers should be known by all mothers, even before she gets pregnant. (S)

All the information concerning pregnancy-related issues and other illnesses, such as where to go and what to look for, must be known by all pregnant mothers as well as the community at large. (RM)

Figure 4.7: People-centred care and health dialogue sub-category

Continuous health dialogue with pregnant mothers and communities, regardless of their education levels, can have an impact on timeous reporting of healthcare problems and decision-making in seeking healthcare services; thus, improving birth outcomes (Patra, Arokiasamy & Goli 2016:531-537). According to the WHO's Integrated Person-Centred Health Care (DeMasi et al. 2017:197-201), systems

interventions, such as increased use of skilled midwife-led routine antenatal services, promotion of health-related behaviours, and community mobilisation, are needed. Individuals' perspectives, families, and community preferences should be considered when providing healthcare (DeMasi et al. 2017:197-201).

Pelzan (2010:914) explains that person-centred care requires skilled healthcare professionals who will care for a patient as a whole person, by determining, planning and prioritising the care required by the individual patient and family. Furthermore, midwives need to have skills that will enable them to deliver person-centred care, such as communication skills, ability to provide physical comfort and emotional support, and ability to develop relationships with patients and families. A people-centred healthcare approach will improve communication between all relevant stakeholders, support pregnant mothers and provide continuous quality of care throughout the antenatal and intrapartum period (DeMasi et al. 2017:197).

Dickson et al. (2015:11) claim that involving men, family and community in the care of pregnant mothers will assist to facilitate safe childbirth care and improve knowledge and support on the use of referral systems for timeous access to the correct levels of care. McMillan, Kendall, Sav et al. (2013:567–569), in a study conducted to evaluate the efficacy of patient-centred care interventions for people with chronic conditions, support the notion that most interventions done according to the people-centred care and health dialogue approach are based on empowering healthcare consumers, and result in increasing involvement in healthcare decisions by the majority pregnant mothers. Furthermore, pregnant mothers were more likely to ask questions during antenatal care visits, and report higher levels of control in managing their healthcare problems (McMillan et al. 2013:567-578). Luszczynska (2012:163) states that mothers' empowerment is the outcome of people-centred interventions in an enabling environment that leads to empowerment of these mothers. Empowerment of first-time parents as preparation for early parenthood should include antenatal education classes aimed at enhancing positive birth outcomes and smooth transitions to parenthood (Afua & Hallström 2016:1).

The kaleidoscopic midwife model emphasises a people-centred approach, promotes individuality, giving continuous support, guiding and providing information.

Consequently, the project called “pregnant mother-midwife” develops a positive perspective on a good midwife and childbirth (Borrelli, Spiby & Walsh 2016:23). 2016:23). Characteristics of skilled, competent midwives include the ability to provide psychological, social, and cultural care of pregnant mothers, respecting individual mothers’ circumstances and views, and working in partnership with mothers to strengthen mothers’ own capabilities (Homer, Friberg, Bastos Dias et al. 2014:1146; Renfrew et al. 2014:1).

4.9 COMMONALITIES AND DISPARITIES ON PREVENTION OF STILLBIRTHS

The study findings indicate that capacity building of health professionals and a people-centred care and health dialogue approach could be used to prevent stillbirths. Commonalities and differences between participants with regard to the need for capacity building and a people-centred care and health dialogue approach will be discussed next, and form part of recommendations and strategies to reduce stillbirths.

Figure 4.8 indicates commonalities and disparities between participants on how to prevent stillbirths.

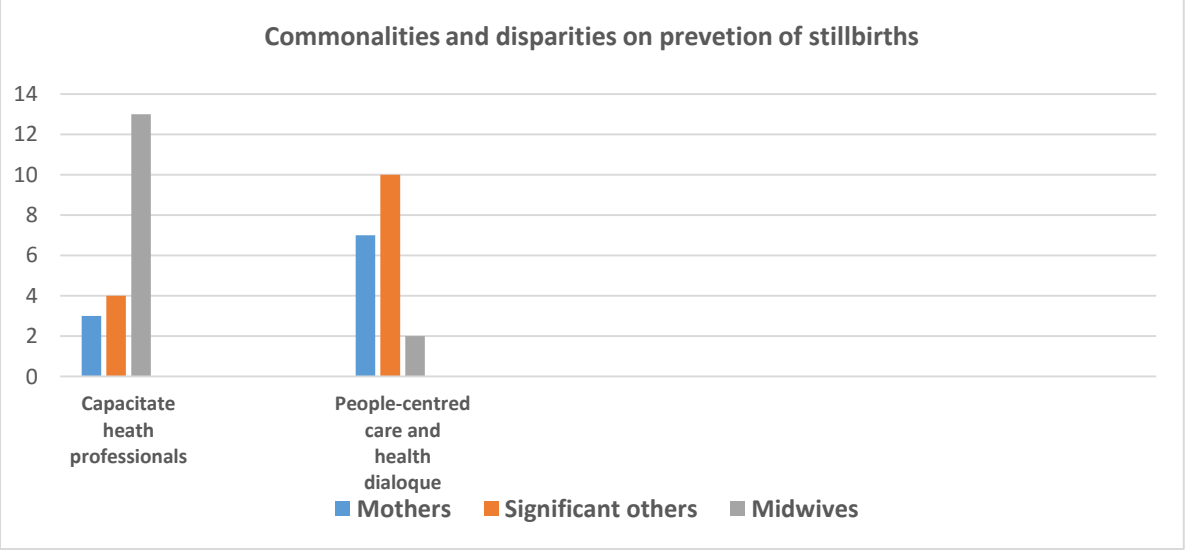


Figure 4.8: Commonalities and disparities between participants regarding ways to prevent stillbirth

While the majority of midwives indicated that prevention of stillbirths needs to be addressed by capacitating healthcare personnel only, very few mothers and significant others agreed that there was a need to capacitate health personnel.

The majority of mothers and significant others agreed that occurrence of stillbirths can be addressed by health personnel implementing a people-centred care and health dialogue approach when caring for pregnant mothers. Only two midwives suggested implementing a people-centred care and health dialogue approach to address stillbirths.

To prevent stillbirths, health stakeholders must agree on acceptable strategies that need to be implemented to reduce the disparities identified between participants, and must focus on building competency of health professionals and providing a people-centred care and health dialogue approach.

4.10 EMPOWERMENT AND OPPRESSION

Empowerment is defined as the expansion of people's ability to make strategic life choices in a context where the ability was previously denied to them because they had been oppressed (Hameed, Azmat, Ali et al. 2014:online; Upadhyaya, Gipson, Withers et al. 2015:2-3). Community participation is viewed as a process of empowerment in which communities are actively involved in their health decision-making activities or health choices (Marston, Renedo, McGowan et al. 2013:online). Mothers' empowerment is described as the process of increasing the capacity of mothers to make health choices leading to desired health outcomes (Hameed et al. 2013:online). Hameed et al. (2014:online) also refer to empowerment as a process by which mothers challenge the existing oppressive norms and culture, to effectively improve their well-being.

The results show that participants lacked information and knowledge that could assist them to make correct decisions and health choices that would result in positive birth outcomes. Some of the health professionals who participated in this study lacked knowledge, and this lack can be regarded as incompetence, because all registered health professionals who provide maternal health services were trained or empowered during their training.

Some of the health professionals in this study demonstrated incompetence by mismanaging pregnant mothers who presented with conditions such as HIV and Aids infection and hypertension. They also failed to do clinical assessment, notice deviations from the norms, and interpret assessment findings, that is, apply clinical reasoning and clinical judgement, of pregnant mothers presenting at the health facilities.

In addition to the in-service training that the Department of Health currently provides for its health workers, it is expected of each midwife to take full responsibility and accountability for his or her continuous learning and development. The Department is only responsible for providing in-service training when a new programme or policy guidelines are introduced and implemented.

James and Francis (2011:136) explain that registered nurses, including midwives, in Australia apply for renewal of their registration annually, and by doing so they accept responsibility and accountability for participation in continuous professional development, and declare that their practice is current, safe and competent. According to James and Francis (2011:136), the code of professional conduct and competencies outline that professionals are responsible for maintaining clinical competence through continuing professional development, which guarantees that the public achieves the best possible health outcomes.

According to the Nursing Act 33 of 2005, as amended, Regulation 786, Scope of Practice of Nurses and Midwives, in South Africa, the title of midwife may only be used by a healthcare professional who meets the educational requirements of registration as a midwife, and registration must be renewed annually (Department of Health 2005:13-18). This healthcare professional must acquire and maintain competence to practice as a midwife in terms of the Nursing Act, and according to the scope of practice for nurses and midwives (Department of Health 2005:13-18).

The scope of practice dictates that the clinical practice of a midwife is to provide healthcare and management as an independent practitioner in all the aspects of pregnancy, labour and puerperium (Department of Health 2005:13-18). The quality of practice of a midwife, including continuous competence, requires that an individual

midwife identifies own learning and maintenance needs (skills and knowledge gaps) and continuously participates in available development and maintenance programmes (Department of Health 2005:13-18).

According to Khomeiran, Yekta, Kiger et al. (2006:69-71), competence of an individual midwife may be influenced by several factors, such as level of experience, availability of development opportunities, a work environment that promotes technical competency, a midwife's personal characteristics (curiosity and readiness to learn, involvement in activities that could improve abilities), level of motivation and theoretical knowledge.

According to the Wittmann-Price EDM model, lack of knowledge and health information related to maternal healthcare issues faced by pregnant mothers, significant others and communities, is regarded as oppression (Wittmann-Price 2004:440). Pregnant mothers and communities have the right to be informed or empowered and, therefore, failure to provide quality health education to pregnant mothers and all other related stakeholders results in oppression. According to this study's results, both mothers and significant others were oppressed; consequently, they were unable to make informed decisions and choices that could have resulted in positive birth outcomes.

Understanding individual mothers' needs for and experiences of empowerment is a crucial step that may contribute to achieving the SDGs relating to empowering mothers. Therefore, there is a need to continuously empower mothers through health dialogue, which will enable them to make informed health decisions or choices (Upadhyaya et al. 2015:2-3). Oppression of pregnant mothers results in inappropriate responses to danger signs during pregnancy, including failure to attend antenatal clinics for routine pregnancy care.

To address the oppression of both pregnant mothers and their significant others, a people-centred care approach that includes health care dialogues, should be implemented. Participants should be provided with quality health information, and they should be involved through participation and supported by a flexible health environment that will allow them to take informed health choices. Shared decision-making results from ongoing dialogue between health professionals and pregnant

mothers; the dialogue includes provision of information and knowledge development, which are prerequisites for mothers empowerment and decision-making (Thorarinsdottir & Kristjansson 2014:130).

4.11 RECOMMENDATIONS FOR ADDRESSING OPPRESSION AND STILLBIRTH

The SWOT analysis presented in this section (see Table 4.3) found the following strengths, weaknesses, threats and opportunities that need to be addressed or implemented to address oppression.

Table 4.3: SWOT analysis

Strengths • Healthcare workers speak local languages, as a result, language is not a barrier • Processes and procedures are in place to capture the causes of stillbirth • Training programmes (BANC+)	**Weaknesses** • Midwives are unaware of the challenge they face in relation to the manner in which they provide or share health information with relevant stakeholders • Incompetency of trained midwives and emergency medical service health professionals currently in service
Opportunities • Implementing a healthcare dialogue approach • There is need to identify midwives' areas of deficiency and to retrain them • Implementing a people-centred care approach	**Threats** • Unwillingness to comply with basic nursing requirements or standards by midwives • Midwives do not acknowledge that they are empowered and incompetent

The following recommendations are made on the basis of the information in Table 4.3:

- Midwives need to be made aware that their communication with the customers is ineffective.
- Replace the authoritative manner of patient education, which is a top-down approach, with health dialogue, which is a person-centred way of sharing information and decision-making.

- Review and update information leaflets so that they are customer-friendly.
- Health dialogue should include danger signs during pregnancy and the importance of antenatal clinic visits.
- People-centred care must be agreed upon, developed and implemented in all health facilities by all health professionals, with the intention to empower pregnant mothers, families and communities.
- Regulatory bodies must require evidence of continuous professional development within the field where the healthcare professional is working.
- Nursing education institutions must improve the standard when assessing the competence of midwives.
- The Department of Health must strengthen the implementation of policies, measures and procedures, such as clinical governance and disciplinary processes.

A serious threat to any intervention may be the inability of healthcare workers to recognise their own incompetence and their superior and authoritative attitude towards patients**.**

4.12 Chapter conclusion

The researcher concludes that pregnant mothers in this study were oppressed due to the following reasons:

- Mothers lack knowledge of danger signs in pregnancy, and of required routine care. Information sharing by means of a people-centred healthcare dialogue with mothers, men, families and communities could be empowering. It is possible that information sharing did not take place, or that the way the information was shared with the customer was inappropriate. Therefore, the manner and mode of sharing healthcare information should be investigated further.
- Health professionals who managed pregnant mothers in this study are not competent and, therefore, they cannot make sound clinical judgements with regard to the management of pregnant mothers. Incompetence in healthcare professionals should be addressed by means of a multipronged approach,

such as retraining, continuous in-service training, reregistration every 5-10 years, monitoring and evaluation of the implementation of training and policies.

In this chapter, findings related to causes of stillbirth revealed insufficient empowerment of pregnant mothers and other, related stakeholders. Furthermore, evidence regarding the incompetence of health professionals was presented, discussed and interpreted. Commonalities and disparities with regard to the causes of and ways to prevent of stillbirths as reported by participants were reported. Recommendations to address the lack of empowerment of all relevant stakeholders were given.

The next chapter, which discusses the social norms theme, will follow the same pattern as this chapter, namely, findings on causes of stillbirths will be discussed per sub-category, and commonalities and disparities identified between responses of participants will be discussed. Recommendations to address causes of stillbirth related to the identified social norms will be given.

CHAPTER 5
SOCIAL NORMS: LITERATURE REVIEW AND DISCUSSION

In this chapter, the findings and interpretations of the social norms theme per sub-category will be discussed. The commonalities and disparities in relation to causes of stillbirths relating to this theme amongst participants will also be discussed and interpreted. Participants' opinions and recommendations with regard to what could have been done to prevent stillbirths will be interpreted and discussed. The literature review related to causes of babies being stillborn and ways to prevent stillbirths related to this theme will be discussed. Recommendations to address the causes of stillbirths that are related to social norms will be made.

Not all narratives are included in the text, due to the large number of participants and responses. All the responses may be viewed in Chapter 3.

5.1 SOCIAL NORMS

Reynolds, Subašić and Tindall (2015:45-46) define social norms as recognised, shared societal expectations that impact on an individual community's behaviour, and may include traditions, customs and habits. Social norms affect psychological functioning and behaviour of communities or individuals through socialisation processes that result in the human mind being socially structured in a way that makes sharing of cultural practices possible (Reynolds et al. 2015:45-46). Furthermore, it is acknowledged that social norms impact on thinking and behaviour of individuals, and that norms emerge from collective activities of shared knowledge and practices (Reynolds et al. 2015:45-46).

Social norms mentioned by participants as causing stillbirth were divided into sub-categories, such as traditional practices and beliefs, traditional role players, abuse by men or partners, and traditional restrictions and prescriptions.

The commonalities and disparities amongst participants about the causes of stillbirths per sub-category under the theme of social norms are indicated in Table 5.1. Sub-

categories that were mentioned by participants are displayed in descending order according to the total number of responses.

Table 5.1: Social norm theme with sub-categories

SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	TOTAL PARTICIPANTS
Traditional beliefs and practices	23	31	7	0	61
Abuse by males or partners	24	18	0	0	42
Traditional role players	19	14	4	0	37
Traditional restrictions and prescriptions	0	9	1	0	10

The literature review and discussion of findings follow the order of the sub-categories in Table 5.1.

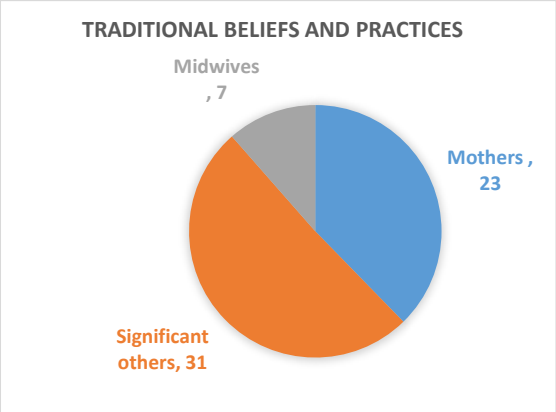
5.2 TRADITIONAL BELIEFS AND PRACTICES

Kim (2015:28) defines traditional beliefs and practices as those practices that are based upon people's consensus in a particular culture and tradition, rather than scientific research. Communities or individuals who follow traditional beliefs behave in certain ways with the aim of protecting foetuses to ensure the birth of healthy babies for the future of that society (Kim 2015:28). Kang (2014:507) claims that the power of male domination over mothers, or patriarchy, is bestowed by most traditional beliefs, practices and customs. This study supports the finding by Saaka et al. (2017:1-13) that, except for the poor quality of health services, sociocultural factors in the form of beliefs and practices, such as rituals, have been identified as key contributors to poor health-seeking behaviours, resulting in high maternal and perinatal death rates.

According to the WHO, 65%-80% of the world's population use traditional medicine as their primary form of healthcare services (Beste, Asanti, Nsabimana et al. 2015:3-7). Traditional medical practices play an important role in reproductive healthcare in

Ethiopia (Murugan & Paulos 2014:103), Rwanda (Beste et al. 2015:3-7), Nigeria (Baird, Smith, Debacco et al. (2015:1208), Ghana (Farnes, Beckstrand & Callister 2011:494) and India (Begum, Sebastian, Kulkarni et al. 2017:884). Maputle, Mothiba and Maliwich (2015:67) mention that mothers' experience of pregnancy is not only a medical occurrence, but also one that reflects her cultural values, family beliefs and her own beliefs, and that, in South African societies, using traditional medicines is deeply woven into cultural beliefs and practices. A study conducted in Limpopo reveals that, in all three trimesters, traditional medicines are used to treat pregnancy; some participants indicated that pregnant mothers are weak and vulnerable during pregnancy, and consequently evil and dangerous spirits may affect the baby negatively (Maputle et al. 2015:70).

In this study, participants mentioned traditional and belief-related practices that contributed to stillbirths, such as traditional healers, traditional medicines and witchcraft. The following statements by the mothers, significant others and midwives confirm that the use of harmful traditional beliefs and practices, such as traditional healers, traditional medicines and witchcraft, contribute to stillbirth.



On regular basis, when I was still staying with them [in-laws] I used to see sangomas [traditional healers] coming to the house and they would even not tell you what was happening. After the incident she [mother in- law] went to the traditional healer who informed her that my baby died because of the witchcraft. (M)

I have also realised that her family does not believe in use of traditional healers or medicine to prevent bad spirit, but I am sure that also exposed her to all unnecessary kinds of bad spirits, even those they were not meant for her and her baby. (S)

Pregnant mothers rely on the information they get from their friends who were exposed to traditional medicines during their pregnancy. (RM)

I told my mother what was happening to me and she gave me something reddish [traditional medicine] to mix with water and drink to stop the blood that was coming out. (M)

I also believed the traditional healer, because, even with the first pregnancy, the baby died after completing her seventh months of pregnancy. I really don't know my child but what I suspected is mother who stays next door to my house, I mean witchcraft. (S)

The influence that these pregnant mothers are getting at home, such as the use of traditional medicine and others are stronger than what the nurses are telling them. (RM)

She will tell me that she experienced lower abdominal pains due to something that she walked over or eaten something that was not good for the baby [witchcraft], I really think she could also had attended clinic. (S)

They believe that those religious or traditional practices are capable of stopping some evil spirits. (RM)

Figure 5.1: Traditional beliefs and practices sub-category

The findings show that the majority of mothers and their significant others reported that adhering to traditional practices and beliefs during pregnancy or childbirth was expected or acceptable. In reporting their experiences, some participants were still convinced that their actions, as they related to traditional practices and beliefs, were acceptable and regarded as the social norm. The majority of mothers and significant others were of the opinion that traditional beliefs and practices were aimed at preventing bad spirits, witchcraft, other socially unacceptable evils and, sometimes, ancestors from entering the body of the pregnant mother and killing her unborn baby. Although not mentioned by participants in this study, Kiguli, Namusoko, Kerber et al. (2017:online) indicate that witchcraft was often mentioned by mothers who had experienced stillbirth in polygamous relationships – they linked the stillbirth to jealousy of a co-wife, who had bewitched them.

Some mothers and significant others reported that traditional medicine was ineffective, and that traditional healers (*sangomas*) had been brought into the house without their knowledge. Not one participant indicated that traditional practices and beliefs during pregnancy and childbirth had contributed to the death of unborn babies. However, some significant others mentioned that the baby had died because the mother did not adhere to traditional norms. Significant others blamed mothers or family members who did not support traditional practices for exposing pregnant mothers to bad spirits or witchcraft.

The information gained from the health record review did not link the stillbirth of babies to the traditional practice and belief sub-category. Contrary to the findings of the health record review, midwives mentioned that traditional practices and beliefs contributed to the number of stillborn babies. The following comments by some of the midwives

during focus group discussions confirm that they agreed that traditional practices and beliefs could contribute to stillbirths:

> *You know that some of our pregnant mothers, they still use their traditional medicines and mix it "moroto wa tshwene" [monkey's urine] which is said to have syntocinon effect.*
>
> *Other do take their herbal medicines and mix it with a mercury.*
>
> *Although those traditional medicines are taken at a smaller scale, they eventually have negative effect on the unborn babies.*

This study revealed that the midwives are aware that the information on traditional beliefs and practices relating to pregnancy that pregnant mothers receive in the community, is more powerful and influential than the health information that midwives provide, and this is one of the causes of stillbirths.

> *The influence that these pregnant mothers are getting at home, such as the use of traditional medicine and others, are stronger than what the nurses are telling them.*
>
> *Pregnant mothers rely on the information they get from their friends who were exposed to traditional medicines during their pregnancy.*

Most mothers indicated that traditional practices and beliefs, such as using traditional medicines, traditional healers ("use of sangomas") and reporting to the elders, were used to support them during the birth of their babies. The majority of mothers indicated that their first response upon realising something was wrong was reporting to the elders, who provided traditional medicine or instructed them to take their traditional medicine. Some, but not all, mothers were told about the indications for administering traditional medicine.

Farnes et al. (2011:494) state that belief in witchcraft is prevalent among the majority of pregnant mothers in Ghana, and that mothers are considered to be more vulnerable to witchcraft during pregnancy. From this study's findings, it is clear that, if pregnant mothers adhere to traditional practices and beliefs, their first reaction to labour pains or any pregnancy-related abnormalities involves resorting to traditional medicine or

other traditional practices and beliefs, such as reporting to the elders. Some mothers also indicated that they were instructed to drink only traditional medicine that was already available, implying that traditional medicine is routinely kept at home for pregnant mothers to take when the need arises. It was also evident that families or community members consult traditional healers after stillbirths. Those who consulted traditional healers after the event of the stillbirth were told that they had lost their babies because of witchcraft.

What this study also revealed is that, during pregnancy, some mothers do not take decisions about what was happening to them and their unborn babies. It appears that some mothers in this study did not take the information they received from healthcare professionals into consideration. Therefore, this study upholds the finding by Farnes et al. (2011:495) that, despite health education on the adverse effects of using herbal remedies during pregnancy and birth, many mothers in Ghana continued to believe that the benefits of traditional medicine and faith healing far outweigh any risks associated with it.

Although two of the mothers in this study took traditional medicine, one was not sure whether the medicine contributed to the death of her unborn baby, while the other one indicated that the medicine did not assist her at all, instead, the pain worsened. This is also an indication that some mothers just complied with traditional beliefs and practices because it is regarded as norm, even though they did not know its effect on them and their unborn babies.

Farnes et al. (2011:495) also report risks associated with herbal use, as the dosage and types of herbs ingested are unregulated. According to Beste et al. (2015:7) 56% of mothers who used phytomedicine (a type of traditional medicine) during pregnancy presented with meconium-stained fluid, which is usually an indication of foetal distress.

Burial of the placenta was not specifically mentioned by participants in this study, however, failure to receive the placenta after birth is considered to be culturally insensitive and if this practice is not respected, it may lead to reluctance to use healthcare facilities for birth and, thus, it may cause stillbirths (Ruiz, Van Dijk, Berdichevsky et al. 2015:212). Burying the placenta near the home is considered necessary for the survival of the newborn, for attaching the child to the family, and for

the safety of the infant from wild animals, birds, human beings, and witchcraft (Begum et al. 2017:884).

5.3 ABUSE BY PARTNERS (MEN)

Socially and traditionally, men are perceived to have power over the decisions made in the family. It is this patriarchy that places men in a superior position and mothers in an inferior position when family decisions are made (Kang'ethe 2014:507; Vives-Cases, Gil-González & Carrasco-Portiño 2009:172). Usually, men who are brought up in an environment based on a traditional concept of gender roles, pose the greatest risk of abusive behaviour toward their partners (Vives-Cases et al. 2009:172).

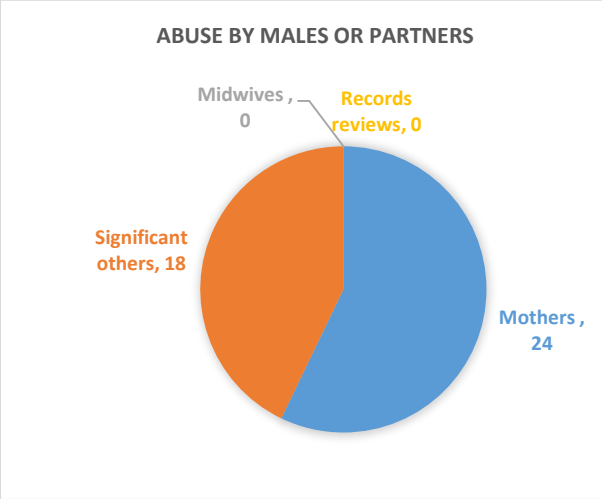
Mothers indicated that they had been abused by men or partners physically, emotionally and psychologically during pregnancy, for example, they were forbidden to attend clinics for treatment. Some pregnant mothers were physically assaulted and, as a result, lost their unborn babies due to trauma. Some participants in this study reported that they were emotionally and psychologically abused by their partners and had to separate from their partners or break up their relationships. Most of the emotional and psychological abuse experienced involved male partners sleeping out and having sex with other women and neglecting the one who was pregnant, failing to provide financial support, entering into new relationships with other women while neglecting the one who was pregnant, and verbal abuse. While they related how they were treated badly by their partners, the mothers acknowledged and accepted that men are abusive, especially when their wives or partners are pregnant. The following statements by mothers in this study described their experiences:

> *There are a lot of things that might have contributed to the death of my baby, such as emotional stress that I had. You know how males are, more especially when one is pregnant. They think one is at their mercy.*
>
> *They will shout at you, until one gets angry and that also might contribute to the hypertension.*

McFarlane, Maddoux, Cesario et al. (2014:839) explain that abuse of mothers by their partners is a global epidemic; the abuse often starts during pregnancy. Abuse may

take the form of threats of abuse, sexual abuse, physical abuse, being threatened with death (McFarlane et al. 2014:839) and withdrawal of financial support (Hatcher, Romito, Odero et al. 2013:404, 405; Kiguli et al. 2015:online; Pun, Infanti, Koju et al. 2016). Abused pregnant mothers are more likely to experience stress, depression, miscarriage, pre-term births, induced abortion, and stillbirth (Hatcher et al. 2013:404, 405; McFarlane et al. 2014:839).

Figure 5.2 illustrates the number of responses per source category that identified abuse as a cause of the stillbirth. The following statements by the mothers and significant others confirm that abuse by men or partners contributed to the stillbirths.



Suddenly, he approached me and kicked me on my abdomen and I was already eight to nine months pregnant... My mother tried to stop him by standing between the two of us, but he managed to repeatedly kick me and hit me right at the tummy again and I fell down. (M)

I, myself, told him about my HIV status and that he was also supposed to attend the clinic. He refused and told me not to attend the clinic any more. I did not go back to the clinic. (M)

She told me that her husband does not want to go with her to the clinic or the private doctor even if she request him to accompany her. (S)

The baby's father and I had a relationship problem after I got pregnant. It was so serious that he even brought his girlfriend where we were staying during that pregnancy. We also had to break up. (M)

You know, Mama, I tried to talk to her on several occasions, but she refused to tell her husband. He does not want someone who visits his wife or even his wife visiting others. My friend requested me to tell you not to tell her husband about her HIV status. (S)

Figure 5.2: Abuse by men or partners sub-category

Similar to this study, a study conducted in Nepal on community perceptions of domestic violence against pregnant mothers reveals that, culturally, pregnant mothers were physically and emotionally abused by forcing them to do hard physical work and denying them food. Emotional violence focussed on gender expectations for the baby,

as boys are preferred by mothers-in-law and husbands (Pun et al. 2016). Comments by mothers and significant others confirm abuse by male partners.

> *I was HIV positive with the boyfriend who was not willing to support me... As times goes on I could not work, as I was not feeling well most of the time... I decided to come back home, as our relationship was not good and he was no longer supporting me financially and I was also not feeling well. (M)*
>
> *My husband is also aggravating my hypertension, because he is not trustworthy, more especially when I am pregnant, he would go and sleep outside for day, and, really, he is not supportive. (M)*
>
> *There are a lot of things that might have contributed to the death of my baby, such as emotional stress that I had, you know how males are... More especially when one is pregnant, they think one is at their mercy... They will shout at you, until one gets angry and that also might contribute to the hypertension. (M)*
>
> *She was also experiencing a lot of stress as the boyfriend decided to leave her with pregnancy without financial support while she was also not well. (S)*
>
> *The other thing that I can think about it can be the stress... She used to fight with her husband when she was pregnant... They had lots of problems with him... Although they were not fighting physically, but emotionally, she was really affected. (S)*

Some male partners or husbands do not want to pay for costs associated with visiting a health facility and forbid their partners to attend antenatal clinics, stating that the attendance was unnecessary, because their foremothers had never attended antenatal clinics (Wilunda, Scanagatta, Putoto et al. 2017:online). Our study results support the findings of Wilunda et al.

Mothers and their significant others agreed that abuse by men and partners contributed to the occurrence of stillborn babies. Whereas it was not mentioned by the

midwives or noted in the record review, mothers and their significant others raised concerns about men or partners who abused pregnant mothers emotionally, physically, verbally and psychologically.

According to the findings, only one mother tried to challenge an incident of physical assault. However, her complaint was dismissed by male police officers, with the understanding that it was normal for a man to assault a mother, because mothers are inferior to men. During individual in-depth interview sessions one of the mothers described how she had been physically abused and denied justice by society, who don't consider abuse of a mother by a man to be serious.

> *I went to police station and told them... I was not assisted... The police told me that they don't see any injuries inflicted on me... They then turned me away, saying I should go to court and request for a protection order that is preventing him to come to our house because he is hitting me... Days shortly after that incident, I started bleeding, then went to the hospital, but was immediately transferred to Kroonstad, where I lost my baby.*

One mother indicated that her unborn baby was continuously infected by her husband, who did not want to use condoms or even to attend clinic. Another mother told her partner that she was HIV-positive, and he refused to let her go to the clinic for treatment.

This study also revealed that some pregnant mothers were afraid of their partners or husbands; as a result, it was difficult to discuss their health problems with them. Such mothers lived in fear of their partners; the situation was worsened because male partners provided for them and the mothers relied on their partners for their daily survival. Some mothers blamed their partners after losing their unborn babies. They were aware that they were being ill-treated, but they accepted it as the norm, because, traditionally, mothers are beaten or emotionally abused by their husbands or male partners.

> *My husband is very difficult. When I am pregnant he become worse. He would sleep outside for days, and when I talk to him he would shout at me and even physically assault me.*

The following statement by a significant other corroborates the finding by D'Souza et al. (2013:online) that mothers who face abuse by husbands and partners are always at risk of being infected with HIV/Aids and other sexually transmitted infections. In this case, nearly every mother experienced stillbirths, including stillbirths with congenital disorders.

> *When she was pregnant her husband continued to infect her and the baby because they did not use condom... Her husband is a very difficult person.*

According to Kang'ethe (2014:507), patriarchy is generally opposed to mothers' empowerment in health decision-making and, as a result, efforts by pregnant mothers to prevent sexually transmitted diseases, such as negotiating for safer sex, is a daunting task; thus, making the prevention of sexually transmitted diseases and HIV/AIDS infection difficult and poor birth outcomes likely. A study conducted in Nigeria on sociocultural factors that influence the prevention of mother-to-child transmission of HIV revealed that few participants willingly disclosed their sero-positive status to their male partners or spouses. Other participants did not disclose their sero-positive status due to a fear of divorce. Divorce may occur, because, culturally and due to stigma and discrimination, sero-positive partners are considered to have participated in immoral behaviour which has led to the deterioration of the relationship. In the case of an abusive relationship, extended families encourage silence to protect the family image, and because they view partner or husband abuse as normal (Hatcher et al. 2013:404, 405). Consequently, there is an increased likelihood of non-adherence to antiretroviral treatment by HIV-positive pregnant mothers, and a greater chance of stillbirth (Iwelunmor, Ezeanolue, Airhihenbuwa et al. 2014:9; Ojua, Ishor & Ndom 2013:180). The following statement by a participant in this study is in line with the preceding discussion:

> *You know, Mama, she is faced with a huge problem, because she does not want to disclose her HIV-positive status to her husband, she is afraid.*

Ruiz et al. (2015:213) confirm that husbands influence access to health institutions; husbands declare that their wives may not be seen by male physicians, or that there was no need for them to go to the clinics, because the husbands' mothers had never sought medical help for their own pregnancies. Wilunda et al. (2017:online) report on

the negative influence the socio-cultural context, such as husbands being reluctant to allow their pregnant wives to attend antenatal care clinics, has on birth outcomes.

Though not found by this study, a study conducted in Uganda on community experiences of stillbirths revealed that other factors that caused stillbirths were believed to be related to the bodies of young mothers who were not fully ready and prepared for child-bearing, and that older mothers with multiple pregnancies (several pregnancies) had sexual intercourse during pregnancy (Kiguli et al. 2015:online).

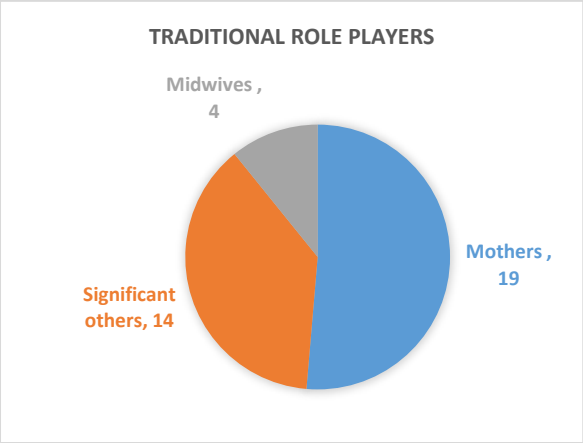
5.4 TRADITIONAL ROLE PLAYERS

Traditional role players are those individuals who were identified by participants to have contributed positively or negatively to the outcome of the birth of their babies. Traditional role players mentioned by participants were elders (grandmothers or mothers), ancestors, home birth attendants, in-laws, and neighbours as interpreted by the participants. Moyer, Adongo, Aborigo et al. (2014:109) identify traditional role players as husbands, mothers-in-law, community leaders, soothsayers, traditional healers, and home birth attendants. Such traditional role players support, respect and uphold socially acceptable norms, social context power, and prescriptive social norms, by compelling community members, including pregnant mothers, to adhere to traditional practices. Traditionally, elders and religious leaders are men who periodically communicate with spirits of their ancestors (Aborigo et al. 2014:78-86). Typically, male elders have the final say in all decisions that are made, including those relating to mothers' health issues. The elders are "gate-keepers", who decide whether the sickness of the mother or her child is serious enough to justify mobilisation of resources for treatment (Aborigo et al. 2014:78-86).

Sialubanje, Massar, Hamer et al. (2014:523) report that, traditionally, pregnant mothers delay starting antenatal care visits because elders do not approve of a pregnancy, in its early stages, being exposed to non-family members. Raj, Sabarwal, Decker et al. (2011:704-706) explain that, traditionally, in some parts of South Asia, mothers are forced to live with their parents-in-laws for antenatal care and perinatal care support. Participants in the study by Raj et al. claimed that they were abused emotionally and psychologically, funds for medicine or medical care had been withheld

from the mothers, they were forbidden to seek hospital birth care, and were refused food during pregnancy (Raj et al. 2011:706).

The responses regarding traditional role players per data source are shown in Figure 5.3. Statements by mothers, significant others and midwives confirm that the behaviour of traditional role players, such as elders, ancestors, home birth attendants and in-laws, contribute to stillbirths. Both mothers and significant others agreed that, traditionally, role players were socially expected and accepted by the community at large to guide pregnant mothers through their pregnancy period, and that their presence was appreciated, to ensure that pregnant mothers and their unborn babies were healthy, and to ensure positive birth outcomes.



The ancestors are not satisfied with us, because my husband did not pay my parents anything for me to stay with him [lobola], which is why they are taking all the children. (M)

There is a saying that the child is raised by the whole community, including those grandmothers who continue to feed them wrong information as well as traditional medicines, because they believe that it worked for them previous, therefore, it will work for others. (RM).

I was discharged home and my grandmother took me to a traditional healer for the fear I had and it subsided... My grandmother told me to continue drinking the medicine and she said that it might be the baby was asleep or she was lazy. (M)

Such mothers prefer to give birth at home, they would only come to the hospitals or health facilities when they have some difficulties or had already complicated. (RM)

I told my grandmother and she instructed to take the medication that she brought from the traditional healer and the bleeding subsided... She told me that it could not be labour pains because I was only eight months pregnant. (M)

Traditional home birth conducted by grandmothers and grandmothers' influences where pregnant mothers will be kept at home and allowed to go to the health facilities at a later stage. (RM)

I had labour pains and my mother gave me traditional medication to drink... She said that the medication would assist me to give birth to the baby quicker... My mother went to call our neighbour to come and assist her to get my baby out. (M)

Because of socio-cultural practices or community influence, the battle of occurrence of unexplained stillborn babies will not be warned. (RM)

The other person that I suspect is my stepmother-in-law, who might have contributed to the deaths of all those children, because she hates us so much... You know how mothers-in-law are, especially this one, who is the third stepmother-in law, she does not care. (M)

The in-laws also did not like her [mother who experienced stillbirth], because sometimes, when her boyfriend was on duty, they would also fight and tell her that she should leave their place. (S)

After the incident my in-laws went to the traditional healer, who was also taking care of me during my pregnancy, and they were told that other neighbours caused the death. (M)

Other things [traditional beliefs and practices] are not supposed to be questioned, more especially by children [teenage or young mothers], as they had a negative impact on our lives as black people. (S)

Most of the time, when such mothers attend clinics, they just go for compliance or to get the card... They don't listen or believe what the nurses are telling them. They just agree even if they don't understand. (RM)

Figure 5.3: Traditional role players sub-category

A study conducted among people from Bangladesh who live in Britain found that, traditionally, families respect their elders, particularly the head of the house, who culturally dictates the types of food that need to be eaten or avoided, especially during pregnancy (Yeasmin & Regmi 2013:406). Family members and their offspring grow up with the same moral and cultural values as their elders, including adherence to the choice of food (Yeasmin & Regmi 2013:406).

Midwives stated that some pregnant mothers gave birth at home, because elders or mothers in the family did not approve of the pregnant mothers being examined by male birth attendants. Elders/mothers want to save the mother and her family from embarrassment; therefore, the pregnant mothers avoided seeking medical assistance (Sialubanje et al. 2014:523).

One of the duties of traditional role players is to ensure that pregnant mothers comply with traditional practices and beliefs, with the purpose of ensuring that the mothers ultimately give birth to live babies. However, mothers and significant others stated that mothers-in-law sometimes deliberately caused the death of the unborn babies. The following are some of the comments made by mothers and significant others that confirm the perception that traditional role players may have contributed to stillbirths.

The other person that I suspect is my stepmother-in-law, who might have contributed to the deaths of all those children, because she hates us so much.

It is possible that she could have also used the witchcraft to bewitch us. When I was pregnant my in-laws hated me, so I think they did some thing to me so that my baby should die. (M)

I really don't know whether the problem was related to her HIV-positive status, or it might also happened that she was bewitched by her in-laws. (SO)

Although midwives acknowledged that traditional role players may have contributed to the stillbirths, it is not an option that is included in the PPIP software. According to the mothers' responses, traditional role players guide pregnant mothers regarding the medication they should take and its expected effect, they advise when to visit healthcare facilities, they interpret abdominal or labour pains, monitor foetal movement, and act or take some health decisions on behalf of pregnant mothers.

Mothers also indicated that the role played by ancestors in the outcome of the birth of unborn babies, including those that are born alive, is dependent on compliance with certain traditional restrictions, such as husbands paying *lobola*. A mother said,

We went to the traditional healer, who told us that the baby died because of the ancestors who are not satisfied or angry.

Baird et al. (2015:1210) report that mothers in South Sudan, like in this study, relate stillbirths to a curse put on family (pregnant mother and husband) by ancestors for failing to meet payment of bride wealth or *lobola*. This study concurs with Sisay, Yirgu, Gobezayehu et al. (2014:112-114), who found that the cause of stillbirths was associated with the evil or ancestral spirit inside the pregnant mothers' bodies; such mothers were insulted and humiliated by the communities and neighbours.

Furthermore, according to Ethiopian traditional practice, home birth is the norm in their communities. Births are usually supported by families, neighbours and grandmothers (Sisay et al. 2014:112-114). Similar circumstances prevail in the communities of this

study, because neighbours are called to provide assistance when a mother reports to be in labour. Seeking medical assistance is delayed in communities where such cultural practices are respected, and doing so may contribute to stillbirths. It is customary to dissolve a marriage if a mother repeatedly gives birth to stillborn babies (Sisay et al. 2014:114).

The results of this study showed that, traditionally, reduced foetal movement is associated with a lazy baby, meaning that this perception is associated with risk. In a professional sense, reduced movement means the baby is in danger and the mother must seek out medical assistance immediately. The misunderstanding with regard to reduced foetal movements needs urgent attention from midwives. Traditional role players should engage in health dialogue, to ensure that everyone works to achieve the best possible health outcomes for the mother and foetus.

Midwives also indicated that pregnancy and the birth of a baby is a social norm issue; therefore, there is need for health professionals to involve the community at large and work together to address challenges related to contradictory information, which can impact negatively on the outcome of the birth. Furthermore, midwives indicated that mothers, as part of the community, are socially expected or pressurised to respect their communities' traditional practices and beliefs. If such practices are not understood and accommodated by health professionals, it would continue to affect babies' birth outcomes negatively.

Vyagusa, Mubyazi and Masatu (2013:2-26) reveal that, in Africa and some Asian countries, the services of traditional births attendants are highly respected, because of its accessibility. Vyagusa et al. (2013:2-26) report that husbands advise their spouses to consult traditional birth attendants first, to be assured of the status of their health and expected babies, so that the mothers can obtain traditional medicines before registering for antenatal clinics. In Uganda, mothers were afraid that they would lose family support if they gave birth in a hospital, and they stated that their in-laws demanded that they deliver at home, with full cultural rituals, and prove that the baby was indeed their son's child (Baird et al. 2015:1211).

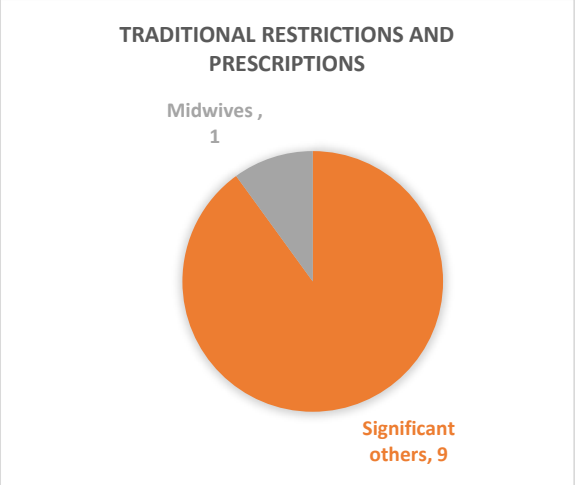
5.5 PRESCRIPTIVE TRADITIONAL NORMS

Prescriptive traditional norms refer to moral values and societal standards about behaviour. The question is not what is right or wrong, or what people ought to do, or what behaviours or actions are socially acceptable and valuable. Instead, it is about what most people do or what behaviours are generally acceptable and socially respected (Brauer & Chaurand 2010:491). Furthermore, traditional prescriptive norms prescribe how individuals are expected to comply socially or avoid compliance with certain things within a given or prevailing situations (Pinto, Marques, Levine et al. 2016:570). Traditional prescriptive norms mentioned by the participants are dietary restrictions, prescriptive clothing and family planning restrictions.

A study that was conducted in Ghana on food prohibitions and other traditional practices during pregnancy indicates that pregnant mothers are confronted with many difficult choices during pregnancy and, at times, making the wrong choices resulted in unfavourable outcomes for their babies (Otoo, Habib & Ankomah 2015:41). Otoo et al. (2015:41) also mention that cultural practices, beliefs and taboos contribute to prescriptions regarding certain types of nutritious foods, which are forbidden for pregnant mothers.

