Development of a model to support women who had Intrauterine Fetal Death in Vhembe District of Limpopo Province South Africa

By

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DECLARATION

I, Martha Lufuno Kharivhe hereby declare that this thesis titled "Development of a model to support women who had IUFD in Vhembe District of Limpopo Province South Africa" for Doctor of Philosophy in Nursing Degree, at the University of Venda, hereby submitted by me, has not been previously submitted for a degree, at this or any other institution, and that this is my own work. All reference materials contained therein have been duly acknowledged.

Signature: ..... Date: 2020

DEDICATION

This thesis is dedicated to my parents Milingoni Selinah and Azwidohwi Lawrence Kharivhe who gave me the encouragement to study until I attain my doctoral degree. Also to my husband Hendrick Thilivhali and my children Dino, Rivers, Genesi Mojaji and Phophi Mojaji for their support and their wishes for my success in the completion of this research study.

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LIST OF ACRONYMS

ANC	-	Antenatal Care
APA	-	American Psychological Association
DIC	-	Disseminated Intravascular Coagulation
Doi	-	Digital object identifier
DPSA	-	Department of Public Service and Accountability
FIGO	-	International Federation of Gynecology and Obstetrics
HELLP	-	Hemolysis, Elevated Liver enzyme Levels and Low Platelets
HIV	-	Human Immunodeficiency Virus
HTML	-	Hypertext Markup Language
Http	-	Hypertext Transfer Protocol Secure
ISSN	-	International Standard Serial Number
IUFD	-	Intrauterine Fetal Death
KISF	-	King's Interacting Systems Framework
LB	-	Live Births
NBN	-	National Broadband Network
PDF	-	Portable Document Format
PHC	-	Primary Health Care
PhP	-	Hypertext Preprocessor
PTSD	-	Post-Traumatic Stress Disorder
STATS SA	-	Statistics South Africa
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations Children's Fund
URL	-	Uniform Resource Locator
URN	-	Uniform Resource Name
WHO	-	World Health Organization
WWW	-	World Wide Web

ABSTRACT

Intrauterine Fetal Death (IUFD) is common in all parts of the world and South Africa not exempted. Woman who had IUFD are at risk of suffering from mental health problems if professional support is not given. In South Africa, during the study, the maternity guidelines focused on the support for women with live-babies and the prevention of IUFD, but remain silent on the support for women with IUFD.The purpose of this study was to develop a model to support women who had IUFD, in Vhembe District of Limpopo Province, South Africa. A qualitative approach using explorative, descriptive and contextual designs was adopted. Purposive sampling of the district, hospitals and participants was done. Data were collected through in-depth interviews and analyzed thematically. Two themes, experiences of women who had IUFD and needed support as perceived by women who had IUFD, were revealed in phase 1 of the study. Phase 1, findings formed the basis for phase 2, the model development. In phase 1 of the study, the theory used to guide the study was aligned to King's interacting systems framework, and in phase 2, Dickoff, James and Wiedenbach's (1968) six elements of practice theory guided the development of the model, and Chinn and Krammer's (1999) theory guided the evaluation of the model. Evaluation of the model was done by purposively sampled evaluators. Guidelines to operationalize the model were developed according to the context, agents, recipients, dynamics and the procedures. Ethical considerations and measures of trustworthiness were observed throughout the study. The recommendations of this study are based on nursing practice, nursing education and for further research.

Key words: Intrauterine fetal death, Model, Support

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CHAPTER 1

OVERVIEW TO THE STUDY

1.1 INTRODUCTION

Intrauterine Fetal Death (IUFD) is defined as the death of the foetus before delivery up to eight hours before delivery, and is deemed a spontaneous abortion or a miscarriage if the death occurs below 20 weeks gestation, Sellers (2018). Studies by Gautam, Rani and Dalal (2018) say that IUFD is the baby born without the signs of life at 28 weeks and beyond, diagnosis is mirrored in the placenta, which could either calcify, intervillouse hemorrhage and syncytial knots could be visible, as stated by Borade, Kanetkar, Kale, Hulwan, Shukla and Vohra (2018), these are explained together with the appearance of the foetus, and underlying conditions of the mother such as hypertension in pregnancy.

In another study, Aho, Tarkka, Astedt-Kurki