Contrary to the findings of this study, Otoo et al. (2015:45) mention that pregnant mothers are not expected to bind cloth around their chests, because doing so would result in the cord around the neck of the baby, and ultimately to stillbirths. Ojua et al. (2013:179) mention that traditional family planning methods, such as sexual abstinence during lactation, are prescribed and practiced, because of the belief that a mother is not fully pure at this time; this practice helps with child-spacing, which will translate into a healthy mother who will give birth to heathy babies from her next pregnancies.

Figure 5.4 shows that significant others and midwives confirm that traditional restrictions and prescriptions, such as dietary restrictions, prescriptive clothing and family planning restrictions contribute to stillbirths.



They are even prevented to take nutritious food, such as egg, because of culture influence. (RM)

I suspect that she might have eaten some eggs, because in our culture pregnant mothers are not supposed to eat eggs. Pregnant mothers should not eat eggs, because it induces labour prematurely and it also makes it difficult for labour to progress as it prevents membranes from rupturing. (S)

The other thing that I think contributed to the death of the babies in this case is the use of family planning. (S)

The other thing that I can think of is that she might have exposed herself to the cold because they don't like to wrap their waist with warm blankets or sort of towel when they are pregnant. (S)

Figure 5.4: Prescriptive traditional norms sub-category

The findings show that, although mothers did not mention non-adherence to social norms and standards as a cause of stillbirths, significant others believed that non-adherence to traditional norms contributed to stillbirths. The difference between what significant others and mothers reported may be due to age differences and, therefore, further research is needed in this area. Significant others believed that these traditional norms aim to prevent occurrence of stillborn babies and other related maternal complications.

> *When I was pregnant, my grandmother used to advise me on all those things I needed to avoid, so that the baby should not aspirate inside with wrong food. (S)*
>
> *Again, she would visit friends as if there was nothing wrong with her... When one is pregnant, one is not supposed to visit all these houses, because one might not know if there are bad spirits that can affect the child. (S)*

The significant others also indicated that pregnant mothers who failed to comply with social standards and who experienced stillbirth, are blamed for killing their own babies.

> *With my experience or opinion, I think the cause of the death was most related to the witchcraft... I told her several occasions to look for a traditional healer but she refused... She told me about her church which did not allow them to use traditional medicine. (S)*

> *All those things are not supposed to be done by any pregnant mothers... We used to listen to our mothers but now, with our grandchildren, they will ask you why. (S)*

Kim (2015:28) mentions that, even though pregnant mothers have complained that they face many restrictions and prescriptions, they comply with medical, moral, and environmental advice to meet the needs of their developing babies. The following excerpt confirms that mothers adhere to the expected norms, because they wanted their unborn babies to be born alive.

> *By then I was still taking the traditional medicine that my grandmother prepared for me since I became pregnant... I don't not know whether the baby died because of that medicine or not, but she informed me that all pregnant mothers were taking that medicine and it would ensure that babies are healthy and that one would not struggle to give birth.*

Midwives also agreed that prescriptive and restrictive social norms caused stillborn babies; they believed that compliance with restrictive and prescriptive practices, such as avoidance of nutritional food (eggs), may have negative birth outcomes.

The findings from health record reviews did not link the occurrence of stillborn babies to the traditional prescriptive norms sub-category. Significant others indicated that traditional practices and beliefs are regarded as social norms that are not supposed to be ignored by pregnant mothers. They indicated that some mothers who ignored such traditional practices and beliefs lost their unborn babies even before birth, or during the process of giving birth. They mentioned traditional practices that need to be

strictly avoided and those needed to be carried out to ensure that pregnant mothers do not lose their unborn babies, such as avoiding eating eggs during pregnancy, avoiding using injectables or tablets prior to pregnancy, including known professional family planning methods prior to pregnancy – significant others in this study recommended using traditional methods to space pregnancies to avoid complication that may lead to stillbirths – and wrapping waists with warm blankets or towels during pregnancy to preserve pregnancy to term and avoid complications that may be caused by cold. Indications for strict avoidance of or adherence to traditional rules were indicated as contributing to prolonged labour, prematurity, premature labour, repeated stillbirths and other neonatal deaths (Kim 2015:27-28; Maputle et al. 2015:67-74).

Fadzil, Shamsuddin, Wan Puteh et al. (2016:504) state that, traditionally, it is believed that the childbirth process is a ‘‘cold’’ state period. Therefore, appropriate care is needed during pregnancy and the postpartum period to balance this state within the body with heat therapy (warm baths, hot compresses) and changes to food intake. The following were some of the comments by mothers and significant others during individual in-depth interview sessions, which confirm the need for wearing warm clothes in preparation for birth.

> *With this pregnancy I experienced some labour pains as usual... I chopped some wood and prepared fire, because I needed some warm water to wash and speed the labour process... I then washed myself. (M)*

> *During pregnancy mothers' waists are not supposed to get cold, because they will experience difficulty during child birth, or the cold can also be passed to the baby and results to premature birth or stillborn baby. (S)*

A study conducted in Uganda on the effect of cultural beliefs and practices on birth outcomes found that, culturally, it is expected that a mother who has delivered a child should sleep apart from her husband for the first year after giving birth, as a form of family planning and protection from sexually transmitted diseases for mothers during the postpartum period (Baird et al. 2015:1214). During individual in-depth interview sessions, comments by significant others confirm that traditional prescriptive norms, such as avoidance of family planning are culturally preferred, and may contribute to stillbirths.

Since the use of family planning these children are continuously losing their babies.... I believe that those things are not good.

I never used family planning during my life time. I gave birth to six children who are healthy and were born two years after each other... I never lost any baby although I was working in the farms... During those days pregnant mothers used to work until they went to labour... I really think the problem is family planning [contraceptives] that they are using.

If they can stop using family planning [contraceptives] and control themselves, I am sure the issue of babies who die before or during delivery will be the thing of the past.

Yeasmin and Regmi (2013:396) support the notion that culture is considered to be a major determinant of the food that may be consumed, such as choices of food, preparation of food, frequency of meals and amount to be eaten. Even in relating to the food that is chosen, traditional beliefs and practices of elders prescribe the norms that family members follow and practice. Participants in the study were still influenced by culture in as far as types of food that pregnant mothers should eat. Food intake during pregnancy is influenced, generally, by family members, relatives, and friends, beliefs and practices. Pregnancy is seen as a social matter, as a result, respected elders regularly visit pregnant mothers to give strict advice (Yeasmin & Regmi 2013:407).

Kim (2015:27-28) states that Korean mothers believe in avoiding medication during pregnancy and they refuse to take supplementary vitamins containing folic acid, because they consider the pills to be medicine. Similarly, American Indian mothers believe in avoiding foreign foods and smells in order to protect and honour each growing child spirit (Kim 2015:27-28). Pregnant mothers in the area of KwaZulu, South Africa, avoid eating milk and eggs, and abstain from smoking and drinking alcohol (Kim 2015:27-28). Pregnant mothers in Lagos State in Nigeria report avoiding melons, beans, oranges, and guava, because, they claim, these fruits can cause mucous in a mother’s womb and cause breast milk to be watery (Kim 2015:27-28). These fruits also cause bulging of membranes and delay birth (Kim 2015:27-28).

5.6 COMMONALITIES AND DISPARITIES ON CAUSES OF STILLBIRTH

Commonalities and disparities amongst participants with regard to causes of stillbirths related to social norms were analysed, displayed and discussed. The information assisted the researcher to identify the common understandings and opinions of different categories of participants with regard to what they thought might have caused the stillbirths. The differences and similarities were used by the researcher to develop preventive strategies and recommendations that will address different opinions between participants and, thus, reduce the occurrence of stillbirths.

Figure 5.5 shows that the majority of mothers and significant others confirmed that social norms, such as traditional beliefs and practices, traditional role players and abuse by male partners, could contribute to stillbirth, while only a few midwives agreed with them.

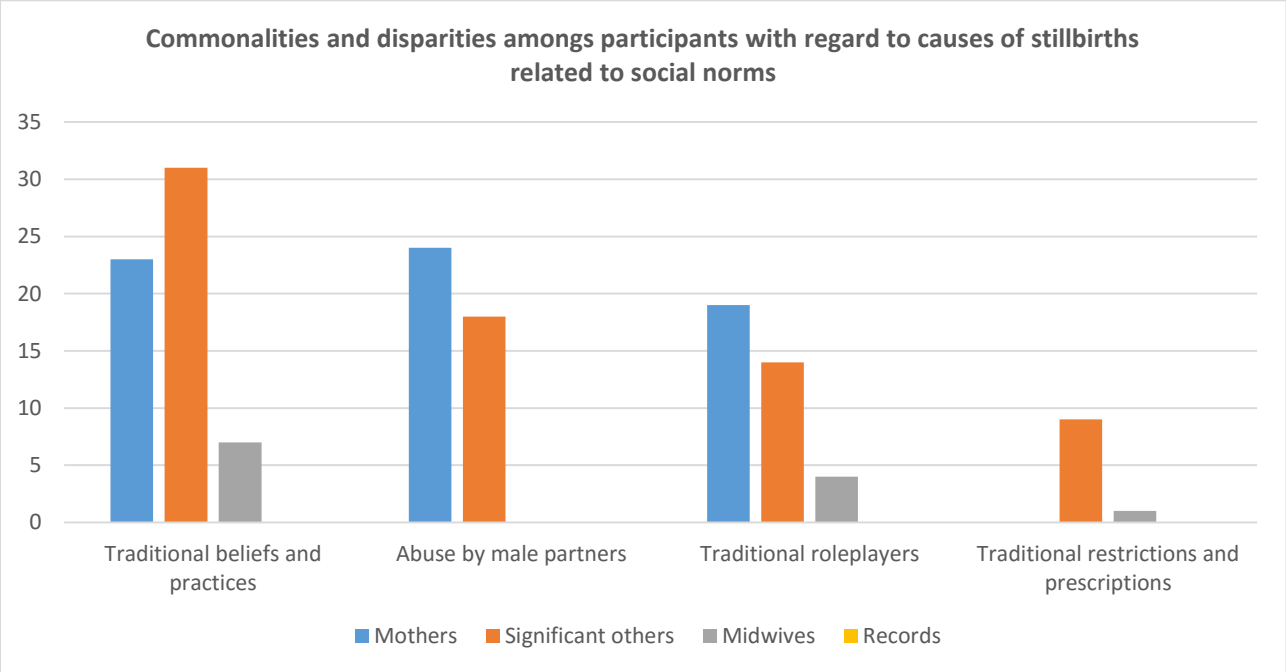


Figure 5.5: Commonalities and disparities amongst participants with regard to causes of stillbirths related to social norms

The findings also revealed that mothers and the record review failed to link the cause of stillbirths to compliance or non-compliance with traditional restrictions and prescriptions on mothers. None of the social norms, such as traditional beliefs and

practices, traditional role players and abuse of pregnant mothers by male partners are captured on the PPIP forms.

The midwives did not link stillbirths to abuse of pregnant mothers by male partners. Furthermore, the majority of significant others mentioned that some causes of stillbirths were related to failure by pregnant mothers to comply with traditional restrictions and prescriptions, while only one midwife indicated that the cause of stillbirths was related to compliance with traditional restrictions and prescriptions on mothers. This difference may be caused by the fact that the current PPIP records do not have space where midwives can enter information related to social norms, or it may be that midwives see abuse by a man or partner as an accepted social norm that should not be linked to the cause of stillborn babies.

5.7 VIEWS ON HOW TO PREVENT STILLBIRTH

Participants' opinions about what could have been done to prevent the stillbirth are displayed and discussed next. For more information on all the responses, see Chapter 3. Under the social norms theme only two sub-categories, namely, traditional practices and beliefs, and traditional role players, were mentioned by participants as factors which might have contributed to the prevention of stillbirths. Significant others are the participants who indicated most often that compliance with or application of social norms (traditional practices and beliefs, traditional role players) may assist to reduce stillbirths.

Table 5.2 indicates the commonalities and disparities amongst participants with regard to their opinions on what can be done to prevent stillbirths per sub-category under the social norms theme.

Table 5.2: Opinions on what could be done to prevent stillbirths related to social norms

SUB-CATEGORIES	PARTICIPANTS			
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL RESPONSES
Traditional practices and beliefs	0	15	0	15
Traditional role players	4	7	0	11

Table 5.2 indicates that the majority of significant others in this study still believe in traditional practices and beliefs, while few mothers agree with them. The difference might be due to an age difference between mothers and significant others, or compliance with social norm expectations by significant others, without them knowing the reasons for the practices, or believing in its usage.

5.7.1 Traditional practices and beliefs and prevention of stillbirth

The study showed that, amongst the three categories of participants, only significant others mentioned that traditional practices and beliefs, such as use of traditional medicine, wrapping waists, use of traditional healers, avoiding social gathering places, performing rituals, and use of traditional birth control measures, could prevent stillbirths. The following statements by significant others confirm that they believe that traditional practices and beliefs could prevent stillbirths.

> *The other thing that we needed to do in her case was to ask traditional healers to prepare some medicine which will help to strengthen her weak waist and protect bad spirit.*
>
> *It is also important that, after the mother has lost her baby, she must be given traditional medicine [pitsa] to cleanse herself for the preparation of the next pregnancy.*

If mothers realised that they are pregnant they should always wrap their waists with warm blankets or something for support and prevention of cold... Pregnant mothers' waists are not supposed to get cold because they will experience difficulties during child birth or the cold can even be passed to the baby and results to a stillborn baby like in her case.

I have also heard that there are some rituals that needs to be respected and performed in some culture in order to accept the baby into the family... It is important to ensure that such rituals are performed or complied with to prevent babies from dying.

What I am suggesting is that pregnant mother who attend traditional healers, they must also be encourage to visit clinics regularly.

Pregnant mothers need continuous support and guidance from elders, such as avoiding the use of alcohol and visiting places such as taverns as well as big gatherings that will put mothers' and babies' life in danger.

The study reveals that the majority of significant others had strong opinions about causes of stillbirths, and believed stillbirths could be prevented if pregnant mothers complied with traditional practices and beliefs, such as using traditional medicine, wrapping the waist with small, warm blankets, using traditional birth control methods and performing cultural rituals, such as cleansing ceremonies. Significant others also mentioned that, to reduce stillbirths, pregnant mothers should avoid certain practices, such as drinking alcohol and eating certain foods, as prescribed by elders.

Arzoaquoi, Essuman, Gbagbo et al. (2015:5-7) explain that adherence to cultural practices and beliefs was associated with respect for ancestors, parents, and community elders, and enforcement mechanisms they identified include constant reminders by parents and elders.

Like in this study, Kiguli et al. (2015:online) found that participants who experienced stillbirths in rural eastern Uganda indicated that they had resorted to protective interventions, such as witchdoctors, traditional medicines and herbs, during pregnancy, to prevent the effects of witchcraft. Påfs, Musafili, Binder-Finnema et al. (2016:7) report similar findings in Rwanda, where use of traditional healers before

giving birth is described as a precautionary measure against witchcraft, which may affect the mother during childbirth or in late pregnancy. Furthermore, Påfs et al. (2016:7) mention that consulting a traditional healer protects both the mother and child from certain sicknesses, and eases childbirth.

Contrary to this study, Kiguli et al. (2015:online) do not report that it is a fact that stillbirths could have been prevented, but reports that their participants believed that stillbirths could have been prevented by practising family planning and avoiding a heavy workload during pregnancy. A study conducted in Kinshasa, Democratic Republic of Congo, on barriers to contraceptive use, found that mothers have to respect their culture and the traditional, natural way of family planning when spacing births, such as withdrawal and sexual abstinence; failing to do so, it was believed, would lead to complications such as sterility, cancer, disruption of the functioning of their bodies and negative birth outcomes (Muanda, Ndongo, Taub et al. 2016:online; Ojua et al. 2013). Mehanna, Khan, Hassan et al. (2014:9) suggest that continuation of breastfeeding is a traditionally recommended family planning method for birth spacing and prevention of pregnancy, and was best for both the mother's and the child's health. In Kenya, using contraceptives was associated with dangerous and harmful health problems or complications that may affect the mothers' wombs negatively (Gueye, Speizer, Corroon et al. 2016:1).

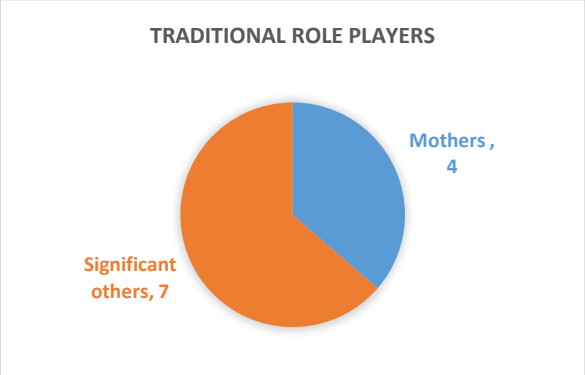
Begum et al. (2017:882–885) indicate that, in India, few tribal communities use health facilities for birth, due to strong traditional beliefs and preference for home delivery. Home delivery was a requirement for some traditional rituals that had to be performed, which symbolised survival of the newborn. In Korea, pregnant mothers indicated that they were committed to refraining from wearing trousers, but instead wore warm clothes to comply with moral and environmental advice and to meet the needs of their developing babies (Kim 2015:28).

5.7.2 Traditional role players and prevention of stillbirth

Figure 5.6 illustrates that mothers and significant others mentioned that obeying traditional role players, such as traditional home birth attendants, ancestors, religious leaders and elders, may contribute to the prevention of stillbirths.

The findings of this study reveal that significant others mentioned that stillbirths could be prevented if pregnant mothers were allowed to give birth at home, assisted by traditional birth attendants, instead of in health facilities. Furthermore, significant others mentioned that, in order to reduce the number of stillbirths, pregnant mothers should listen to the advice of elders, such as to use traditional healers and traditional medicine, which are mostly used to prevent witchcraft.

Only a few mothers mentioned that stillbirths can be prevented by traditional home birth. They also indicated that stillbirths can be avoided by prayer and compliance with ancestors' instructions, such as paying *lobola* and performing traditional rituals.



Another thing that I think I could have done to secure my unborn baby from dying in the hands of nurses was to give birth at home. I know that we are discouraged to give birth at home and that home birth attendants are also scared to assist. At home they were going to assist me to give birth quicker rather than delaying the process by transferring, preventing me to push, until the baby died inside. Really, I don't know why the nurses did that to me. I am so heartbroken. (M)

Another thing that I think I could have done to save my grandchild was to assist the mother to give birth at home.

If the government can allow traditional birth attendants to assist pregnant mothers who do not have access to health facilities it would be better. (S)

The other thing that I think I could have done was to request the religious leader [pastor] to protect her from bad spirit through prayers and by doing some church rituals like it was done to this child. [He points to his child playing nearby]. (S)

The other thing that one needed to do is to keep praying because God is the one who give us children. We need to accept even if he has taken from us. (S)

The issue of paying lobola is also important, because if that is not done, the ancestors will be angry and take all children, like in our case. (S)

I am sure if she listened to my advice her baby could still be alive today. People don't understand that witchcraft is a reality. (S)

If they can listen to their elders and stay away from being misled by the books which are written by people who are not experienced, everything will be all right. (S)

I thought that the baby might have been born alive if she was in the other hospital where my stepmother was not employed... In that hospital it was easy for her to do whatever witchcraft she wanted to do with my wife's unborn baby without being noticed. (S)

Figure 5.6: Traditional role players sub-category

Finlayson and Downe (2013:5) found that, traditionally, the motivation of pregnant mothers to visit an antenatal clinic is superseded by cultural traditions about pregnancy disclosure, which dictates that pregnancy disclosure leads to the possibility that the pregnant mother could be destroyed by evil spirits or jealous people. Therefore, to prevent the death of unborn babies and mothers, mothers need to avoid visiting antenatal clinics during early pregnancy.

Shiferaw, Spigt, Godefrooij et al. (2013:online) report that 78% of pregnant mothers who attended antenatal care clinics regularly were attended by traditional birth attendants during childbirth. The reasons for the preference for traditional birth attendants over health facilities are related to issues such as cultural acceptability, incompetency of health workers, poor quality of care received, previous negative experiences with healthcare facilities, and exclusion from health decision-making, even when mothers wanted to attend healthcare facilities. Otoo et al. (2015:46) support the findings of Shiferaw et al., because about half of their participants in Ghana related home birth to the competence and experience of traditional birth attendants and elders.

Ojua et al. (2013:178) suggest that people believe that religious beliefs and practices play a major role in preventing stillbirth. People believe that, in the case of serious illness, including the vulnerable stages of pregnancy, supernatural spiritual power protects only those who believe in and practice traditional religion. This belief also applies to some adherents of Christian and Muslim religions.

The results of a study conducted in Ghana on help-seeking behaviours by childbearing mothers indicate that faith healing was regarded as important by many cultures. Pregnant mothers consult Christian healers and pastors for protection or attend

worship to ensure protection. They evoke the power of the Bible and prayer to fight evil spirits and witchcraft, to prevent attacks on themselves and their unborn babies (Farnes et al. 2011:494). Kim (2015:27) reports that some pregnant mothers believe that there was no need for prenatal screening, because they can't change what God had given them, and that God would not give them more than what they could bear. Furthermore, mothers indicated that screening does not make sense, because, from a religious point of view, they need to accept what God gives them (Kim 2015:27).

5.8 COMMONALITIES AND DISPARITIES ON PREVENTION OF STILLBIRTH

Differences and similarities amongst participants with regard to what could have been done to prevent the occurrence of stillbirth are displayed and discussed in this section. The information on commonalities and disparities was used by the researcher to develop strategies and recommendation that will ensure that all participants have the same understanding when addressing causes of stillbirths.

Figure 5.7 shows that mothers and midwives did not link prevention of stillbirths with the use of or compliance with traditional beliefs and practices.

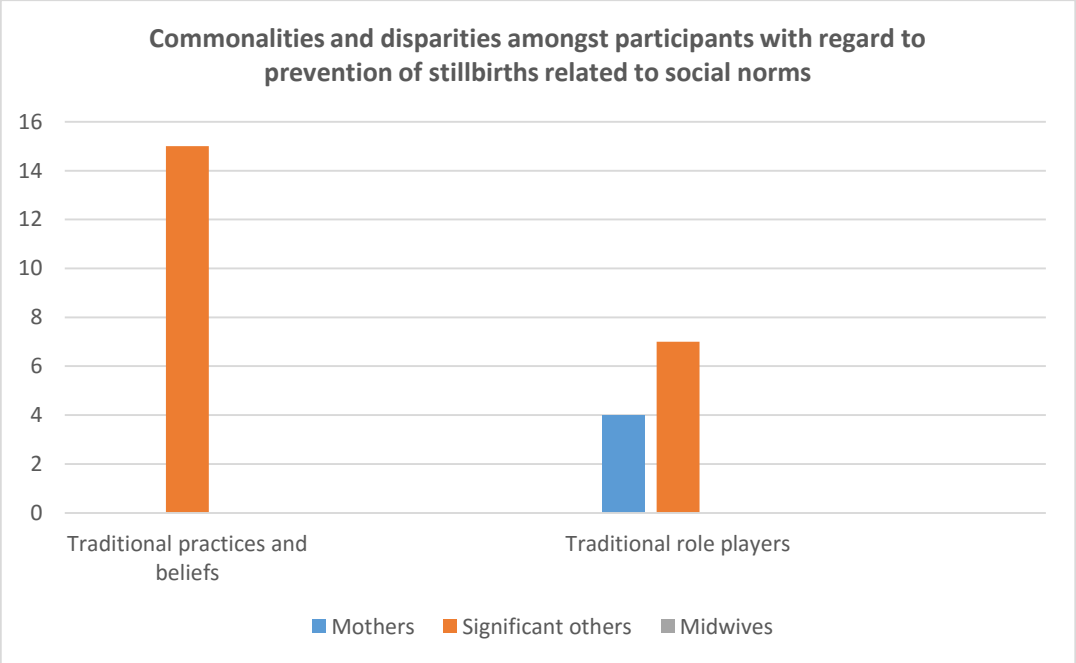


Figure 5.7: Commonalities and disparities amongst participants on prevention of stillbirths related to social norms

Mothers indicated that they practiced and complied with traditional beliefs and practices, but they did not mention that this practice and compliance could contribute to prevent of stillbirths. Therefore, mothers practice and comply with traditional beliefs and practices because it is a social norm, and it is expected of them to comply, without them knowing how the beliefs and practices are related to preventing the death of their unborn babies.

Midwives did not link prevention of stillbirths with the failure to follow or compliance by pregnant mothers with traditional role players' advice or instructions. This omission by midwives is serious, because unless they (midwives) recognise the importance of involving traditional role players in the plans intended to reduce stillbirths, these plans may fail to yield the intended results.

5.9 SOCIAL NORM OPPRESSION

The Whitman-Price EDM model encompasses concepts such as mothers' personal knowledge, pregnant mothers' awareness of social norms, and provision of flexible healthcare environments (Stepanuk, Fisher, Wittmann-Price et al. 2013:2470-2480). According to the Wittmann-Price EDM model, social norms and oppression may influence decision-making in relation to mothers' healthcare (Stepanuk et al. 2013:2470-2480).

Stepanuk et al. (2013:2470-2480) explain that the Wittmann-Price EDM model defines personal knowledge as a mother having thought about her choice in relation to what is best for her and her unborn child. Such a decision or choice may have an impact on pregnant mothers' healthcare behaviour, which could lead to better health outcomes.

Awareness of social norms is described as a mother's awareness that society may place more value on one option over another, or the way society places more value on one or more of the alternatives being considered (Stepanuk et al. 2013:2470-2480). According to the Wittmann-Price EDM model the paternalistic approach to decision-making in healthcare remains dominant and oppressive, because it deprives mothers of the right to make informed healthcare decisions about their own unborn babies and health (Obeidat 2015:262). Obeidat (2015:262) also refers to midwives' professional and ethical obligations, such as to advocate for their patients' rights by raising

awareness about the oppression inherent in the paternalistic decision-making approach, providing patients with easy-to-understand, unbiased information, and supporting their right to choose.

Oppression is a phenomenon identified in mothers' healthcare when a mother feels obligated to choose the most socially accepted option, instead of the option that suits her health needs best. The exploitation of mothers by society and healthcare professionals is done for a number of reasons, including the expectation of adherence to traditional beliefs and practices by some communities or society (Wittmann-Price and Bhattacharya 2008:1).

Based on the comments of mothers, significant others and midwives, it might be that communities in this study have limited health knowledge and information related to pregnancy care and, as result, they rely mostly on their traditional knowledge and experience. The following is a comment made by a significant other during individual in-depth interview sessions.

> *When we were pregnant, we would be warned not to stand in the middle of any house's entrance, or peeping through the door, or even calling a person through the window.*

According to the outcome of this study, it is evident that neither pregnant mothers nor significant others in this study are socially emancipated, because they are unable to take informed health decisions and, instead, rely on the guidance and assistance of traditional role players.

The mothers' emancipation decision-making model indicates that such mothers are not socially liberated (Wittmann Price & Bhattacharya 2018:225). According to the emancipation decision-making model, such mothers are not emancipated, because they are still under the control of their traditions and beliefs, as a result, they do not make health decisions, instead, they comply with certain traditional practices and social norms.

Neither the midwives nor the record review linked causes of babies being stillborn with abuse by males and partners, which is a serious omission that needs to be attended to as a matter of urgency. This finding might also mean that the majority of midwives

who are mothers are still not emancipated. As a result, unless they are liberated themselves, it would be difficult for midwives to identify abused mothers and advocate for their liberation. There is, thus, a need, also, to empower midwives on their rights as mothers, so that they can recognise oppressed mothers and create environments conducive to emancipating them.

Mothers were not aware of their rights to make informed health decisions, or to make health choices with regard to their unborn babies. They were only aware about what was socially acceptable to the community at large. In a study conducted on the empowerment of mothers in a mining area, the evidence shows that a lack of empowerment of mothers residing in the mining area reduces their opportunities for taking their own, informed health decisions and increases their levels of dependency and vulnerability (D'Souza et al. 2013:online).

According to the EDM model, the social context can exert unequal power and influence on individuals in a negative sense. The principle, furthermore, outlines that the external environment promotes negative alternatives as more acceptable than positive alternatives (Wittmann-Price and Bhattacharya 2008:1). The following quotations from mothers and midwives demonstrate that social norms or cultural practices and beliefs may contribute to stillbirths.

> *I told my grandmother and she instructed to take the medication that she brought from the traditional healer and the bleeding subsided... She told me that it could not be labour pains because I was only eight months pregnant. (M)*
>
> *To tell the truth, after I had informed my mother about my pregnancy, she advised me not to attend the clinic too early, but to wait until everybody was aware that I was pregnant. (M)*
>
> *The grandmothers' influences also keep them at home, as a results they report late for admission, thus causes delays... These grannies tell them when to come to the hospitals and when not to come to the hospitals. (RM)*

The findings of the research demonstrate that the communities related to the study still have strong beliefs in relation to traditional norms and beliefs. The following were comments made by midwives during focus group interview sessions:

> *Some pregnant mothers rely on their elders or grandmothers for decision-making, decisions are made by someone else, not the pregnant mothers.*
>
> *Pregnant mothers rely on the information they get from their elders, grandmother as well as the experience that they get from their friends who were exposed to traditional medicines during their pregnancy.*
>
> *If is a teenage pregnant mother, it is worse, because she will get all those contradicting information from the community members but the influence or the pressure to comply with social norms expectation will be more from the community.*
>
> *There is a need for us as nurses to work with community members or families of pregnant mothers so that they are also informed.*

According to the EDM model, mothers and significant others were not emancipated, because they still lacked decision-making power, such as knowledge and information; including personal knowledge that would enable them to know what is best for them and their unborn babies (Wittmann-Price 2006:381). Social norms and lack of knowledge are barriers to decision-making by pregnant mothers who are in need of healthcare, because they still face issues of stigma from partners and family members who make decisions that withhold access to other healthcare treatment, such as prevention of mother-to-child transmission of HIV/Aids. Some pregnant mothers do not have the autonomy to make decisions about their own health and depend on men who are the heads of households, or mothers-in-law, to access healthcare services (HIarliathe, Grede, De Pee et al. 2014:28).

Wittmann-Price and Bhattacharya (2008:228) explain that social context and power produce a culture of oppression that silences those who are considered to be inferior. The oppression will continue to cause intellectual, emotional and psychological slavery, which develops into fear of freedom, in exchange for perceived security. The majority of mothers accepted these actions as the norm, with the understanding that

all men are superior in value to mothers in the eyes of the community at large (Maduma et al. 2015:192).

According to Mosedale (2005:247), mothers' powerlessness is associated with constraints, such as the norms, beliefs, customs and values through which societies differentiate between mothers and men; therefore, empowerment strategies need to address existing power that challenges power relations between men and mothers. Furthermore, Mosedale (2005:245-247) states that mothers' empowerment needs to focus on enlarging the choices and health decision-making of individual mothers, in isolation from a feminist agenda and in the context of social support.

5.10 RECOMMENDATIONS FOR ADDRESSING SOCIAL NORM OPPRESSION AND STILLBIRTH

To address the current social norm oppression that may contribute to stillbirths in FDD, the researcher conducted a SWOT analysis, and investigated weaknesses, threats, opportunities and strengths identified in the study findings. Table 5.3 shows the SWOT analysis of this chapter.

Table 5.3: SWOT analysis

Strengths • The majority of the midwives are familiar with social norms and traditions	**Weaknesses** • There is little cooperation between healthcare professionals and traditional role players • The PPIP tool is too medically orientated, not people-centred
Opportunities • Health dialogue on traditions and social norms could explore and embrace traditions and substances that are not harmful • Traditional role players could be involved • Expand the PPIP tool to capture cultural and societal causes	**Threats** • Negative attitudes/unwillingness by traditional role players, *sangomas*, and healthcare professionals to work together

The following recommendations are made on the basis of the information in Table 5.3:

- Healthcare services should accommodate and acknowledge the role of traditional role players.
- Cooperation between healthcare professionals and traditional role players should be fostered.
- Emancipate mothers by making them aware of social norm oppression, and empower them through health dialogue, so that they can take informed healthcare decisions and make health choices that will assist them to address causes of stillbirths.
- Involve traditional role players in the care of pregnant mothers.
- Explore the traditions applicable to and substances given during pregnancy and embrace those that are not harming the patient; try to convince the community to do away with harmful practices or find acceptable alternatives.
- Review the current PPIP tool to include cultural and societal causes of stillbirth (social norms).
- Establish local and district health forums, which should include relevant traditional role players mentioned by participants, who will assist in compiling and implementing action plans that will address causes of stillbirths, especially those related to social norm oppression.

5.11 CHAPTER SUMMARY

According to the study findings, it is evident that, in this study, pregnant mothers and community members are still oppressed by social norms, beliefs and practices, due to the following reasons:

- Belief in witchcraft is still prevalent amongst pregnant mothers, or mothers in general, and consequently the majority of mothers and significant others who participated in this study still consult traditional healers and use traditional and herbal medicine to prevent the perceived effects of witchcraft during pregnancy. This belief may affect their healthcare-seeking behaviour and birth outcomes negatively.
- Some pregnant mothers prefer to outsource their healthcare services to traditional medicine practitioners, instead of health facilities, because they

believe that its benefits far outweigh the risk associated with its use. In an effort to comply with social norms, practices and beliefs, pregnant mothers are reluctant to seek out medical assistance during emergencies, thereby contributing to poor birth outcomes.

- Pregnant mothers are still abused physically, psychological and sexually by their male partners or husbands, and this abuse is supported by the extended family, such as mothers-in-law. Abuse may include denying pregnant women access to healthcare facilities or treatment.
- Traditional role players, such as husbands, mothers-in-law, traditional healers, elders and traditional home birth attendants, are respected and their cultural guidance is valued. As a result, community members entrust them with the responsibility of ensuring positive birth outcomes.
- Cultural practices or traditional restrictions and prescriptions, such as failure to wear warm clothing or adhere to dietary prescriptions during pregnancy, were identified as factors that may contribute to stillbirth. Some pregnant mothers who had experienced stillbirth were blamed by traditional role players for failure to comply with certain expected traditional norms or rituals.
- Healthcare workers and traditional role players still face challenges to accommodate each other; as a result, it is difficult for health professionals to address causes of stillbirths that are related to compliance to social norms, beliefs and practices, without involving traditional role players.

The following chapter (Chapter 6) will discuss the findings of the theme, flexible environment, per sub-category. Commonalities and disparities amongst participants with regard to causes of stillbirths will be discussed. The literature review and research findings related to causes of stillborn babies will also be discussed. Participants' opinions with regard to what could have been done to prevent stillbirths will be discussed, and suggestions to address the gaps identified will be made.

CHAPTER 6
FLEXIBLE ENVIRONMENT

This chapter will deal with findings for the theme, flexible environment, per sub-category. Sub-categories will be displayed, interpreted and discussed in terms of causes and prevention of stillbirths. Commonalities and disparities amongst participants regarding causes and prevention of stillbirths will be identified and discussed. The literature review findings will also discussed. Recommendations will be made on possible measures that can be taken to address causes of stillbirth that are related to a failure to create a flexible healthcare environment that will be conducive to the provision of quality maternal healthcare services.

Only a few examples are included in the text, due to the large number of responses received from participants. However, all the responses are provided in Chapter 3.

6.1 FLEXIBLE ENVIRONMENT

According to the Wittmann-Price EDM model, participants and other relevant stakeholders do not stand separate from the health environment and its social and cultural context. Flexible and inflexible environments are the endpoints on a continuum (Wittmann-Price 2004:440-444; 2006:378). A flexible environment is one that can be emancipating, because it recognises that sources of power or social norms are inevitable (Wittmann-Price 2004:440-444; 2006:378). Healthcare professionals are part of the environment, and are expected to support pregnant mothers' decisions by allowing pregnant mothers to appraise their norms appropriately in relation to their personal knowledge while under the care of health professionals.

To address the causes of stillbirths, health professionals need to create a flexible environment at healthcare facilities, where all pregnant mothers can make healthcare decisions and communicate their decisions and frustrations about care freely (Wittmann-Price & Bhattacharya 2008:225, 236). A flexible environment is non-judgmental and it respects and honours the knowledge of each pregnant mother and considers that social norms can affect healthcare decision-making (Wittmann-Price &

Bhattacharya 2008:225:236). In the Wittmann-Price EDM model, person-centred care requires that healthcare options are discussed in a flexible environment with the purpose of empowering mothers through their involvement and participation in healthcare decision-making (Wittmann-Price & Bhattacharya 2008:225-236). Healthcare professionals should acknowledge pregnant mothers' personal knowledge and encourage health dialogue that will ensure that the expecting mother and her family are involved in planning the necessary care (Wittmann-Price & Bhattacharya 2008:225-236).

Participants identified seven subcategories relating to an inflexible environment, namely,

- Failure by clinical personnel to interpret pregnant mothers' clinical assessment findings;
- Lack of transport by EMS;
- Inaccessible healthcare;
- Failure to manage pregnant mothers, or to act;
- Failure to notice unusual situations or abnormalities that warrant action by clinical personnel;
- Poor communication and failure to share information; and
- Unskilled clinical personnel.

The commonalities and disparities amongst participants with regard to causes of stillbirths per sub-category were identified under the flexible environment theme. Flexible environment sub-categories are displayed in descending order in Table 6.1.

Table 6.1: Flexible environment theme with sub-categories

SUBCATEGORIES	PARTICIPANTS				TOTAL RESPONSES
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	
Failure to interpret (healthcare professionals) • Mothers not attended to • Delayed medical service • Delayed clinical decision-making • Incorrect application of triage system • Delayed referral • Provided incorrect information • Failure to comply to prescribed clinical protocols	15	15	12	5	47
Lack of EMS and transport	16	6	10	0	32
Inaccessible healthcare	13	9	6	0	28
Failure to manage or to act	11	12	3	1	27
Failure to notice	13	1	0	4	18
Poor communication and failure to share information	3	5	7	0	15
Unskilled health professionals	1	2	8	1	12

The literature review and discussion of findings will follow the sequence in Table 6.1.

6.2 FAILURE TO INTERPRET

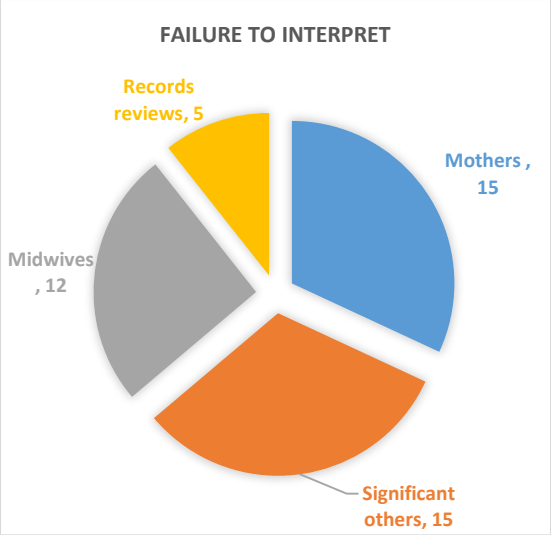
The outcome of the study indicates that stillbirths may have occurred because of health professionals' failure to interpret maternal clinical assessment findings. Failure to interpret maternal clinical assessment findings results in poor clinical reasoning or judgement by the attending health professionals and is an indication of poor quality

health services, and may contribute to negative birth outcomes (Tunçalp et al. 2015:1045-1048).

The quality of service provided is defined as the degree to which maternal health services for individuals and populations are provided in a timely fashion, clinical assessment findings are interpreted and appropriate treatment for the purpose of achieving desired health outcomes is administered (Tunçalp et al. 2015:1045-1048). Tanner (2006:208) explains that healthcare professionals should, first, notice any deviations from the norm during holistic assessment, use relevant information and knowledge from different domains to interpret the findings, and then plan care based on best available evidence in collaboration with the patient and his/her family. The presence of a skilled attendant during childbirth is the prerequisite for timeous clinical assessment, correct interpretation of findings, such as clinical abnormality or complications, in order to ensure prompt referral to the correct levels of care (Tunçalp et al. 2015:1045-1048).

The following statements by mothers, significant others, and midwives who participated in this study, and record review, confirm that failure by clinical health personnel to interpret clinical assessment findings resulted in,

- Mothers not being attended to during birth;
- Delayed medical service;
- Delayed clinical decision-making or incorrect clinical decisions;
- Incorrect application of the triage system;
- Delayed referral;
- Incorrect information being provided; and
- Noncompliance with prescribed clinical protocols.



The ambulance stopped and the other ambulance personnel who was driving came and took my baby who was lying between my thighs... I was then told that my baby was dead. (M)

The other thing that my daughter told me is that baby was not suctioned by EMS when he was born... I am sure that also contributed to the death of the baby because he could aspirate easily. (S)

I also heard that the ambulance stopped for a moment on the way to the hospital and she got out of the ambulance and walked a bit outside [delay]…...That incident have also added to the delay to give birth to the baby. (S)

I did not understand but Mmama [mother of the stillborn baby] also told me that she was left alone or forgotten for a long time. I suspect that baby might have died due to lack assistance. (S)

I think nurses and doctors failed me, because they decided about the operation earlier on but they did not perform it... Therefore, they delayed to protect my baby. (M)

The doctor at the hospital told me that my baby was too big, therefore, he needed to book me in advance for Caesarean, and that was never done until I was nine months pregnant. (M)

Failure to take decisions with regard to the need to perform caesarean section for uncontrolled hypertension and big baby. (M)

Failure to take decisions to perform operation for uncontrolled hypertension and big baby. (S)

Misunderstanding between healthcare professionals caused delays in decision making. (RM)

She needed to be attended to urgently and was not attended to [triage system]. (S)

Staff at this clinic are responsible for the death of her baby, because they never send her to the doctor... To me this is pure negligence, they do not care about us, and they treat us the way they want. (S)

I know that with that pregnancy she was not well, I think the hospital also failed her, they could have admitted her in the hospital until she gave birth. (S)

This is contributing to the wrong and unreliable observations, more especially with PIH [Pregnancy induced hypertension]. (RM)

No response to history of poor foetal movement. (R)

The possible causes here might be non-compliance to prescribed protocols by midwives and doctors. (RM)

No response to history of stillbirths. (R)

Assessment done to these pregnant mothers is of poor quality and most of the times they continuously miss some abnormalities. (RM)

Poor history taking at antenatal clinic. (R)

I have realised that, on several occasions, interventions that are written do not talk to the observations or do not address the problems identified, therefore, a receipt for late referral and mismanagement. (RM)

Intra-partum foetus not monitored. (R)

Health professionals also delayed to transfer me to the next level of care. (M)

Health professional at the clinic who gave wrong advice and failed to refer her to the next level of care timeously. (S)

Also delayed to refer her to the hospital for further management. (S)

Some unexplained stillborn babies that occurred are caused by delays by the referring health facilities. (RM)

Delay in medical personnel calling for expects or assistance. (R)

The health facilities failed to identify and classify me in the antenatal as a high risk. (M)

I was a high risk and was managed at the wrong level, resulted in mismanagement and late referral. (M)

The health professionals failed to identify and classify her as a high risk patients in the antenatal. (S)

Figure 6.1: Failure to interpret sub-category

The failure to interpret sub-category, under the flexible environment theme, is one of the sub-categories under this theme with the highest number of responses (47). The findings of the study indicate that the majority of mothers, significant others and midwives perceived that, in some situations, healthcare personnel failed to interpret maternal clinical assessment findings. Failure to interpret assessment findings leads directly to a delay in referral to the next level of care, and contributes to the number of stillbirths. Both mothers and significant others mentioned that doctors and midwives failed to interpret maternal clinical assessment findings, and identify instances where there was a need to perform an urgent caesarean section – according to them, this failure resulted in stillbirths. Midwives confirmed that clinical personnel did not apply clinical guidelines, which led to mismanagement and delays in referral to the next level of care. The findings of this study are in accordance with Musafili, Persson, Baribwira et al. (2017:online) who report that most stillbirths (stillbirth rate of 20/1 000 births) are related to delays in referring pregnant mothers to the relevant level of healthcare facilities.

Late diagnosis of some pregnancy-related complications, such as abruptio placentae and preeclampsia, were factors that contributed to the initiation of adequate treatment,

and to birth outcomes (Musafili et al. 2017:online). Maaløe, Housseine, Bygbjerg et al. (2016:online) report that, in their study, the causes of hospital stillbirths were related to provision of substandard quality of care, such as delayed decision-making and poor communication amongst healthcare professionals. Other causes of stillbirth are related to inadequacies in the practices of healthcare providers, such as late diagnosis or failure to diagnose, poor obstetric history taking, where high-risk pregnant mothers do not receive special attention during pregnancy, and failure to attend pregnant mothers timeously (Musafili et al. 2017:online).

A study conducted in Japan by Koshida, Ono, Tsuji et al. (2015:148) reports that, of 66 682 births, 252 were stillbirths, and 25% of reported stillbirths was related to substandard care, such as failure to diagnose foetal distress; and 12% was due to failure to diagnose pregnant mothers presenting with foetal growth restriction, premature labour, multiple pregnancy and hydropsfoetalis, among other conditions. Furthermore, Sugai et al. (2017:online) explain that other causes of stillbirth were associated to limited knowledge in relation to diagnosing and managing potential stillbirths timeously.

6.3 LACK OF EMERGENCY MEDICAL SERVICES AND TRANSPORT

Babinard and Roberts (2006:1-10) mention that transport services affect both preventive and emergency childbirth care and, thus, play a key role in the survival of mothers and their unborn babies, as complications during pregnancy and birth may rapidly become life-threatening. Delayed referral, poor road infrastructure and/or lack of transportation may also influence pregnant mothers' decisions to seek healthcare (Atuoye, Dixon, Rishworth et al. 2015:online; Babinard & Roberts 2006:10).

The following statements by mothers, significant others and midwives confirm that EMS and transport challenges, such as inaccessibility of the EMS call centre, ambulance response times, and EMS delays contribute to stillbirths. Participants mentioned that some ambulance delays were related to shortage of staff, shortage of vehicles and certain municipal areas not being allocated ambulances. Ambulances respond to accidents, and are unable to attend to other emergencies, such as pregnant mothers in need.

After getting through to the call centre we were told that the ambulance was still going to fetch another person who was burned. (M)

There is a gap in terms of availability and response of ambulance services in this town. There is also no available 24 hour health services. (S)

That the participant blamed unavailability and inaccessibility of ambulance [for delays]. (S)

The other causes of unexplained stillborn babies that are reported in our health facilities might have been due to lack of transport, more especially in our area [farms]. (RM)

Mothers, significant others and midwives confirmed that the ambulance call centre system used by the Department of Health to register and release or dispatch ambulances to different areas was not user-friendly and contributed to the delays or lack of response, which resulted in negative birth outcomes.

Participants confirmed the findings of Alabi, O'Mahony, Wright et al. (2015:4) and Jammeh et al. (2011:7-8), that when emergency caregivers had delayed they found the babies already born, and dead. The research findings indicate that record reviews do not link the causes of stillbirths with the challenges in relation to EMS, response time and unavailability of transport.

I told the nurse that am experiencing severe pains and she asked if I do not know anyone with a car to take me to hospital, because the ambulance would take a long time to arrive. (M)

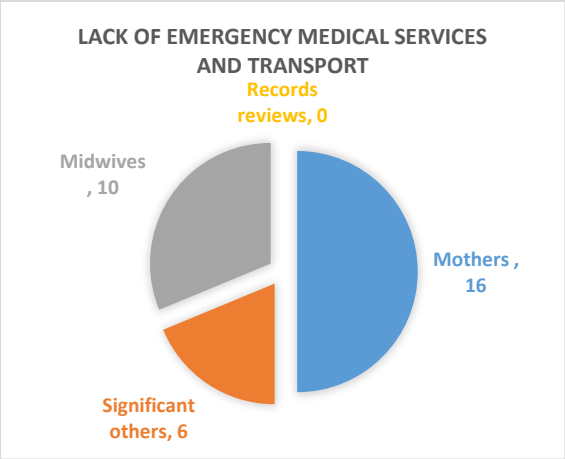
I am sure twenty minutes after the baby came out, the ambulance personnel arrived, but by that time the baby was already dead... The ambulance personnel told us that they delayed because of an accident that they had to attend to first. (M)

We also struggled to get an ambulance, it only came after a long time when the baby was born and they told us that she was dead. (S)

EMS long turnaround time or no response at all is frustrating. (RM)

There is this EMS system where one need to phone the call centre before the ambulance can be dispersed to a facility. (RM)

Some unexplained reported stillborn babies might have been due to lack of skills by EMS personnel who assisted mothers who gave birth in the ambulance. (RM)



I requested my husband to phone an ambulance... We phoned on several times but they did not come. (M)

I called an ambulance, which came after four to five hours'. (M)

Although the issue of EMS delay might have played a minor role on the death of the baby, but I struggled a lot to get the ambulance which took her to the hospital. (S)

The participant blamed unavailability of a stationed ambulance in the town [delays]. (M)

We don't have ambulances here. People are struggling. (S)

This municipality has a big area with a problem of availability of public transport. (RM)

Farm pregnant mother struggle to respond to labour pains even if they wanted to, because transport problems. (RM)

The other cause of death might have been ambulance delay. (M)

Delay or unavailability of EMS on site contributes to the occurrence of stillborn babies at our hospitals. (RM)

I phoned my husband and he organised a transport to hospital. When I arrive at the hospital nurses tried to save my child's life, but it was already late. (M)

The EMS is really a big challenge which need to be addressed in responding to our high rate of stillborn babies in the District. The other causes of unexplained stillborn babies that are reported in our health facilities might have been due to lack of transport, more especially in our area. (RM)

Four hours later, the ambulance arrived. I already had very strong contractions and the baby was about to come out. (M)

I think what contributed to the death of my baby is the ambulance delays. (M)

I think it is because the ambulance delayed to come fetch me. (M)

The ambulance was called on several times. It only came after two hours. (M)

That the baby died because of ambulance delays. (S)

I struggled for a long time to get through the call centre. (M)

I think we had a problem with the ambulance. She requested me to phone an ambulance. I struggled to get to the call centre and when I get the call centre it was already late. (S)

In an event there is no ambulance available or the call centre does not answer, we are on our own. (RM)

The ambulance also delayed, I don't know why they did not look for any other transport. I am sure they struggled because it was during the night. (S)

For those who stay in the farms it is worse, because our ambulances always delay when called or they even not respond to the calls. (RM)

Problem of unavailability of ambulances. (RM)

Figure 6.2: Lack of emergency medical services and transport sub-category

Jammeh et al. (2011:7-8) mention that, even if pregnant mothers in remote rural areas had made a decision to seek medical assistance promptly, transportation difficulties caused unnecessary delays in reaching adequate care, thus, resulting in unnecessary stillbirths. According to Cavallaro and Marchant (2013:496-507), lack of ambulances stationed at lower-level healthcare facilities are a significant component of referral delays.

Significant others mentioned that shortage of transport and unavailability of ambulances create a challenge, as pregnant mothers struggle to get to the health facilities timeously when they need medical assistance, thus, contributing to unnecessary stillbirths. Significant others mentioned that challenges relating to municipal infrastructure, such as lack of street names, and poor roads, contribute to ambulance delays and stillbirths. Record reviews did not link the cause of stillbirths to the challenges of accessibility of transport and ambulances.

> *The ambulance also got lost, we do have a problem in this area, and there are no street names. (S)*
>
> *There are still challenges of ambulance response times coupled with municipal infrastructure issues that need to be addressed even if they did not contribute to the death of the baby. (S)*
>
> *Heath systems failure [e.g. lack of flexibility and lack of access to antenatal clinic during certain weekdays and hours]. (S)*

This study supports findings that claim that limited or unavailability of transport plays a significant role in whether pregnant mothers could reach health facilities in time for childbirth or in the case of an emergency (Alabi et al. 2015:4; Bohren et al. 2014:9; Wilunda, Quaglio, Putoto et al. 2014:online). Poor road conditions and long geographical distances, coupled with informal settlement structures, make it difficult for the ambulance drivers to locate municipal areas (where there are no street names) when they need to fetch pregnant mothers, thus, resulting in delays and negative birth outcomes (Bohren et al. 2014:9; Wilunda et al. 2017:online). Poor access to life-saving obstetric care is a contributor to maternal and perinatal mortality; the lack of access may be due to unavailability of transport and infrastructural challenges (Munjanja, Magure & Kandawasvika 2012:139). Sakeah, McCloskey, Bernstein et al. (2014:online) report that, irrespective of health education that was given by traditional birth attendants and community health workers to pregnant mothers on the importance of early referral and the use of health facilities during birth, inadequate transportation remains a challenge that prevents mothers from accessing maternity services in rural areas, thus, resulting in delay and negative birth outcomes.

6.4 INACCESSIBLE HEALTHCARE

Babinard and Roberts (2006:10) state that, in order to access healthcare services in time, emphasis should be on an efficient referral system, through which pregnant mothers and children can be moved within the health system to the correct level of care without facing challenges. According to participants of this study, access to healthcare involved challenges, such as referral policies, implementation of designated sites for caesarean sections (inaccessibility of caesarean section services), and accessibility and frequency of antenatal services (inability to attend, due to specific days and hours of operation at clinics).

The majority of mothers and significant others felt that the operational hours and specific days allocated for antenatal clinics had negative birth outcomes. This finding is in accordance with Bohren et al. (2014:9), who found that pregnant mothers experience lack of access to health facilities, because the facilities are closed during certain hours of the day, which prevents mothers from accessing health services in

time, thus creating delays and raising the possibility of stillbirth. Factors contributing to inaccessibility of health facilities, such as pregnant mothers having to return home without having received care, discourage pregnant mothers from attending antenatal clinics (Andrew, Pell, Angwin et al. 2014:10). Consistent with our study, Cianelli, Mitchell, Albuja et al. (2014:7) and Zandile and Khambule (2016:45-46) report that some PHC clinics are open only once a week, are closed on public holidays and weekends, and some do not have fixed hours of operation. As a result, pregnant mothers often have to return home without being attended to, resulting in delays in receiving medical assistance or attending antenatal care clinics, and in negative birth outcomes. Most mothers in this study requested extended hours of service for provision of emergency services.

> *I knew that they were going to return me back, as it was already in the afternoon. Usually they don't register patients after two at the clinics. (M)*

> *I went to the doctor for confirmation and I was told that, indeed, I was seven months pregnant... I was referred to the clinic for further management. Immediately I went to the clinic, when I arrived it was on Monday... I was told to come on Thursday, since that day was not for pregnant mothers. (M)*

A few mothers indicated that they were not allowed to access healthcare services at hospitals without referral letters.

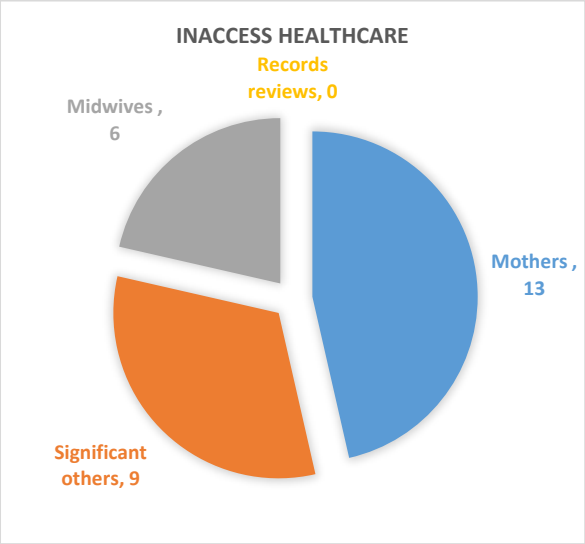
> *We are not allowed to go to the hospitals without the referral letters from the clinics unless we are already in labour. (M)*

Midwives indicated that the referral policy delayed the referral of pregnant mothers to the regional or tertiary hospital, as the referral policy require that PHC refer to the district hospitals first, even if their conditions warrant them to bypass the referral system. Midwives also mentioned that the policy on designated caesarean section sites in the district prevents other district hospitals from performing caesarean sections; furthermore, long distances and unavailability or shortage of emergency service ambulances caused delays and, thus, contributed to stillbirths. According to Bohren et al. (2014:11), lack of access to certain health facilities by pregnant mothers is influenced or determined by policies that are beyond the control of individual

pregnant mothers, and the effect of lack of flexibility of such policies may be negative birth outcomes. A midwife in this study reported as follows.

> *Hospitals that are not performing operation [caesarean sections] after hours, coupled with delay or unavailability of EMS on-site, contributes to the occurrence of stillborn babies at our hospitals. (RM)*

Health policies and factors related to the political and social context hinder provision of maternal health services and, thus, prevent effective provision and integration of maternal and child health services and maintain barriers that result in poor health outcomes (De Jongh, Gurol-Urganci, Allen et al. 2016:549). Regionalisation or centralisation of provision of caesarean sections have increased rates of adverse perinatal outcomes. The purpose of regionalisation or centralisation is to address resource challenges, such as recruiting and retaining rural skilled health professionals, and shortage of other, related resources, which require rural pregnant mothers to travel or be transported for distances that take longer than an hour to travel, to access maternity services (Grzybowski, Stoll & Kornelsen 2011:online).



Lack of flexibility in the implementation of the referral policy by other referral institutions. (RM)

Referral policy which causes delays. (RM)

During those years we were told to come back to the clinic after two to three months depending on their observation. (M)

I could not go to the clinic on that day because it was not the day for pregnant mother. (M)

Pregnant mothers are only allowed to attend the clinic on Thursdays. (M)

The other problem that she experienced during pregnancy was that, even if she was not feeling well, she would wait for the antenatal clinic day, because she was afraid that they would return her back.(S)

They were going to send me back as they see pregnant mothers only on specific days. (M)

The worst part of it is that it was on Friday, and it was a day for people who are mentally ill not for pregnant people. (M)

Inaccessibility of antenatal health care services at the clinic at certain days of the weeks and hours of the day. (S)

Inaccessibility of antenatal health care clinics or lack of flexibility in providing the services to pregnant mothers during certain periods. (M)

Inaccessibility of antenatal healthcare services at the clinic at certain days of the weeks and hours of the day. (M)

Even now, if I can go to clinic, I'll be told it is midday, I must come in the morning... Even if you are working they still want you to come early. (M)

Clinics hours of operations, which result to unavailability of antenatal care services. (RM)

The baby died because of inaccessibility of antenatal care services at the clinic for pregnant mothers. (S)

There is also no available 24 hour health services. (S)

Policy on implementation of designated sites for caesarean section. (RM)

Other hospitals in the District that are not performing caesarean sections after hours. (RM)

Figure 6.3: Inaccessible healthcare sub-category

6.5 FAILURE TO MANAGE OR ACT

Tunçalp et al. (2015:1045-1048) define quality of care, specifically in relation to maternal and child health, as clinical knowledge of the attending health professional that has been applied to manage pregnant mothers, using an available and relevant set of clinical standards to manage pregnant mothers in time, effectively and safely. According to the ICM (2017a:1-19), quality of maternal healthcare services is defined as the availability and accessibility of a combination of knowledge, professional behaviours and specific skills that are demonstrated at a defined level of proficiency in the context of midwifery education or practice. ICM standards expect midwives to provide a comprehensive, high quality service, which includes support, care and advice during pregnancy, labour and the postpartum period, to conduct births on the midwife's own responsibility, and to provide care for the newborn and infant (ICM 2017b:1-19).

Quality of care includes preventive measures, the promotion of normal birth, the detection of complications in mother and child, the accessing of medical care or other appropriate assistance and the carrying out of emergency measures, amongst others

(ICM 2011:1-19). Participants mentioned that clinical personnel failed to act or manage conditions experienced during pregnancy, such as those related to chronic illnesses, post-maturity, foetal distress, ruptured membranes, cephalopelvic disproportion (big babies), abruptio placentae, and prolonged labour.

In this study, the majority of mothers and significant others mentioned that the causes of stillbirths were related to failure by clinical personnel to manage chronic illnesses, such as hypertension, diabetes and HIV/Aids infections during pregnancy. Three midwives confirmed that the causes of stillbirths were related to their failure to manage chronic illnesses, such as pregnancy induced hypertension during pregnancy. Only one comment from the record review indicated that stillbirth was caused by poor management of hypertension during pregnancy.

> *My baby died because of the hypertension and diabetic illnesses that was not managed at the clinic. (M)*
>
> *During subsequent visits this patient already had signs of hypertension in pregnancy and was a known diabetic on treatment who was not managed properly. (S)*
>
> *The nurses also failed to manage her HIV illness during pregnancy. (S)*
>
> *The other issue is poor mismanagement of pregnant mothers presenting with chronic illnesses, such as diabetes, hypertension, HIV/Aids and others. (RM)*

Consistent with this study, Maaløe et al. (2016:online) and Stellenberg and Ngwekazi (2016:online) found that, despite all the participants being fully qualified midwives, the majority had no knowledge of the appropriate position for correct reading of blood pressure; could not distinguish between various categories of hypertensive disorders in pregnancy; and some of the mothers who experienced stillbirths did not have their blood pressure recorded during active labour. Managing hypertensive disorders in pregnancy is crucial for the safety of both mothers and babies, and failure to manage such patients have been found to be associated with stillbirth, intrauterine death, and intrauterine growth restriction, amongst other outcomes (Stellenberg & Ngwekazi 2016:online). Stellenberg and Ngwekazi (2016:online) report that hypertensive

disorder in pregnancy is one of the major medical conditions that causes maternal and perinatal mortality – in 10% of pregnancies it may progress to pre-eclampsia. In South Africa, perinatal deaths and maternal deaths associated with hypertensive disorders in pregnancy are caused by avoidable factors, such as failure to prescribe according to available protocols, failure to administer antihypertensive treatment, delay in referring to the correct level of care and unavailability of transport (Maaløe et al. 2016:online; Stellenberg & Ngwekazi 2016:online).

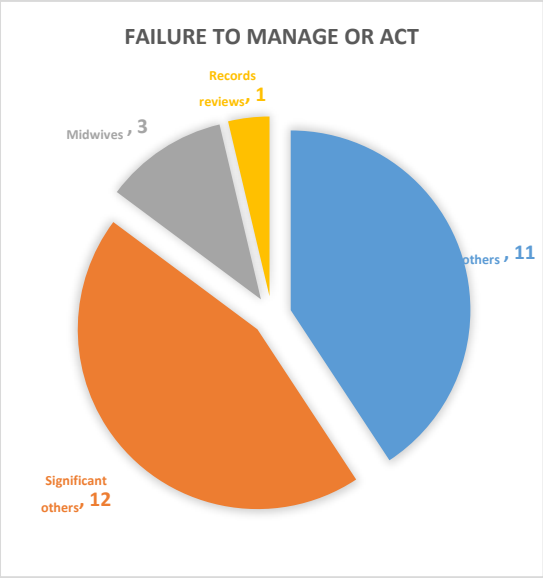
Mothers and significant others in this study stated that they lost their unborn babies because clinical personnel did not manage complications, such as foetal distress, prolonged labour and ruptured membranes. Some mothers also indicated that clinical personnel failed to manage post-maturity and abruptio placentae, which lead to the deaths of their unborn babies.

> *I came already having foetal distress due to cord around the neck and it was not closely monitored. (M)*
>
> *It was mismanagement of foetal distress. (S)*
>
> *She reported at the clinic that her baby was not playing well, reduced foetal movements and lower abdominal pains, but was not referred in time, therefore, resulted to a delay. (S)*
>
> *I was admitted with per vaginal bleeding due to the placenta that detached and was not seen by the doctor for the whole night. (M)*
>
> *Health professionals also failed to manage her prolonged labour. (S)*
>
> *Her baby died because of mismanagement of early ruptured membranes and negligence by health professionals. (S)*

Perceptions of participants in this study correspond with findings of various studies, namely, that stillbirths were related to sub-standard care, prolonged or obstructed labour, preterm labour, abruptio placentae, and uterine rupture, that occurred in health centres and hospitals; other deaths were linked to suboptimal care received (Koshida et al. 2015:148; Musafili et al. 2017:online). Mgaya, Litorp, Kidanto et al. (2016:online) found that poor foetal heart monitoring or inadequate monitoring of foetal heart

contribute to stillbirths and neonatal deaths, including taking the wrong decision, which could lead to caesarean sections being performed unnecessarily, exposing mothers to higher risks in future pregnancies (Mgaya et al. 2016:online).

Wimmer (2015:6) reports that, with increasing gestational age (post-maturity), delays in performing caesarean sections contribute to stillbirths. Wimmer (2015:6) suggests that, to address the increasing number of stillbirths, the 39-week rule for performing caesarean sections should be mandatory, and not optional, and that pregnant mothers should receive early-term labour induction if pregnant mothers believe that such an intervention is in the best interests of themselves and/or their foetus.



The hypertension that was not properly managed at the clinic. (M)

You know, Mama, on my opinion, I think the problem was with the clinic personnel, because they failed to manage her high blood pressure. (S)

The nurses also failed to manage HIV-positive mothers during pregnancy. (M)

The baby died because of early ruptured membranes, mismanagement of early ruptured membranes and negligence by health professionals. (M)

That the death of the baby was also related to been pregnant longer than 40 weeks (post-maturity) that was missed by health professionals. (M)

The other thing that I think contributed to the death of the baby is the delay in giving birth. (S)

No response to maternal hypertension. (R)

The other cause of death could be mismanagement of hypertension during pregnancy by hospital personnel. (S)

Pregnant mothers who presented with hypertension was mismanaged at the clinic coupled with delay to refer to the next level of care. (S)

Figure 6.4: Failure to manage or act sub-category

6.6 FAILURE TO NOTICE

Lanzoni (2016:1-3) suggests that failure by the attending health professional to notice a deviation from optimum maternal conditions, or complication, is an indication that

poor or substandard quality maternal healthcare services are being provided. Lanzoni (2016:4), furthermore, mentions that, despite the fact that the most successful strategy for reducing the perinatal and maternal mortality rate is providing rapid access to the correct level of healthcare, factors such as delays in receiving care, delays by health personnel in recognising signs of complications or emergency, and failure to intervene promptly when the mother arrives at the health facility, still continue to have a negative impact on birth outcomes.

In this study, the majority of mothers claimed that the causes of stillbirths were related to failure by clinical health personnel to notice reduced foetal movement and intrapartum complications, such as abruptio placentae and foetal distress. Furthermore, some mothers and the record reviews suggest that stillbirths were caused by prenatal complications and abnormalities that could not be noticed by clinical personnel, such as intrauterine growth retardation and congenital abnormalities.

Only one comment from significant others suggested that failure to notice a complication or abnormality during pregnant may cause stillbirth. Midwives did not link failure to notice by clinical personnel to stillbirths. According to the study findings, it is evident that clinical personnel, specifically midwives in this study, are incompetent. Though they did not link the cause of stillbirths to their failure to notice, it was reported in Chapter 4 that they need refresher courses because they lack the skills needed to manage pregnant mothers.

Some of the comments by mothers and significant others confirm that failure to notice deviation from the clinical standards or norms contributed to the stillbirths.

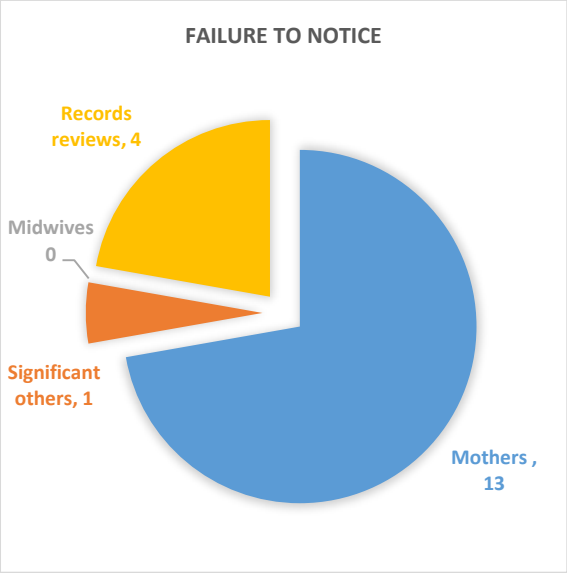
> *They only got to realise that I was carrying an abnormal baby when I was going to the hospital to give birth. (M)*
>
> *They also failed to detect decreased foetal movement, therefore, failed to arrange referral to the next level of care. (M)*

I had vaginal bleeding and professional nurse instructed me to come back home and sleep because there was no pains, during the night the pains started. (M)

Foetal distress not detected; intra-partum foetus not monitored. (R)

No response to poor uterine fundal growth. (R)

Placenta abruption missed sonar done. (R)



When she attended the clinic she already was already labour and bleeding but when she reported to the professional nurse she was ignored. (S)

I went to the clinic and they could not even see that the baby that I was carrying had a big head inside me. [Hydrocephalus]. (M)

I thought that they were going to send me to the hospital for further management or just to confirm with sonar. That was never done. (M)

The following day I had lower abdominal pains and my baby was not moving at all. (M)

I went to the clinic where I was examined and was told that the baby was still okay, but they referred me to the hospital for pains. (M)

Both the clinic and the hospital missed reduced foetal movements. (M)

The private doctor who did not detect reduced foetal movement as well as uncontrolled hypertension. (M)

The private doctor and clinic failed to detect decreased foetal movement, therefore failed to refer to the next level of care. (M)

Foetal distress not detected. (R)

IUGR [Intrauterine growth retardation] missed. (R)

Figure 6.5: Failure to notice sub-category

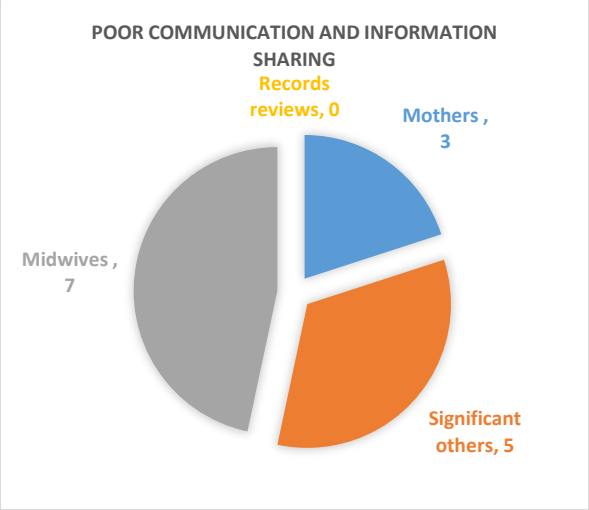
Consistent with this study's findings, Davies-Tuck, Davey and Wallace (2017:10) report that over half of all unexplained stillbirths were caused by failure by health professionals to detect a growth-restricted foetus during antenatal visits. Kashyap,

Pradhan, Singh et al. (2015:online) report that 66.5% of pregnant mothers who presented with foetal malformation and who experienced stillbirths were missed or could not be detected, and 65% of those who were missed had presented to the antenatal clinic for obstetrical sonography before 20 weeks.

6.7 POOR COMMUNICATION AND INFORMATION SHARING

In addition to other sources, pregnant mothers access information about birth by communicating with health professionals when they are admitted or during their routine antenatal visits to health facilities. However, health professionals do not always provide sufficient or relevant information that is consistent with the mothers' needs. Mothers are not given the opportunity to ask questions to clarify, so that they can make informed decisions (Chen 2015:57). According to the Wittmann-Price EDM model, adequate provision of health information is a prerequisite for informed decision-making (Chen 2015:57).

The majority of participants in this study mentioned that the negative attitudes of healthcare personnel towards pregnant mothers, as well as poor communication, such as refusal to provide information, provision of inadequate information, questions asked not responded to and being shouted at, result in nonattendance of healthcare facilities, and delays and reluctance to seek medical assistance. Midwives confirmed that some health personnel, who include midwives, have negative attitudes towards pregnant mothers and amongst themselves, and these attitudes have a negative impact on birth outcomes. Furthermore, midwives indicated that there is a need for all health personnel to address their negative attitudes or behaviour, because it affects the relationship of trust between health personnel and pregnant mothers. Significant others also indicated that undisciplined personnel who displayed negative attitudes to pregnant mothers at health facilities impact negatively on birth outcomes.



When you need help, they can't help; they shout at you. They can't talk to people properly. (M)

Next time when you need help, you despair to attend hospital because they will be shouting at you. (M)

I was shouted just for asking to see my dead baby. (M)

For instance, when you approach a nurse, asking for help, they shout at you, they don't talk to you properly. (M)

Such attitudes promote delays to report to our health facilities, non-attendance of antenatal clinics, which result to all other poor births outcomes. (RM)

The other causes of occurrence of stillborn babies in our health facilities might be our bad attitudes, more especially nurses and clerical staff at the clinics and hospitals. (RM)

They went on to neglect and mismanage her because she refused to terminate pregnancy. (S)

The minute a teenage pregnant mother or a multipara mother enters our health facility, we have a lot to say. (RM)

We need to learn to treat our mothers with respect and educate them nicely. (RM)

Figure 6.6: Poor communication and information sharing sub-category

The South African Nursing Council Code of Ethics for Nursing Practitioners in South Africa dictates that advocacy entails working on another's behalf and representing concerns of patients or pregnant mothers, family and community; it also includes serving as a moral agent in identifying and helping to resolve ethical and clinical concerns of an individual client or pregnant mother within and outside the clinical setting (May 2013:1-19; Nursing and Midwifery Board of Ireland 2014:1-33). Advocacy must be done on behalf of mothers whose voices have been silenced due lack of knowledge or information, amongst other reasons, and must include advocating for all healthcare users (May 2013:1-19; Nursing and Midwifery Board of Ireland 2014:1-33). According to the Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives, midwives and other healthcare professionals should pursue justice and advocate on behalf of vulnerable and disadvantaged healthcare users and

should be able to justify their decisions and actions (Nursing and Midwifery Board of Ireland 2014:1-33).

Health professionals, in particular midwives, have the responsibility to ensure that their patients (pregnant mothers) are informed, educated, supported, and guided correctly – this includes taking up the role of advocacy for them (Davis 2013:21-24). Like this study, Davis (2013:21-24) found that, instead of being informed on available options, pregnant mothers who attempted to seek information, support, assistance and guidance from healthcare professionals, were dismissed, treated badly, shouted at, and denied access to healthcare services, which resulted in stillbirths.

The following statement by a participant in this study corroborates Davis's findings.

> *I tried to explain and also to give them the referral letter, but I was ignored and told that they were going to perform operations... I was then left on the bench at the admission area.*

Unprofessional and unethical behaviour by health personnel, such as failing to attend to pregnant mothers when they give birth, is defined as a form of violence and verbal abuse, which contribute to poor quality obstetric healthcare services (Mselle, Moland, Mvungi et al. 2013:1-12; Moyer et al. 2013:4; Pickles 2015:5-16). Mselle et al. (2013:1-12) explain, furthermore, that leaving a mother alone during birth is dangerous, and that skilled care during labour and birth is crucial for the safety of mothers and their new-born babies, because life-threatening complications are largely unpredictable, and may become life threatening within a short time.

> *I gave birth alone, she (EMS personnel) did not even want to touch the baby, and instead, she asked whether I was attending a clinic or not. She (EMS personnel) did not want to assist me at all, she was just sitting away from me when my baby was coming out. (M)*
>
> *Pains became very strong and I was transferred to the other room without any explanation given with regard to my unborn baby's condition. I was expecting to give birth to a live baby, until the other professional nurse came*

and told me that I should not bother them with the dead baby that I was carrying. (M)

I asked another professional nurse what was happening with my unborn baby and she just ignored me. (M)

The researcher agrees with Andrew et al. (2014:1, 10) and Wilunda et al.(2014:4), that health personnel's negative attitudes, poor relationships and disrespectful behaviour during the time of birth scared and dissuaded pregnant mothers from giving birth at healthcare facilities; it also caused them to avoid attending antenatal care clinics or to seek medical assistant from health facilities. Mistrust of healthcare providers by pregnant mothers is an indication of poor quality of maternal healthcare services and, coupled with the negative attitudes of healthcare providers, influence pregnant mothers' healthcare-seeking behaviour negatively at childbirth, resulting in a high number of stillborn babies (Phiri, Fylkesnes & Ruano 2015:1).

When I arrived at the maternity, I met the doctor and professional nurses with very bad attitudes. They told me that they were busy and asked me why I didn't go to the local community health centre because it was not my first pregnancy. (M)

Their attitude was really bad and I wanted to go back home, but the lady who accompanied me refused. (M)

I could have gone earlier to hospital, but when you think that they'll be saying you are too brittle, why you came earlier, then you don't go to the hospital. (M)

Some of our pregnant mothers who previously lost their babies while admitted or visited our health facilities or treated badly by our nurses they don't want to come to attend to our clinics for antenatal visits or even during labour. (RM)

Consistent with this study's findings, several authors mention that some stillbirths were related to the negative attitudes of health workers, who were described as negligent, verbally abusive, rude, unhelpful, disrespectful, easily angered and lacking

compassion (Bohren et al. 2014:4; Kiguli et al. 2017:3; Yakubu, Benyas, Emil et al. 2014:385).

> *The attitude of ambulance personnel for the death of her baby. (S)*
>
> *That bad attitudes of health professional, coupled with lack of communication with pregnant mothers, affected informed health decision-making by health professionals. (S)*

Contrary to this study, Bohren et al. (2014:4) and Yakubu et al. (2014:385) mention that, during childbirth, healthcare providers were physically abusive and bossy and insulted pregnant mothers during childbirth. Moyer et al. (2013:2) explains that healthcare professionals perceive themselves as having extreme power, which differentiates them from patients. Healthcare professionals have been reported to humiliate and verbally and physically abuse patients to assert their authority and control over patients. Midwives do whatever it takes to help a mother giving birth to have a healthy baby, even if that means hitting her to help her focus on pushing during birth (Moyer et al. 2013:2).

> *Attitude of some pregnant mothers towards the nurses create some barrier, because such mothers do not want to accept any information from nurses as they had lost trust. (RM)*
>
> *Negative attitudes of mothers, their families and community members towards health professionals, influenced by our media and perceptions, promote poor cooperation, mistrust relationships between the mothers and health professionals. (RM)*
>
> *Where there is a problem of attitudes of doctors who do not want to be advised by midwives, usually there is a poor communication. (RM)*

It is interesting to note that, in this study, registered midwives perceived themselves to be unblemished, because they view pregnant mothers and doctors to be the parties with negative attitudes. The statements above may support the explanation by Moyer et al. (2013:2), that health professionals perceive themselves as having extreme power, which differentiates them from pregnant mothers.

6.8 UNSKILLED HEALTHCARE PROFESSIONALS

According to Wittmann-Price (2004:440) and Fotso and Fogarty (2015:1-3), availability and accessibility of skilled birth attendants is one of the most reliable predictors of positive birth outcomes, while staff shortages are the most consistent barrier to quality emergency obstetric care. Appropriate levels of skilled midwifery staffing is an ongoing concern at maternity units nationally, despite efforts to recruit midwives. Midwives have not kept pace with the increasing demands on maternity services (Siddiqui, Whittingham, Meadowcroft et al. 2014:online).

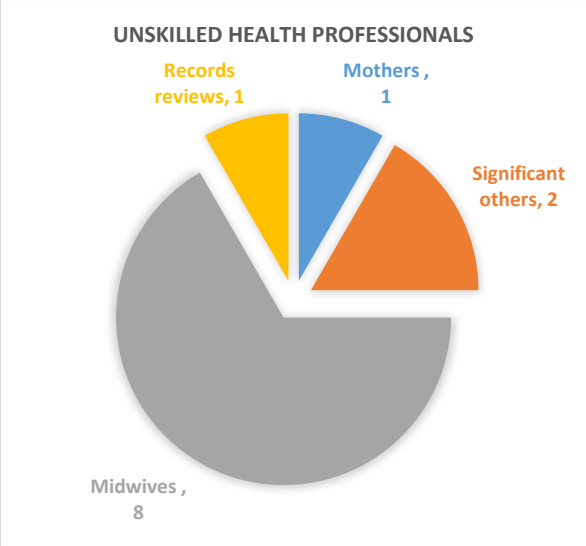
Increased availability of skilled healthcare workers is linked to improved maternal healthcare outcomes; healthcare workforce development is increasingly seen as a critical component of quality provision of maternal healthcare services (Fotso & Fogarty 2015:1-3). Fotso and Fogarty (2015:1-3) indicate that, although there is a need to increase the number of healthcare workers, quality should be prioritised over numbers. Skilled care during childbirth requires the presence of a competent doctor or midwife, who is trained to manage labour and birth, who has the ability to recognise complications timeously, and who can offer emergency treatment or immediate referral to the next level of care for advanced care (Fotso and Fogarty 2015:1-3).

According to ICM Global Standards for Midwifery, eligibility to continue to hold a licence to practise as a midwife is dependent on the individual midwife's ability to demonstrate continuing competence (ICM 2017b:1-21). Assessment and demonstration of continuing competence is facilitated by a recertification or relicensing policy and process, which includes matters such as continuing education, minimum practice requirements, competence review (assessment), continuous lifelong learning and involvement with other professional activities (ICM 2017a:1-21).

In this research, the majority of participants claimed that the shortage of skilled midwives and EMS personnel contributed to stillbirths. Midwives, furthermore, mentioned that the shortage of skilled midwives was mostly evident in PHC clinics, where the quality of maternal healthcare services is continuously compromised because of staff shortages.

Comments by participants and the record review indicates that stillbirths are related to the shortage of midwives at clinics. Mothers and significant others cite the example of a retired midwife who was not replaced and her absence created a gap in the management of emergency births while pregnant mothers were awaiting ambulance transport in a certain area of the district. The following are some of the comments by participants that confirm that that challenges related to health professionals, including shortage and lack of skills, contribute to stillbirths.

> *The problem of shortage of personnel at our surrounding clinic, coupled with lack of skilled personnel, contribute to the occurrence of unexplained stillbirths. (RM)*
>
> *Where there is a critical shortage of midwives, like in our district, there is likelihood of missing or omitting to tell pregnant mothers some important information because one is chasing the long queues. (RM)*
>
> *I think what contributed to the causes of occurrence of stillborn babies at our hospitals is mostly shortage of midwives, mostly at the antenatal clinics. (RM)*
>
> *Our ambulance personnel do not have skills to deal with deliveries; it becomes worse if it's a complicated delivery or where there is a need to do intrapartum resuscitation. (RM)*
>
> *We used to have a nurse who was assisting mothers who gave birth while awaiting for the ambulance, but I understand that she is now on pension. (S)*



When I was nine month I went to the clinic as I was told, but when I got at the clinic the doctor who promised to operate on me was not available on that day. (M)

Since her [midwife] departure, we are struggling, especially with the pregnant mothers who gave birth while awaiting an ambulance. (S)

There is a great possibility that some of stillborn babies that are reported might have occurred because of problem of shortage of personnel at our surrounding clinics, as well as at the hospitals. (RM)

Inadequate nurses on duty to manage patients. (R)

There is a problem of availability of skilled midwives, coupled with poor supervision in our health facilities. (RM)

Some unexplained reported stillborn babies might have been due to lack of skills by EMS personnel who assisted mothers who gave birth in the ambulance. (RM)

Figure 6.7: Unskilled health professionals sub-category

Shortage of skilled midwives and lack of equipment in healthcare facilities are associated with poor provision of maternal healthcare services, and result in negative birth outcomes (Melberg, Diallo, Tylleskär et al. 2016:1; Mselle et al. 2013:1-12). Consistent with this study's findings, Mselle et al. (2013:1-12) mention that lack of skilled attendants at birth was the most-often-cited reason for negative birth outcomes. According to Campbell-Yeo, Deorari, McMillan et al. (2014:398), skilled midwives are associated with decreased maternal and perinatal mortality.

Contrary to this study, various authors indicate that shortage of medical and blood transfusion supplies contribute to stillbirths (Melberg et al. 2016:1; Mselle et al. 2013:1-12).

Consistent with this study, Cianelli et al. (2015:8) report that pregnant mothers expressed concerns about unavailability of healthcare providers at hospitals, which contributed to negative birth outcomes. According to Ojua et al. (2013:181), unskilled birth attendants may not be able to manage pregnant mothers with complicated labour, thus, contributing to stillbirths. It was mentioned in Chapter 4 that this study concurs with Cianelli et al. (2015:6), by indicating that the midwives in this study acknowledge their incompetence – they requested to be retrained in maternal-child healthcare, focusing on advanced midwifery, high-risk, and emergency maternal-child healthcare, so that birth outcomes could be improved.

6.9 COMMONALITIES AND DISPARITIES ON CAUSES OF STILLBIRTHS

Commonalities are similar opinions held by different participants about the reasons for stillbirths, while disparities are different opinions from different participants about what might have contributed to stillbirths. The researcher identified and analysed commonalities and disparities amongst participants to help her develop recommendations and strategies to address the causes of stillbirths.

Figure 6.9 shows that the majority of mothers, significant others and midwives indicated that sub-standard care may contribute to stillbirths. Sub-standard care exhibits as failure by clinical health personnel to notice, interpret and act on clinical assessment findings or a clinical condition during pregnancy, especially in the case of abnormalities, challenges posed by access to healthcare, challenges relating to availability of EMS, transport for pregnant mothers and lack of skilled clinical personnel.

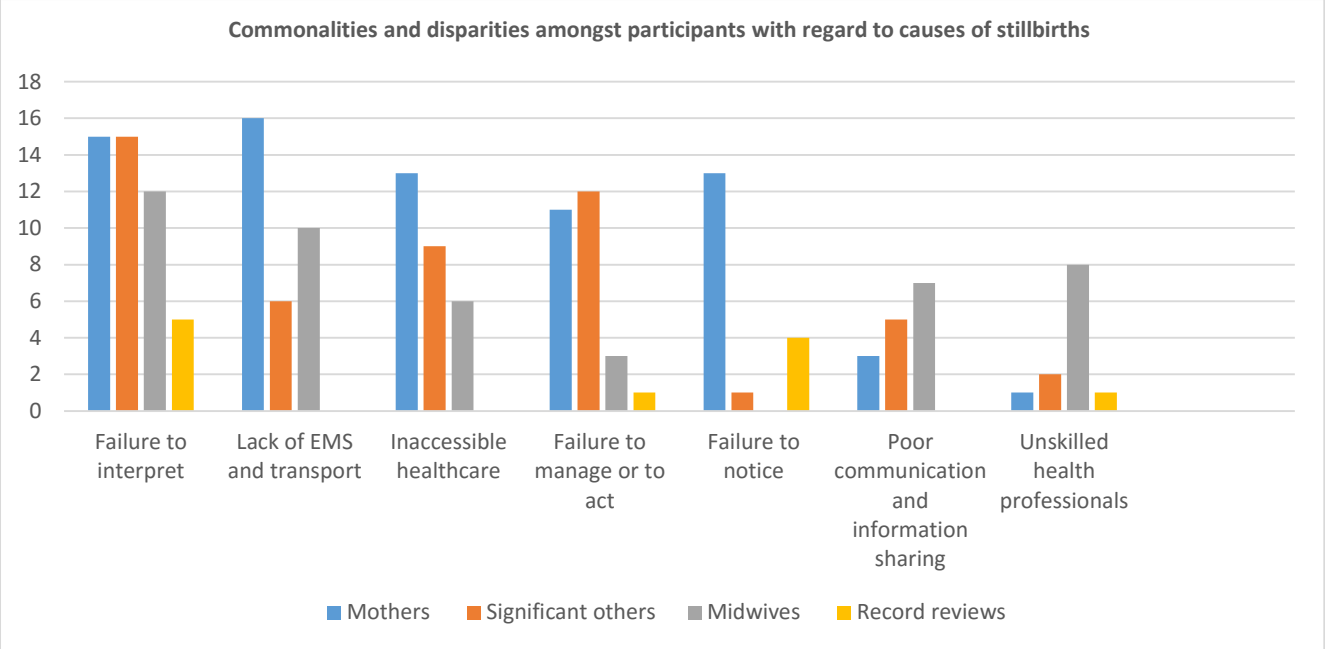


Figure 6.8: Commonalities and disparities amongst participants on causes of stillbirths

The results, including, to a lesser extent, record reviews, indicate that failure to interpret clinical assessment findings during pregnancy may cause stillbirths. The majority of mothers and significant others agreed that failure by clinical personnel to manage or act when they are confronted with maternal situations or conditions during pregnancy may contribute to stillbirths. Both significant others and midwives, equally, indicate that poor communication and undisciplined health professionals cause stillbirths.

A disparity among different data sources was that mothers was the only category of participants who indicated that failure to notice abnormalities related to maternal clinical condition may contribute to stillbirths. Other disparities identified from the research results are that information from neither midwives nor record reviews linked the causes of stillbirths to a failure by clinical personnel to notice maternal abnormalities during pregnancy, challenges related to EMS and transportation, challenges posed by access to health facilities or services, and communication challenges.

Another disparity was that midwives, during focus group interview sessions, did not link stillbirths caused by unskilled personnel's failure to notice, failure to interpret and manage, even with the information they completed in the records that were reviewed. This may be an indication that, when midwives complete the PPIP records, they are not open and honest; alternatively, the tools do not provide space for midwives to indicate the challenges posed by the skills gaps they experience.

Contrary to comments in the audit tools about failure of clinical personnel to notice, interpret and manage patients, and challenges posed by skills gaps, the results of the interview sessions with midwives indicate that the majority of midwives confirm that emergency medical personnel, midwives and medical officers are not competent to manage pregnant mothers and, therefore, they contributed to stillbirths.

6.10 VIEWS ON PREVENTING STILLBIRTHS

Commonalities and disparities in participants' opinions on what needed to be done to prevent stillbirths as the related to a judgmental and inflexible environment were identified and analysed. Both commonalities and disparities were used by the researcher to develop recommendations and strategies that need to be implemented to reduce stillbirths.

Table 6.2 indicates the commonalities and disparities amongst participants with regard to their opinions about what can be done to prevent stillbirths per sub-category under the flexible environment theme.

Table 6.2: Participants' opinions about could be done to prevent stillbirths, in sub-categories

SUB-CATEGORIES	PARTICIPANTS			TOTAL RESPONSES
	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	
Provide resources to address gaps identified	5	4	9	18
Health professionals to notice, interpret and act	13	2	1	16
Improve access to the clinics	8	4	0	12
Discipline undisciplined (verbal or physical abusive) personnel	3	3	4	10

The literature review and discussion of findings will follow the sequence of sub-categories in Table 6.2.

6.10.1 Prevent stillbirths by providing resources to address gaps identified

Asa, Fatusi, Ilori et al. (2015:1849) claim that the effectiveness of any healthcare facility in ensuring the provision of quality emergency maternal obstetric healthcare services depends, to a great extent, on the availability, adequacy and functionality of resources, such as medical equipment and skilled healthcare professionals. The majority of healthcare facilities in Nigeria that provide comprehensive emergency maternal obstetric healthcare have inadequate resources, thus, contributing to negative birth outcomes (Asa et al. 2015:1849). Asa et al. (2015:1849) suggest that the focus of department of health authorities should be on ensuring that healthcare facilities providing maternal healthcare services have relevant, functioning equipment, medical consumables, drugs and skilled healthcare professionals. Furthermore, Asa et al. (2015:1849) recommend that an accreditation programme is used to enforce quality assurance and quality improvement for healthcare facilities, and that funding of healthcare facilities form part of the requirement for accreditation. Mselle et al. (2013:1-12) suggest that the government in Tanzania needs to ensure that healthcare

facilities are well equipped and staffed by competent and adequate numbers of midwives, have access to essential supplies and drugs, and are supported by the availability of current regulatory frameworks for guidance. The following statements by participants voice their expectation that government should provide the resources required to provide quality maternal and child healthcare:

> *There must be an easy way that can used to test pregnancy ourselves, without requesting nurses who will not assist like they use with condoms. (M)*
>
> *I think the department should look at the availability of HIV treatment at the clinics and if the treatment is not available at the clinic, patients must be allowed to get it from the hospitals. (S)*

Furthermore, the midwives indicated that ambulance equipment was not functional and, to address stillbirths that are caused by lack of functional equipment, such resources needed to be procured and continuously maintained.

According to findings of this research, the majority of midwives mentioned that preventing stillbirths in the district requires the appointment of additional skilled midwives and EMS personnel.

> *Furthermore, the Department should ensure that at least there is one nurse who is available who could assist pregnant mothers while they are still waiting for an ambulance. (M)*
>
> *If the Department of Health do not cope they can arrange that pregnancy services be available or provided by our private doctors, so that when you missed your clinic dates you can alternatively go to private doctors. (M)*
>
> *There is a need to address the shortage of midwives and EMS personnel in the district. (RM)*
>
> *We also need to address EMS issues, such as their skills, availability and response time of ambulances, as well as the functionality of equipment or infrastructure at the clinics, because at times pregnant mothers arrive at our*

hospitals without foetal heart rate because of equipment or transport challenges. (RM)

There is a need to appoint additional midwives and doctors in the district. (RM)

Skilled healthcare personnel are pivotal for ensuring provision of high-quality healthcare services and inadequate numbers of skilled healthcare professionals contribute to poor birth outcomes (Mselle et al. 2013:1-12; Ojofeitimi et al. 2009:26-29). Regular update and refresher courses should be organised for workers who render maternity services at all levels of healthcare delivery (Ojofeitimi et al. 2009:26-29). Pembe, Carlstedt, Urassa et al. (2009:online) suggest that, to address the challenge of a shortage of midwives, nurse auxiliaries should be trained and continuously supported or supervised to improve their performance regarding counselling and training of pregnant mothers on issues such as danger signs during pregnancy.

According to Bhutta et al. (2009:1-7), recruitment and training of traditional birth attendants and other cadres of community healthcare workers has shown some improvement in reducing stillbirths. Vyagusa et al. (2013:1) suggest that health department authorities need to consider recruiting, recognising, involving and acknowledging traditional birth attendants, by providing support, such as training and routine supervision, and rewarding those who comply with the standard guidelines for successfully conducting emergency maternal obstetrics care.

Inadequate emergency care and transport for emergency maternal obstetric care is not unique to South Africa. Schoon (2013:534) found that effective and prompt inter-facility transport of patients with pregnancy complications to an appropriate facility resulted in a reduction of negative maternal healthcare services outcomes, such as maternal mortality and perinatal mortality. He suggests that health authorities prioritise funding for procurement of inter-facility vehicles for maternity services, to ensure prompt access by pregnant mothers to obstetric emergency care (Schoon 2013:534). Pirneskoski, Peräjoki, Nuutila et al. (2016:online) suggest that stillbirths occurring in ambulances on the way to hospitals (out-of-hospital EMS) may be reduced by

resourcing emergency response call centres and EMS with adequate around-the-clock, competent healthcare professionals.

According to Pirneskoski et al. (2016:online), emergency response call centre personnel must have adequate skills, including in basic life support. Emergency medical technicians who man ambulances should ensure that they are qualified in advanced life support. Paramedics and medical officers are responsible for mobile intensive care. When attending to life-threatening calls, mobile intensive care medical officers should be responsible for supporting ambulances through teleconsultation services; all emergency units need to be well equipped, including well-functioning electronic patient reporting systems (Pirneskoski et al. 2016:online).

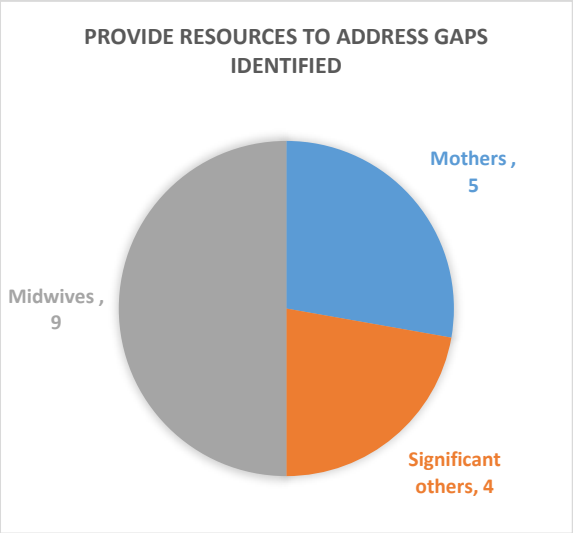
Jammeh et al. (2011:7-8) suggest that adequate and improved transportation during obstetric emergencies may address challenges caused by access to emergency obstetric healthcare facilities and, in turn, impact positively on maternal and birth outcomes. Furthermore, Jammeh et al. (2011:7-8) suggest that forging partnerships between rural communities and local transport owners could be one key strategy for overcoming transport shortages and availability during emergencies.

Well-established, functional communication and ambulance network systems for the transfer of pregnant mothers between health facilities (inter-hospitals ambulances) and availability of an adequate number of competent midwifes, trained in the management of obstetric complications who can accompany pregnant mothers, have been found to be linked with positive birth outcomes (Tayler-Smith, Zachariah, Manzi et al. 2013:995). Availability of adequate, skilled healthcare professionals will ensure that there is continuous provision of clinical support and guidance regarding the best way to manage pregnant mothers during transportation in an ambulance by a skilled midwife through effective communication systems (Tayler-Smith et al. 2013:995). To address negative birth outcomes, Tayler-Smith et al. (2013:995) suggest that a functional, well-equipped and well-resourced EMS with treatment protocols, standardised equipment, and drugs is needed, including a communication system that is accessible 24 hours a day, every day of the week.

You know Mama… here people are struggling, if only we can be provided with the ambulance. (M)

Really, the issue regarding shortage of ambulances need to be addressed. (M)

Mothers and significant others both mentioned that, to prevent stillbirths, there is a need for the Department of Health to procure additional ambulances, and appoint additional midwives in health facilities.



If there could be also pregnancy test kits available for ourselves. (M)

If the ambulance can be stationed here to respond to the community's needs I am sure such problems can be eliminated at once. (S)

The issues of the call centre system that is used by the Department to respond to the needs of the community need to be corrected. (M)

If the ambulance can develop a better system of responding to the community's needs, I am sure such problems can be addressed. (S)

Here our biggest challenge is the ambulance response time. If they can give us our own ambulance then everything will be okay. (M)

The Department need to address the issue around EMS delay as a matter of urgency, otherwise mothers will continue to lose baby due to EMS delays. (RM)

Already we have some strategies to address some gaps, but we need people or resources to implement those strategies. (RM)

Additional personnel will enable us to do outreaches to community to inform them about all issues related to maternal and child health. (RM)

If we can address shortage of EMS personnel, midwives and ambulances, mismanagement of pregnant mothers at the clinics and hospitals will be the thing of the past. (RM)

We also need to address the availability and functionality of emergency equipment in the ambulances and at the clinics, because, at times, pregnant mothers arrive at our hospitals without foetal heart rate, because of equipment challenges. (RM)

There is a need to ensure that our staff establishment and daily allocation in terms of nursing personnel and doctor are according to the number and types of patients that are seen at our health facilities. (RM

I think what we need to do, first, is to appoint enough and skilled midwives to work in the antenatal clinics and maternity units. (RM)

Figure 6.9: Preventing stillbirths by providing resources to address gaps identified sub-category

6.10.2 Healthcare professionals who notice, interpret and act

All clinical health professionals who are registered with health professional bodies or councils are expected to be competent in their areas or fields of registration. Registered midwives and medical officers are, therefore, expected to be clinically competent to notice, interpret and manage any obstetrical medical conditions or pregnant mothers, and ensure that correct and timeous decisions can be taken to prevent delays and complications that may lead to negative birth outcomes. According to the participants, stillbirths would be prevented if healthcare professionals are able to notice, interpret and manage conditions and situations such as foetal distress, signs of psychological stress, high-risk mothers, genetic disorders, prolonged labour and other pregnancy-related medical conditions in good time. The results of this research indicate that the majority of mothers mentioned that stillbirths would be prevented if clinical healthcare personnel can notice, interpret and manage foetal distress and prolonged labour early on.

Only one or two midwives and significant others mentioned that stillbirths would be prevented if clinical health personnel were able to notice, interpret and manage any pregnancy related abnormities early on, in order to take informed decisions that will result in positive birth outcomes. Some participants' comments confirmed that stillbirths can be prevented if health professionals could notice, interpret and manage any deviations from the norm when caring for pregnant mothers.

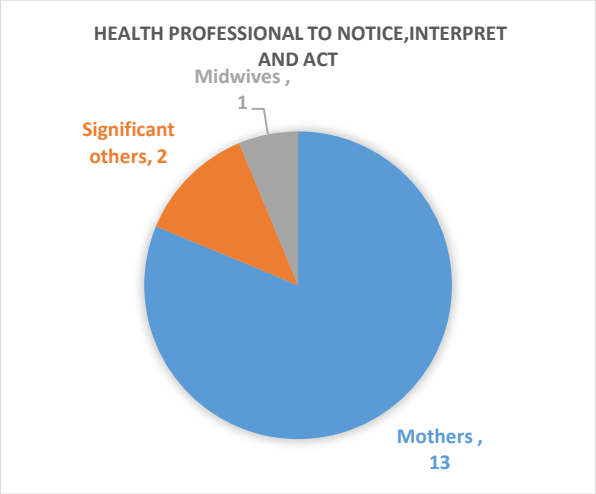
> *They should have made a letter for me at the clinic immediately, when I told them my child is not moving well, a letter that would have transferred me to the hospital. (M)*

I seriously believe that, if one is pregnant, the nurses should not only concentrate on physical well-being but also look at issues such as stress. (M)

In future, nurses and doctors should ensure that the hospitals provide counselling services to the mothers who experienced such loss. It was very difficult for me and my family to go through the loss. (M)

When a person is admitted in the hospital it is expected from doctors and nurses to decide on time what to do with the patient, not to stay with the patient two days and still lose the life. (S)

There is a need to ensure that pregnant mothers who presented themselves to our clinics early and had some genetic abnormalities are properly counselled for early termination. (RM).



If really they operated on me, I think that could have saved my baby. (M)

They should not leave us alone in the rooms and not attend to us when we call for help... What made the matters worse was that I could not stand up because of the machine. (M)

I think they should have called the doctor to come and see me immediately when I arrived at the hospital, not to wait for the following day. I am sure he could have assisted me and baby on time. (M)

I meant that they must have a way or develop an approach to assist them to identify such patients. I also suggest that such patients be referred for counselling by educated professionals who can help in such cases. (M)

Establishment of support group can also assist to deal with such loss. (M)

Maybe if they could admit me at the hospital at six months for close monitoring, so that I could be assisted on time when I experienced some problems. (M)

They should have operated me during my second admission, because I was already nine months pregnant with health problems. (M)

The other thing that I think nurses and doctors should do is to avoid to be influenced by other people or colleagues who wanted to reach their objectives. (M)

Again, when I arrived at hospital, the doctor said I needed oxygen and asked paramedics why they did not give me

oxygen because it is available inside the ambulance... The doctor said to them, I am telling you, if she was put on oxygen the baby could have been alive. (M)

Nurses at the clinic should examine people correctly with every visit, because her problem was only identified at seven months when she was sent for routine sonar at the hospital. (S)

Figure 6.10: Health professionals notice, interpret and act sub-category

Various authors argue that most stillbirths occur because health professionals fail to recognise, interpret and manage maternal risk factors (Gardosi, Madurasinghe, Williams et al. 2013:online; Gaardosi, Giddings, Buller et al. 2014:698–702). The use of the WHO's Safe Childbirth summary data sheet may reduce the number of stillbirths (Bhutta, Das, Bahl et al. 2015:8-22). Kumari, Panicker, Jayaram et al. (2016:220) support the use of a safe childbirth summary data sheet. Furthermore, there is a need to increase the skills of healthcare professionals, and communities should demand skilled birth attendants and/or improved transport to facilities or birth attendants to communities (Worku, Yalew & Afework 2013:2-11).

According to Abdolahi, Maher and Karamouz et al. (2014:163), there is a need to ensure better accuracy by physicians in detecting and diagnosing congenital anomalies early in pregnancy. De Brouwere, Richard and Witter (2010:902) indicate that detection and proper management of malpresentation and prolonged labour, which are included in the intrapartum care package, may reduce stillbirths. According to Tabassum et al. (2014:1430), the immediate prevention of stillbirths related to asphyxia, amongst other causes, should include early detection and management of breech delivery and cord around the child's neck.

Singh et al. (2017:1069) suggest that, to address stillbirths related to post-maturity, induction of labour should be done at 41 weeks of gestation in an accurately dated pregnancy. In pregnancies that go beyond 41 weeks of confirmed gestational age, foetal well-being must be clinically assessed, interpreted and managed properly to reduce the rate of perinatal mortality (Singh et al. 2017:1069). Furthermore, antepartum foetal surveillance is recommended for all pregnancies that are above 40 weeks, if induction is not performed (Singh et al. 2017:1069). According to the

guidelines for Maternity Care in South Africa, management of prolonged pregnancy includes pregnancy induction beyond 41 weeks, if the healthcare provider is unsure of the gestational age, an induction at a suspected 42 weeks is not advisable, but careful foetal surveillance should be conducted (Department of Health 2015:105-106).

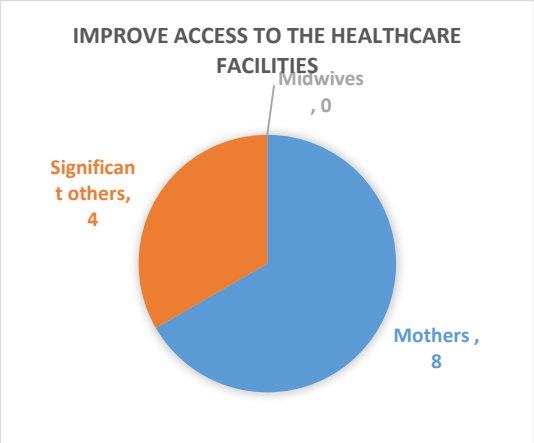
6.10.3 Improve access to healthcare facilities

Lack of access to healthcare facilities and healthcare services in general remains a problem that impacts negatively on healthcare outcomes. Inaccessible healthcare facilities, such as those that do not provide maternal healthcare services every day of the week, or operate only certain hours of the day, were identified as access barriers that need to be addressed to prevent stillbirths. Findings from this study reveal that the majority of mothers and significant others believe that antenatal care services should be provided daily, for extended hours, including weekends, to allow employed pregnant mothers to access the services. Midwives did not link the prevention of stillbirths to inaccessibility of antenatal healthcare services at PHC clinics. The following are some of the responses by the participants who advocated for better access to healthcare facilities.

> *If the clinics could allow pregnant mothers to visit clinics every day, not to channel them on specific days, I am sure that could also assist in preventing loss of babies' lives unnecessary. (M)*
>
> *If the clinics could allow pregnant mothers to visit clinics during the weekend maybe they could also assist in preventing such incidents. (M)*
>
> *If they are unable to allow pregnant mothers to access clinics daily they must at least do home visits on a weekly basis, more especially for those mothers with known problems. (M)*
>
> *Furthermore, the clinic's hours of operation should be extended to address the need of the community. (S)*
>
> *All patients should have access to the clinics or be seen every day of the week, irrespective of their return dates. (S)*

Ten Hoope-Bender, De Bernis, Campbell et al. (2014:1226–1230) suggest that people-centred care, which includes the family and partner being involved in decision-making, should be provided. Furthermore, challenges of access related to specific days and times of operation at PHC clinics can be addressed by ensuring that accessible, quality midwifery services are responsive to pregnant mothers' needs and the health choices they are making (Ten Hoope-Bender et al. 2014:1226–1230). Pregnant mothers and relevant stakeholders should be included in healthcare decision-making, which will improve the design of healthcare service delivery and policies related to access to healthcare facilities only on specific days and times (Ten Hoope-Bender et al. 2014:1226–1230). Cianelli et al. (2014:7) suggest that community outreaches are conducted or strengthened and that mobile clinics be allocated, especially for pregnant mothers living in rural areas, to address the challenges of accessibility and availability of maternal health services that contribute to stillbirths.

It is noteworthy that in this study midwives did not make any suggestions to improve access to healthcare.



I am aware that clinics do have challenges with shortage of nurses to conduct pregnant mothers' clinic daily, but I am sure that would also assist. (M)

If the Department of Health can allow pregnant mothers to have daily access to the clinics (during working hours of the week) and also they should not prevent pregnant mothers come to the clinics during certain hours of the day, e.g. in the afternoon, because some mothers are employed. (M)

If the clinic allowed pregnant mothers to attend clinics on monthly basis I am sure they could have identified my problem on time. (M)

In my opinion, I think all pregnant mothers should have follow ups to antenatal clinic at least twice a week so that they can detect abnormal blood pressures at an early stage and stop losing our babies. (M)

Again, I think all pregnant mothers should have access to the clinic or be seen every day of the week, irrespective of their return date, failing which nurses should be responsible for doing home antenatal visits. (M)

The other thing that would assist is when the clinic can allow pregnant mothers to

visit the clinic to weekly, more especially in their last month of pregnancy. (M)

Clinics must also extend hours and days of operation to allow pregnant mothers to access the services at all times. (S)

Figure 6.11: Improving access to healthcare facilities sub-category

6.10.4 Discipline undisciplined healthcare workers

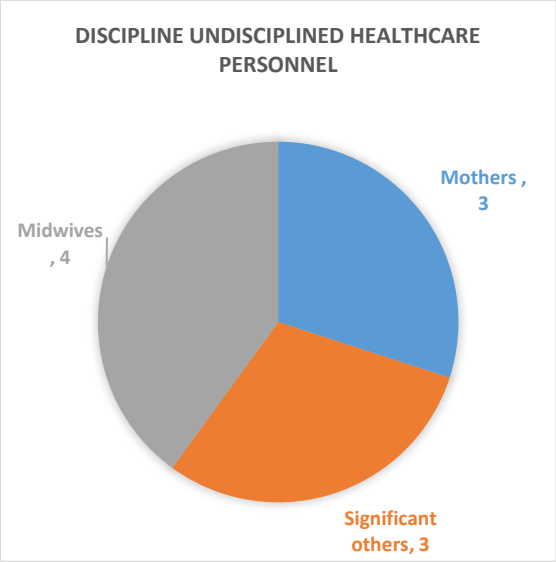
Healthcare workers who have negative attitudes and behaviour toward pregnant mothers and the community may present a barrier for pregnant mothers regarding access to maternal healthcare services, thus, may contribute to stillbirths. The culture of undisciplined healthcare workers means the healthcare facility's environment is not conducive for customers; reducing stillbirths related to personnel attitude is essential, and would require the attitudes to be changed.

Figure 6.12 presents some statements by mothers, significant others and midwives that confirm that stillbirth can be prevented by addressing issues of undisciplined personnel. Although mothers, significant others and midwives all confirmed that stillbirths could be reduced by addressing the negative attitudes and undisciplined behaviour of healthcare personnel, none of them made concrete suggestions on how to influence these negative attitudes.

The following statements by participants indicate that stillbirths can be reduced by addressing negative attitudes of healthcare workers in healthcare facilities.

> *The other thing is, the nurses' and doctors' attitudes at that hospital really is so bad and I believe something needs to be done to correct those attitudes. (M)*
>
> *As health professionals we really need to change our attitudes so that these pregnant mothers can start enjoying to visit our healthcare facilities as early as possible to give birth to safe babies. (RM)*

Strategies to address staff attitudes that were identified in the literature are that staff should be held accountable for their actions, that standards of care must be enforced, and that regulatory bodies should play a bigger role in ensuring quality of healthcare.



Ohhh… I can't talk about their poor communication; even if you ask them they just ignore one's question. (M)

So we don't need to criticise others; people should just go where they feel safe, as long as they don't let the other side to suffer. (S)

They should not leave people alone in the rooms and not attend to them when they need help. Really, that is the bad attitude from the nurses. (S)

In return, the mothers will respect us and trust our services. (RM)

As health professionals we need to work on our relationship, so that they should not affect our patients negatively. (RM)

Figure 6.12: Discipline undisciplined healthcare personnel sub-category

In an effort to curb negative attitudes and behaviour of healthcare personnel when they manage pregnant mothers, healthcare facility managers need to enforce discipline and accountability in cases where certain standards of care are not maintained, or when code of conduct principles are not upheld (Pickles 2015:5-16). In response to health workers' bad attitudes, stakeholders call for those responsible for abusive obstetric care to be held accountable and that tackling such behaviour needs involvement of professional associations, government, non-governmental organisations and communities (Pickles 2015:5-16).

Shiferaw et al. (2013:8-10) emphasise the importance of healthcare provider-client communication and a client-centred care approach in both pre-service and in-service training, so that pregnant mothers and their families get the respect and support they deserve. Standard protocols across all healthcare facilities for the handling of mothers and their relatives during pregnancy and childbirth must be designed and implemented (Shiferaw et al. 2013:8-10). Freedman, Ramsey, Abuya et al. (2014:917) suggest that negative birth outcomes related to abusive healthcare provider behaviour, in particular during childbirth, may be addressed by establishing an effective global organisation to promote respectful maternal care interventions.

Gourlay, Wringe, Birdthistle et al. (2014:online) suggest that midwives' roles in influencing and encouraging utilisation of maternal health services by pregnant mothers need to be outlined and implemented. Strategies to address disrespectful behaviour and attitudes by healthcare personnel need to include ethical standards, communication and empowering pregnant mothers to seek information about their rights (Gourlay et al. 2014:online). Consistent with our study results, Wilunda et al. (2014:8-10) agree that health workers should change their attitudes and improve interpersonal communication, so that they are more culturally sensitive.

6.11 COMMONALITIES AND DISPARITIES ON PREVENTION OF STILLBIRTHS RELATED TO INFLEXIBLE ENVIRONMENT

Commonalities and disparities amongst participants regarding what could be done to prevent stillbirths were identified and analysed. The results were used to develop recommendations and strategies to reduce stillbirths.

Figure 6.13 indicates that the majority of midwives and mothers confirmed that provision of resources, ensuring that clinical personnel provide quality services by being able to notice any maternal abnormality timeously, and addressing challenges relating to access to health facilities, may assist to reduce stillbirths.

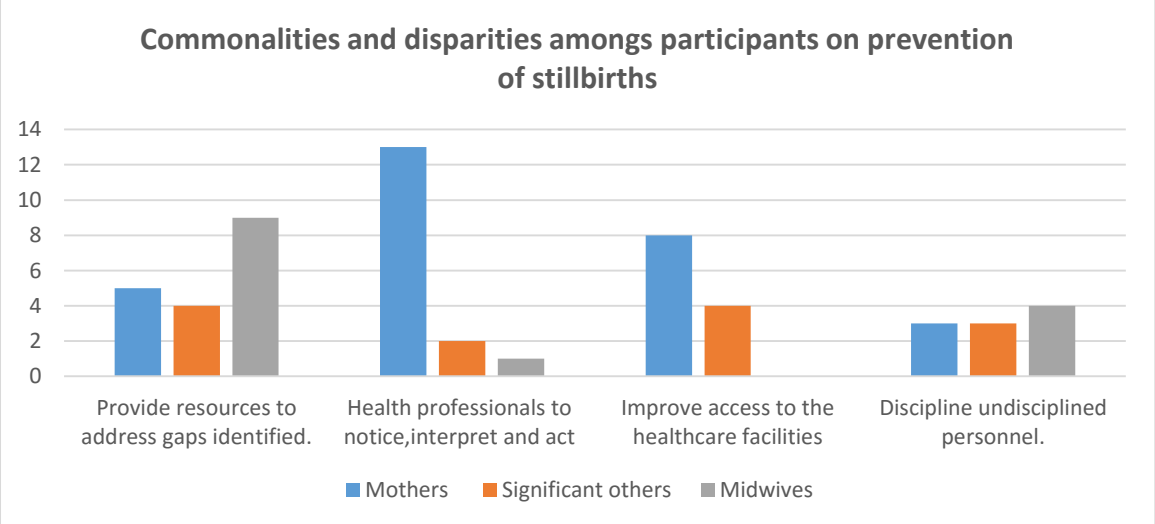


Figure 6.13: Commonalities and disparities amongst participants with regard to prevention of stillbirths

Although mothers and significant others agreed to an equal extent that provision of resources in line with identified gaps could reduce stillbirths, the midwives were more vocal about the need for adequate human and other resources. Other similarities are between mothers and significant others, who both indicated that addressing the challenge of undisciplined personnel at health facilities by management may also reduce stillbirths. All three groups of participants were of the opinion that disrespectful healthcare professionals should be disciplined.

The disparities identified are that very few significant others confirmed the necessity of adequate resources. Mothers identified a need for healthcare professionals to be able to notice deviations from the norm, and to act on it. Midwives did not recognise their incompetence and did not see the need to improve access to healthcare.

6.12 INFLEXIBLE ENVIRONMENT IN RELATION TO THE WITTMANN-PRICE EDM MODEL

According to Wittmann-Price and Bhattacharya (2008:225-236), pregnant mothers make emancipated decisions when they do not feel forced into a decision consistent with someone else's view of what is best for them. The support that pregnant mothers seek from healthcare professionals is similar to the support that they seek in their friendships, that is, support when discussing private issues that is accommodating, positive and guiding, and which aims to produce positive birth outcomes (Davis 2013:21-24).

The healthcare environment must be responsive, and must respect individual pregnant mothers (Wittmann-Price & Bhattacharya 2008:225-236), so that they can make emancipated decisions. Health professionals' roles are to foster a flexible environment that encourages mothers' empowerment through their involvement and discussions (Wittmann-Price & Bhattacharya 2008:225-236). Clinical personnel should, amongst other matters, acknowledge mothers' personal knowledge, even where there is a conflict between social norms and personal knowledge, and must create supportive, non-judgmental, flexible healthcare environments that balance the two situations (Wittmann-Price & Bhattacharya 2008:225:236). Hill-Karbowski (2014:27-28) explains that, according to the Wittman-Price EDM model, a flexible environment is conducive

to change, in that it allows pregnant mothers to make decisions or choose alternatives with regard to health facilities. Pregnant mothers must also be allowed to access maternal health services at the times and days that are convenient for them, and not be dictated by the health systems' policies (Hill-Karbowski 2014:27-28).

According to Hill-Karbowski (2014:27-28), policies or systems, such as referral, the ambulance call centre, and health facilities' operating days and times, are not complying with the Wittman-Price EDM model, in that pregnant mothers' decisions are not taken into consideration or supported when these policies are implemented. The Wittman-Price EDM model explains, furthermore, that a flexible healthcare environment would not oppose pregnant mothers' health decisions or health choices, but should create opportunities for health dialogue to occur (Hill-Karbowski 2014:27).

6.13 RECOMMENDATIONS TO ADDRESS INFLEXIBLE, JUDGEMENTAL ENVIRONMENT AND STILLBIRTHS

To address the inflexible and judgmental health environment that prevails and which may contribute to stillbirths in the FDD, the researcher conducted a SWOT analysis from the study findings. Table 6.3 shows the SWOT analysis of this chapter.

Table 6.3: SWOT analysis of study findings

Strengths	**Weaknesses**

Department of Health has
• gold standards for PHC
• policies regarding referral and transfer
• clinical procedures
• treatment algorithms (ESMOE) guideline stipulating a systematic approach to assessment
	• Ambulances inaccessible and insufficient numbers
	• Inaccessible PHC facilities
	  ○ attitudes of personnel
	  ○ hours of operation
	• Poor implementation of existing policies and guidelines
	• Insufficient number of as well as incompetent staff
	• Insufficient equipment
	• PIPP does not capture community concerns regarding transport

Opportunities	**Threats**
• Midwives acknowledge they need training • Enforce accountability • Enforce implementation of policies, guidelines, and standards • Increase access by considering flexible working hours for staff • Enforce health dialogue that is aligned with people-centred care and empowers pregnant mothers and their significant others • Bring all PHC facilities up to standard • Regulatory bodies, e.g. South African Nursing Council, more involved in enforcing accountability • Raise community awareness • Change organisational culture • Political support and will.	• Midwives have a perception that they are superior • Lack of political will and support • Unfriendly and power-oriented organisational culture

The following recommendations are made, based on the information in Table 6.3:

- Retrain healthcare professionals and EMS staff, so that they notice, interpret and apply guidelines and procedures when acting on observations and interpretations.
- Extend operating hours of PHC to increase access to healthcare facilities.

- Allocate ambulances, specifically to maternal healthcare, to minimise response time.
- Enforce enactment of guidelines, policies and procedures to enhance quality of maternal and child healthcare services.
- Review the current EMS call centre system, so that it meets stakeholders' needs.
- Amend PPIP to include inaccessibility to healthcare/transport as cause of stillbirth.
- Comply with clinical governance policy to meet the standards set by the Department of Health.
- Adhere to staffing guidelines to optimise staff-patient ratio.
- Enforce accountability of disrespectful behaviour by involving regulatory bodies.
- Conduct community awareness on importance of referral policy and policy on designated caesarean section sites in the districts.

6.14 CHAPTER SUMMARY

The outcome of the study is that the current health system environment lacks the level of flexibility needed to respond to emerging maternal healthcare services' health needs, growing expectations of the public and provision of access to quality of maternal and child healthcare, in particular.

Based on the outcome of the results, the researcher concludes that a shortage of resources, especially skilled health personnel, a lack of access to maternal healthcare services, attitudes of healthcare workers, and a failure to clinically assess, diagnose and manage pregnant mothers, caused the inflexible healthcare environment that lead to stillbirths in the FDD.

The participants were of the opinion that, to prevent stillbirths, there is a need to address challenges related to lack of capacity of health professionals, lack of access to healthcare facilities, specifically PHC clinics, and addressing negative attitudes of healthcare workers. Furthermore, participants suggested that stillbirths can be

prevented by involving all relevant stakeholders, so that their opinions and decisions could be taken into consideration when policies are developed, to ensure flexibility in response to community health needs.

Commonalities and disparities amongst participants with regard to causes and prevention of stillbirth were reported. Recommendations to address challenges that were identified as relating to the inflexible healthcare environment were outlined.

The next chapter will present a synthesis of strategies to reduce stillbirths, specifically causes related to lack of empowerment, oppression caused by social norms and the environment characterised by inflexible judgement. The strategies will be developed using the W.K. Kellogg Foundation (2014) logic model, whereby each theme will develop strategies and activities in line with each sub-category. The literature review for strategies and activities developed will be compiled.

CHAPTER 7
DEVELOPMENT OF STRATEGIES

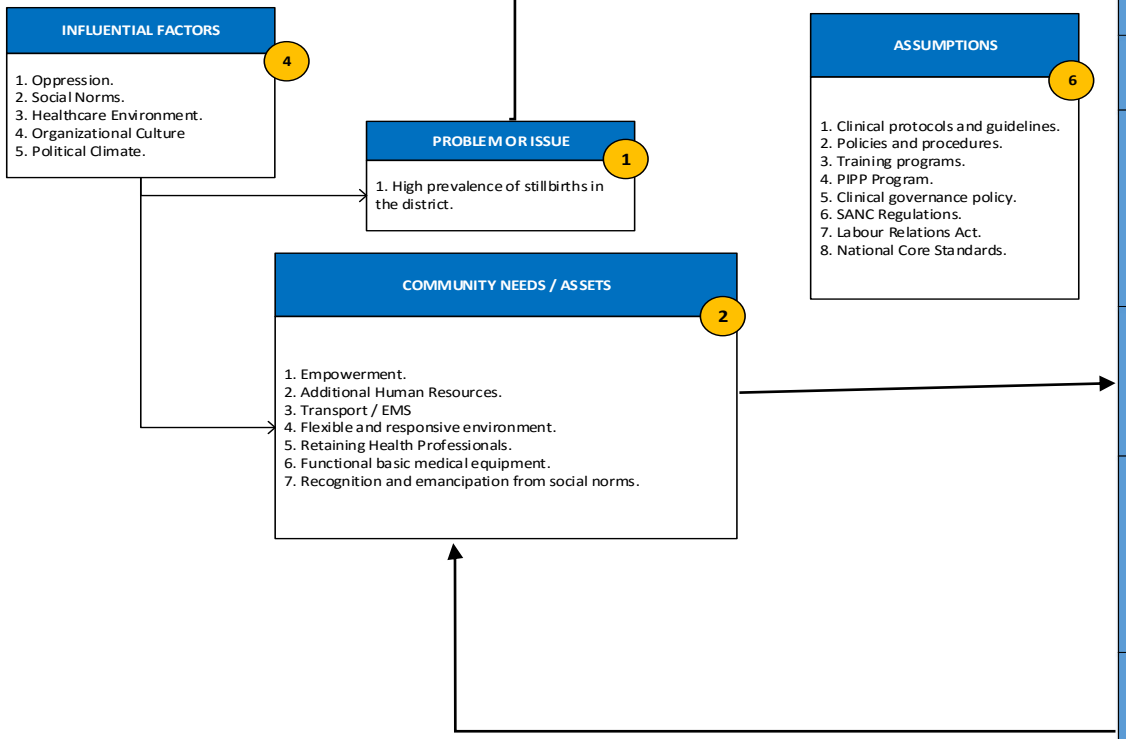
7.1 INTRODUCTION

The development of strategies chapter is about the development and validation of preventive healthcare strategies. The researcher used the Kellogg logic model indicated in Figure 7.1 to develop preventive healthcare strategies. The logic model promotes a systemic approach, and was developed with the purpose of planning through sharing information with stakeholders (W.K. Kellogg Foundation 2004:2). The model describes the sequence of activities to be performed to achieve expected findings. The logic model is something that can be revised and adapted, based on stakeholders' inputs or other factors (W.K. Kellogg Foundation 2004:2-11).

Participants' disparities and similarities with regard to their views on causes of stillbirths, and their views on what could have been done to prevent stillbirths, were analysed using SWOT analyses in Chapter 4, Chapter 5 and Chapter 6, and used to develop six preventive healthcare strategies to reduce stillbirths. The researcher presented the strategies to the stakeholders for validation and to Free State Department of Health Clinical Cluster managers, thereby informing policymakers by means of multiple meetings.

The purpose of the strategies is to provide guidance based on study findings on how to reduce stillbirths at FDD healthcare facilities. According to Lawn et al. (2009:2), stillbirths have remained invisible to policymakers and funding agencies, despite the fact that stillbirths have many common risk factors with perinatal deaths, neonatal deaths and maternal deaths. Currently, these deaths are central in the WHO's SDGs. This mismatch of disease burden to action may be due to multiple factors, such as lack of consensus amongst relevant stakeholders on interventions or strategies, and social norm taboos that reduce the visibility of stillbirth (Lawn et al. 2009:1). There is a need to involve all relevant stakeholders and to facilitate collective development of strategies that will address the multiple factors that may contribute to reduction of stillbirths comprehensively (Lawn et al. 2009:1).

Developing preventive healthcare strategies involves identifying appropriate resources, activities, systems and processes that will address all gaps or challenges that may cause stillbirths. It is also imperative to discontinue harmful interventions or practices that have a negative impact on birth outcomes (Victora, Rubens & GAPPS Review Group 2010:online). The researcher used the theory of change model as shown in Figure 7.1, No. 1 to No. 6, to develop preventive healthcare strategies (W.K. Kellogg Foundation 2004:8-34). The W.K. Kellogg Foundation (2004:2-11) mentions that it is advisable for a researcher to develop an independent or draft preventive healthcare strategies framework in line with the logic model before presenting it to stakeholders. Presenting the draft framework allows the researcher to retain control and to set limits in line with the study findings. The discussion follows the numerical sequence of the logic model, namely, (1) the problems or issues identified, (2) the community needs or assets, (3) the desired impact, (4) influential factors, (5) strategies, and (6) assumptions.



DESIRED RESULTS				
NO	STRATEGIES (5)	OUTPUT	OUTCOMES	IMPACT (3)
1.	Raise awareness of antenatal care and danger signs during pregnancy in pregnant women and **community** at large.	1. Community awareness and mobilization programs on importance of antenatal care and danger signs during pregnancy.	1. Increased antenatal visits coverage. 2. Increased % of pregnant women responded properly to danger signs during pregnancy.	Reduced number of stillbirths
2.	Retrain healthcare workers (midwives) regarding issues such as management of hypertension during pregnancy.	1. Professional competency assessment measured. 2. Training program for incompetent midwives.	1. Increased % of competent trained midwives.	Reduced number of stillbirths
3.	Create healthcare environment that is responsive to the needs of the community.	1. Reviewed referral policy. 2. Reviewed caesarean section designated sites policy. 3. Plan or guidelines on clinic operation hours.	1. Appropriate and flexible referral policy. 2. Appropriate, practical implementable and flexible caesarean section designated sites policy. 3. Decreased number of adverse incidents related to limited hours of operations, referral policies, and caesarean section designated sites. *4. Extended clinic hours of operation.*	Reduced number of stillbirths
4.	Establish people centred care and health care dialogue approach.	1. Individualised Birth-plan for each pregnant women. 2. District maternal health traditional stakeholders' forum established and functional.	1.Increased % of empowered pregnant women who can make decisions with positive health outcomes. 2. Increased % of pregnant women comply with treatment options. 3. Improve collaboration between community members and health professionals.	Reduced number of stillbirths
5.	Respect non harmful traditional practices and find substitute for harmful practices.	1. Guidelines on collaboration with traditional stakeholders. 2. H10 maternity health record and PPIP reviewed.	1. Community empowered, aware about the social norms and are emancipated from the social norms. 2. Harmful traditional beliefs and practices replaced by none harmful alternative ones. 3. Both health professionals and traditional role players understand their collective roles and responsibilities towards achieving the common goal {prevention of negative birth outcomes}.	Reduced number of stillbirths
6.	Procure and designate EMS, transport, basic equipment and including skilled health professionals for maternal and child care.	1. Plans and guidelines for procurement and allocation of additional well equipped maternity ambulances, additional skilled EMS personnel and midwives. 2. Guidelines on midwife-patient ratio and medical officer per each level of healthcare facility rendering maternal healthcare. 3. Plans and guidelines on procurent and maintenance of basics equipment.	1. Improved EMS response time. 2. Decreased complaints related to shortage of ambulances. 3. 100 % staffing ratio established and compliance. 4. 100% compliance with standardised basic functional equipment.	Reduced number of stillbirths

Figure 7.1: Application of W.K. Kellogg Foundation theory of change to developing preventive healthcare strategies

7.2 PROBLEM OR ISSUES IDENTIFIED

The research problem was described in Chapter 1, to assist the researcher and stakeholders to remain focused during the research process, which includes development of preventive healthcare strategies (W.K. Kellogg Foundation 2004:8-34). The researcher collected information on incidents of stillbirths in the FDD in order to establish the relevance of the preventive healthcare strategies that were developed.

According to the FDD DHIS Annual Plan Performance reports of 2016/2017 and 2017/2018 (Department of Health 2016; 2017) the rates of stillbirths in the five hospitals were at 2.9 and 3.1% of total births of 6 525 and 7 094 respectively. Since the 2012/2013 financial year the district has not shown a decline in the number of stillbirths, instead, it showed an increase from 2.9% to 3.1% -- an increase of 0.2%. FDD healthcare facilities still face the maternal healthcare challenges that have been identified.

The 2017/2018 District Health Plan of FDD (Department of Health 2017a; 2017b; 2018) shows a vacancy rate of 21% for operational manager posts; furthermore, an inadequate number of midwives had a negative impact on the provision of healthcare services, including the provision of maternal healthcare services in the district. A high prevalence of HIV among pregnant mothers and low antenatal client HIV retest rate, poor attendance of antenatal care clinics by pregnant mothers, and shortage of EMS are challenges that still exist (Department of Health 2017a; 2017b; 2018).

7.3 COMMUNITY RESOURCES OR ASSETS

Resources are needed by communities. Participants and stakeholders must address the problem of a high stillbirth rate in the healthcare facilities, and this was included as part of preventive healthcare strategies and activities that were developed (W.K. Kellogg Foundation 2004:8-34). In Figure 7.1, No. 2 of the logic model indicates the stakeholders' needs that may cause stillbirths if not addressed properly. The identified needs are, (1) empowerment, (2) additional human resources, (3) transport or EMS, (4)

a flexible and responsive environment, (5) retraining of healthcare professionals, (6) functional basic medical equipment, and (7) recognition of and emancipation from social norms.

7.3.1 Empowerment

Chapter 4 of this study explained that participants do not have knowledge of and information on the importance of attending antenatal clinics and danger signs during pregnancy. Midwives acknowledged that they were unable to engage in health dialogue with pregnant mothers because of a shortage of midwives. The outcome of this study also indicates that there is a need to empower pregnant mothers and the community at large, so that they can take healthcare decisions that will benefit their unborn babies. According to the EDM model, failure to empower pregnant mothers and the community equals oppression, and pregnant mothers can only be emancipated through empowerment. Mothers who have knowledge and information about beneficial decision-making and freedom of movement, obtained higher levels of antenatal care and were more likely to use safe delivery care (Vikram, Vanneman & Desai 2013:331-339).

According to Bhutta et al. (2009:2) and Lakshmi, Thankam, Jagadhamma et al. (2017:973), strategies to reduce stillbirths should promote a routine antenatal care platform that will improve maternal nutrition, promote behaviour change to reduce harmful exposure and risk of infections, screen for and treat risk factors, and encourage skilled attendance at birth. Empowering communities in relation to the importance of risk screening and using maternity waiting homes for pregnant mothers is an important strategy to reduce stillbirths related to intrapartum complications (Lee, Lawn, Cousens et al. 2009:s65-s74). Mongbo, Ouendo, Agueh et al. (2016:online), recommended that a strategy, such as strengthening and refocusing on routine antenatal care, may reduce stillbirths associated with delays, through better knowledge of the signs of danger by the pregnant mother and her family.

The findings of this study indicate that some of the stillbirths that occurred might have been caused by failure to attend antenatal clinics early, or even at all, where the pregnant mothers would have been made aware of dangers during pregnancy, such as reduced foetal movement. The study also found that some of the participants confirmed that they did not attend the clinics, causing lack of information.

Furthermore, the study findings indicate that mothers responded inappropriately to danger signs during pregnancy, because of lack of knowledge. The preventive strategy should, therefore, include making pregnant mothers and the community aware of the importance of early attendance of antenatal healthcare clinics, and of danger signs during pregnancy.

Routine antenatal care visits that provide essential interventions, such as identification and management of obstetric complications, provision of preventive treatment and management of infectious diseases, including HIV and other sexually transmitted infections, may reduce poor birth outcomes (Lincetto, Mothebesoane-Anoh, Gomez et al. 2012:51).

7.3.2 Additional human resources

The FDD district health plan for the 2017/2018 financial year indicates that the district still experiences a high vacancy rate, which affects maternal healthcare services negatively. This study also revealed that healthcare facilities, especially PHC clinics, experience a shortage of midwives. The challenge of a shortage of midwives, in particular, was mentioned by most of the midwives who participated in the study. Chapter 6 of this study contains more information about the challenges caused by a shortage of midwives as presented by participants. Siddiqui et al (2014:online) suggest that a simple, standard tool should be developed to determine the appropriate staffing levels required for safe and efficient service delivery in labour wards, which takes into account capacity and demand.

7.3.3 Transport or emergency medical services

This study showed that some stillbirths might have occurred because of a shortage of ambulances in the district, including unavailability of public transport in some of the towns, especially after hours. Delayed cared was due to long ambulance response times and an unresponsive call centre. Chapter 6 captured the transport and EMS gaps that might have contributed to the stillbirths, as mentioned by participants.

Strategies, such as improving transportation to health facilities, including designated maternal healthcare service ambulances, and the use of maternity waiting homes, are likely to prevent and improve poor birth outcomes (Goldenberg et al. 2014:6; Schoon 2013:534). Tunçalp et al. (2015:1045-1046) mention that quality of maternal healthcare provided to individuals and populations can improve desired healthcare outcomes when provided safely, effectively, timely, efficiently and equitably. To achieve the desired birth outcomes, preventive healthcare strategies must be developed that will promote quality healthcare for pregnant mothers, including provision of quality EMS (Tunçalp et al. 2015:1045-1046).

7.3.4 Flexible and responsive environment

Midwives mentioned that the policies on site for performing caesarean sections in the district, and the district referral policy, might have contributed to stillbirths, due to the distances between the referring and the referral healthcare facilities. They also mentioned that the implementation of these policies is not responsive to the needs of users and the community at large, and this is aggravated by poor EMS response times and shortage of EMS transport. Mothers and significant others raised the issue of inaccessibility of healthcare facilities, especially at the PHC clinics. Chapter 6 reported on the challenges related to an inflexible and nonresponsive environment.

Engjom, Morken, Norheim et al. (2014:290-292) suggest that, during planning, availability and accessibility of health facilities, including required levels of services and structural issues, such as geographical distance and flexibility of admission criteria, must

be considered to address challenges of accessibility, which may contribute to poor birth outcomes. Chou (2010:20) mentions that preventive healthcare strategies aiming to reduce stillbirths should include well-resourced, effective referral systems that will ensure seamless coordination of healthcare services across time, disciplines and facilities.

7.3.5 Retraining of healthcare professionals

Chapter 6 contains more information on the need to retrain healthcare professionals, in particular midwives who provide maternal healthcare services in healthcare facilities. Although midwives in this study were not aware that some stillbirths might have been caused by their incompetence, they indicated that, in order to reduce stillbirths, the Department of Health needs to retrain some of them. Mothers and significant others mentioned that failure by healthcare professionals to manage pregnant mothers in the healthcare facilities was among the factors that contributed to stillbirths.

Skilled birth attendance is essential for saving mothers and their unborn babies, and is key to attaining SDGs 4 and 5 (Utz, Siddiqui, Adegoke et al. 2013:1063-1068). Utz et al. (2013:1063-1068) recommend that strategies are developed and implemented that ensure that births take place only where there are skilled birth attendants with the knowledge and skills to provide signal functions of emergency obstetric care.

7.3.6 Functional, basic medical equipment

Some PHC facilities and ambulances do not have basic, functional medical equipment. Findings indicate that pregnant mothers could not be managed adequately during antenatal visits and during emergencies, resulting in negative birth outcomes. Chapter 6 reports on midwives' explanations on the need to have serviced and functional basic medical equipment at all times, in order prevent stillbirths.

Manasyan, Saleem, Koso-Thomas et al. (2013:787) propose that, to improve pregnancy outcomes, resources, such as sufficient medical equipment, supplies, and medication, along with training, are required. According to Victora et al. (2010:online), interventions

that need to be implemented to reduce stillbirths should address inadequate pharmaceutical products and medical supplies, lack of functional medical equipment and poor infrastructure at healthcare facilities.

7.3.7 Recognition of and emancipation from social norms

Chapter 5 captured responses of mothers and significant others that indicate that they were obliged to comply with social norms. Mothers will be emancipated from social norm oppression when they are able to take informed decisions about their unborn babies, and are not expected to follow prescribed social norms, beliefs and practices.

Mothers and significant others do not recognise that they are not obligated to comply with social norms, beliefs, and practices expected by communities. They are not emancipated, because some of them indicated that they were instructed to avoid seeking medical assistance, and instructed to take traditional medicine that resulted in stillbirths.

Strategies to reduce stillbirths should include measures to support mothers' right to decide on the place where they want to give birth, including better access to quality healthcare services at the right time (WHO 2015:18). Media and advocacy campaigns should be organised to raise awareness about existing legislation, strengthen mothers' rights awareness, and emphasise behaviour change communication to achieve social change about social norms, in particular (WHO 2015:6-8).

7.4 INFLUENTIAL FACTORS

Influential factors are potential barriers and/or supports that the researcher or stakeholders believe may influence or have a negative or positive impact on the implementation of strategies that are developed and activities and, in turn, on the desired outcome (W.K. Kellogg Foundation 2004:30).

Figure 7.1, No . 4 of the logic model, indicates five influential factors, namely, oppression, social norms, healthcare environment, organisational culture or climate and political will

or climate, that may contribute to stillbirths as identified by the researcher and verified by the stakeholders during validation group discussion sessions.

7.4.1 Oppression

Oppression of some stakeholders who need to participate in the implementation of preventive healthcare strategies may have a negative influence on the successful implementation of the strategies, unless they are properly attended to. Oppression related to lack of information and knowledge in communities regarding the importance and benefits of some of the strategies will result in community members making the wrong healthcare decisions that may translate into poor birth outcomes.

Lack of resources that support provision of quality maternal healthcare services by healthcare professionals, such as lack of basic medical equipment, shortage of EMS, and shortage of midwives, may disempower stakeholders (healthcare professionals), such as medical officers, midwives and EMS personnel, amongst others, thus, preventing the successful implementation of preventive healthcare strategies.

Darmstadt, Shiffman and Lawn (2015:14) mention that empowering mothers through provision of adequate knowledge, information and education is widely recognised as fundamental for achieving better maternal and child healthcare outcomes. Mothers' empowerment and emancipation seeks to identify and address gender inequalities and empower mothers through promotion of decision-making power – also of pregnant mothers (Darmstadt et al. 2015:14). Interventions, such as fostering respect for human rights, mothers' empowerment, community awareness and mobilisation, are strategies that could assist to reduce negative birth outcomes (Filippi, Ronsmans, Campbell et al. 2006:1-2).

7.4.2 Social norms

The strategies that are developed need to address all issues related to social norms, because they may influence the implementation of the preventive healthcare strategies negatively or positively. Involvement of relevant stakeholders, such as traditional

healers, traditional birth attendants, and male partners, in the care of pregnant mothers could influence the implementation of the strategies positively. The patriarchal context in which this study took place necessitated the involvement of male partners in the implementation of the strategies.

Baird et al. (2015:1217) mention that the support structures of traditional beliefs and practices, such as traditional healers, traditional medicines and witchcraft, contribute to the oppression of mothers and prevent them from having a voice in decisions that affect their health and the health of their children. Furthermore, these structures have existed for eons and are difficult to overcome.

Healthcare providers should take into consideration the prevailing cultural practices and influential traditional stakeholders in communities when they design health education and messages that will promote positive cultural practices and reduce the impact of negative birth outcomes among pregnant mothers. The Department of Health should build the confidence of pregnant mothers about the ability of the healthcare system to address their traditional needs adequately, including training health personnel on customer care and communication skills, thereby inculcating cultural sensitivity (Otoo et al. 2015:49).

Equality and the empowerment of mothers are central to human rights (Chou 2010:20). Chou (2010:20) mentions that challenges related to negative birth outcomes may be addressed by developing mothers' empowerment strategies that will empower them against male or patriarchal domination, so that they can make informed healthcare choices and decisions, including exercising options in relation to their health choices. According to Birmeta, Dibaba and Woldeyohannes (2013:online), when husbands approve of attendance of routine antenatal clinics, the likelihood that a mother uses routine antenatal care, irrespective of the husband's background characteristics, increases. Therefore, efforts to improve husbands' or partners' attitudes could increase attendance of routine antenatal care health services by mothers. Pregnant mothers' attitudes towards her pregnancy and the presence of social support has been found to

influence their routine antenatal care use, therefore, preventive strategies should inform community members about the importance and benefits of routine pregnancy care (Birmeta et al. 2013:online).

7.4.3 Healthcare environment

Unless the negative attitudes of healthcare workers in the health facilities are addressed, they will influence the implementation of the preventive healthcare strategies negatively. A healthcare environment that does not promote person-centred healthcare and a health dialogue approach will influence provision of preventive healthcare strategies negatively, because lack of involvement of pregnant mothers in healthcare plans and choices that are made for them, without consulting them, will result into non-adherence to treatment plans, and negative birth outcomes.

Baral, Lyons and Skinner (2010:327) mention that positive staff attitudes play an important role for pregnant mothers during labour, such as giving reassurance and encouragement and being polite, which encourage the mothers to continue utilising healthcare facilities with their next pregnancy. According to Warren, Njuki, Abuya et al., (2013:online) strategies to address negative birth outcomes related to negative attitudes of staff, should include respect for pregnant mothers, who are important and valuable human beings, by ensuring that their experience during childbirth is satisfactory. Pregnant mothers should be placed in the centre of health decision-making by providing them with information regarding the process and what happens during childbirth (Warren et al.2013:online).

7.4.4 Organisational culture

Organisational culture is key in changing any current organisational practices or systems, and may be an impediment when attempting to alter unacceptable behaviours or attitudes, as it may either support or obstruct positive employee behaviours and attitudes (Galanaki & Papalexandri 2013:online). Galanaki and Papalexandri (2013:online) explain that organisational climate or environment may influence

personnel's attitudes, behaviours and expectations negatively or positively, and affect healthcare outcomes.

Roch, Dubois and Clarke (2014:229) suggest that, where the quality of healthcare practices that are provided are affected by the prevailing organisational culture or environment, systemic interventions are needed to improve a negative organisational climate in a full range of caring practices. Despite mounting evidence that some adverse birth outcomes are associated with aspects of the environment in which midwives practice, the elements of organisational climate that directly affect their practice remain inadequate (Roch et al. 2014:229).

According to Roch et al. (2014:229), caring practices are midwives' behaviours and attitudes when they interact with patients in providing direct healthcare, as opposed to work performed away from the patients. The realities experienced by midwives in an organisation influence their performance of caring practices. Furthermore, Roch et al. (2014:238) mention that managers or leaders have sufficient power and organisational influence to make decisions that create healthy and responsive environments or climates that promote healthcare professionals' performance of essential caring practices and help to ensure safe, patient-centred services.

7.4.5 Political will

Despite considerable improvement in the provision of maternal healthcare services throughout the world, relatively poor outcomes persist in areas where there is lack of political will to prioritise provision of maternal healthcare services, including political instability (Wise & Darmstadt 2015:220). Whitworth, Sewankambo and Snewin (2010:online) mention that, although healthcare professionals do have technical knowledge about what could be done to prevent causes of negative birth outcomes, many competing priorities, along with limited logistic capacity, lack of political will, and inadequate infrastructure, constrain the extent to which effective, quality maternal healthcare packages are delivered to pregnant mothers. Other, new, more effective strategies and policies will be required, that integrate the technical expertise of the

maternal and child healthcare services with political expertise (Wise & Darmstadt 2015:226).

Victora et al. (2010:1-online) mention that challenges of preterm births and stillbirths at country and international levels are related to weak, dysfunctional centralised systems for planning and management, weak ministries of health, lack of political visibility, political instability, insecurity, corruption, weak governments, and weak rule of law and enforceability of contracts. According to Frederik-Frøen, Friberg, Lawn et al. (2016:574-586), challenges relating to the occurrence of stillbirths can be addressed through political support, influence of decision-makers and mobilisation of civil society.

7.5 STRATEGIES TO REDUCE STILLBIRTHS AND ATTAIN DESIRED OUTCOMES

To guide the development of the preventive healthcare strategies, desired or expected findings (output, outcomes, and impact) of the developed strategies need to be described and be known by all relevant stakeholders (W.K. Kellogg Foundation 2004:8-34). In an effort to reduce the problem of a high prevalence of stillbirths, the researcher developed six preventive healthcare strategies.

7.5.1 Raise awareness of antenatal care and danger signs during pregnancy in pregnant mothers and community at large

Raising awareness of antenatal care and danger signs during pregnancy relates to the absence of empowerment of stakeholders, and lack of healthcare information and knowledge that could assist them to make correct healthcare decisions. According to the study findings, the most critical areas to be attended to are lack of knowledge and information related to the importance of attending antenatal care clinics, and danger signs during pregnancy, such as reduced foetal movement, antepartum bleeding and post maturity, as indicated in Section 4.2.

Mosedale (2005:244-245) mentions that interventions or strategies that seek to bring about empowerment, including information sharing with the intention of raising awareness in pregnant mothers and the community cannot be achieved if healthcare workers and other stakeholders do not create favourable conditions. Strategies to empower mothers need to involve mothers themselves, by determining what they wish to change about their current situation and how they wish to do it. According to Vikram et al. (2013:331-339), the influence of mothers' empowerment and autonomy on the use of healthcare is important in addressing challenges related to birth outcomes.

As part of a package of interventions, community involvement and participation, such as raising awareness and encouraging health dialogues, may have a positive impact on maternal/new-born health outcomes (Marston et al. 2013:online). Begum (2012:4) and Saaka et al. (2017:1-2) say that providing knowledge and information and raising awareness of pregnant mothers about danger signs during pregnancy and childbirth may improve early detection of pregnancy-related problems, and prevent delays in seeking medical assistance. Maternal and perinatal deaths related to danger signs, such as severe vaginal bleeding and pre-eclampsia, amongst other symptoms, can be prevented if pregnant mothers, their families and the community can recognise obstetric danger signs and seek healthcare promptly (Begum 2012:3-4).

According to Divya, Ashwini Nayak and Asha Swarup (2015:2028), a bigger impact on reducing of stillbirths can be achieved if the importance of routine antenatal care can be emphasised at the community level. Kapadia and Parmar (2014:9) suggest that, to reduce negative birth outcomes, there is a need to pay attention to health education, with the emphasis on quality provision of routine antenatal care services by healthcare workers and attendance of routine antenatal care clinics by pregnant mothers, so that any high-risk conditions can be picked up earlier, to minimise complications.

7.5.2 Retrain healthcare workers (midwives) on issues such as management of medical conditions during pregnancy

The strategy that calls for the retraining of incompetent healthcare workers emanated from the research finding that indicated that some stillbirths occurred because of incompetent healthcare workers, mostly midwives, as reflected by the study findings in Chapter 6. The challenge posed by incompetent healthcare professionals was also evident in Chapter 6, where healthcare professionals, amongst others, failed to interpret clinical assessment findings, failed to notice deviations from the normal, and even failed to manage maternal healthcare conditions, such as hypertension, post maturity and reduced foetal movements (foetal distress).

Pattinson and Rhoda (2014:22-26) mention that avoidable factors or missed opportunities and sub-standard care by healthcare professionals, such as failure to detect foetal distress during labour, complications of hypertension, hypertension being detected but not acted upon, delays in calling medical experts during labour and failing to refer patients to the correct level of care, mismanagement during second stage of labour and poor clinical assessment (underestimated foetal size), probably resulted in the deaths of the unborn babies. Figure 7.1 indicates the required or expected output, outcomes, and impact with regard to the preventive healthcare strategy to be implemented. Ten Hoope-Bender et al. (2014:1-2) suggest that, to address stillbirths or deaths that are related to a shortage of skilled midwives, the coverage and quality of midwifery care should be monitored regularly and be used to hold stakeholders and providers accountable.

Periodic assessment of maternal and perinatal healthcare providers' competency should be advocated and facilitated through partnership with educational institutions and government health authorities, to ensure continuous update of knowledge and skills of all health professionals (Thompson, Land, Camacho-Hubner et al. 2015:348). Melberg et al. (2016:11) suggest that, to address negative birth outcomes, there is an urgent

need to address mismanagement of mothers during labour by healthcare workers through provision of relevant training in midwifery skills.

In an effort to address incompetency amongst midwives, maternity unit managers should be equipped with postgraduate qualifications in advanced midwifery, to enable them to manage unforeseen obstetrical complications (Stellenberg & Ngwekazi 2016:online). Stellenberg and Ngwekazi (2016:online) suggest that providing evidence on workshops, conferences and refresher courses in obstetrics and midwifery attended, including Essential Steps in the Management of Obstetric Emergencies (ESMOE) and the Basic Antenatal Care for PHC facilities, should be made compulsory for all midwives.

Midwives should be updated regarding their theoretical knowledge and clinical skills, to ensure competence (Stellenberg & Ngwekazi 2016:online). The study findings are compatible with the recommendations of the FDD District Plan to train healthcare professionals on basic advanced antenatal care (BAANC), advanced antenatal care, ESMOE, emergency obstetric simulation trainings (EOST drills), and to conduct outreaches to PHC clinics and in maternity units (Department of Health 2017:66-72). Crabtree (2016:online) mentions that there is a need for the training department to comply with the international definition of a skilled birth attendant, and to act as an enabler of birth attendants who are considered sufficiently skilled. Training compliance by skilled birth attendants should include a sound theoretical underpinning, and critical thinking skills with sufficient problem-solving competencies to recognise and manage complex decision-making processes during emergencies.

Short training programmes lasting, for instance, six months, are not adequate to teach the necessary critical thinking and decision-making skills, and such midwives are unlikely to have sufficient knowledge, skills or critical thinking to effectively save mothers and their unborn babies during birth (Crabtree 2016:online). Stellenberg and Ngwekazi (2016:online) recommend that the implementation of the curriculum of the new South African Bachelor's degree in general nursing and midwifery, in which the midwifery

course is one year in duration, should be expedited to support a quality and safe midwifery practice.

Parr, Dabu, Wai et al. (2014:online) mention that the rate of asphyxia related to cord ligations before birth and during birth, that lead to stillbirths, was reduced significantly after improving births attendants' birth techniques, knowledge and confidence on management of foetal nuchal cord that avoids ligation of the umbilical cord circulation. Furthermore, Parr et al. (2014:online) suggest that, to ensure competency amongst healthcare professionals on the management of foetal nuchal cord, any experienced, registered midwife can be utilised for inter-professional learning in resource-limited settings. Strategies, such as appropriate standards of care, training of healthcare professionals who are incompetent, and adoption of standardised protocols has increased detection of foetal growth restriction during routine antenatal care, and lead to significant reductions in stillbirths.

7.5.3 Create healthcare environment that is responsive to the needs of the community

The reason for developing this preventive healthcare strategy emanated from the research findings, which indicate that an inflexible health environment characterised by a lack of EMS and transport and inaccessible healthcare services, amongst others, create an environment that is not responsive to maternal healthcare needs. Chapter 6 reported that the nonresponsive environment, as characterised by the current referral policy, implementation of designated sites for caesarean section (inaccessibility of caesarean section services), infrequent and inaccessible antenatal services (unattended due to specific days and hours of operation at the clinics), amongst others, contributed to stillbirths and need to be addressed.

Silal, Penn-Kekana, Harris et al. (2012:online) mention that, although most mothers in South Africa do receive obstetric care services, these services can be unavailable or unacceptable for many pregnant mothers and communities, thus, continuously impacting negatively on birth outcome indicators. Strategies need to address health

systems, organisational culture and policy guidelines that do not promote and support the creation of flexible and non-judgemental healthcare environments for pregnant mothers and their families (Silal et al. 2012:online).

According to Bhutta et al. (2009:2) and McClure and Goldenberg (2014:online), improved access to quality essential emergency services, in particular to timely and appropriate caesarean sections, has been suggested as a strategy to decrease intrapartum stillbirth and stillbirths associated with complications such as preeclampsia/eclampsia, prolonged labour, foetal malposition and twin pregnancies.

The benefit of linking community birth attendants to referral systems and facility-based clinical care may facilitate a reduction in the burden of stillbirths (McClure & Goldenberg 2014:online). According to McClure and Goldenberg (2014:online), each rural community and its families should develop a plan to transport pregnant mothers in need of both routine and emergency care to appropriate medical facilities. Strategies that may reduce stillbirths that are related to challenges of access to care, such as limited hours of operation and long waiting times, may also assist to increase mothers' satisfaction and reduce antenatal care attendance drop out, and improve quality of care (Lincetto, Mothebesoane-Anoh, Gomez et al. 2007:61).

De Brouwere et al. (2010:903) mention that stillbirths associated with negative staff attitudes and low perceived quality of care can be improved through behaviour change, communication, counselling of healthcare workers and community mobilisation. Silal et al. (2012:online) emphasise that all mothers need to use antenatal and obstetric services regularly during pregnancy and present earlier and timeously for labour. There is a need to develop strategies that will respond to patient-oriented access barriers that impede the freedom of pregnant mothers to use health services; this would include addressing the negative attitudes and actions of healthcare providers (Silal et al. 2012:online). Taking on board the perceptions and experiences of the affected mothers or communities and creating an enabling environment will assist to address stillbirths related to health personnel's negative attitudes (Silal et al. 2012:online).

7.5.4 Establish people-centred care and a healthcare dialogue approach

This preventive healthcare strategy seeks to reduce the incidence of stillbirths related to failure to implement people-centred care and a healthcare dialogue approach, such as understanding patients' experiences and involving them in healthcare discussions. Healthcare dialogue could encourage pregnant mothers to make decisions with better health outcomes. Furthermore, people-centred care and healthcare dialogue will create an environment that is culturally sensitive. The implementation of this strategy was suggested by mothers and significant others, as reported in Section 4.8.2. Deliverables from this strategy will be an individualised birth plan for each pregnant mother, as well as a functional forum of traditional stakeholders in maternal care or wellbeing per district or town. The last-mentioned will contribute to better collaboration between community members and healthcare professionals. Pregnant mothers are more likely to adhere to their care plans if they had input in developing it.

Key principles of mother-centred care are that it situates care within the mothers' life contexts, acknowledges the social determinants of health, and positions mothers as active partners in their care, rather than as passive recipients (Sword, Heaman, Brooks et al. 2012:9-10). Health facilities need to be organised in a way that they can provide mother-centred care.

Bhutta et al. (2009:1) mention that, although a number of routine antenatal care interventions have shown some impact on stillbirth incidence, improving the uptake of quality routine antenatal care through involvement of communities and all relevant stakeholders across the continuum of care is critical for reducing stillbirths. Standard services guidelines should reduce delays in providing/receiving healthcare services and provide safe childbirth healthcare, including providing people-centred healthcare that takes into account the preferences and aspirations of individual pregnant mothers and their cultures and practices (Tunçalp et al. 2015:1045-1046).

When responding to the challenge of an inflexible environment that prevents free access and pregnant mothers making health choices relating to maternal healthcare services, relevant stakeholders, such as pregnant mothers, family members and others, need to be involved, to create supportive, enabling and flexible environments where person-centred care is advocated (Silal et al. 2012:online). Shiferaw et al. (2013:online) mention that crucial strategies, such as proper healthcare provider-client communication and provision of client-centred and culturally sensitive care, need to be implemented in health facilities.

7.5.5 Respect non-harmful traditional practices and find substitutes for harmful practices

This preventive healthcare strategy is aimed at reducing stillbirths that are related to recognised, shared societal or social norms, such as traditional practices and beliefs, traditional role players, abuse by men or partners, and traditional restrictions and prescriptions, as reflected in Section 5.1. This strategy relates closely to the preceding one on providing people-centred care through healthcare dialogue. Healthcare providers and communities need to work together and collectively embrace the importance of understanding each other's points of view, such replacing harmful traditional practices and changing healthcare workers' attitudes and behaviours, towards attitudes and behaviours that are more culturally sensitive.

Furthermore, the strategy indicated in Figure 7.1 indicates the need for emancipation of pregnant mothers and the community from social norms, beliefs and practices through community and healthcare-worker empowerment. However, not all traditional practices are harmful, and healthcare professionals should consider the practices carefully before declaring them taboo. Health professionals should become knowledgeable about and develop an understanding of the beliefs and practices, including rituals, valued by community members (Walsh 2006:148-149).

Rather than continuing to develop interventions grounded in Western medicine, there is a need to develop programmes that are inclusive of traditional healers who reflect the sociocultural beliefs of the community (Walsh 2006:148-149). According to Gabrysch and Campbell (2009:online), social norms, such as traditional or cultural practices, influence pregnant mothers' decision-making regarding whether to seek care, and it affects each mother's motivation to use health services, including birth outcomes. However, to develop comprehensive healthcare strategies that will reduce stillbirths related to social norms, pregnant mothers, their family members and community members need to be empowered to make decisions that have better health outcomes (Gabrysch et al. 2009:online).

Baird et al. (2015:1220) suggest that strategies, such as encouraging birth in a professional healthcare setting, yet maintaining their traditions beliefs and practices, and developing partnerships between trained, certified birth attendants and trained birth attendants to manage antenatal care and delivery, could reduce stillbirths. According to the WHO (2005:17-18), perinatal mortality can be reduced by addressing underlying, harmful gender norms and biased practices that prohibit pregnant mothers from accessing maternal health services. Decker, Frattaroli, McCaw et al. (2012:1224) recommend that effective clinical responses to intimate male partner domination that affect pregnant mothers' healthcare decision-making powers, should include strategies such as provision of a supportive environment that provides easy access to information and well-established community support services.

Strategies, such as developing and implementing health training programmes designed for traditional home birth attendants and focusing specifically on prevention of maternal and perinatal mortality, training of healthcare workers in obstetrics complications, and developing partnerships between traditional home birth attendants and midwives, to work collaboratively to improve the health of pregnant mothers and their unborn babies, should be considered (Cianelli et al. 2015:11).

Counselling provided during routine antenatal care and the postpartum period should encompass culturally tailored messages that address birth spacing, family planning barriers and misperceptions related to maternal nutrition, in an attempt to address poor maternal and child birth outcomes (Kavie et al. 2014:10). There is a need for the Department of Health to develop strategies that will ensure that nutritional education and awareness-raising programmes encourage traditional food practices that do not compromise pregnant mothers' health. This programme should be implemented in consultation with relevant traditional structures (Maliwichi-Nyirenda & Maliwichi 2016:268). The programme should include information on food taboos that are harmful, to discourage people from observing them.

7.5.6 Procure and designate emergency medical services, transport and basic equipment, including skilled professionals for maternal healthcare services

This preventive healthcare strategy aims to reduce stillbirths that are related to shortages of resources in healthcare facilities, such as skilled midwives, designated EMS, transport and dysfunctional basic equipment. The need to address the lack of resources as part of preventive strategies was mentioned by most participants, as reported in Section 6.10.

The Ideal Clinics standards assess, amongst others, compliance with issues such as infrastructure, adequate staff, adequate medicine and supplies, good administrative processes and sufficient bulk supplies that use applicable clinical policies, protocols and guidelines (Department of Health 2017d:3). According to Ideal Clinic Manual, Version 17 (Department of Health 2017d:3), PHC clinics need to comply with the Ideal Clinic standards, which dictate that, for the clinic to be Ideal, it needs to obtain silver (70-79%), gold (80-89%) and platinum (90-100%) status, and such clinics' performance needs to be monitored continuously for sustainability. The performance of Free State province clinics for 2017/2018 was 51%, on average (Department of Health 2017c:6). Only 31%

(n=42) of the fixed clinics that were assessed achieved the Ideal status (Department of Health 2017c:6).

Mucunguzi, Wamani, Lochoro et al. (2014:87-94) suggest that, to reduce maternal and perinatal mortality rates, departments of health need to provide reliable communication systems and 24-hour transport services at population level for transporting mothers with complications during pregnancy and childbirth to the nearest health facility in a timely fashion. To ensure timeous transportation of pregnant mothers to health facilities, involvement of the community and innovative transportation approach strategies are required in remote and resource-limited settings, such as organising special transport for pregnant mothers, arranging on-call driver coverage and optimising existing transport mechanisms (Lee et al. 2009:11-13).

Stillbirths can be addressed by developing and implementing a labour ward escalation policy, which can guide health professionals on how to respond to the event of heightened clinical activity and to ensure safe staffing levels on labour wards at all times. Key staff should receive clear guidance about actions required to mitigate any potential clinical risks, which may be associated with emergency pressures (Siddiqui et al. 2014:online).

7.5.7 Expected inputs, outcomes and impacts on the implementation of the six strategies

The expected outputs, outcomes and impacts of the six strategies presented in Sections 7.5.1 to 7.5.6 are reflected in Figure 7.1. Progress on the implementation of each strategy depends on the inputs, such as development of training manuals or community awareness programmes. The outcome of competent midwives will lead to reduced stillbirths, which is the impact. Figure 7.1 also indicates detailed preventive healthcare strategies that are to be implemented, which will yield positive outcomes and impacts, such as reviewed referral policies, reviewed caesarean section designated sites policies, and appropriate and flexible referral policies.

Other outputs and outcomes expected, as outlined in Figure 7.1, will translate into awareness of traditional or social norm exploitation, and avoidance of harmful traditional practices and behaviours. Awareness programme implementation will have a positive impact on reducing stillbirths when pregnant mothers attend the clinics early and respond appropriately to danger signs.

If a person-centred care and healthcare dialogue plan is implemented by competent midwives, it will emancipate oppressed, exploited pregnant mothers, who will make correct health decisions that will reduce stillbirths. Extended hours of operations at PHC clinics, availability of adequate resources, such as ambulances, medical equipment as well as skilled midwives, are sum of the outcomes that will have an impact on reducing stillbirths.

7.6 ASSUMPTIONS

Assumptions with regard to what the status is in the healthcare facilities, or available systems and policies that are in place that could support strategies that aim to reduce high prevalence of stillbirths (strengths or opportunities), were outlined to stakeholders (W.K. Kellogg Foundation 2004:8-34). Figure 7.1, No. 6 of the Kellogg's logic model indicates the following assumptions with regard to availability and accessibility of documents and systems that may prevent stillbirths, if they are properly used or implemented:

- Clinical governance policy;
- Clinical protocols and guidelines;
- Policies and procedures;
- Training programmes;
- PPIP programme;
- South African Nursing Council (SANC) regulations;
- Labour Relations Act; and
- National Core Standards.

The Department of Health has policies, protocols, guidelines, standards, systems and legal frameworks that govern the management of individual pregnant mothers by trained healthcare professionals and healthcare personnel in healthcare facilities (Department of Health 2015:24, 157). Availability and compliance with required, updated clinical protocols and policy guidelines, such as maternity guidelines, amongst others, remains the responsibility of each competent healthcare professional and the unit manager of each maternity unit. It is the responsibility of each healthcare professional that provides maternal healthcare to be familiar with the clinical protocols and policy guidelines and to use them when managing pregnant mothers (HSE Quality & Patient Safety Directorate 2012:3-14; Kane 2005:3-6; Pillay et al. 2014:11-16). Healthcare facilities where there are maternity units or PHC clinics providing maternal healthcare services are expected to implement all components of the clinical governance policy (HSE Quality & Patient Safety Directorate 2012:3-14; Kane 2005:3-6; Pillay et al. 2014:11-16).

The purpose of the clinical governance policy is to ensure that management of pregnant mothers through all the stages (antenatal care, intrapartum care and postnatal care) are of high quality, evidence-based, safe and accessible. The policy is designed to review, monitor, measure, and promote quality healthcare in line with expected outcomes. Healthcare facilities are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish. The following are requirements for compliance with the clinical governance policy across all levels of care (HSE Quality & Patient Safety Directorate 2012:3-14; Kane 2005:3-6; Pillay et al. 2014:11-16):

- Discuss implementation of provincial referral policy, challenges and bottlenecks in the referral system. Discuss up and down referrals data, including information related to emergency inter-facility transport. Monitor and discuss inter-facility turnaround times with a focus on emergency transfers. Discuss access to maternity-dedicated inter-facility vehicles.

- Discuss morbidity and mortality monitoring and ensure it is in line with national and provincial priority areas, such as maternal mortality and perinatal mortality.
- Discuss the findings of PPIP and Child Health Problem Identification Programme (ChPIP) meetings.
- Adverse events occurring in a facility must be reported according to the adverse events reporting system. Root cause analysis must be done regularly by clinical personnel and district clinical speciality teams, where they are available, specifically with Safety Assessment Code (SAC) 1 and 2 cases, with time frames attached.
- Clinical record audits can provide good information regarding the quality of services provided, recordkeeping and implementation of clinical protocols and guidelines when assessing and managing pregnant mothers.
- Quality improvement plans must be discussed at governance meetings and progress with implementation needs must be reported. Management must assist in removing any obstacles in effecting the improvement plan.
- Clinical outreach that has been conducted must be discussed. The main purpose of outreach is clinical support, building capacity and the expansion of skills. Maintenance of skills and competencies through in-reach (sending staff to a higher-level facility to obtain skills exposure) must also be done, including monitoring and discussing the challenges on implementation of the programmes.
- Clinical policies must be reviewed, discussed, approved and implemented. In cases where provincial or national policies were affected by adverse events, they must be discussed, and escalated to the provincial committee for policy review or inputs to national.
- Statutory compliance, which includes compliance with the legal requirements of the facility to provide clinical services including compliance with national directives, must be discussed.

- Professional staff registered must remain current with relevant regulating bodies and Health Council accreditation status for medical interns and student nurses, including student midwives, must be retained by relevant healthcare facilities – training platforms must be discussed.
- Analysis of patient satisfaction survey, complaints and complements and action plans plus the progress reports must be discussed and monitored.
- Potential clinical risk that has been identified must be discussed and included in the institutional risk register and risk action plan.

Kane (2005:3-6) and the HSE Quality & Patient Safety Directorate (2012:3-14), mention that, apart from the expected activities and required standards by the clinical governance policy, healthcare facilities, including maternity units, are expected to comply with National Core Standards set by the Office of Healthcare Standards. The standards require that continuous training programmes need to be compiled and conducted, based on the audit or competency tests conducted with all midwives working in the maternity units or PHC providing maternal healthcare services. Furthermore, the national Department of Health, as well as that of the Free State, requires that all midwives and medical officers working in the maternity units need to be trained on ESMOE (Engelbrecht, Bergh, Pattinson et al. 2013:2-8).

According to Engelbrecht et al. (2013:2-8) maternity units need to have an ESMOE training saturation level of at least 80%. Provincial obstetricians, with the support of national Department of Health – Obstetric Unit, offer the ESMOE training to capacitate healthcare professionals providing maternal healthcare services. Weekly simulation exercises (fire drills) comprise management of emergency obstetrics conditions, such as cord around the neck, shoulder dystocia, antepartum and postpartum haemorrhage, cord prolapse, placenta praevia, pre-eclampsia and others, to sharpen practitioners' skills (Engelbrecht et al. 2013:2-8).

Midwives working in PHC facilities are to be trained on basic advanced antenatal care (BANC Plus) to ensure proper management of pregnant mothers during the antenatal

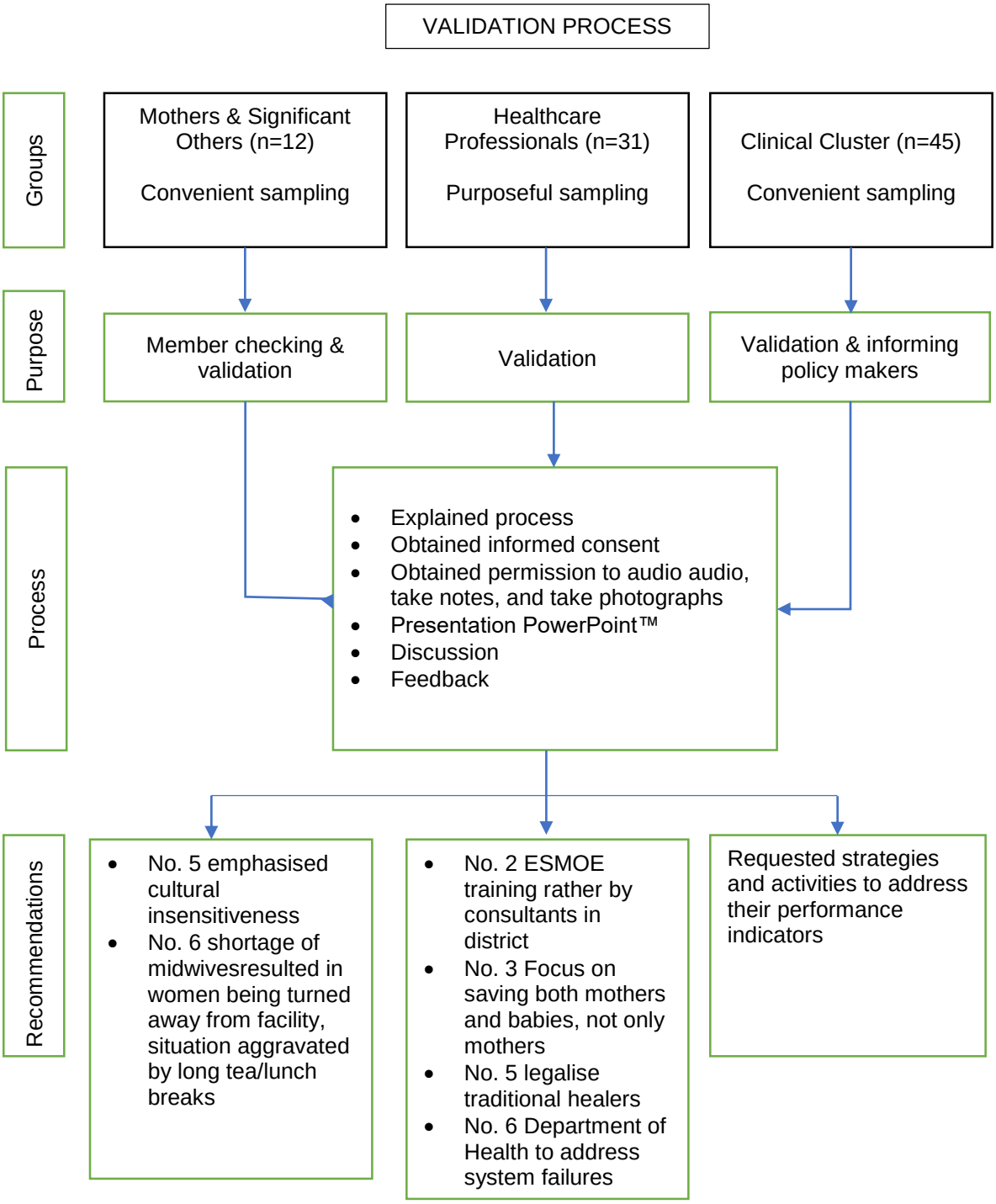
care visits (Department of Health 2015:24, 157). According to the *Guidelines for Maternity Care in South Africa* (Department of Health 2015:24:157), midwives trained in Advanced Antenatal Care are expected to conduct medium and high-risk antenatal care clinics in their respective catchment areas, including performing monographs or sonography. Specialist midwives (who have an additional post-basic midwifery qualification) at hospitals (district and regional) are expected to conduct outreaches to their catchment areas to build capacity (Department of Health 2005:1-18). The Labour Relations Act, Health Professions Council of South Africa and Code of Conduct governing the conduct of all health professionals and other non-health professional employees working in the Department of Health's care facilities, are available, and training is conducted to ensure compliance with the Act (May 2013:1-9).

In FDD, the current ESMOE training saturation level for midwives and medical officers working in maternity units is more than the required standard of 80%. The saturation level for training for BANC Plus (which requires antenatal visits by individual pregnant mothers to be at least 8 instead of the 5 previously required visits) for midwives working in the PHC clinics is currently 90%, against the standard of 100%. One midwife in the clinic must have been trained on implementation of BANC Plus (Department of Health 2015:24, 157). Irrespective of the abovementioned systems, programmes and legislation that the Department has put in place to improve the quality of the provision of maternal health services, including the reduction of stillbirths, the Free State Department of Health, and FFD, amongst others, are still experiencing a high prevalence of stillbirths.

7.7 VALIDATED HEALTHCARE STRATEGIES TO REDUCE CAUSES OF STILLBIRTHS

The preventive healthcare strategies developed were validated and verified by three different groups consisting of relevant stakeholders during three group discussion sessions that were held. According to the Kellogg logic model (W.K. Kellogg Foundation 2004:8-34), inputs, which include the implementation or intervention in a specific programme, need to target relevant stakeholders who will support its implementation.

The purpose of validating the strategies was to present the research findings to the stakeholders, so that they could verify that the strategies were relevant to the challenges raised by participants (in line with the report), that the strategies are implementable and, if implemented, could possibly reduce the prevalence of stillbirths in the FDD. The other purpose of the validation group discussion was to request stakeholders to provide additional inputs on healthcare preventive strategies already developed. Figure 7.2 summarises the validation process and the additions to the draft framework.



Note: No. 2 Represents the number of the preventive strategy according to the sequence.

Figure 7.2: Schematic presentation of validation of healthcare strategies to reduce stillbirths

The validation group discussion sessions with the stakeholders followed the process as outlined in Figure 7.2, which identified groups and relevant stakeholders per group, prepared for each group discussion, explained the purpose of validation group discussion session to each group, explained the validation group discussion process followed with each group and recorded the recommendations or inputs made by each group.

7.7.1 Mothers and their significant others validation group discussion session

Mothers and their significant others who participated in the study took part in the first validation session with the purpose of member checking, as well as to request their inputs or recommendations on the preventive healthcare strategies developed.

The selection and inclusion criteria for mothers and their significant others were those who:

- had participated in the study;
- were available and accessible; and
- were willing to participate in the validation group discussion sessions.

A week before the group discussion validation sessions, participants who had participated in the study were contacted through their telephone contact numbers and invited to the group discussion validation sessions. The participants were informed that they would be transported from and to their respective homes. They were also informed that snacks would be served. Those who were not available on their contact numbers were phoned twice per day for two days to facilitate their availability. Messages were also sent to them using the researcher's telephone.

A day before the group discussion sessions, participants were reminded about the date, time and agreed-upon place where individuals would be picked up by the transport. Venues for group discussions were arranged with the management of Tokollo hospital before the validation group discussion sessions.

Out of 36 mothers and their 36 significant others that had participated in the study, only 12 mothers and significant others could be traced using their telephone contact numbers, and they agreed to attend the validation discussion session. The participants were not selected according to pairs, as a result, seven mothers and five significant others participated in the validation interview session

7.7.1.1 Validation group discussion session with mothers and significant others

The researcher served snacks prior to and after the group discussion session, because some participants had travelled quite a distance. Before starting with the validation group discussion session the researcher verified with the stakeholders that the voluntary informed consent for validation group discussion session had been signed. The researcher reiterated that they still had the right to withdraw from participating, by using information letters and and consent forms for mothers and significant others (see Addenda 5 and 5.1; 6 and 6.1 respectively). The researcher explained the purpose of the session and obtained permission to use audio recorders and to take notes. The participants preferred to speak Sesotho.

During the presentation as outlined in Addendum 17, the researcher guided the discussion in line with the following principles of the Kellogg logic model, as indicated in Sections 7.2 to 7.6 (W.K. Kellogg Foundation 2004:8-34; Shakman & Rodriguez 2015:11-28)

- The elements of the logic model that would be used, such as identified problem, needs or assets to address the problem, strategies identified, possible influential factors, output, outcome and the impact and including the possible assumptions were presented and explained as indicated in Sections 7.2 to 7.6.
- Stakeholders were informed that the approach of the Kellogg's logic models would focus on the six strategies and examine the relationship between the outputs and outcomes.

- The researcher shared the understanding of the model, in terms of the strategies, outputs, and outcomes, with the stakeholders.

After presenting the results of the study and the strategies as outlined by the logic model, participants were asked to discuss answers to the following question:

> Based on the information shared with you, what other preventive measures may reduce the number of stillborn babies?

Participants were encouraged to actively participate and generate new possibilities (W.K. Kellogg Foundation 2004:5).

The researcher verified or clarified some information during the PowerPoint presentation to the stakeholders to allow a smooth reviewing of the developed preventive healthcare strategies. Stakeholders were thanked for attending the validation group discussion interview session. The importance of their inputs, and success of developing and implementing preventive healthcare strategies was explained to the stakeholders before the closure of the validation group discussion interview sessions. The length of each validation interview session did not exceed one and a half hours.

The validation group discussion processes for the three different categories of stakeholders followed the process that was used for mothers and significant others. Any different or additional activities per group discussion are explained under each group's discussion sessions.

The researcher captured all new information relating to strategies while stakeholders were discussing and engaging with the feedback report and the proposed strategies presented to them by the researcher. Furthermore, the researcher extracted and transcribed the following inputs or comments from the audio recorders made by the mothers and significant others:

> *Thanks Mme for inviting us and for providing us with such an important information we really appreciate… I agree with all your strategies and with us [traditional healers] around this area we have already started to work with the*

midwives working at the clinics and the hospital, and we really need their support as majority them still do not accept us… We have also formed the traditional healers' forum where we learn and discuss different illnesses amongst ourselves… All our clients who access our services are encouraged or referred to relevant clinics… Those who are critically ill, we will then refer them to the hospital so that they can be given intravenous infusion without fear of intimidation by midwives.

In your presentation you talked about the need to inform pregnant mothers about the benefit and disadvantages of traditional practices for them to take informed decisions… Is true with us, we were not told, but we listen, anyhow, now we will tell them because they have a lot to ask, otherwise they will not comply.

The other challenge that we are still experiencing in this area, is our clients who still take overdosage of traditional medicine even if they were told to how to take those medicine… Such cases are communicated to us in our forum and in the clinic committee meeting, really, such clients are making our reputation as traditional healers bad in the eyes of healthcare professionals.

I am really glad that you mentioned that the attitudes of health professional need to be addressed, because patients are still returned home when they did not come on the day that they were told to, irrespective of whether they are ill or not… The issue of nurses who drink tea or eat at the same time and leave patients unattended is still a problem in our facilities and patients will be told to come the following day.

Nurses need to respect our culture, recently when I was at the maternity the other pregnant was shouted and ill-treated by the nurses for taking traditional medicine… They even refused to assist her and said she should call the person who gave her the traditional medicine to come and assist her… Really, it was not a nice.

Yes Mme, usually these pregnant mothers consult us at four months pregnant upwards, for confirmation of pregnancy and at time we encourage to visit clinic, although we start to give them traditional medicine to prevent evil spirits in order for them to carry their unborn babies to term… It is really unfortunate that currently we are not allowed to refer them to the clinics because we are still not recognised...There is a need for our government to give traditional healers freedom to work with healthcare workers as we are still not free.

The mothers and significant others commented specifically on the following strategies.

Preventive Strategy 3: Create environment that is responsive to the needs of the community

During the discussion, mothers and significant others recommend that the attitudes of healthcare workers, exhibited by practices such as taking long tea/lunch breaks and leaving patients unattended, and turning away patients without them having been assisted, need to be corrected as matter of urgency, so that an enabling environment can be created for pregnant mothers to visit healthcare facilities when the need arises.

Preventive Strategy 5: Respect non-harmful traditional practices and find substitutes for harmful practices

Mothers and significant others emphasised cultural insensitivity as a continuing challenge that contributes to non-attendance of antenatal care clinics and reluctance to seek medical assistance by pregnant mothers. The group called for the implementation of an urgent preventive healthcare strategy by health authorities. Their call for the urgent intervention indicated that they felt oppressed by the healthcare personnel, including the healthcare system, and they wanted to be emancipated. The group emphasised the importance of working with midwives at the clinics and the hospitals and establishing a traditional healers' forum, where traditional healers could learn and discuss different illnesses amongst themselves, and encourage their clients to attend clinics early on in their pregnancies, and the importance of early referral to healthcare facilities.

Preventive strategy 6: Procure and designate emergency medical services, transport, basic equipment, and skilled professionals for maternal healthcare services

The group discussion recommended that the challenges caused by the shortage of midwives, and overcrowding at clinics, where patients, including pregnant mothers, are turned away and told to come back at another time, need to be addressed.

7.7.2 Fezile Dabi District healthcare professional validation group discussion session

The second validation group consisted of midwives who had participated in the study, PHC midwives providing maternal healthcare services, District Clinical Specialist Teams supporting provision of maternal and child healthcare services in the district, and programme coordinators and consultants from the regional hospital, who provide maternal and child healthcare services. The purpose was the same as for the mothers and significant others, namely, to do member checking and elicit additional strategies. Data showed that the healthcare professionals created a power-based distance between themselves and pregnant mothers. Therefore, mothers with their significant others were purposely accommodated in a separate group from the healthcare professionals, to encourage free discussion.

7.7.2.1 Sampling

Midwives who had participated in the study and who were accessible, available and willing to participate were purposefully included in the validation group discussion, as were members from various committees and teams, who were conveniently selected. The committees and teams comprised the FDD maternal and child healthcare technical team (PHC midwives providing maternal healthcare services), District Clinical Specialist Team supporting provision of maternal and child healthcare services in the district, and programme coordinators and consultants from the regional hospital who provide maternal and child healthcare services.

The researcher invited the healthcare professionals via email and telephone calls and arranged with the management of Boitumelo hospital for a suitable venue.

7.7.2.2 Validation group discussion session with healthcare professionals

Fifteen of the 19 midwives who had participated in the study focus group interview sessions managed to attend the validation session. An additional 16 healthcare professionals attended (committee members of district maternal and child health technical team); they signed voluntary consent forms, and agreed to participate in the validation group discussion. Participants preferred to converse in English.

The same process as with the mothers and significant others was followed. On conclusion, the researcher requested the participants to submit any additional measures per email within two days. The researcher did not receive any additional inputs. The following are inputs or comments made by the healthcare professionals during the validation group discussions session:

> *Thank Mme, with the presentation, it would be appreciated if the strategies or activities under retraining of midwives can clarify those areas that midwives mentioned that they still need retraining or areas where patients were mismanaged.*
>
> *The problem of training of midwives in FDD is a challenge, because the District Specialist Team member who is task to train midwives on ESMOE in the district is not doing it, it was last done two years back… We still receive pregnant mothers who had been mismanaged and stillbirths that occur due to mismanagement by our healthcare professionals.*
>
> *Even if midwives were last trained on ESMOE in the district two years back, that should not be the reason for mismanaging pregnant mothers, apart from the ESMOE, each maternity unit in the district is expected to conduct emergency drills at least weekly as part of retraining them to be competent…*

If those drills are conducted as they should be, I do not think that midwives and doctors working in maternity, they would still talk about lack of retraining.

I am not suggesting that midwives working with pregnant mothers should now fail to prioritise patients or drag their feet, but I would be appreciated if those challenges related to administration or systems failures be prioritised by our relevant authorities or principals.

I agree with you when you suggest that we need to work with traditional healers, but I am sure it will be difficult, because they are still not recognised by law, which will really not work now.

The policies that are developed in this province is only aimed of saving mothers rather than their unborn babies [designated caesarean section sites policy]... Many district hospitals are not performing caesarean sections even if an emergency, such as cord prolapse, the baby can rather die in utero waiting for an ambulance that is not available to travel more that even recommend [30 km] to the next designated hospital... As long as the safety of the pregnant mothers is still prioritise to the detriment of the unborn babies, stillbirths' rate will continue to rise… The baby can rather die in-utero waiting for an ambulance that is not available to travel more than the recommended distance (30 km) to the next designated hospital.

7.7.2.3 Recommendations from healthcare professionals

The healthcare professionals providing maternal healthcare services in the FDD commended, remarked on and provided the following inputs in relation to the research findings and preventive healthcare strategies presented:

Strategy 2**: **Retrain healthcare workers (midwives) regarding issues such as management of hypertension during pregnancy

Some participants claimed that the midwives in their healthcare facilities not received training on basic emergency obstetric and newborn care, because of the District Clinical

Specialist Team was reluctant to conduct training. Training would ensure timeous detection, management, and referral of critical, emergency obstetric cases.

According to training requirements, all midwives and medical officers working in the maternity units need to have a continuous ESMOE training saturation level of at least 80%. The ESMOE training and basic emergency obstetric and newborn care are currently conducted by provincial obstetricians with the support of national Department of Health Obstetric Unit. The group recommended that such training should be the responsibility of the districts and relevant consultants.

The group mentioned that the current saturation level on BANC Plus for PHC clinic midwives who provide antenatal healthcare services to pregnant mothers, which should be 100%, that is, one trained midwife per clinic in a district, creates a challenge. The current situation is such that, if this trained midwife is not always available at the clinic, the antenatal care services in that particular clinic cannot be provided. Therefore, there is a need to review the current required saturation level for BANC Plus training per PHC clinic in a district, to at least two trained midwives; in addition, additional midwives should be recruited.

Strategy 3: Create a healthcare environment that is responsive to the needs of the community

The group was of the opinion that the current policies only aim to save mothers, rather than their unborn babies (designated caesarean section sites policy). In the Free State health department, the maternal health department has designated some district hospitals to perform caesarean sections, while others are not designated. In the FDD, only one regional and one district hospital, out of five hospitals, are designated to perform caesarean sections. According to the policy, these three district hospitals are not performing caesarean sections, even in emergencies, such as cord prolapse. The criteria that are used to designate the hospitals to perform caesarean sections are based

on the availability of skilled medical officers, midwives, medical equipment and infrastructure, amongst other factors.

The baby can die in-utero waiting for an ambulance that is not available to travel more than the recommended distance (30 km) to the next designated hospital. The group recommended that the Department of Health should not implement cost-saving measures, such as reducing the number of hospitals that provide caesarean sections, as doing so has a negative impact on the birth outcomes of unborn babies.

Strategy 5: ***Respect non-harmful traditional practices and find substitutes for harmful practices***

The group commented that working with stakeholders, such as traditional healers, to reduce the stillbirths is a brilliant strategy but, before that could be implemented, the law should recognise them, which is unlikely to happen.

Strategy 6*:* ***Procure and designate emergency medical services, transport, basic equipment and skilled healthcare professionals for maternal and child care***

The stakeholders suggested that, to reduce the number of stillbirths, the Department of Health, including the FDD, needs to prioritise those challenges that were identified that emanate from administration or systems failures. The stakeholders strongly recommended that the immediate administration challenges that contribute to stillbirths can be addressed by prioritising, among others, appointment of additional midwives and EMS personnel, procurement of additional ambulances, and procurement and maintenance of medical equipment; this could be done by exercising political will and conducting interventions.

7.7.3 Members of the clinical cluster in the Free State province validation group discussion session

The third validation group discussion session consisted of all members of the clinical cluster in the Free State province, namely, district managers, chief executive officers of

all hospitals, chief directors, the director and deputy director of all clinical support services, chief directors, director and deputy director of all clinical programmes and provincial clinical specialist teams. The head of the provincial Department of Health also attends this meeting regularly.

The purpose of the validation session was to present the findings of this study, with the recommended strategies, to the stakeholders with the intention of informing the policymakers and requesting their inputs in the preventive healthcare strategies for FDD that had been developed.

7.7.3.1 Sampling of the clinical cluster

The researcher used convenience sampling, as all those who were available and willing to participate were included in the sample. Arrangements were made with the deputy director general clinical cluster two weeks before the presentation. The researcher requested the acting deputy director general; clinical, verbally and through email to allow the researcher to present her research findings at the clinical cluster meeting. The venue for the group discussion session with members of the clinical cluster was arranged by the office of the deputy director general clinical cluster; it was at the Pelonomi Hospital hall; 45 clinical cluster members attended and participated in the validation group discussion.

7.7.3.2 Validation group discussion session with clinical cluster

Snacks were not served for members of the clinical cluster meeting, as food was prepared for the meeting as usual. Voluntary informed consent was not signed by the members of the clinical cluster, although they were informed that their participation in the validation group discussion session would not be binding. The validation group discussion was conducted in English, which was the language preferred by members of the clinical cluster.

At the end of the validation group discussion session, the researcher requested participants to submit any inputs to her regarding additional measures that they might

think about after the discussion, but within two days after the presentation. They were requested to use the researcher's department email address to submit their inputs. The researcher did not receive any additional inputs. The following are comments made by the members of the clinical cluster during the validation group discussions session:

> *Thank you so much with the wonderful presentation… We would really appreciate if these strategies could be available for every district in our province to implement, because most of the issues that you presented are cutting across all the districts.*
>
> *Thanks, Ausi, we really appreciate… This report is important, as it seeks to address the challenges around the maternal and child health services, which is one of our priority programme… I would really appreciate if after the finalisation of the report you can be given more time to present this report again in the clinical cluster meeting.*

7.7.3.3 Recommendations from members of clinical cluster

Members of the clinical cluster listened with great interest during the PowerPoint presentation. They appreciated the presentation and requested that more time be allocated to allow the presenter to unpack the findings per sub-category and per theme. The majority of the district managers requested that the strategies and activities developed be sent to them, as they would address their current poor performance indicators.

7.8 CHAPTER SUMMARY

This chapter discussed the synthesis and validation of the preventive healthcare strategies that were developed with the aim of reducing stillbirth prevalence in the FDD. Six healthcare preventive strategies were developed. Validation group discussion sessions with three different categories of stakeholders were held with the purpose of member checking, giving feedback on the findings and eliciting inputs and recommendations regarding the preventive strategies of the stakeholders. Three

categories of stakeholders provided inputs, remarks and recommendations. Furthermore, all the validation groups accepted the proposed strategies and did not add any new ones.

The following chapter will discuss the conclusion, contribution of the study to nursing theory, possible further research and study limitations.

CHAPTER 8
CONCLUSION, RECOMMENDATIONS AND CONTRIBUTION TO NURSING THEORY

8.1 INTRODUCTION

This study explored the beliefs and practices of mothers who had experienced stillbirths, their significant others, and midwives working in the maternity units in the FDD, with regard to the causes of stillbirths. Furthermore, the study compared the information collected from the PPIP records of mothers who participated in the study, in order to develop preventive healthcare strategies that will reduce stillbirths. The researcher developed preventive healthcare strategies based on the study findings and the inputs of the stakeholders.

The researcher used feminist ontology, feminist epistemology and feminist methodology paradigms to conduct the study. Chapter 1 explained the research paradigm in detail. This study was a multi-method qualitative research study, because the researcher used various methods to collect data, namely in-depth interviews, focus group interviews, and record review. Data was collected from three categories of participants, as explained in Chapter 2.

Data analysis was done using inductive and deductive reasoning. Inductive data analysis was done by developing codes, categories and sub-categories, not specifically working from the conceptual model. Deductively, data was analysed taking into consideration the five sub-concepts of the Wittmann-Price EDM model, although it was not limited to these sub-concepts. AtlasTi™ Version 7, a computer program, was used to code the data deductively. Six themes emerged from the initial data analysis. Data reduction and reconstruction allowed the researcher to work with manageable data that was relevant to the research question. After the data reduction process, three themes that are aligned to the EDM model, namely, empowerment, social norms and flexible

environment, were used to discuss the study findings. Two themes that were aligned with the model, but omitted, were personal knowledge and reflection. One theme that was not aligned to the model was other factors that may have contributed to stillbirths. The criterion used for omitting the three themes was the frequency of each sub-category under a specific theme. Those subcategories with frequencies of less than 10 responses were omitted, to ensure that the remaining data was manageable, and not because these themes were not important. The researcher realises that important data may have been omitted, but due to time and financial constraints the researcher had no other option than to omit these themes. However, the full data set, with the omitted themes and subcategories, is available in Tables 3.2, 3.3 and 3.4, and contain more information on data collection and analysis.

Chapters 4, 5 and 6 of this study contain the analysed data on the perceived causes of stillbirths related to lack of empowerment, social norms and inflexible environment. These three chapters also contain information about measures that could have been implemented to reduce stillbirths. Each chapter contains discussions and the supporting literature with regard to causes of stillbirths and measures which could have been done to prevent the stillbirths. Commonalities and disparities amongst participants with regard to causes of stillbirths and what could have been done to prevent stillbirths were analysed and discussed in each chapter. SWOT analyses were outlined for each chapter. Recommendations with regard to prevention of stillbirths were compiled for each chapter based on the SWOT analysis.

Chapter 7 of this thesis presented six preventive healthcare strategies, developed to reduce the incidence of stillbirths in the FDD. The Kellogg logic model was used to guide the researcher in developing and validating preventive healthcare strategies. The researcher discussed the research problems identified, community needs or assets, the desired impact, influential factors, strategies, and assumptions as outlined in Chapter 7 of this study. The data used to populate the logic model and to develop strategies were derived from Chapters 4, 5 and 6 of this study.

The researcher then developed six preventive strategies independently, without involving the stakeholders. The strategies were then presented to the relevant stakeholders for validation, and to policymakers. After validation the researcher did not receive any additional information to be added to the already developed strategies. This chapter outlines the main findings of the study, the recommendations, which include a need for further research, the contribution of the study to nursing theory, as well as the limitations of the study.

8.2 MAIN FINDINGS

The Wittmann-Price EDM model and the feminist paradigm were used, because they both advocate that behaviour by individuals and communities, including healthcare, is influenced by factors such as environmental and social norms. The model also acknowledges that communities, including pregnant mothers, experience oppression, such as paternalistic oppression, which is promoted by the healthcare system environment. The model and the paradigm guided the development of the preventive healthcare strategies that will guide healthcare professionals and pregnant mothers in the context of mothers' healthcare, to promote correct choices and informed decision-making that will reduce stillbirths.

The study outcomes indicated that the feminist approach and EDM model could be used to influence pregnant mothers' healthcare choices and decision-making through empowerment. The study established the lack of empowerment of mothers, their significant others and community members in this study, because they lack knowledge and information about danger signs during pregnancy, foetal movement monitoring and routine pregnancy care. The study findings indicate that a lack of knowledge and information, in both mothers and significant others, with regard to the importance of attending antenatal care clinics and signs of danger during pregnancy, such as reduced foetal movement, leads to nonattendance of antenatal clinics, which result in stillbirths.

The study revealed that mothers and significant others who received inadequate information made healthcare decisions that had poor outcomes, because they were not empowered. According to the study findings, the EDM model and feminist perspective, midwives in this study are regarded as oppressors, while the pregnant mothers of this study are regarded as the oppressed – they need to be emancipated through health dialogue and people-centred care.

The study findings reveal that social norms, beliefs, and practices, such as traditional practices and beliefs, traditional role players, abuse by males or partners, and traditional restrictions and prescriptions, might have contributed to stillbirths. From the study findings it is evident that pregnant mothers and significant others still believe in the use of traditional medicine and take instructions from their elders, including their male partners. The findings of the study also demonstrate that social norms, beliefs and practices might have contributed to poor attendance of antenatal care clinics and avoiding seeking medical assistance by these pregnant mothers when the need arose, thus, causing stillbirths. Based on the EDM model and feminist perspective, pregnant mothers are vulnerable to oppression and exploitation by traditional norms, because they are not aware that they are not obligated to subscribe to traditional practices and social norms, irrespective of birth outcome.

The study findings also found that an inflexible and nonresponsive environment, caused by some incompetent midwives, lack of EMS and transport, lack of access to quality healthcare services, and poor communication and information sharing, contributed to stillbirths. Shortage, delays by EMS and an unresponsive EMS call centre, caused delays in providing medical assistance to pregnant mothers, resulting in stillbirths. Some areas did not have allocated or stationed EMS, and patients were forced to look for public transport, which also caused delays. The research findings also established that negative attitudes of healthcare workers in the facilities and inadequate operational service hours of, in particular, PHC clinics lead to some of the pregnant mother deciding not to attend clinics or even not to seek medical assistance when they were in labour, and that might have caused stillbirths.

According to the study findings, it was evident that some of the policies that were developed to ensure the smooth running of the maternal healthcare programme, such as the referral system and designated caesarean sites, were causing more harm than good. The findings show that implementation of such policies in the absence of adequate resources, such as EMS, caused delays, maternal and foetal complications and stillbirths.

8.3 RECOMMENDATIONS

The recommendations of the study are based on the study findings, but mostly on the preventive healthcare strategies developed to reduce stillbirths. The recommendations were compiled taking into consideration the six healthcare preventive strategies, which are to be implemented in line with their appropriateness to individual stakeholders. The following recommendations are made by the researcher, taking into consideration the involvement of stakeholders who are responsible for the successful implementation of the strategies and the reduction of stillbirths.

8.3.1 Recommendations for each stakeholder

Nursing education institutions

- Institutions should ensure that students exiting as midwives are competent in advanced antenatal care and ESMOE in order to address the skills competency gap amongst midwives.

Provincial Departments of Health

- Assess the competence of every practicing midwife annually.
- Comply with the national standards on the required number of skilled midwives per maternity unit or PHC facility providing maternal healthcare services.
- Create a flexible and responsive healthcare environment by reviewing the current referral policies and designation sites for performing caesarean section.

- Adjust the operating hours of healthcare facilities, to accommodate the needs of the community and pregnant mothers.
- Procure and maintain standardised and functional basic medical equipment for every level of care.
- Develop a standard regarding the number of maternity ambulances and commuter services that need to be allocated per district, sub-district, per town and per healthcare facility.
- Establish a functional maternal health forum, which should include relevant traditional stakeholders.
- Review the current PPIP record and include records relating to social norms.

Healthcare professionals, especially midwives

- At each visit, emphasise the importance of attending antenatal clinics and monitor danger signs during pregnancy – emphasise reduced foetal movements.
- Provide person-centred care and engage in healthcare dialogue with pregnant mothers and their significant others.
- Be sensitive to traditional and cultural practices
- Inform pregnant mothers about their rights.
- Share information with significant others and communities on how to support pregnant mothers.
- Be aware of and avoid potentially oppressive and exploitative factors (e.g. gender, patriarchy, traditional and cultural practices).
- Create an environment where pregnant mothers are free to make healthcare choices that yield positive birth outcomes through empowerment and creation of a non-judgmental, flexible environment.

Pregnant mothers and their significant others

- Take responsibility for their own health.
- Engage in health dialogue with the healthcare provider.

- Enforce her rights.
- Adhere to the agreed upon birth plan.

8.3.2 Recommendations for further research

The findings of this study give an opportunity for further research that could be explored. Among the issues that could be investigated further, are the following.

- Investigating the healthcare dialogue that midwives and pregnant mothers engage in.
- Determining healthcare messages and mode of delivery for pregnant mothers in rural districts.
- Exploring the implementation of person-centred care and healthcare dialogue and comparing its effect with pregnant mothers and stakeholder empowerment, social norm emancipation and reduction of stillbirths.
- Describing the extent of policy implementation and associated factors preventing healthcare professionals from utilising available clinical policies, guidelines, training programmes and other systems and processes available to address the challenges of incompetence of healthcare professionals.
- Duplicating this study in other districts, with different contexts to compare the outcomes of the study.
- Exploring the contribution of midwives as patients' advocates in the promotion and implementation of emancipated decision-making and reduction of stillbirths.
- Describing the other two sub-concepts of the EDM model, namely, personal knowledge and reflection as causes of stillbirths.

8.4 CONTRIBUTION OF THE STUDY TO NURSING THEORY

The outcomes of this study contributed to gaining insights and in-depth understandings of the contribution made by sub-concepts of the Wittmann-Price EDM models,

specifically those related to lack of empowerment, social norm exploitation and an inflexible and judgemental environment, to the causes of stillbirths.

Although some of the findings of the study are not new, the researcher could not find literature where such perceived causes of stillbirths were compared to the PPIP record report. Based on the outcome of this study, there is a call to review the current PPIP record and align it with the Wittmann-Price EDM model sub-concepts, in order to include stakeholders' beliefs and practices. Furthermore, this study emphasises the importance of the introduction and orientation of student midwives on the use of the Wittmann-Price EDM model sub-concepts to address incidents of stillbirths.

The outcome of this study also revealed that incompetence of midwives after training and registration remained a challenge that contributes to the occurrence of stillbirths. Therefore, there is an urgent need for nursing schools to review the current criteria they utilise to recognise midwives as competent.

8.5 LIMITATIONS OF THE STUDY

The following are possible limitations of this study:

- Failure to notice participants' suspicions and lack of cooperation, which might have interfered with data collection.
- Failure to recognise unwillingness of participants to share their real and deep feelings, as well as their unwillingness to exercise their rights to decide what they wanted.
- Participants' variations might had affected the data quality and collection.
- The findings of the study is limited to the FDD hospitals and cannot be generalised to other districts, as the practices and beliefs of stakeholders and factors affecting them in the districts might not be the same, though they may be transferable.

- Omission of the two sub-concepts of the EDM, namely reflection and personal knowledge, is also a limitation. The omission was due to limited time that the researcher had to write the report and the excessive volume of the thesis.

8.6 CONCLUSION

The outcome of this study, its recommendations and the preventive healthcare strategies, will assist all relevant stakeholders in the FDD to reduce stillbirths. The impact of implementation of preventive strategies will only be realised through a collective approach and support from all stakeholders.

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ADDENDA

ADDENDUM 1

RECORD REVIEW SUMMARY DATA SHEET FOR PIPP AUDIT TOOL

CODE	PRIMARY CAUSES OF STILLBIRTHS	FINAL CAUSES OF DEATH	AVOIDABLES CAUSES OF STILL BIRTHS	
			PATIENT RELATED	PROVIDER RELATED
1	Placenta Abruption	Intrauterine Death	Smoking, Inappropriate response to poor foetal movements	Inadequate/ no advice given to the mother
2	Chronic Hypertension	Intrauterine death	Infrequent visits to ANC clinic Delay in seeking medical attention during labour	Poor history taking at ANC clinic
3	Unexplained intrauterine death	Intrauterine Death	Inappropriate participant to foetal movements Delay in seeking maternal attention during labour	None
4	Prematurity	Intrauterine Death	Delay in seeking maternal attention during labour	None
5	Proteinuric Hypertension	Intrauterine Death	Inappropriate participant to foetal movements	No response to maternal HPT
6	Placenta Abruption	Intrauterine Death	None	IUSR missed Foetal distress not detected intra-partum fetus not monitored. Placenta abruption missed Sonar done.
7	Placenta Abruptio	Intrauterine Death	Inappropriate response to foetal movements	None
8	Unexplained intrauterine Death MSB	Intrauterine Death	Booked late in pregnancy	None

9	Hypertensive disorders	Intrauterine Death	Delay seeking medical attention during labour	No response to maternal hypertension
10	Cord around the neck	Asphyxia	Inappropriate response to poor foetal movement	None
11	Intrapartum Asphyxia	None	Delay in seeking medical attention.	None
12	Unexplained Death	None	Delay in seeking medical attention during labour	None
13	Unexplained IUD	Intrauterine Death	Inappropriate response to poor foetal movement Delay in seeking medical attention during labour	None
14	Unexplained Death	None	Delay in seeking medical attention during labour	
15	Unexplained IUD	Intrauterine Death	Delay in seeking medical attention during labour Never initiated ANC	None
16	Unexplained IUD	Intrauterine Death	Inappropriate response to poor foetal movement Delay in seeking medical attention during labour.	None
17	Hypertension	Intrauterine Death	Inappropriate response to poor foetal movement	None
18	Unexplained IUD	Intrauterine Death	Inappropriate response to poor foetal movement	None
19	Cord around the neck	Extreme Multi Organic Immaturity	None	Insufficient notes to make comments

20	Pregnancy induced HPT with proteinuria	Intrauterine Death	Inappropriate response to poor foetal movement	None
21	Protenuric hypertension	Intrauterine Death	Inappropriate response to poor foetal movement	None
22	Cervical incompetency	Intrauterine Death	Other patient associated factor	None
23	Labour related intra partum asphyxia	Intrauterine Death	Delay in seeking medical attention during labour	Delay in medical personnel calling for expect assistance
24	Unexplained IUD FSB	Intrauterine Death	Never initiated ANC	None
25	Unexplained IUD	Intrauterine Death	Inappropriate response to poor foetal movement	None
26	Protenuric Hypertension	IUD Intrauterine Death	None	No response to history of still birth No response to poor uterine fundal growth
27	Protenuric Hypertension	Intrauterine Death	None	No response to maternal HPT
28	Unexplained IUD MSB	Congenital Abnormalities	Inappropriate response to poor foetal movement	None
29	Unexplained IUD FSB	Intrauterine Death	Delay in seeking medical attention during labour.	No response to history of poor foetal movement
30	Premature raptured membranes	Congenital Abnormalities	Other patient associated factors	None
31	Unexplained IUD Fresh stillborn	Intrauterine Death	Delay in seeking medical attention during labour	None

32	Cord around the neck	Intrauterine Death	Inappropriate response to poor foetal movement Delay in seeking medical attention during labour	None
33	Unexplained IUD FSB	Intrauterine Death	Delay in seeking medical attention during labour	None
34	Protenuric Hypertension	Intrauterine Death	Inappropriate response to poor foetal movement	No response to history of still birth No response to maternal hypertension
35	Unexplained IUD FSB	Intrauterine Death	Delay in seeking medical attention during labour	None
36	Unexplained IUD	Intrauterine Death	Inappropriate response to poor foetal movement	No response to history of poor foetal movement

ADDENDUM 2

PIPP AUDIT TOOL

Perinatal death detail

PPIP 3 Data Sheet

Health care facility: _____

Data sheet completed by: _____

Identification: _____ Date of delivery: _____ Date of death: _____ Birth weight: _____ g

Delivered: At this facility / At home / In transit / At another facility / Unknown — Please circle one

Maternal age: _____ yrs or Unknown

Parity: _____ or Unknown

Antenatal care: Yes / No / Unknown — Please circle one

Gestational age

_____ completed weeks or Unknown

Accuracy if GA known: Certain / Uncertain — Please circle one

Based on: ☐ Dates ☐ Ultrasound ☐ Clinical exam — Select one or more

Syphilis serology

Positive / Negative / Not done / Result not available — Please circle one

HIV serology

Positive / Negative / Not done / Result not available — Please circle one

Maternal obstetric condition

Code: _____

'Other' description: _____

Code: _____

'Other' description: _____

Condition at birth

Born alive / Stillborn, alive on admission / Fresh stillborn, dead on admission / Stillborn, admission status unknown / Macerated stillborn — Please circle one

Anti-retroviral drugs

Prophylactic / Long-term / Intrapartum / Type unknown / No ART / Unknown — Please circle one ONLY IF (+) HIV serology

Primary obstetric cause of death

Code: _____

'Other' description: _____

Avoidable factors

Code: _____ Possible Probable

'Other' description: _____

Code: _____ Possible Probable

'Other' description: _____

Code: _____ Possible Probable

'Other' description: _____

Code: _____ Possible Probable

'Other' description: _____

Code: _____ Possible Probable

'Other' description: _____

Single pregnancy / Multiple pregnancy — Please circle one

Final cause of neonatal death

Code: _____

'Other' description: _____

ADDENDUM 3

PIPP CODE LIST GUIDINE VERSION 3.00

Obstetric cause of perinatal death Code list version: 3.00

Code	Description
0100	SPONTANEOUS PRETERM LABOUR
0101	Ideopathic preterm labour
0102	Preterm premature rupture of membranes
0103	Preterm premature rupture of membranes with chorioamnionitis
0104	Preterm labour with chorioamnionitis with intact membranes
0105	Cervical incompetence
0106	Iatrogenic preterm delivery for no real reason
0200	INFECTIONS
0201	Syphilis
0202	Amniotic fluid infection
0203	Beta-haemolytic streptococcal infection
0204	Malaria

0298	AIDS/HIV related *** NOT USED ***
0299	Other infections
0300	ANTEPARTUM HAEMORRHAGE
0301	Abruptionplacentae
0302	Abruptionplacentae with hypertension
0303	Placenta praevia
0304	Antepartum haemorrhage of unknown origin
0400	INTRAUTERINE GROWTH RETARDATION
0401	Idiopathic intrauterine growth retardation
0402	IUGR with histological features of ischaemic placental disease
0403	Post-maturity
0500	HYPERTENSIVE DISORDERS

Code	Description
0501	Chronic hypertension
0502	Proteinuric hypertension
0503	Eclampsia
0504	Pregnancy-induced hypertension without proteinuria
0600	FOETAL ABNORMALITY
0601	Foetal chromosomal abnormality
0602	Neural tube defects
0603	Cardiovascular system abnormality
0604	Renal system abnormality
0605	Hydrocephalus
0606	Abnormality of multiple systems
0607	Non-immune hydrops foetalis
0608	Non-specific foetal abnormality - FLK
0700	TRAUMA

Code	Description
0807	Shoulder dystocia
0703	Domestic violence
0808	Precipitous labour
0704	Assault
0809	Ruptured uterus
0800	INTRAPARTUM ASPHYXIA
0801	Labour related intrapartum asphyxia
0900	MATERNAL DISEASE
0802	Meconium aspiration
0901	Maternal diabetes mellitus
0803	Cord prolapse
0902	Maternal heart disease
0804	Cord around the neck
0903	Maternal disease due to herbal medicine use
0805	Traumatic breech delivery
0999	Other maternal disease
0806	Traumatic assisted delivery
1000	MISCELLANEOUS
1001	Rhesus isoimmunisation
1002	Twin-to-twin transfusion
1003	Extra-uterine pregnancy
1099	Other cause of death not described in classification

1100	INTRAUTERINE DEATH
1101	Unexplained intrauterine death - fresh
1102	Unexplained intrauterine death - macerated
1103	Unexplained IUD due to lack of notes
1200	NO OBSTETRIC CAUSE / NOT APPLICABLE
1201	No obstetric cause / Not applicable

ADDENDUM 4

INFORMATION LETTER FOR MIDWIVES

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR MIDWIVES WHO WORK IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

Dear midwife.

My name is Sesi Noge from the department of health. I am conducting a study to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives with regard to causes of occurrence of stillborn babies in Fezile Dabi District Hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals. This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the Executive Officers, District Manager Fezile Dabi District as well as the Free State Provincial Maternal and Child Health Programmes about identified gaps in the implementation of a safer maternal and child health programmes within the district. The results will also be used by the Province and the District to review some systems, policy guidelines and ensure improved quality and safety in patient care at the health facilities.

I am therefore asking you to participate in this study, which I believe that your experiences, beliefs and practices with regard to causes of occurrence of stillborn babies are very important to the department of health and are needed to assist in giving insight in the challenges facing maternal and child health care in health facilities.

You are one of midwives selected and all your inputs for this focus group interview session will not be linked to your name.

What procedures are involved?

I will interview and ask you to give your beliefs and practices with regard to the causes of occurrences of unexplained stillborn babies. The discussion will be captured by me using two audio recorders and also taking written notes if necessary during the focus group interview session.

Following the focus group interview session, validation interview session will be held with key stakeholders with the purpose of giving them the report about the causes of occurrence of stillborn babies as informed by the outcome of data collected. Another purpose of this validation interview session is to get your inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the Fezile Dabi District.

Do you have to answer questions during the interviews or discussions?

No. You can refrain or decline from answering questions. Even if you agree, you can change your mind at any time. Your non-participation or withdrawal from this study will not prejudice you in any way.

What are the risks of taking part in this focus group interview session?

You may worry that I am assessing whether you are not responsible for the causes of occurrence of stillborn babies in the district. This is not the case, rather I hope to identify those gaps or challenges that the department of health may have, in order to change the current status of maternal and child health programmes in the district.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve on the indicators of maternal and child health programmes.

What will happen to the data and how will confidentiality be maintained?

Only grouped data will be reported upon, as a result, identification of individuals' viewpoints will not be done. Your name and other identifying details will not be linked to any data. The focus group interview results data will be stored safely, that is, in a locked cabinet, and electronic records will be password protected.

What will happen to the results?

Results will anonymously be included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

If you agree to participate, I will request you to sign this voluntary informed consent form to participate in the focus group where two questions will be asked by me who gives you this information as well as to participate in the validation interview session that will follow later on. Each interview session will take not more than 60 minutes. Both interview sessions will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs.

Was this study ethically approved?

This study proposal was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health for more information contact the committee on this number: 051 405 2812.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number:083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 4.1

CONSENT FORM FOR MIDWIVES

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

VOLUNTARY INFORMED CONSENT FOR MIDWIVES WHO WORK IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

I, _____ (full names of participant) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to participate in:

	Insert X
The focus group interviews session that will be conducted on beliefs and practices of midwives who work in the maternity units of Fezile Dabi District Hospitals with regard to causes of occurrence of unexplained stillborn babies.	
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE: _____ *(Where applicable)*

ADDENDUM 5

INFORMATION LETTER FOR MOTHERS

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR MOTHER WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL

Dear Mother.

My name is Sesi Noge from the department of health. I am conducting a study to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives with regard to causes of occurrence of stillborn babies in Fezile Dabi District hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals.

This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the Executive Officers, District Manager Fezile Dabi District as well as the Free State Provincial Maternal and Child Health Programmes about identified gaps in the implementation of a safer maternal and child health programmes within the district. The results will also be used by the Province and the District to review some systems, policy guidelines and ensure improved quality and safety in patient care at the health facilities.

I am therefore asking you to participate in this study because I believe that your experiences, beliefs and practices with regard to causes of occurrence of stillborn babies are very important to us, and needed to assist in giving insight in the challenges facing maternal and child health care in health care facilities.

You are one of mothers selected and your input for this interview session will not be linked to your name.

What procedures are involved?

I will interview and ask you to give your beliefs and practices that will be captured using two audio recorders and also taking written notes if necessary during the interview sessions.

Following the individual interview session, validation interview session will be held with key stakeholders with the purpose of giving them the report about the causes of occurrence of stillborn babies as informed by the outcome of data collected. Another purpose of this validation interview session is to get your inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the Fezile Dabi District.

Do you have to answer questions during the interviews?

No. You can refrain or decline from answering questions. Even if you agree, you can change your mind at any time. Your non-participation or withdrawal from this study will not prejudice you in any way.

What are the risks of taking part in the interviews?

You may worry that I am assessing whether you are not responsible for the death of your unborn baby. This is not the case, rather I hope to identify gaps or challenges that the department of health or communities may have in order to address or change the current status of maternal and child health programmes in the district.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve on the indicators of maternal and child health programmes.

What will happen to the data and how will confidentiality be maintained.

Only grouped data will be reported upon, as a result, identification of individuals' viewpoints will not be done. Your name and other identifying details will not be linked to any data. The interview results data will be stored safely, that is, in a locked cabinet, and electronic records will be password protected.

What will happen to the results?

Results will be anonymously included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

If you agree to participate, I will request you to sign this voluntary informed consent form and be interviewed by me who gives you information as well as to participate in the validation interview session that will follow later on. Each interview session will take not more than 60 minutes. Individual in-depth interviews will be held at your home while validation interviews will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs

Was this study ethically approved?

This study protocol was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health. For more information contact the committee on this number: 051 405 2812.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number: 083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 5.1

CONSENT FORM FOR MOTHERS

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

VOLUNTARY INFORMED CONSENT FOR MOTHER WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

I, _____ _____ (full names of participant) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to participate in:

	Insert X
The interview that will be conducted on beliefs and practices of mothers who were admitted in the maternity units of Fezile Dabi District Hospitals and gave birth to stillborn babies	
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE:_____ *(Where applicable)*

ADDENDUM 6

INFORMATION FOR SIGNIFICANT OTHER

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR SIGNIFICANT OTHER OF MOTHERS WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITALS.

Dear family member

My name is Sesi Noge from the department of health. I am conducting a study to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives with regard to causes of occurrence of stillborn babies in Fezile Dabi District hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals. This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the Executive Officers, District Manager Fezile Dabi District as well as the Free State Provincial Maternal and Child Health Programme about identified gaps in the implementation of a safer maternal and child health programmes within the district. The results will also be used by the Province and the District to review some systems, policy guidelines and ensure improved quality and safety in patient care at the health facilities.

I am therefore asking you to participate in this study because I believe that your experiences, beliefs and practices with regard to causes of occurrence of stillborn babies are very important to the department of health, and needed to assist in giving insight in the challenges facing maternal and child healthcare in the health care facilities.

You are one of significant other family members selected and your inputs for this interview sessions will not be linked to your name.

What procedures are involved?

I will interview you and ask you to give your beliefs and practices. The information will be captured by me using two audio recorders and also taking written notes if necessary during the interview sessions.

Following the individual interview session, validation interview session will be held with key stakeholders with the purpose of giving them the report about the causes of occurrence of stillborn babies as informed by the outcome of data collected. Another purpose of this validation interview session is to get your inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the Fezile Dabi District.

Do you have to answer questions during the interviews?

No. You can refrain or decline from answering questions. Even if you agree, you can change your mind at any time. Your non-participation or withdrawal from this study will not prejudice you in any way.

What are the risks of taking part in this interview sessions?

You may worry that I am assessing whether you are not responsible for the death of your family or wife's unborn baby. This is not the case, rather I hope to identify gaps or challenges that the department of health or communities may have in order to address or change the current status of maternal and child health programmes in the district.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve on the indicators of maternal and child health programmes.

What will happen to the data and how will confidentiality be maintained.

Only grouped data will be reported therefore identification of individuals' viewpoints will not be done. Your name and other identifying details will not be linked to any data. The interview results will be stored safely, that is, in a locked cabinet, and electronic records will be password protected.

What will happen to the results?

Results will anonymously be included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

If you agree to participate, I will request you to sign this voluntary informed consent form and be interviewed by me who gives you this information as well as to participate in the validation interview session that will follow later on. Each interview session will take not more than 60 minutes. Individual in-depth interviews will be held at your home while validation interviews will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs**.**

Was this study ethically approved?

This study protocol was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health, for more information contact the committee on this number: 051 405 2812.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number: 083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 6.1

CONSENT FORM FOR SIGNIFICANT OTHER

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

VOLUNTARY INFORMED CONSENT FOR SIGNIFICANT OTHER OF MOTHERS WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITALS.

I,_____ (full names of participant) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to participate in:

	Insert X
The interviews that will be conducted on the beliefs and practices of significant others with regard to causes of occurrence of stillborn babies in the maternity units of Fezile Dabi District Hospitals.	
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE: _____ *(Where applicable)*

ADDENDUM 7

INFORMATION FOR STAKEHOLDERS

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR STAKEHOLDERS WHO WILL PARTICIPATE IN THE VALIDATION INTERVIEW SESSIONS.

Dear Mr/Ms/Colleagues.

My name is Sesi Noge from the department of health. I am conducting a study to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives with regard to causes of occurrence of stillborn babies in Fezile Dabi District Hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals.

This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the Executive Officers, District Manager Fezile Dabi District as well as the Free State Provincial Maternal and Child Health Programme department about identified gaps in the implementation of a safer maternal and child health programmes within the District.

The results will also be used by the Province and the District to review some systems, policy guidelines and ensure improved quality and safety in patient care at the health facilities.

I am asking you to participate in this validation interview session which is aimed at giving you a feedback with regard to the results of the data collected from all participants as well as from the record reviews done. Another purpose of this validation interview session is to get your inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the Fezile Dabi District.

I believe that your experiences with regard to causes of occurrence of stillborn babies are very important to the department of health and the community at large. Therefore you are requested to give insight in

validating independent health care guidelines for the District. You are one of key stakeholders selected and your inputs will not be linked to your names.

What procedures are involved?

Firstly you will be given feedback about the data that was collected during individuals' in-depth interview sessions, focus group interview sessions as well as from the record reviews with regard to the causes of occurrence of stillborn babies in Fezile Dabi District Hospitals. Based on the feedback you will be asked to give your input in validating already existing health care guidelines. The information from the validation interview session will be captured by using audio two recorders and also taking written notes if necessary during the interview session.

Do you have to take part in the discussion or to answer questions during the validation interview session?

No. You can refrain or decline from taking part or answering questions. Even if you agree, you can change your mind at any time. Your non-participation or withdrawal from this interview session will not prejudice you in any way.

What are the risks of taking part in this validation interview session?

You may worry that I think you are responsible for the causes of occurrence of stillborn babies in the District. This is not the case. Rather, I hope that you input will assist the department of health and the community to work together in addressing the challenges related to maternal and child health programmes in the District.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve on indicators of maternal and child health programmes.

What will happen to the data?

Only grouped information or inputs will be reported upon so identification of individuals' viewpoints will not be done. Your name and other identifying details will not be linked to any data.

What will happen to the results?

Results will be anonymously included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

If you agree to participate, I will request you to sign this voluntary informed consent form and participate in the validation interview session that will be led by me. The interview session will take not more than 60 minutes. It will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs.

Was this study ethically approved?

This study proposal was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health, for more information contact the committee on this number: 051 405 2812.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number:083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 7.1

CONSENT FORM FOR STAKEHOLDES.

VOLUNTARY INFORMED CONSENT FOR STAKEHOLDERS WHO PARTICIPATED IN THE VALIDATION INTERVIEW SESSIONS.

I,_____ (full names of participant) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to participate in:

	Insert X
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE:_____ *(Where applicable)*

ADDENDUM 8: INFORMATION LETTER FOR MINORS.

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR UNDER AGED MOTHER (MINOR) WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

Dear Mother.

My name is Sesi Noge from the department of health. I am conducting a study to find out about the beliefs and practices of mothers who gave birth to stillborn babies, their family members and midwives with regard to causes of occurrence of the death of the unborn babies in Fezile Dabi District hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of the deaths of the unborn babies in the maternity units of Fezile Dabi District hospitals.

This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the managers working in the department of health about identified gaps in the implementation of maternal and child health programmes within the district. The results will also be used by the Province and the District to improved quality and safety in patient care at the health facilities.

I am therefore asking you to participate in this study because I believe that your experiences, beliefs and practices with regard to causes of occurrence of deaths of unborn babies are very important to us, and needed to assist to give insight in the challenges facing maternal and child health care in health care facilities.

You are one of mothers selected and your input for this interview session will not be linked to your name.

What procedures are involved?

You will be interviewed by me using two questions and you will be asked to give your beliefs and practices that will be captured using two audio recorders and also taking written notes if necessary during the interview sessions.

Following the individual interview session, validation interview session will be held with key stakeholders with the purpose of giving them the report about the causes of occurrence of the deaths of the unborn babies as informed by the outcome of data collected. Another purpose of this validation interview session is to get your inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of the deaths of the unborn babies in the Fezile Dabi District.

Do you have to answer questions during the interviews?

No. You can refrain or decline from answering questions. Even if you agree, you can change your mind at any time. Your non-participation or withdrawal from this study will not prejudice you in any way. Your parent(s)/guardian(s) will be asked if it is OK for you to be in this study. Even if they say it's OK, it is still your choice whether or not to take part.

You can ask any questions you have, now or later. If you think of a question later, you or your parents can contact me at **083-243-2004**.

What are the risks of taking part in the interviews?

You may worry that I am assessing whether you are not responsible for the death of your unborn baby. This is not the case. Rather, I hope to identify gaps or challenges that the department of health or communities may have in order to address or change the current status of maternal and child health programmes in the district.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve provision of maternal and child health programmes.

What will happen to the data and how will confidentiality be maintained.

Only grouped data will be reported upon, as a result, identification of individuals' viewpoints will not be done. Your name and other identifying details will not be linked to any data. The interview results data will be stored safely, that is, in a locked cabinet, and electronic records will be password protected.

What will happen to the results?

Results will be anonymously included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

Sign this form only if you:

- have understood what you will be doing for this study,
- have had all your questions answered,
- have talked to your parent/legal guardian about this study, and
- Agree to take part in the individual in-depth interviews and validation interviews which will be conducted at the later stage.

Each interview session will take not more than 60 minutes. Individual in-depth interviews will be held at your home while validation interviews will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

How will the parent/guardian consent be obtained?

The participant (minor) will be reassured that the researcher will ask permission from the parent/guardian on behalf of the minor before she can participate in the study.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs.

Was this study ethically approved?

This study protocol was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number: 083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 8.1

ASSENT FORM FOR MINORS

ASSENT FORM FOR UNDER AGED MOTHER (MINOR) WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

I, _____ (full names of a minor/ participant) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to participate in:

	Insert X
The interview that will be conducted on beliefs and practices of mothers who were admitted in the maternity units of Fezile Dabi District Hospitals and gave birth to stillborn babies	
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: _____ DATE: _____

SIGNATURE RESEARCHER:_____ DATE:_____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE: _____
(Where applicable)

ADDENDUM 9

INFORMATION LETTER FOR PARENT/GUARDIAN OF MINOR

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

INFORMATION LETTER FOR PARENT/GUARDIAN OF MINOR (MOTHER) WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

Dear Ms/Mr.

My name is Sesi Noge from the department of health. I am conducting a study to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives with regard to causes of occurrence of stillborn babies in Fezile Dabi District hospitals.

The purpose of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals.

This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The results will be utilized to make recommendations to the Executive Officers, District Manager Fezile Dabi District as well as the Free State Provincial Maternal and Child Health Programmes about identified gaps in the implementation of a safer maternal and child health programmes within the district. The results will also be used by the Province and the District to review some systems, policy guidelines and ensure improved quality and safety in patient care at the health facilities.

I am therefore asking you to give permission to your child, named (full names)_____to participate in this study, because I believe that her experience, beliefs and practices with regard to causes of occurrence of stillborn babies are very important to us, and needed to assist to give insight in the challenges facing maternal and child health care in health care facilities.

She is one of mothers selected and her input for this interview session will not be linked to her name.

What procedures to be involved?

I will interview your child and asked to give her beliefs and practices that will be captured using two audio recorders and also taking written notes if necessary during the interview sessions.

Following the individual interview session, validation interview session will be held with her and other key stakeholders with the purpose of giving them the report about the causes of occurrence of stillborn babies as informed by the outcome of data collected. Another purpose of this validation interview session is to get her inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the Fezile Dabi District.

Does she have to answer questions during the interviews?

No. She can refrain or decline from answering questions. Even if she agreed, she can change her mind at any time. Her non-participation or withdrawal from this study will not prejudice her in any way.

What are the risks of taking part in the interviews?

You may worry that I am assessing whether your child was not responsible for the death of her unborn baby. This is not the case, rather I hope to identify gaps or challenges that the department of health or communities may have in order to address or change the current status of maternal and child health programmes in the district.

What are the benefits?

Currently there are no direct benefits to participants. It is possible that taking part in the study will assist the department of health to improve on the indicators of maternal and child health programmes.

What will happen to the data and how will confidentiality be maintained.

Only grouped data will be reported upon, as a result, identification of individuals' viewpoints will not be done. Your child's name and her other identifying details will not be linked to any data. The interview results data will be stored safely, that is, in a locked cabinet, and electronic records will be password protected.

What will happen to the results?

Results will be anonymously included in:

- My PhD
- Academic publications in open access journals; and
- Conference presentations

What do you need to do?

If you give permission for your child to participate in the study, I will request you to sign this informed consent form. Individual in-depth interviews will be held at your child's home while validation interviews will be held at Tokollo Hospital ICAM room.

You will also be given a copy of this document as well as the information with regard to the study, which is a written summary of the research.

Will participants be paid or incur costs if they participate?

Persons who take part in the interviews will not be paid or incur costs.

Was this study ethically approved?

This study protocol was approved by the Ethics Committee of the University of the Free State and by the Free State Depart of Health, for more information contact the committee on this number: 051 405 2812.

Contact details of researcher for further information are as follows:

Name & Surname: Sesi Noge

Telephone number: 083 243 2004/ 058 852 1071 (office)

Email address: noges@fshealth.gov.za

ADDENDUM 9.1

CONSENT FORM FOR PARENT/GUARDIAN OF MINOR

INFORMED CONSENT FOR PARENT/GUARDIA OF MINOR (MOTHER) WHO GAVE BIRTH TO STILLBORN BABY IN THE MATERNITY UNIT OF FEZILE DABI DISTRICT HOSPITAL.

I, _____ _____ (full names of parent/guardian) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my child's involvement in the study means and I voluntarily agree to give permission for my child named _____above to take part in:

	Insert X
The interview that will be conducted on beliefs and practices of mothers who were admitted in the maternity units of Fezile Dabi District Hospitals and gave birth to stillborn babies	
The validation interview session that will be held to give feedback about the data that was collected from participants and health records with regard to causes of occurrence of stillborn. Participate in the validation of independent health care guidelines with the purpose of addressing the causes of occurrence of stillborn babies.	

I understand that she can withdraw from the study at any time.

RELATIONSHIP TO THE CHILD_____

SIGNATURE OF PARENT/GUARDIAN: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF TRANSLATOR/WITNESS_____ DATE: _____ *(Where applicable)*

ADDENDUM 10

SUMMARY OF THE RESEARCH PROTOCOL

STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA

Introduction and background

The purpose of the study is to explore the beliefs and practices of mothers who gave birth to stillborn babies, their significant others and midwives who work in the maternity units of Fezile Dabi District hospitals with regard to causes of occurrence of stillborn babies in Fezile Dabi District hospitals.

What method will be used?

The study method will be a qualitative multi-method study, based on the results of the in-depth interviews conducted with mothers who had stillbirths, their family members and midwives and including record of PPIP audit form of mothers who experienced stillbirths during the study period.

Where the study will be conducted?

The setting will be homes of mothers who were admitted in the maternity units of Fezile Dabi District hospitals without signs of life and had stillbirths, homes of their family members and Interaction Communication learning and Management rooms of Fezile Dabi District hospitals in the Free State Province.

What population will be included in the study?

Study population will consist of mothers who were admitted in the Fezile Dabi District hospitals with babies without signs of life and gave birth to stillborn babies, their family members, midwives working in maternity units of Fezile Dabi District hospitals and PPIP records of mother who participated in the study.

What treatment will be administered to participants?

No treatment will be administered to the participants

What control method will be used?

This study has been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health. Voluntary informed consent will be obtained from the participants and parents of those who are under the age of eighteen. Grouped data will be reported. Names and other identifying details will not be linked to any data. The results will be stored safely, that is, will be password protected. Participants can decline or refrain from answering questions. Even if they agree, they can change their mind at any time.

Risk and adverse effects of participating in the study

The researcher will acknowledge the sensitivity of the research topic to the participants and will ensure that participants' emotions are not harmed by arranging social workers for emotional support.

Expected outcome of the research

The expected outcome of the study is to enhance health care guidelines that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the maternity units of Fezile Dabi District hospitals.

ADDENDUM 11

APPROVAL FROM FREE STATE DEPARTMENT OF HEALTH

health
Department of Health
FREE STATE PROVINCE

19 December 2014

Mrs S Noge
School of Nursing
Faculty of Health Sciences
UFS

Dear S Noge

Subject: ENHANCING GUIDELINES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT: A PHENOMENOLOGICAL STUDY.

The above mentioned correspondence bears reference.

- Permission is hereby granted for the above – mentioned research on the following conditions:
- Participation in the study must be voluntary.
- A written consent by each participant must be obtained.
- Ascertain that your data collection exercise neither interferes with the day to day running of the health facilities nor the performance of duties by the respondents.
- Serious Adverse events to be reported to the Free State department of health and/ or termination of the study.
- Confidentiality of information will be ensured and no names will be used.
- Research results and a complete report should be made available to the Free State Department of Health on completion of the study (a hard copy plus a soft copy).
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Any amendments, extension or other modifications to the protocol or investigators must be submitted to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Approval should be submitted to khusemj@fshealth.gov.za or sebeelats@fshealth.gov.za before you commence with the study
- No financial liability will be placed on the Free State Department of Health

- Please discuss your study with the institution manager on commencement for logistical arrangements
- Department of Health to be fully indemnified from any harm that participants and staff experiences in the study
- Researchers will be required to enter in to a formal agreement with the Free State department of health regulating and formalizing the research relationship (document will follow)
- You are encouraged to present your study findings/results at the Free State Provincial health research day
- Future research will only be granted permission if correct procedures are followed see http://nhrd.hst.org.za

Trust you find the above in order.

Kind Regards

Dr D Motau
HEAD: HEALTH
Date: 23/12/2014

ADDENDUM 12

APPROVAL FROM ETHICS COMMITTEE, FACULTY OF HEALTH OF THE UNIVERSITY OF THE FREE STATE

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

Research Division
Internal Post Box G40
☎(051) 4017795
Fax (051) 4444359

E-mail address: EthicsFHS@ufs.ac.za

Ms M Marais/jdpls

2015-02-09

REC Reference nr 230408-011
IRB nr 00006240

MRS S NOGE
C/o PROF Y BOTMA
SCHOOL OF NURSING
FACULTY OF HEALTH SCIENCES
UFS

Dear Mrs Noge

ECUFS NR 152/2014
MRS S NOGE **SCHOOL OF NURSING**
PROJECT TITLE: ENHANCING GUIDELINES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT: A PHENOMENOLOGICAL STUDY

1. You are hereby kindly informed that, at the meeting held on 3 February 2015, the Ethics Committee approved the above project after all conditions have been met.

2. Committee guidance documents: Declaration of Helsinki, ICH, GCP and MRC Guidelines on Bio Medical Research. Clinical Trial Guidelines 2000 Department of Health RSA; Ethics in Health Research: Principles Structure and Processes Department of Health RSA 2004; Guidelines for Good Practice in the Conduct of Clinical Trials with Human Participants in South Africa, Second Edition (2006); the Constitution of the Ethics Committee of the Faculty of Health Sciences and the Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines.

3. The Committee must be informed of any serious adverse event and/or termination of the study.

4. Any amendment, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

5. A progress report should be submitted within one year of approval of long term studies and a final report at completion of both short term and long term studies.

6. Kindly refer to the ETOVS/ECUFS reference number in correspondence to the Ethics Committee Secretariat.

Yours faithfully

DR SM LE GRANGE
CHAIR: ETHICS COMMITTEE

Cc Prof Y Botma

Me S.R. Noge
PO Box 5196
Lengau
Kroonstad
9503

University of the Free State
Research Division
Internal Post Box G40
051 401 7795

To : Chairperson of Ethics Committee

REUEST FOR CHANGE OF CURRENT REGISTERED PhD RESEARCH TITLE

I would like to request your permission to change my current PhD title: ENHANCING GUIDELINES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT: A PHENOMENOLOGICAL STUDY to STRATEGIES TO REDUCE STILLBIRTHS IN FEZILE DABI DISTRICT, SOUTH AFRICA.

My student number:2013191701

Reference No: ECUFS 152/2014

Name of supervisor: Prof.Y.Botman

I hope you find the above in order.

Kind Regards

Me S.R Noge 2017/08/11th

Student No:2013191701

ADDENDUM 13

EXAMPLE OF THE FORM THAT WAS USED TO COMPILE THE SAMPLING GRID

NAME AND SURNAME OF THE MOTHER	REGISTRATION AND AGE	DATE OF ADMISSION	DATE OF DELIVERY	CONTACT DETAILS AND ADRESS	NEXT OF KIN CONTACT NUMBERS AND ADRESS
TOKOLLO DISTRICT HOSPITAL					
MAFUBE DISTRICT HOSPITAL					
BOITUMELO REGIONAL HOSPITAL					

FEZI NGUBENTOMBI DISTRICT HOSPITAL					
PARYS DISTRICT HOSPITAL					

ADDENDUM 14

MOTHER'S TRANSCRIPTS

PARTICIPANT 20. MOTHER

The researcher only transcribed the interview sessions that were voice recorded, after obtaining the permission from the participant to record the discussion. However, for every interview session the following approach was followed by the researcher:

On arrival the participant was greeted with a smile and reminded who the researcher was and that she was coming from the department of health.

After she had been offered a place to sit, the researcher started chatting with the participant and any member of the family or the community present on arrival to put her at ease before starting with the interviews.

The researcher then thanked the participant for affording her the opportunity to talk to her. The nature of the study as well as the purpose of the study was explained to the participant and assured that the study had been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The participant was informed on how and for what would the results be utilized within the department of health as well as outside the department of health.She was reassured about the confidentiality of the data and told that only grouped data would be reported upon, as a result, identification of individuals' viewpoints would not be done.

She was informed that there were no direct benefits for taking part in the study but it would assist the department of health to improve on the indicators of maternal and child health programmes.

The participant was informed that she was one of mothers selected to assist to identify gaps or challenges that the department of health or communities had in order to address or change the status of maternal and child health programmes in the district by taking part in the study not that she was responsible for the death of her unborn baby.

After the participant agreed to take part in the study, the researcher then requested the permission to use audio recorders and also to take written notes if necessary during the interview session. The reasons for using audio recorders and taking written notes during the interview session was explained to the participant. After obtaining the permission to use the audio recorders then the following discussion was recorded and transcribed as follows:-

Interviewer: "Now that you agreed to participate, I will request you to sign this voluntary informed consent form as well as to participate in the validation interview session that will follow later on"

Interviewee: "Mmm."

Interviewer:" Each interview session will take not more than 60 minutes." "Validation interview sessions will be held at Tokollo Hospital ICAM room with key stakeholders". "Its purpose is to give them the report about the outcome of data collected as well as to get inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the District ".

Interviewee: "Mmm."

Interviewer: "You are allowed to refrain from answering questions and to withdraw at any period during the interview session. Your non-participation or withdrawal from this study will not prejudice you in any way."

Interviewee: "Okay."

Interviewer: "Please take these two documents which contain the information with regard to the study (summary) , as well as the contacts details of the Ethical Committee and mine (researcher) for further information or in case you would want to know something about the study at the later stage".

Interviewee: "Okay."

Interviewer: "Please feel free to tell me everything that you think during the interview session, know that there are no right or wrong answers, I am only interested to hear your views".

Interviewee: "Okay."

QUESTION 1:

Interviewer: "I know that this might be the difficult issue to talk about as it involves the death of your baby." **"Tell me what do you think caused the death of your baby's during 2012/2013 financial year?" (Broad Question)**

Interviewee: "I really don't know, but I started attending the local clinic and everything was fine". "The other day when I got to the clinic I was examined and told that my blood pressure was very high".

Interviewer:"Mmm"

Interviewee: “The ambulance was called and I was transported to the hospital”. “On arrival the sonar was done and cardiotocograph machine was used to detect the baby’s heart”. “I was told that everything was fine and sent back home with treatment”.

Interviewer:”Mmm”

Interviewee: “From that day I was told that I would attend my antenatal clinic at the hospital not at the local clinic because of my blood pressure”. “I continue to attend the clinic without any problems”.

Interviewer:”Mmm”

Interviewee: “Both my feet were crossly swollen and painful”. “The doctor at the hospital told me that my baby was too big therefore he needed to book me in advance for Caesarian section”. “That was never done until I was nine months pregnant”.

Interviewer:”Mmm”

Interviewee: “One day they gave me the letter indicating the date that I needed to report to maternity unit for the operation”. “I went back home and few days after that both feet subsided and I started to experience labour pains”.

Interviewer:”Mmm”

Interviewee: “I hired a car and went to the hospital”. “When I arrived at the maternity, I met the doctor and professional nurses with very bad attitudes”. “They told me that they were busy and ask me why I didn’t go to the local Community Health Centre because it was not my first pregnancy”.

Interviewer:”Mmm” (Low voice)

Interviewee: “I tried to explain and also to give them the referral letter but I was ignored and told that they were going to perform operations”. “I was then left on the bench at the admission area”. “Their attitude was really bad and I wanted to go back home but the lady who accompanied me refused”.

Interviewer: ”Mmm” (Sympathetically).

Interviewee:” More than six hours later the other professional nurse called me in and admitted me”. “She used the machine (cardiotocograph) to detect my baby’s heart rate but there was nothing”. “While she was busy trying to establish the presents of the baby’s heartbeat, my membranes ruptured and a lot of blood came out”.

Interviewer: ”Mmm” (Sympathetically).

Interviewee: “Pains became very strong and I was transferred to the other room without any explation given with regard to my unborn baby’s condition”. “I was expecting to give birth to alive baby until the other

professional nurse came and told me that I should not border them with the dead baby that I was carrying". "Jooh I was devastated and I did not know what to do".

Interviewer: "Mmm"

Interviewee: "I asked another professional nurse what was happening with my unborn baby and she just ignored me".

Interviewer: "Mmm"(disappointed)

Interviewee: "Subsequent to that I called for help and I was ignored by almost everybody". "Ultimately I gave birth alone to the macerated stillborn baby who was very big, swollen with greenish skin colour". "I sustained lots of lacerations and tears inside my vagina". "I would never forgot that incident it was a painful experience, horrible and scary".

Interviewer: "Mmm" (Sympathetically).

Interviewee: "I never thought that human beings can be so cruel to each other". "After the incident I could not even eat and could not forget, thought I would never have another baby" in my life.

Interviewer: "Mmm"

Interviewee: "They refused to assist me and even to explain to me what the cause of the death of my baby was". "The other professional nurse who was nice told me that the baby died long ago while I was still attending the clinic".

Interviewer: "Mmm"

Interviewee:" After that "I went to the private doctor for the lacerations that I sustained as I could not walk". "Hei, I don't want to talk about that incident".

Interviewer:"Mmm"

Interviewer: "Are there any other things you think caused the death of your baby except what you already mentioned?"

Interviewee: "No, I think those are the only ones that I think caused the death of the baby."

QUESTION 2:

Interviewer: "What do you think could have been done to prevent the death of your baby?" **(Broad Question)**

Interviewee: "The doctors who saw me at the hospital clinic failed to perform a caesarean section as they promised". "I really don't know what their problem was".

Interviewer:"Mmm"

Interviewee: "The other issue was the hypertension treatment that I was taking". "Most of the time I was asleep and it was difficult even to establish the movement of the baby, Jooh ….I was really ill with that pregnancy". "They should had taken the baby out even if it was a premature just to avoid his death".

Interviewer: "Mmm"

Interviewee: "The other thing is the nurses and doctors' attitudes at that hospital really is so bad and I believe something need to be done to correct those attitudes". "Ohhh….I can't talk about their poor communication even if you ask them they just ignore one's question.

Interviewer: "Mmm"

Interviewer: "Are there other things you think could have been done to prevent the death of the baby?"

Interviewee: "No those are the only things that I think caused the death of the baby. (Very emotional)

Interviewer: "Is there anything thing related to this interview session or the study that you want to ask from me?"

Interviewee: "No everything was well explained.

Interviewer: "I am travelling with the social worker who would provide you with emotional counselling and support".

Interviewee: "I really would like to be supported because even now when I think about the incident it becomes so painful".

Interviewer: "Thanks so much for making time available for me to talk to you, I really appreciate. I want to reassure you that your name and other identifying details will not be linked to any data. The interview results data will be stored safely, in a locked cabinet and electronic records will be password protected and will be anonymously included in my PhD and other training platform.

Interviewee: "Okay Mama."

ADDENDUM 15

SIGNIFICANT OTHER TRASCRIPTS

SIGNIFICANT OTHER (NEIGHBOUR)

The researcher only transcribed the interview sessions that were voice recorded, after obtaining the permission from the participant to record the discussion. However, for every interview session the following approach was followed by the researcher:

On arrival the participant was greeted with a smile and reminded who the researcher was and that she was coming from the department of health.

After she had been offered a place to sit, the researcher started chatting with the participant and any member of the family or the community present on arrival to put her at ease before starting with the interviews.

The researcher then thanked the participant for affording her the opportunity to talk to her. The nature of the study as well as the purpose of the study was explained to the participant and assured that the study had been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The participant was informed on how and for what would the results be utilized within the department of health as well as outside the department of health.She was reassured about the confidentiality of the data and told that only grouped data would be reported upon, as a result, identification of individuals' viewpoints would not be done.

She was informed that there were no direct benefits for taking part in the study but it would assist the department of health to improve on the indicators of maternal and child health programmes.

The participant was informed that she was one of mothers selected to assist to identify gaps or challenges that the department of health or communities had in order to address or change the status of maternal and child health programmes in the district by taking part in the study not that she was responsible for the death of her unborn baby.

After the participant agreed to take part in the study, the researcher then requested the permission to use audio recorders and also to take written notes if necessary during the interview session. The reasons for using audio recorders and taking written notes during the interview session was explained to the participant. After obtaining the permission to use the audio recorders then the following discussion was recorded and transcribed as follows:-

Interviewer: "Now that you agreed to participate, I will request you to sign this voluntary informed consent form as well as to participate in the validation interview session that will follow later on"

Interviewee: "Mmm."

Interviewer:" Each interview session will take not more than 60 minutes." "Validation interview sessions will be held at Tokollo Hospital ICAM room with key stakeholders". "Its purpose is to give them the report about the outcome of data collected as well as to get inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the District ".

Interviewee: "Mmm."

Interviewer: "You are allowed to refrain from answering questions and to withdraw at any period during the interview session. Your non-participation or withdrawal from this study will not prejudice you in any way."

Interviewee: "Okay."

Interviewer: "Please take these two documents which contain the information with regard to the study (summary) , as well as the contacts details of the Ethical Committee and mine (researcher) for further information or in case you would want to know something about the study at the later stage".

Interviewee: "Okay."

Interviewer: "Please feel free to tell me everything that you think during the interview session, know that there are no right or wrong answers, I am only interested to hear your views".

Interviewee: "Okay."

QUESTION 1:

Interviewer: "I know that this might be the difficult issue to talk about as it involves the death of your neighbour's baby." **"Tell me what do you think caused the death of your neighbour's baby during 2012/2013 financial year?" (Broad Question)**

Interviewee: "I don't know because even doctors did not tell her what caused the death of her baby". "With my experience or opinion I think the cause of the death was most related to the witchcraft". "Since from the beginning of her pregnancy she became so ill with both feet crossly swollen".

Interviewer: "Mmm"

Interviewee: “I told her several occasions to look for a traditional healer but she refused”. “She told me about her church which does not allow them to use traditional medicine”. “I really wanted to advise her but she did not take it”. “Most of the time she would spent her day sleeping and when she woke up she would still be tired with face swollen”.

Interviewer: “Mmm”

Interviewee: “I really suspect that something (witchcraft) entered her body through the feet and affected the enter body including her unborn baby”. “You know if such things happened (witchcraft) it made it difficult even for the doctors and nurses to manage such patients as everything would appear normal to them”.

Interviewer: “Mmm”

Interviewer: “Are there any other things you think caused the death of the baby except what you already mentioned?”

Interviewee: “No, I think those are the only ones that I think caused the death of the baby.”

QUESTION 2:

Interviewer: “What do you think could have been done to prevent the death of your neighbour’s baby?” **(Broad Question)**

Interviewee: “I am sure if she listened to my advice her baby could still be alive today”. “People don’t understand that witchcraft is a reality”.

Interviewer: “Mmm

Interviewee: “When mothers are pregnant they become easily attacked by all these evil spirits therefore it is necessary for them and their unborn babies to be protected against those bad spirits”.

Interviewer: “Mmm”

Interviewee: “The nurses and doctors’ attitudes at Boitumelo hospital was really bad and I believe something need to be done to correct bad attitude for the nurses and doctors”.

Interviewer: “Mmm”

Interviewer: “Are there other things you think could have been done to prevent the death of the baby?”

Interviewee: “No those are the only things that I think caused the death of the baby.

Interviewer: “Is there anything thing related to this interview session or the study that you want to ask from me?”

Interviewee: “No everything was well explained.

Interviewer: “I am travelling with the social worker who would provide you with emotional counselling and support”.

Interviewee: “No, Mme I am okay”.

Interviewer: “Thanks so much for making time available for me to talk to you, I really appreciate. I want to reassure you that your name and other identifying details will not be linked to any data. The interview results data will be stored safely, in a locked cabinet and electronic records will be password protected and will be anonymously included in my PhD and other training platform.

Interviewee: “Okay Mama.”

ADDENDUM 16

FOCUS GROUP INTERVIEW SESSIONS TRANSCRIPTS

FOCUS GROUP INTERVIEW 2. MIDWIVES

The researcher only transcribed the focus interview sessions that were voice recorded by the moderator and the assistant moderator, that is, after obtaining permission from all the participants to record the discussion. However, for every focus interview session the following approach was followed by the moderator:

On arrival all participants were received by the assistant moderator who greeted them with a smile, introduced her to them and accompanied them to the venue (ICAM Room).

After they had been offered a place to sit, the moderator introduced herself and assistant moderator to the participants. The participants were informed that availability of the assistant moderator was to allow the moderator to direct the discussion and keep the conversation flowing without interruption during the discussion. Furthermore the responsibilities of the assistant moderator were also outlined to the participants. Prior to the formal discussions the moderator started chatting with participants by making small talks with them to establish warm and friendly environment.

The moderator then thanked the participants for affording her the opportunity to talk to them. The nature of the study as well as the purpose of the study was explained to the participants and assured that the study had been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The participants were informed on how and for what would the results be utilized within the department of health as well as outside the department of health. They were reassured about the confidentiality of the data and told that only grouped data would be reported upon, as a result, identification of individuals' viewpoints would not be done.

They were informed that there were no direct benefits for taking part in the study but it would assist the department of health to improve on the indicators of maternal and child health programmes.

The participants were informed that they were one of the midwives selected to assist to identify gaps or challenges that the department of health or communities had in order to address or change the status of maternal and child health programmes in the district by taking part in the study not that they were responsible for the occurrence of stillborn babies in the District.

After the participants agreed to take part in the study, the moderator then requested all to switch off their cell phones to avoid disruptions. Furthermore the permission to use audio recorders and also to take

written notes if necessary during the focus group interview session was requested. The reasons for using audio recorders and taking written notes during the focus group interview session was explained to the participants. After obtaining the permission to use the audio recorders then the following discussion was recorded and transcribed as follows:-

Moderator: "Now that you all agreed to participate, and had already signed voluntary informed consent forms for today's focus group interview session as well as to participate in the validation interview session that will follow later on then we can continue with our discussions"

Participants: "Mmm."

Moderator:" Each focus group interview session will take not more than 60 minutes." "Validation interview sessions will be held at Tokollo Hospital ICAM room with key stakeholders". "Its purpose is to give them the report about the outcome of data collected as well as to get inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the District ".

Participants: "Mmm."

Moderator: "You are allowed to refrain from answering questions and to withdraw at any period during the focus group interview session. Your non-participation or withdrawal from this study will not prejudice you in any way."

Participants: "Mmm."

Moderator: "Please take these two documents which contain the information with regard to the study (summary) , as well as the contacts details of the Ethical Committee and researcher for further information or in case you would want to know something about the study at the later stage".(gave two documents to each participant)

Participants: "Thank you."

Moderator: "Please feel free to tell me everything that you think during the focus group interview session, know that there are no right or wrong answers, I am only interested to hear everyone's views". "Ladies just relax and **t**hink a bit about it before you can answer the question". "Anyone can answer whenever you are ready."

Participants: "Mmm."

QUESTION 1

Moderator: "I know that this might be the difficult subject to talk about as it involves the death of babies in your working environment (in the maternity units)." **Tell me what do you think contributed to the occurrence of unexplained stillborn babies? (Broad Question)**

Midwife 1. : "Mmm...m". (low and soft sound by one of the participants).

Moderator: "Think a bit about it".

Midwife 1: "I think intake of traditional medicine by pregnant mothers contributed to the occurrence of unexplained occurrence of stillborn babies.

Moderator: "Mmm"**.**

Midwife 2. : "The other things that might have contributed to the occurrence of unexplained stillborn babies is ignorance of the mothers because although they attended the antenatal clinics and they were informed they still report late to the hospitals or health facilities".

Moderator: "Mmm"**. "**Are you saying they have the information but they do not understand its importance therefore somehow they still lack knowledge".

Participants: "Mmm."

Moderator: "What else".

Midwife 2. "The majority of those that are admitted with no foetal movements, they will confirmed that they last heard the foetal movements long ago and they were told to monitor them and to report any abnormalities immediately". "Really I think that those are signs of ignorance". "Others with even confirmed that they did not count foetal kicks because they were lazy or tired".

Moderator: "Mmm"**.**

Moderator: "You mentioned that other stillborn babies occurred because of ignorance, that might also happened because they did not know or understand the importance doing the counting which may be related to lack of knowledge is it what you said**"?**

Midwife .3 : "Yes, that might also be true because these mothers when they are admitted to the hospitals before their expected date of birth, one would find that they already had completed or ticked the foetal tick charts up to the end of the month". "That is clearly and indication of not understanding the reason behind the monitoring".

Midwife 4. : "The other issue is the way we inform our mother or the way we give them health education". "We really can't tell them once and think that they well understand".

Moderator: "Mmm"**.**

Midwife 4. : “To show that we are poor in ensuring that pregnant mothers understand what we want them to know, most of the time when I check those completed kick chards they are wrongly completed or incomplete which is the sign of lack of knowledge and information”. “Even if you ask them to explain the process of completing the form and when to report to the hospital they don’t know”.

Moderator: “Mmm….”**.**

Midwife 5. : “The other causes of unexplained stillborn babies that are reported in our health facilities might have been due to lack of transport more especially in our area”. “Mafube Municipality has a big area with a problem of availability of public transport”.

Moderator: “Mmm”**.**

Midwife 5. “For those stay in the farms its worse because our ambulances always delay when called or they even not respond to the calls”. “Farm pregnant mother struggle to respond to labour pains even if they wanted to because transport problems”.

Moderator: “Mmm….”

Midwife 6. : “There is a great possibility that some of stillborn babies that are reported might have occurred because of problem of shortage of personnel at our surrounding clinics as well as at the hospitals”. “Where there is a critical shortage of midwives like in our District there is likelihood of missing or omitting to tell pregnant mothers some important information because one is chasing the long queues”.

Moderator: “Mmm”**.**

Midwife 6. “One is always in a hurry to finish the long queue because patients are also complaining”. “Most of the time as midwives we don’t have time to sit with individual mothers and inform them or give the all the necessary information related to pregnancy step by step including the reasons to avoid or do some of the things”. “We don’t even have time to health educate them about simple things like health eating habits”.

Moderator: “Okay”**.**

Midwife. 2: “The whole community must get educated on how pregnant mothers need to be handled or handle themselves otherwise nurses alone will not be able to address the challenges of unexplained stillborn babies occurring in our health facilities”.

Midwife. 2: “The influence that these pregnant mothers are getting at home such as the use of traditional medicine and others are stronger than what the nurses are telling them”. “Because of socio-cultural practices or community influence, the battle of occurrence of unexplained stillborn babies will not be warned.

Moderator: “Mmm”**.**

Midwife. 2: “Pregnant mothers rely on the information they get from their elders, grandmother as well as the experience that they get from their friends who were exposed to traditional medicines during their pregnancy”. “Most of the time when such mothers attend clinics they just go for compliance or to get the card”. “They don’t listen or believe what the nurses are telling them, the just agree even if they don’t understand”.

Moderator: “Mmm”**.**

Midwife 1: “There is a saying that the child is raised by the whole community including those grandmothers who continue to feed them wrong information as well as traditional medicines because they believe that it worked for them previous therefore it will work for others”. “If is a teenage pregnant mother is worse because she will get all those contradicting information the community members but the influence or the pressure to comply with social norms expectation will be more from the community”.

Moderator: “Mmm”**.**

Midwife. 2: “There is a need for nurses to work with community members or families of pregnant mothers so that they are also informed”. “Attitude of some pregnant mothers towards the nurses create some barrier because such mothers do not want to accept any information from nurses as they had lost trust”.

Moderator: “Mmm”**. “**So you mean that this issue is one man’s battle but is broad and comprehensive therefore community involvement is important in this regard”.

Midwife. 2: “Mmm”**.**

Moderator: “What else”.

Midwife 1. “There is a problem of availability of skilled midwives coupled with poor supervision in our health facilities”. “I have realized that on several occasions, interventions that are written do not talk to the observations or do not address the problems identified, therefore a receipt for late referral and mismanagement.” a really saw that they are lacking skills at the clinics , observations not correct

Moderator: “Mmm”**.**

Midwife 2: “Some unexplained stillborn babies that occurred might have probably caused by Genetic disorders”. “Such stillborn babies come out already macerated”. “Most of the time mothers also do not know when did their babies stopped kicking”.

Moderator: “Mmm”**.**

Midwife 5: “I think what also contributes to the occurrence of unexplained stillborn babies are those pregnant mothers who are referred very late to the high risk clinics by the midwives.

Moderator: “Okay”**.**

Midwife 6. : “The other contributing factor is those pregnant mothers who prefer to attend their antenatal visits at the general practitioners”. “They lack important pregnancy related knowledge and information that will assist them to identify any abnormalities so that they can report early at the health facilities”. “When such mothers are admitted without foetal heart and you want to find out whether did the monitor foetal kicks they don’t understand what one is talking about”.

Moderator: “Okay”**.**

Midwife 1. : “Other pregnant mothers are not aware of the fact that other illnesses such as diabetes, high blood pressure and others are hereditary”. “They don’t even want to go to the antenatal clinics just to find out whether they have inherited such illnesses or not”. “The other issue is mismanagement of pregnant mothers presenting with chronic illnesses such as diabetes, hypertension, HIV/Aids and others”.

Moderator: “Okay”**.**

Midwife 3. :“The other problem that we are encountering as health professionals is that, some pregnant mothers do not want to comply with prescribed medicine”. “When one check their treatment for compliance one will discover that they take wrong dosage, preferably lower dosage than what is prescribed”.

Moderator: “Mmm” “So you are saying, mismanagement of chronic illnesses is another issue and that everybody must pool their wait”.

Midwife 3. : ““Mmm”

Moderator: “Okay, what else”**.**

Midwife 1. : “The problem of unavailability or none functionality of telephones at the clinics, coupled with unavailability of ambulances, long turnaround time or no response at all is frustrating. “All these cause unnecessary delays and contribute to occurrence of stillborn babies.”

Moderator: “Mmm”**.**

Midwife 3. “At times they are not even taking the medication regularly”. “When they are asked the reasons for non-compliance they will tell you many different stories which indicates that most are not willing to take ownerships for their health or they are not informed at all”.

Moderator: “Mmm”**.** (Long pause)

Moderator: “Okay, any other causes that you will like to mention.

Midwife 3. “I am sure we mentioned them all”. (Long pause)

Moderator: “Okay ladies, if you satisfied with the first question we can move to the second question”.

QUESTION 2

Moderator: "What do you think could have been done to prevent the occurrence of unexplained stillborn babies"? **(Broad Question?)**

Midwife 1. : "As we mentioned earlier on, we have a shortage of resources such as human and material resources in the District, mostly in our clinics".

Moderator: "Mmm"**.**

Midwife. 1: "There is a need to ensure that our staff establishment and daily allocation in terms of nursing personnel and doctor are according to the number and types of patients that are seen at our health facilities".

Moderator: "Mmm"**.** "Here is the issues of management support and supervision".

Midwife. 2: "Ye….s"

Midwife. 2: "We sometimes have a situations where equipment such as blood pressure monitoring machines, glucometers and other are not available in some clinics, if available they are not functioning". "In our hospitals CTG machines are for every not functioning more especially when they are not serviced timeously".

Moderator: "Mmm"**.**

Midwife. 3"In such situation we are expected to phone other health facilities with additional CTG machines and borrow". "At time basic medicines such as Calcium cluconate are not available at the clinics and it is really frustrating". Health professionals in clinics and hospitals". "There is a need to appoint additional midwives and doctors in the District".

Moderator: "Mmm"**.**

Midwife 2. : "We need to strength the involvement of the community and families in the implementation of all maternal and child health care programs". "They need to be educated and be informed continuously about the information related to maternal and child issues". "

Moderator: "Okay"**.**

Midwife 3. "We also need to strengthen the capacity or skills of our midwives, especially those who are working at the clinics". "I really have witnessed some of their skill's gaps on several occasions when I receive patients from the clinics.

Moderator: "Mmm".

Midwife 4. : “To ensure that health information related to pregnant mothers reaches all relevant stakeholders we need to utilise our radio stations”. “Such program need to be marketed and be known by all in the Districts”. “Local languages need to be used to inform all the stakeholders”. “I assume that this strategy we assist to address the problem of the stillborn babies related to lack of information and knowledge or ignorance to some extend more especially where home visits are not more possible”.

Moderator: “Okay”**.**

Midwife 5. : “There is a need to strengthen the implementation of the current Mom connect system introduced by the National department of health in the District”.

Moderator: “You mentioned the Mom Connect system that needed to be strengthen, can please tell us more about the system”**.**

Midwife 5. The system assist pregnant mothers to get more information related to their pregnancy if the nurses or the clinics enrolled them to the program.” “There is a need for clinic personnel to identify a person who will enrol these mothers because currently even if they attend the clinic majority of them are not enrolled”. “If the system, can be strengthen and sustained is good “.

Moderator: “Okay”**.**

Midwife 6. “As health professionals we need to work on our attitudes because sometimes when we are frustrated because of our personal issues or work related such as unavailability of resources we transfer our emotions to patients”.

Moderator: “Mmm”**.**

Moderator: “Okay ladies, what next**”**

Midwife 2. : “We also need to address EMS issues such as their skills, availability and response time of ambulances as well as the functionality of equipment or infrastructure at the clinics because at times pregnant mothers arrive at our hospitals without foetal heart rate because of equipment of transport challenges”.

Moderator: “Okay ladies let me confirm”. “You said that for the District to address the causes of occurrence of stillborn babies there is a need to look at things such as availability of resources (staff, medicines, equipment, some equipment should be maintained or repaired e.g. ordinary telephone are not working), EMS delays, strengthen heath education, skills development, information and communication, sustain implementation of Mom connect system but also it is important to identify the person who can assist the mothers on how to use it moving forward.

Participants: “Mmm.”

Moderator: "Are there other things you think could be done to prevent the occurrence of unexplained stillborn babies in the maternity units?

Participants: "No"

Moderator: "Is there anything thing related to this focus interview session that you want to ask from me?"

Participants: "No".

Moderator: "Thanks so much for making time available for me to talk to you, I really appreciate". "I want to reassure you that your names and other identifying details will not be linked to any data. "The focus interview results data will be stored safely, in a locked cabinet and electronic records will be password protected and will be anonymously included in the researcher's PhD and other training platform".

Participants: "Thank you too."

Moderator: "Okay ladies, I wish you well and good luck in whatever you are doing in your respective health facilities."

FOCUS GROUP INTERVIEW 3. MIDWIVES

The researcher only transcribed the focus interview sessions that were voice recorded by the moderator and the assistant moderator, that is, after obtaining permission from all the participants to record the discussion. However, for every focus interview session the following approach was followed by the moderator:

On arrival all participants were received by the assistant moderator who greeted them with a smile, introduced her to them and accompanied them to the venue (ICAM Room).

After they had been offered a place to sit, the moderator introduced herself and assistant moderator to the participants. The participants were informed that availability of the assistant moderator was to allow the moderator to direct the discussion and keep the conversation flowing without interruption during the discussion. Furthermore the responsibilities of the assistant moderator were also outlined to the participants. Prior to the formal discussions the moderator started chatting with participants by making small talks with them to establish warm and friendly environment.

The moderator then thanked the participants for affording her the opportunity to talk to them. The nature of the study as well as the purpose of the study was explained to the participants and assured that the study had been approved by the Ethics Committee in the Faculty of Health Sciences, at the University of the Free State Province and by the Free State Department of Health.

The participants were informed on how and for what would the results be utilized within the department of health as well as outside the department of health. They were reassured about the confidentiality of the data and told that only grouped data would be reported upon, as a result, identification of individuals' viewpoints would not be done.

They were informed that there were no direct benefits for taking part in the study but it would assist the department of health to improve on the indicators of maternal and child health programmes.

The participants were informed that they were one of the midwives selected to assist to identify gaps or challenges that the department of health or communities had in order to address or change the status of maternal and child health programmes in the district by taking part in the study not that they were responsible for the occurrence of stillborn babies in the District.

After the participants agreed to take part in the study, the moderator then requested all to switch off their cell phones to avoid disruptions. Furthermore the permission to use audio recorders and also to take written notes if necessary during the focus group interview session was requested. The reasons for using audio recorders and taking written notes during the focus group interview session was explained to the participants. After obtaining the permission to use the audio recorders then the following discussion was recorded and transcribed as follows:-

Moderator: "Now that you all agreed to participate, and had already signed voluntary informed consent forms for today's focus group interview session as well as to participate in the validation interview session that will follow later on then we can continue with our discussions"

Participants: "Mmm."

Moderator:" Each focus group interview session will take not more than 60 minutes." "Validation interview sessions will be held at Tokollo Hospital ICAM room with key stakeholders". "Its purpose is to give them the report about the outcome of data collected as well as to get inputs with regard to the validation of independently developed health care guidelines which will address the cause of occurrence of stillborn babies in the District ".

Participants: "Mmm."

Moderator: "You are allowed to refrain from answering questions and to withdraw at any period during the focus group interview session. Your non-participation or withdrawal from this study will not prejudice you in any way."

Participants: "Mmm."

Moderator: "Please take these two documents which contain the information with regard to the study (summary) , as well as the contacts details of the Ethical Committee and researcher for further information or in case you would want to know something about the study at the later stage".(gave two documents to each participant)

Participants: "Thank you."

Moderator: "Please feel free to tell me everything that you think during the focus group interview session, know that there are no right or wrong answers, I am only interested to hear everyone's views".

Participants: "Mmm."

QUESTION 1:

Moderator: "I know that this might be the difficult subject to talk about as it involves the death of babies in your working environment (in the maternity units)." **Tell me what do you think contributed to the occurrence of unexplained stillborn babies? (Broad Question)**

Moderator: "Any question so far?"

Moderator: "Okay ladies, you can just take half a minutes, think bit about it and then anyone can start".

Midwife 1. : "Mmm…" (After the question was posed to the participants there was a long pause followed by a long "Mmm..." sound by one of the participants".

Moderator: "Okay ladies, anyone who is ready can start now".

Midwife 1. : "I think what contributed to the causes of occurrence of stillborn babies at our hospitals is mostly shortage of midwives mostly at the antenatal clinics". "Most of the mothers when they are admitted at the hospitals they lack important information and knowledge related to pregnancy".

Moderator: "Mmm"**.** "You are saying the main issue here is lack of education and ignorance".

Midwife 1. : "Mmm"

Moderator: "What next".

Midwife 1. "When they are asked about monitoring of foetal kicks they don't know anything". "In one of the clinics here at Fezile Dabi District one midwife sees forty pregnant mothers per day". "In such situation it becomes very difficult to give proper quality health education to these pregnant mothers".

Moderator: "Mmm

Midwife 2: Some of our mothers or their family members still believes on cultural practices". "During pregnancy they are told not to do some certain things that are healthy for themselves and their unborn babies". "They are even prevented to take nutritious food such as egg because of culture influence". "It becomes worse if midwives at the antenatal clinics do not have time to educate pregnant mothers on all pregnancy health related issues that dangerous and those that are important for them and their unborn babies".

Moderator: "Okay"**.**

Midwife 3: "When pregnant mothers are not informed or not knowledgeable about issues related to pregnancy they also not adhere to the treatment because they don't know the reason". "Such mothers develop some complications which affect their unborn babies then they come to the hospitals no foetal heart rate and give birth to macerated stillborn babies".

Moderator: "Mmm

Midwife 4: "Some unexplained reported stillborn babies might have been due to the self-induced stillborn babies". "Other mothers especially those that are not married if they don't want the pregnancy or became pregnant by mistake they don't want to go to the TOP (Termination of Pregnancy) clinics for some other reasons known to them". "Such mothers mostly are admitted at more than thirty two weeks pregnant in labour without foetal heart rate". "Most of the time when one does per vaginal examination the finger comes out with Cytotac tablets which indicates the sig of self-induced labour.

Moderator: "Okay". "Let me recap, you said the causes of occurrence of stillborn babies were due to unwanted babies or pregnancies, again lack of information and knowledge, cultural practices and others".

Participants: “Mmm.”

Moderator: “What else”.

Midwife 5 : “The other issue that contributes the occurrence of stillborn babies might be the cultural believes or practices”. “You know that some of our pregnant mother they still use their traditional medicines and mix it “moroto wa tshwene” (monkey’s urine) which I said to have cyntocinon effect**”.** “Other do take their herbal medicines and mix it with a mercury”. “They believe that those practices are capable of stopping some evil spirits”. “Although those traditional medicines are taken at a smaller scale the eventually have negative effect on the unborn babies.

Moderator: “Okay”**.**

Midwife 6: “During antenatal care clinics, there is a possibility of poor management of pregnant mothers who present at the clinic with PIH (pregnancy induced hypertension)”. “On several occasions such mothers are mismanaged by the midwives either because the nurses did not take the vital signs or because there is a poor supervision by the midwives in the clinics”. “Such pregnant mothers delay to get proper treatment or to be referred to the high risk clinic or to the next level and later on they present without foetal heart rate at the hospitals.

Moderator: “Mmm

Midwife 1: “To add to what my colleagues said about shortage of equipment at the clinics, in some of our clinics where we do outreaches there are no stretchers of examination beds”. “Our pregnant mothers’ blood pressures are taking while they are sited”. “This is contributing to the wrong and unreliable observations more especially with PIH”.

Moderator: “Okay”**.**

Midwife 2: “The other possible causes of unexplained stillborn babies that occurred in our health facilities were due to poor management of pregnant mother who were on EMTCT program”. “Most of them come with no foetal heart rate and they give birth to the macerated stillborn babies”. “Sometimes it also difficult for us to determine the possible causes of stillbirths amongst these group of mothers, I am sure there is great need for further investigation”.

Moderator: “You mentioned that the other possible causes of stillborn babies might have been due to poor management of mothers on EMTCT can you please explain to me what does that means”.

Midwife 2: “The “EMTCT” program means elimination of mother to child transmission and it was previously called “PMTCT” which means prevention of mother to child transmission”. “It is the program which prevent transmission of HIV and Aids from mother to child whiles the baby is still in the uterus”. “If the program is managed correctly it is so effective and can ensure 100% of elimination of transmission”.

Moderator: "Okay".

Midwife 1: "It is true, because with us also, most of pregnant mothers with chronic illness such as diabetes mellitus are admitted with the history of no foetal kicks, when they give birth its mostly macerated stillborn babies". "The possible causes here might be mismanagement or non-compliance to prescribed treatment by midwives and doctors".

Moderator: "Mmm

Midwife 3: "The other causes of occurrence of stillborn babies in our health facilities might be our bad attitudes more especially nurses and clerical staff at the clinics and hospitals". "The minute a teenage pregnant mother or a multipara mother enters our health facility we have a lot to say". "We need to learn to treat our mothers with respect and educate them nicely". "Such attitudes promote delays to report to our health facilities, none attendance of antenatal clinics which result to all other poor births outcomes".

Moderator: "Okay". "Let me get it correct, you mentioned mismanagement of pregnant mothers with chronic illnesses such as diabetes, hypertension and HIV and Aids as possible causes of unexplained stillborn babies". "Others causes were related to shortage of midwives and medical doctors, of lack of experience with no supervision, personnel attitudes again and shortage of equipment".

Participants: "Mmm."

Moderator: "What else".

Midwife 4: "Other stillborn babies are caused by the antepartum bleeding coupled with delay by the mothers to come to the hospitals or EMS delays (long turnaround time)".

Moderator: "Okay"**.**

Midwife 5: "Negative attitudes of mothers, their families and community members towards health professionals influenced by our media and perceptions promote poor cooperation, mistrust relationships between the mothers and health professionals". "Is such a relationship there is element non-compliance or adherence to treatment, poor communication and late response to danger signs of labour which lead to occurrence of stillborn babies".

Moderator: "Mmm

Midwife 6: "Hospitals that are not performing operation after hours (Caesarean Sections) coupled with delay or unavailability of EMS on site contributes to the occurrence of stillborn babies at our hospitals". "There is this EMS system where one need to phone call centre before the ambulance can be dispersed to a facility". "In an in an event there is no ambulance available or the call centre does not answer we are on our own". "We once admitted a cord prolapse they arrived at the next hospital without foetal heart rate (Metsimaholo hospital)". "Such incidents are continuously happening with our hospital and is also aggravated by problems of accessing EMS on time".

Moderator: "Mmm

Midwife 1: "Allocation of inexperienced or incompetent midwives or doctors in the maternity units or in the antenatal clinic without supervision creates a big problem". "Most of the time we are expected to guide doctors who are allocated in the maternity who do not have any knowledge of what is expected from them". "These doctors totally rely on midwives but others have attitude that contribute to delay in decision taking which leads to occurrence of stillborn babies, wrong allocation of midwives ore especially at the antenatal clinic contributes to occurrence of stillborn babies".

Moderator: "Mmm

Midwife 2: "Unhealthy nurse- doctor relationship also contributes to the occurrence of stillborn babies". "Where there is a problem of attitudes of doctors who do not want to be advised by midwives usually there is a poor communication, poor patients' advocacy which leads to delay in taking a decisions such as referral to the next level thus contributes to poor birth outcomes".

Moderator: "Okay"**.**

Midwife 3: "The EMS is really a big challenge which need to be addressed in responding to our high rate of stillborn babies in the District". "Some unexplained reported stillborn babies might have been due to lack of skills by EMS personnel who assisted mothers who gave birth in the ambulance". "Our ambulance personnel do not have skills to deal with deliveries it becomes worse if it's a complicated delivery or where there is a need to do intrapartum resuscitation". "At times their equipment are not functioning or not available, if they are functioning they don't know how to operate them".

Moderator: "Mmm

Midwife 3. : "The other things that might have contributed to the occurrence of unexplained stillborn babies is the infections possibly related to early ruptured membranes or other infections".

Moderator: "Okay"**.**

Moderator: "Mmm"**.** (Long pause)

Moderator: "Okay, What next**"**

Midwife 5. Moderator: "Okay ladies, if we satisfied with the first question we can move to the second question".

QUESTION 2.

Moderator: "What do you think could have been done to prevent the occurrence of unexplained stillborn babies"? **(Broad Question?)**

Midwife 1. : "I think what we need to do first is to appoint enough and skilled midwives to work in the antenatal clinics and maternity units".

Moderator: "Mmm"**.**

Midwife 2. : "I think we need to start at the antenatal clinics" "We really need to ensure that our midwives at the antenatal are capacitated". "If we can ensure that all our midwives working with pregnant mothers are all trained in the advanced antenatal course that will assist to address the occurrence of unexplained stillborn babies in our health facilities".

Moderator: "Okay"**. "**You said that we need to start prioritizing to close gaps at the antenatal clinics then everything will be okay".

Midwife 3. : "It true I also think we must start at the clinics". "We need to strengthen the provision of antenatal clinics, more especially proper assessment and health education of our pregnant mothers including all relevant stakeholders such as partners and family members".

Moderator: "Mmm"**.**

Midwife 3. : "Furthermore we need to ensure that all the information related to pregnancy including other illnesses that may have an impact on the mother and her unborn baby is disseminated to all relevant stakeholders". "Information such as where to go and what to look for when one is pregnant must be known by all pregnant mothers as well as the community at large".

Moderator: "Mmm"**. "**Does that means we need to inform our pregnant mothers and the community at large by also spreading the word through the media".

Participants: "Mmm."

Moderator: "What else".

Midwife 4. : "To assist with capacity or skilling of midwives I think rotation of the midwives working at the antenatal clinics with those working in the hospital maternity units will be the ideal". "If we can also designate some of our clinics in the District to become MOUs (Maternity Obstetrics Units) in the District I am sure that will assist to address the occurrence of stillborn babies, just like Gauteng Province".

Moderator: "Mmm"**.**

Midwife 4. : “By so doing our midwives’ skills will be improved a lot”. “The current practice of supermarket approach in our clinics is frustrating and it does not address challenges related to maternal and child health program”. “Yes it is true that one will be jack of all things (programs) but becomes master of none”.

Moderator: “Mmm”**.**

Midwife 5: “I really think that for us to address the occurrence of stillborn babies at our hospitals we need to prioritise development and implementation of prevention and promotion strategies in our District”. “There is as saying that prevention is better than cure”. “Really we can’t have a situation where one midwife attend to forty or more antenatal care patients per day, that will promote poor assessment, poor or no health education at all that is equals to poor quality in provision of maternal and child care”.

Moderator: “Okay”**.**

Midwife 6: “Nurses should change their attitudes more especially primigravida and multiparty, involvement of the communities, partners, family members at the antenatal clinic, or hospitals need to be re-enforced”. “That will strengthen the empower of all relevant stakeholders,

Moderator: “Mmm”**.**

Midwife 1. : “There is a need to strengthen school heath program in the District”. “The implementation of the school health program will assist with provision of health information as well as examination of teenagers at schools”. “Effective provision of school health services will assist in that it will ensure early identification of teenage pregnancies”. “It will assist to inform and educate the teenagers and educator on pregnancy related issues such as complications, family planning and others to avoid unwanted to avoid unwanted pregnancies which may lead to self-induced stillborn babies although teachers do not allow us to give children health education that will assist them not to fall pregnant”.

Moderator: “Okay”**.** “So are you saying some teachers do not want you to give children health education related to sexual relationships?”

Midwife 1. : “Mmm.”

Moderator: “What next”.

Midwife 2. : “We need to strengthen the implementation of the current Mom connect system introduced by the National Department of Health”. “Our department must review this system to ensure that all pregnant mothers who are enrolled are able to access it irrespective of whether do they have airtime or not”. “The system will ensure that all our pregnant mothers are informed and knowledgeable about issues related to their pregnancy”.

Moderator: “Mmm”**.**

Midwife 3. : “The issue of confidentiality with regard pregnant mothers HIV positive status also remains a problem”. “Some of pregnant HIV positive mothers are afraid to tell their husbands or partners which results to repeated infection, noncompliance to treatment and to negative birth outcomes”. “Really there is a need for the department to address the confidentiality issue because it impacts negatively on our health outcomes”.

Moderator: “Mmm, but is it not because of the stigma attached to the disease”**.**

Midwife 3. “No, nowadays the majority of our clients are open with their HIV status but I am sure the most challenge is to disclose to their partners”.

Moderator: “Okay”**.**

Midwife 4. :” There is a need to ensure that pregnant mothers who presented themselves to our clinics early and had some genetic abnormalities are properly counselled for early termination”. “If such mothers or their family members are not properly counselled the refuse termination for some reasons or they just don’t come for termination and they usually come with no foetal movement at more than thirty two weeks pregnant”.

Moderator: “Mmm”**.**

Midwife 5: “We need to change the current referral system because it does not allow the clinic personnel to refer patients including pregnant others straight to the level where one knows that the mother will get treatment or be managed for her condition”. “When one phones one of these tertiary hospitals one will be told that you need to refer the patient to the regional hospitals first”. “When you phone the regional hospitals they will tell you that the clinic is fully the poor mother will then be given the later date”. “The next moment she will be admitted with no foetal heart rate and give birth to stillborn baby because of delay and inflexible referral system".

Moderator: “Mmm”. “Let me recap, you said we need to strengthen school health services, implementation of Mom connect system, early antenatal visit and early referral to the next level but also the issue of attitudes, management of patients, information and unwanted pregnancies need to be taken care off.

Participants: “Mmm.”

Moderator: “Okay, it look as if you want to say something”. (pointing at the other midwife)

Midwife 2.: “Yes, the other issue that we also need to do is to ensure that there is continuous development of all midwives and medical doctors because of things that are changing such as disease burden that are coming with new protocols”.

Moderator: “Mmm”**.** “Here is again the issue of skills that we need to address”.

Moderator: "Okay ladies what else".

Midwife 6. : "Hash tag", Free State Province Midwives must stand up for their right as advocates of pregnant mother". "Where I am coming from we are struggling a lot to provide services for maternity patients due to lack of resources". "As am talking to you, there are no medical consumable such as urinary catheter, no linen, no blood sets, no urine bags, when people resign they are not replaced". "It's a lot and we are really frustrated".

Moderator: "Mmm"**.**

Moderator: "Okay ladies, what next do you think could have been none or can be done to prevent the occurrence of unexplained stillborn babies in your hospitals**"**

Midwife 6. "I nearly forgot to mention that, our managers more especially our executive they need to be involved and know what is happening with regard to maternity issues". "Currently are frustrated because we feel isolated, left out on our own without any support from our executive management".

Moderator: **"**Mmm"**.**

Participants: "No"

Moderator: "Is there anything thing related to this focus interview session that you want to ask from me?"

Participants: "No".

Moderator: "Thanks so much for making time available for me to talk to you, I really appreciate". "I want to reassure you that your names and other identifying details will not be linked to any data. "The focus interview results data will be stored safely, in a locked cabinet and electronic records will be password protected and will be anonymously included in the researcher's PhD and other training platform".

Moderator: "I wish you well and good luck in whatever you are doing in your respective health facilities."

Participants: "Thank you too."

ADDENDUM 17

PRESENTATION FOR VALIDATION GROUP DISCUSSIONS

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STRATEGIES TO REDUCE STILLBIRTHS IN FIZILE DABI DISTRICT, SOUTH AFRICA

ME SR. NOGE

2018

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INTRODUCTION AND BACKGROUND

- The Fezile Dabi District is situated in the Northern part of the Free State. The District is faced with the challenge of reducing perinatal deaths.
- Related to this, there has been a perceived poor or slow progress on the reduction of occurrence of stillbirths in the District.
- This had a negative impact on the performance of the District and including achievement of the Millennium Development Goals in the Free State (FS) Province.

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INTRODUCTION AND BACKGROUND (cont.)

- In terms of the Provincial policy, the information linked to the maternal and child health programme, such as data on stillbirths in the hospitals, is routinely collected.
- The Perinatal Problem Identification Programme (PPIP) tool has been successfully rolled out in the FS Province to assist health institutions and districts to identify possible causes of perinatal deaths and develop preventative healthcare interventions to address the identified causes.

INTRODUCTION AND BACKGROUND (cont.)

- However, no study has been done to explore the beliefs and practices of this category of women who have had stillborn babies, their family members and the midwives working in maternity units in terms of causes that contributed to the deaths of the unborn babies and compared the outcomes of the PPIP audit tool with the outcomes of the beliefs and practices of the above-mentioned stakeholders during the study period.

INTRODUCTION AND BACKGROUND (cont.)

- The researcher could not find any studies that have explored the beliefs and practices of women, their significant others and midwives regarding the possible causes of their stillborn babies.
- The current PPIP audit tool is based on a medical model and does not address the health and beliefs and practices of the community.

RESEARCH QUESTION

Hence the researcher asked the following research main questions:-

•What healthcare strategies, based on the beliefs and practices of the community could be implemented to reduce stillbirths in FDD?

•What do the stakeholders (mothers of stillborn and their significant others and midwives) propose should be done to prevent the causes of stillbirths?

RESEARCH QUESTION(cont.)

To facilitate the collection of data the following sub-questions were developed:-

•What are the beliefs, experiences and practices of stakeholders (mothers of stillborn and their significant others and midwives) regarding stillbirths?

•What are the stakeholders' proposed viewpoints in developing preventative healthcare strategies?

RESEARCH QUESTION(cont.)

In order to develop the healthcare strategies the following was done, namely to:-

- analyse the narrative data of the stakeholders deductively according to the constructs of the emancipated decision-making theory.
- describe the similarities and differences of stakeholders and PPIP data.
- identify and describe key elements that may contribute to the cause of stillbirths.
- develop independent healthcare strategies that aimed to reduce number of stillbirths.
- validate strategies with stakeholders

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PURPOSE AND OBJECTIVES

To develop healthcare strategies that will address the beliefs and practices of the communities in order to reduce the occurrence of stillbirths in the FDD.

Based on the study's problem statement and the research question, the objectives of the study were as follows:-

- To explore the beliefs and practices of mothers who were admitted in the maternity units without fetal heart rate with regard to causes of occurrence of the death of their unborn babies during the study period.

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PURPOSE AND OBJECTIVES (cont.)

- To explore the beliefs and practices of family members/significant others of women who were admitted in the maternity units without fetal heart rate and gave birth to stillborn babies with regard to causes of occurrence of stillbirths during the study period.
- To explore the beliefs and practices of midwives working in the maternity units with regard to causes of the occurrence of stillbirths in the maternity units during the study period
- To collaboratively validate and develop preventative healthcare strategies that will address the occurrence of stillbirths in the maternity units of FDD hospitals.

PURPOSE AND OBJECTIVES (cont.)

- To review available healthcare information on each patient included.
- To perform critical analysis in order to identify disparities and commonalities among stakeholders with regard to perceived causes of occurrence of stillborn babies.

METHODOLOGY

- The study was a qualitative multi-method design, based on the results of the in-depth interviews conducted with women who had stillbirths in the maternity units of FDD hospitals, their family members and the midwives working in maternity units during the study period.
- The setting for the study were the homes of women who gave birth to stillborn, homes of their significant family members and the identified rooms of FDD hospitals in the FS Province.

CONCEPTUAL FRAMEWORK

- Wittmann-Price's emancipated decision-making (EDM) model was used to describe a phenomenon witnessed in healthcare services when caring for women in decision-making process and as a conceptual meaning of emancipation that benefits patient care, as well as professional health development.
- The model is derived from a long-standing history of social oppression, which is addressed by both critical social theory and feminist theory.
- It used as the guideline for futuristic concept with strong historical ties in need of exploration and development with the context of women's healthcare in relation to decision making.

CONCEPTUAL FRAMEWORK(cont.)

- Dimensions of Wittmann-Price's EDM model are reflection, empowerment, personal knowledge, social norms and a flexible environment.
- The model's dimensions were used to explore the beliefs and practices of all role players as to the causes of stillbirths in the maternity units of FDD Hospitals.

CONCEPTUAL FRAMEWORK(cont.)

- **Empowerment** is the individual participants' knowledge and information gathered through transfer, sharing, imparting and guiding including resources provided and enabling environment that allowed participants to develop or increase their abilities
- **Reflection** is the process of questioning the common practices and beliefs that are based on tradition or authority. It is the participants' ability to critically analyse information and includes their ability to engage in dialogue or discussion when taking decisions

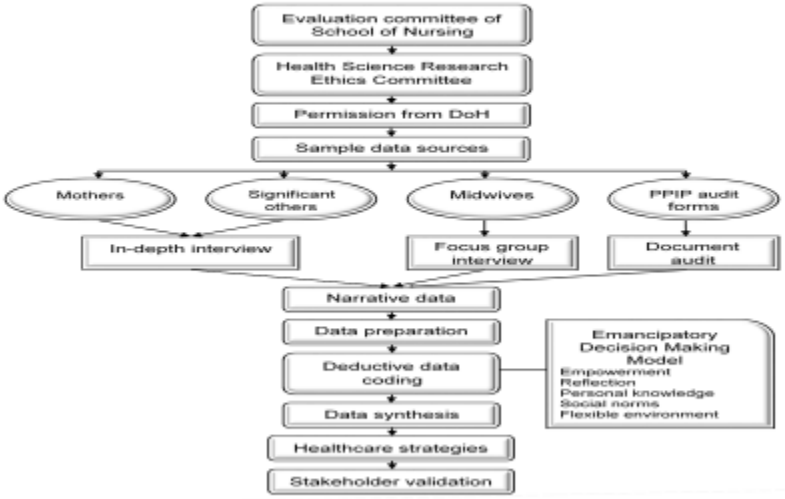
CONCEPTUAL FRAMEWORK(cont.)

- **Personal knowledge:** Information that participants seek/have to assist them to be aware, feel and take informed decisions about their healthcare. Information must be readily available, useful, relevant and accurate with a reliable support system.
- **Social norms**: Social related factors e.g. socially acceptable standards, social context power, prescriptive social and professional norms affecting stakeholders' healthcare decision making.

CONCEPTUAL FRAMEWORK(cont.)

Flexible environment: Conducive flexible and none judgemental health environment e.g. available support systems, resources, accessible at all times, acceptable quality of care and flexible policy guidelines that enable participants to make healthcare decisions and healthcare choices that will result to positive health outcomes

SCHEMATIC PRESENTATION OF THE RESEARCH DESIGN.



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THE MULTI-METHOD APPROACH SUMMARISED

In-depth interview	Focus group interview	PPIP audit
Technique	Technique	Technique
Population & sample	Population and sample	Population & sample
Exploratory interview	Exploratory	Exploratory
Preparation for in-depth interviews	Preparation for focus group interviews	Preparation for record reviews
Data gathering via in-depth interviews	Data gathering via focus group interview	Data extraction
Data analysis	Data analysis	Data analysis

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DATA ANALYSIS

- During the process of data analysis, transcriptions of individual interviews' participants and focus group interviews, field notes and completed audit tool check lists were analysed to ensure that it is reduced and reconstructed into a manageable format that would make reporting possible.
- Atlas Ti. Computer Software was used to analyse data by organising text, coding, categorizing and developing themes.
- The analysis of the data with regard to the cause of occurrence of stillborn babies resulted into six (6) themes, twenty two (22) categories and eighty eight (88) sub-categories

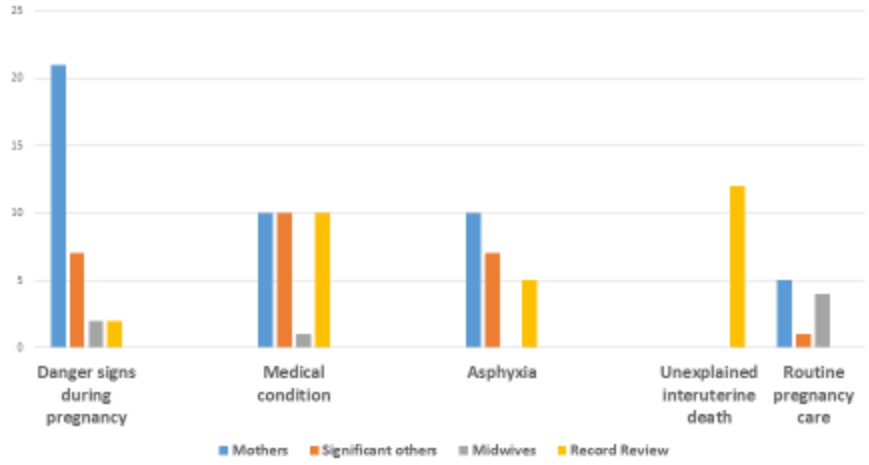
DATA ORGANISED, IMPORTED INTO THE COMPUTER SOFTWARE PROGRAM FOR ANALYSIS

Source of data	Primary documents to be analyzed	Number of Primary documents	Identification codes in numerical values
In-depth interviews with mothers	Interview transcripts and field nodes.	36 and 36	From 1 to 36 for both transcripts and field notes
Significant others in-depth interviews	Interview transcripts and field nodes.	36 and 36	From 1.1 to 36.1 for both transcripts and field notes
Midwives focus group interviews	Focus Interview transcripts and field nodes.	3	1 to 3
PPIP audit tools (health records)	Checklist	1	1 to 36

STILLBIRTHS RELATED TO LACK OF EMPOWERMENT

	RESPONDENTS				
SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	TOTAL RESPONDENTS
Danger signs during pregnancy	21	7	2	2	32
Maternal medical condition	10	10	1	10	31
Asphyxia	10	7	0	5	22
Unexplained intrauterine death	0	0	0	12	12
Routine pregnancy care	5	1	4	0	10
Total					112

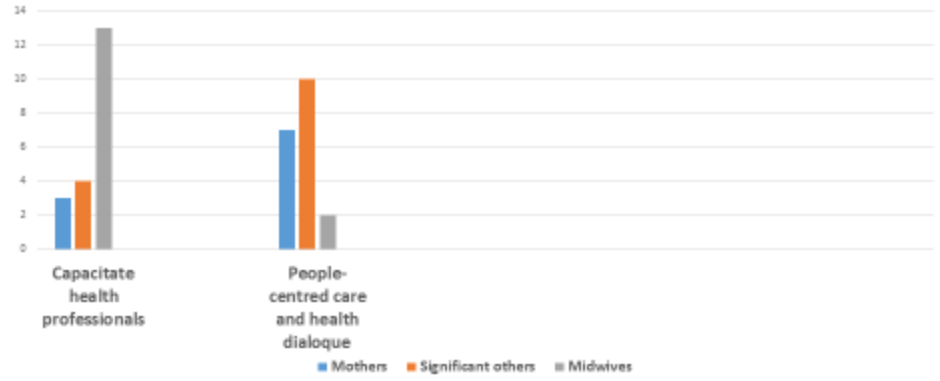
STILLBIRTHS RELATED TO LACK OF EMPOWERMENT



PREVENTATIVE MEASURES - EMPOWERMENT

SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RESPONSE
Capacitate healthcare personnel	3	4	13	20
People-centred care and health dialogue	7	10	2	19

PREVENTATIVE MEASURES - EMPOWERMENT

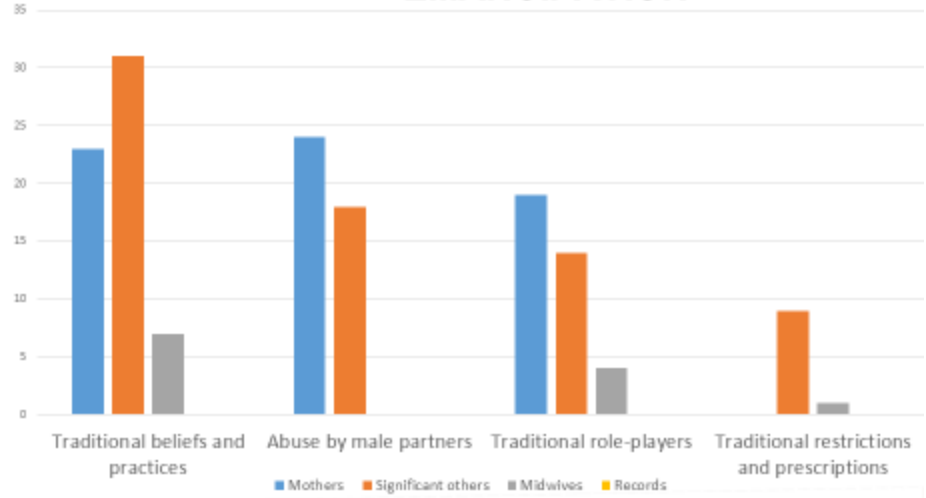


sub-categories

STILLBIRTHS RELATED TO SOCIAL NORMS -LACK OF WOMEN EMANCIPATION

SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	RECORD REVIEWS	TOTAL RESPONDEN
Traditional beliefs and practices	23	31	7	0	61
Abuse by males or partners	24	18	0	0	42
Traditional role players	19	14	4	0	37
Traditional restrictions and prescriptions	0	9	1	0	10

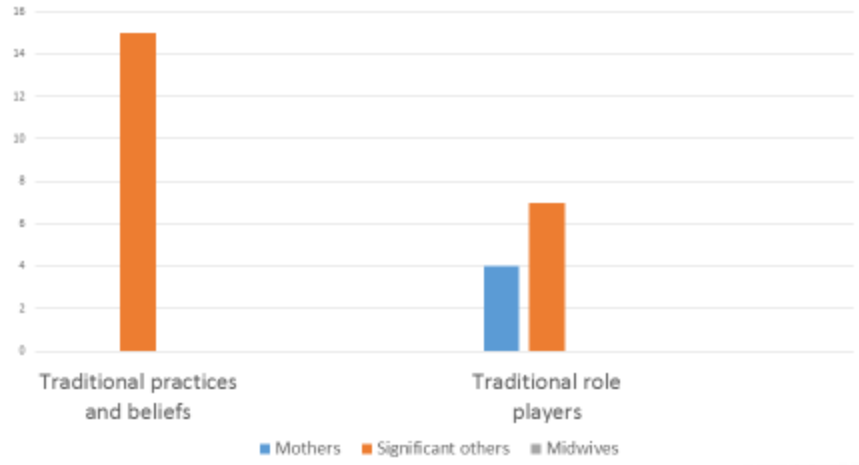
STILLBIRTHS RELATED TO SOCIAL NORMS -LACK OF WOMEN EMANCIPATION



PREVENTATIVE MEASURES - WOMEN EMANCIPATION

RESPONDENTS				
SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL RESPONSES
Traditional practices and beliefs	0	15	0	15
Traditional role players	4	7	0	11

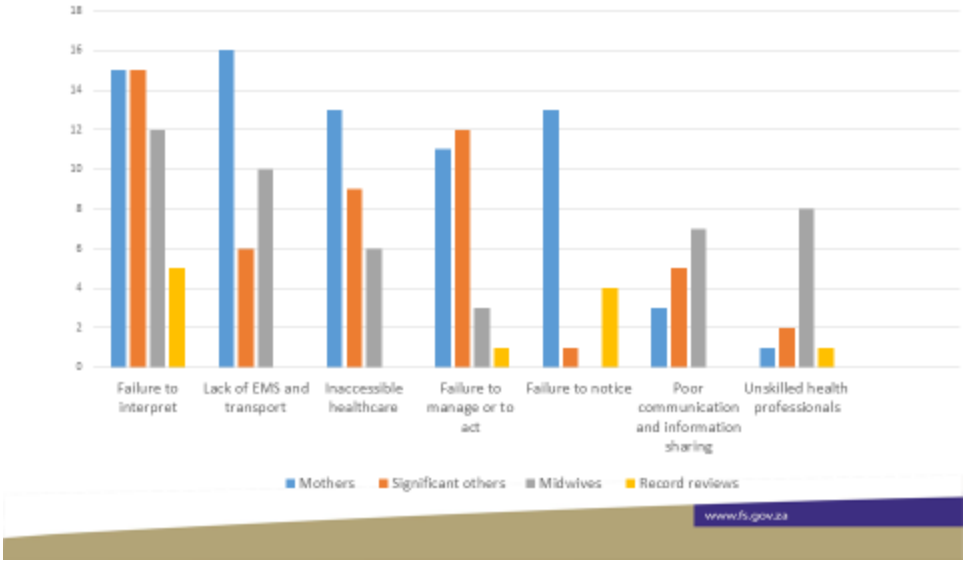
PREVENTATIVE MEASURES - WOMEN EMANCIPATION



STILLBIRTHS RELATED TO AN INFLEXIBLE AND JUDGEMENTAL HEALTH ENVIRONMENT

Subcategories	Respondents				
	Mothers	Significant others	Midwives	Record reviews	Total responses
Failure to interpret • Mothers not being attended to • Delayed medical service • Delayed clinical decision-making • Incorrect application of triage system • Delayed referral • Incorrect information shared • Noncompliance to prescribed clinical protocols	15	15	12	5	47
Lack of EMS and transport	16	6	10	0	32
Inaccessible healthcare	13	9	6	0	28
Failure to manage or to act	11	12	3	1	27
Failure to notice	13	1	0	4	18
Poor communication and information sharing	3	5	7	0	15
Unskilled health professionals	1	2	8	1	12

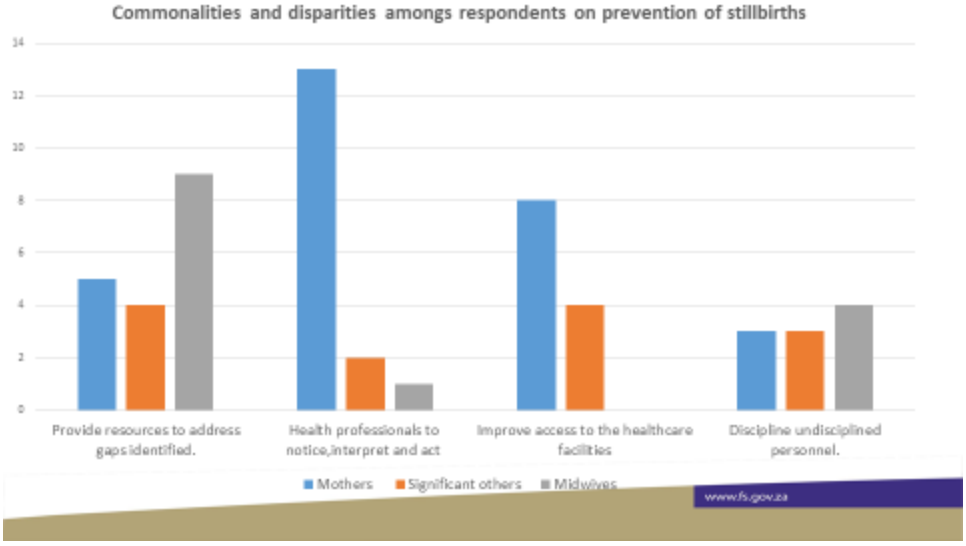
STILLBIRTHS RELATED TO AN INFLEXIBLE AND JUDGEMENTAL HEALTH ENVIRONMENT



FLEXIBLE AND NON-JUDGEMENTAL HEALTH ENVIROMENT

RESPONDENTS				
SUB-CATEGORIES	MOTHERS	SIGNIFICANT OTHERS	MIDWIVES	TOTAL RESPONSES
Provide resources to address gaps identified	5	4	9	18
Health professionals to notice, interpret and act	13	2	1	16
Improve access to the clinics	8	4	0	12
Discipline undisciplined (verbal or physical abusive) personnel	3	3	4	10

PREVENTATIVE MEASURES - FLEXIBLE AND NON-JUDGEMENTAL HEALTH ENVIROMENT



PREVENTATIVE HEALTHCARE STATEGIES TO REDUCE STILLBIRTHS

- The Kellogg's logic model was used to develop the strategies.
- Participants' disparities and similarities that may cause stillbirths and including views on what could have been done to prevent the cause of stillbirths were analysed using SWOT analysis (strengths, weaknesses, threats and opportunities) and were then used to develop six preventative healthcare strategies to reduce stillbirths.

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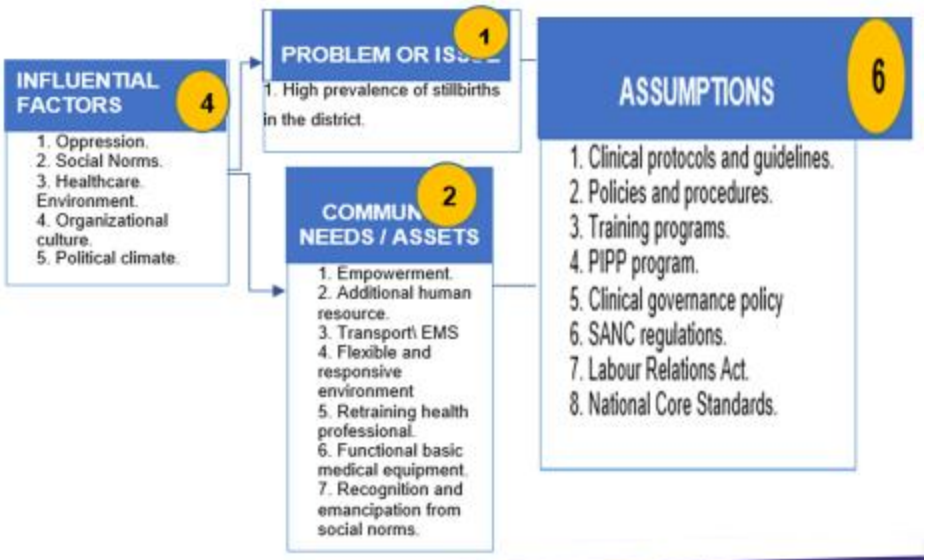
KELLOGG'S LOGIC MODEL



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DESIRED RESULTS				
	5		3	
NO	STRATEGIES	OUTPUT	OUTCOMES	IMPACT
1	Raise awareness of antenatal care and danger signs during pregnancy in pregnant women and **community** at large.	1. Community awareness and mobilization programs on importance of antenatal care and danger signs during pregnancy.	1. Increased antenatal visits coverage. 2. Increased % of pregnant women responded properly to danger signs during pregnancy.	Reduced number of stillbirths
2	Retrain healthcare workers (midwives) regarding issues such as management of hypertension during pregnancy.	1. Professional competency assessment measured. 2. Training program for incompetent midwives.	1. Increased % of competent trained midwives.	Reduced number of stillbirths
3	Create healthcare environment that is responsive to the needs of the community.	1. Reviewed referral policy. 2. Reviewed caesarean section designated sites policy. 3. Plan or guidelines on clinic operation hours.	1. Appropriate and flexible referral policy. 2. Appropriate, practical implementable and flexible caesarean section designated sites policy. 3. Decreased number of adverse incidents related to limited hours of operations, referral policies, and caesarean section designated sites. **4. Extended clinic hours of operation.**	Reduced number of stillbirths

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5	DESIRED RESULTS			3
NO	**STRATEGIES**	**OUTPUT**	**OUTCOMES**	**IMPACT**
4.	Establish people centred care and health care dialogue approach.	1. Individualised Birth-plan for each pregnant women. 2. District maternal health traditional stakeholders' forum established and functional.	1. Increased % of empowered pregnant women who can make decisions with positive health outcomes. 2. Increased % of pregnant women comply with treatment options. 3. Improve collaboration between community members and health professionals.	Reduced number of stillbirths

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5	DESIRED RESULTS			3
NO	**STRATEGIES**	**OUTPUT**	**OUTCOMES**	**IMPACT**
5.	Respect non harmful traditional practices and find substitute for harmful practices.	1. Guidelines on collaboration with traditional stakeholders. 2. H10 maternity health record and PPIP reviewed.	1. Community empowered, aware about the social norms and are emancipated from the social norms. 2. Harmful traditional beliefs and practices replaced by none harmful alternative ones. 3. Both health professionals and traditional role players understand their collective roles and responsibilities towards achieving the common goal (prevention of negative birth outcomes).	Reduced number of stillbirths

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DESIRED RESULTS				
NO	STRATEGIES (5)	OUTPUT	OUTCOMES (3)	IMPACT
6.	1. Procure and designate EMS, transport, basic equipment and including skilled health professionals for maternal and child care.	1. Plans and guidelines for procurement and allocation of additional well equipped maternity ambulances, additional skilled EMS personnel and midwives. 2. Guidelines on midwife-patient ratio and medical officer per each level of healthcare facility rendering maternal healthcare. 3. Plans and guidelines on procurent and maintenance of basics equipment.	1. Improved EMS response time. 2. Decreased complaints related to shortage of ambulances. 3. 100 % staffing ratio established and compliance. 4. 100% compliance with standardised basic functional equipment.	Reduced number of stillbirths.

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CONCLUSION

- The District specific preventative healthcare strategies to reduce stillbirths will be finalised after validating independent preventative healthcare strategies with the relevant stakeholders and getting inputs from policy makers.
- It would be recommended that the proposed strategies and other recommendations be implemented to address the increasing number of stillbirths.

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THANK YOU!!!

ADDENDUM 18

SIGNED CONFIDENTIAL CLAUSE FORM

CONFIDENTIALITY CLAUSE FOR CHECKING PARTICIPANTS TRANSCRICTS AND AUDIO TAPE RECORDERS

I, _____(full names of person who checked transcripts and audio tape recorders) confirm that I understand this consent form and the nature of the study which has been verbally described to me. I understand what my involvement in the study means and I voluntarily agree to assist with the checking of the participants' transcripts against the audio tape recorders.

I further confirm and acknowledge that the information with regard to participants' transcripts and audio tape recorders is strictly confidential and shall not be disclosed in any manner or form, directly or indirectly, to any person or entity under any circumstances.

SIGNATURE: _____ DATE: _____

SIGNATURE OF THE RESEARCHER: _____ DATE: _____

SIGNATURE OF THE WITNESS: _____ DATE: _____

ADDENDUM 19

MOTHERS' FIELD NOTES

FIELD NOTES IN-DEPTH INTERVIEWS (MOTHER)

1. Demographic information notes

The interviews took place on the 03rd July 2015 and the participant was a 35years old mother also a gravida two, para one (had two pregnancy) during the time of interview. She resides in Kroonstad Township with her husband and her one year old son during the time of interview session.

2. Descriptive notes

2.1 Setting arrangements

The interview took place at the home of the participant as arranged during the first visit. It is the four roomed house well cared for. During the interview session the interviewer and the participant were sitting next to each other in the sitting room and the door was open as we were the only two people in the house with one year old child who was playing outside and the main gate was locked to prevent disturbance. .

2.2 Non-verbal behavior

No non-verbal behavior was noticed during the interview.

2.3 What I heard

Nothing was heard during the interview.

2.4 What I saw

The participant was relaxed, free and comfortable during the interview process. She gave a lot of information. The house was well arranged and very clean outside and inside. Chairs were well organized as she was awaiting for the interviewer to arrive. She was always out spoken and willing to talk about the incident throughout the interview session.

2.5 What I felt

The researcher was warmly accepted and also asked whether she would want to have tea.

2.6 What I experienced

There was a little disruption when the child fell and cried while interviews were still in progress. After the child was attended to the interview process continued without disruptions.

2.7 What I thought about the interview process

That the interview session went well. That it was necessary, as it also revealed that the participant needed counseling services for her emotional support.

2.8 What I knew or thought happened.

I did not know anything about the incident but I thought that the baby died because of the hypertension that was not properly managed at the regional hospital. Failure to take decisions with regard to mothers who needed to be booked early for caesarian section for uncontrolled hypertension and big baby.

3. Reflective notes

3.1 Personal thoughts

My personal thoughts with regard to the interview session was that participant was supposed to had been admitted to the hospital for closed monitoring and induced/ performed caesarian before forty weeks. The patient was ill treated by health professionals at the regional hospital.

3.2 Speculations, Feelings, Perceptions and Impressions

That health professionals do not give report to each other (continuous care) as a results the high risk pregnant mother who was supposed to be operated upon was missed. The participant blamed health professionals for the death of her baby mostly be bad attitudes displayed.

3.3 Problems

Handing over of reports by professional as well as bad attitudes remains a challenge in the health facilities.

ADDENDUM 20

SIGNIFICANT OTHER FIELS NOTES

FIELD NOTES IN-DEPTH INTERVIEWS

1. Demographic information notes

The interviews took place on the 03rd July 2015 and the participant was a 51 years old lady who was a neighbor to the mothers who gave birth to a stillborn baby. She resides in Kroonstad Township with her family during the time of interview session.

2. Descriptive notes

2.1 Seating arrangements

The interview took place at the home of the participant as arranged. It is the big house which has just been renovated. During the interview session the interviewer and the participant were sitting next to each other in the kitchen and the door was closed to prevent disturbance.

2.2 Non-verbal behavior

No non-verbal behavior was noticed during the interview.

2.3 What I heard

Nothing was heard during the interview.

2.4 **What I saw**

When the interviews started, the participant was not relaxed because she asked whether the information that she was going to give to the researcher would not be used against her in future. After the researcher's introduction of the topic and reassurance of confidentiality of the information she then became free.

2.5 What I felt

Nothing was felt during the interview session.

2.6 What I experienced

I felt welcomed by the interviewee because even after the interview session the participant asked more health information that was not related to the interview session.

2.7 What I thought about the interview process

That the interview session went well.

2.8 What I knew or thought happened.

I did not know anything about the incident but I thought that the baby died because of the hypertension that was not properly managed at the regional hospital. Failure to take decisions with regard to mothers who needed to be booked early for caesarian section for uncontrolled hypertension and big baby.

3. Reflective notes

3.1 Personal thoughts

My personal thoughts with regard to the interview session was that the participant not know what actually was happening with the mother, that she strongly beliefs on the use traditional medicine and lack knowledge and information on issues related to pregnancy.

3.2 Speculations, Feelings, Perceptions and Impressions

The participant blamed mother and witchcraft for the death of the baby

3.3 Problems

Lack of knowledge and information remained a problem in the communities.

ADDENDUM 21

FOCUS GROUP INTERVIEW SESSIONS FIELD NOTES

FIELD NOTES (MIDWIVES)

1. Demographic information notes

Participants were midwives working in the FDD hospitals maternity units during the time of focus group interview session. The group consisted of not less than six participants but also not more than ten. All five hospitals were represented by one or two midwives.

2. Descriptive notes

2.1 Setting arrangements

The focus group interview took place at Boitumelo Regional hospital's ICAM room as arranged with the management of the hospital and the participants.

The room was big enough to accommodate all the participants. It was well ventilated with windows and two entrance doors. Both doors were closed and a ""don't enter interviews in progress" notices were displayed on both outside doors to prevent disturbance or any disruption that might had occurred. The inside environment was conducive for conducting the focus group interviews discussions.

The participants and the moderator were sitting on the comfortable chairs, in the circle next to each other, that is in such a way that participants faced each other to facilitate maximum interaction among the participants.

The bottles of water and glasses to drink were also available for the participants.

The assistant moderator was sitting outside the circle, away from the eyeshot of participants to ensure that her presence does not distract participants.

The audio recorders were placed strategically between the moderator and participants so that the discussion could be clearly recorded and thus facilitate transcription.

2.2 Non-verbal behavior

No non-verbal behavior was noticed during the focus group interview session.

2.3 What the assistant moderator and the moderator heard

Nothing was heard during the interview.

2.4 What I the assistant moderator and the moderator saw.

After the first question was responded to by the first participant, all were relaxed and free to talk. One could see that they knew what they were talking about. They respected one another throughout the focus interview session. They were not emotionally affected by the occurrence of the stillborn babies although others showed some strong feelings with regard to the importance of community involvement and shortage of midwives in the health facilities.

2.5 What the assistant moderator and the moderator felt

The moderator felt that the participants were honest and opened during the focus group interview sessions. They also used the discussions as the platform for taking out their service delivery frustrations. They showed element of trust to the moderator with all the information they managed to discuss with her with the hope that some issues raised will be addressed.

2.6 What the assistant moderator and the moderator experienced

The moderator did not experienced anything during the focus group interview session. She learned that there were other new programs introduced and new abbreviations used in the maternal and child programs. For the moderator to understand those new additional issues she asked the participants to give more clarity.

2.7 What the assistant moderator and the moderator thought about the focus group interview process.

It was well conducted without any challenges or interruptions.

3. Reflective notes

3.1 Personal thoughts of assistant moderator and the moderator.

The moderator's personal thoughts with regard to the focus group interview session was that it was necessary because during the discussions participants were more than willing to raise causes of occurrence of stillborn babies in the District as well as all those measures that needed to be put in place to address the occurrences.

3.2 Speculations, Feelings, Perceptions and Impressions of assistant moderator and the moderator.

Most participants blamed the health systems, pregnant mothers and community at large for the causes of the occurrences of stillborn babies but also the midwives, EMS and medical officers to the lesser extent.

4. Themes that were striking

Reflection theme which includes categories such as traditional home birth conducted by grandmothers, grandmothers' influences where pregnant mothers will be kept at home and allowed to go to the health

facilities at a later stage, some pregnant mothers rely on their elders or grandmothers for decision making, decisions are made by someone else not the pregnant mothers and authority of some professionals and traditional norms had negative impact on the outcome of the unborn babies.

Lack of empowerment and personal knowledge themes which encompass categories such as unskilled (midwives, medical doctors including private practitioners, EMS officers),failure to monitor foetal kick charts, uninformed community members thus give wrong advice to pregnant mothers, late presentation to the antenatal clinic of during labour due lack of knowledge or proper information and ignorance, late referral to the next level of care and mismanagement of mothers during antenatal and intra partum periods came out almost from all participants as the major causes of occurrence of stillborn babies in the district.

Social norms theme which include categories such as cultural, families and traditional believes and practices and use of traditional medicines came out as causes of occurrence of stillborn babies in the district.

Flexible environment theme also came out where categories such as ambulances control room challenges and its delays and clinics hours of operations which result to unavailability of antenatal care services were coded, poor supervision and poor allocation of available resources.

5. Order in which participants spoke and group dynamics

The participants did not have any specific order that the used to speak when addressing the group. Anyone who was ready to speak was allowed to speak by the moderator but without disturbing the others. All participants were afforded opportunity to speak during the discussion. Those that wanted to dominate the discussions were dealt with accordingly by the moderator. All participants were active during the discussions and did not deviate from the topic.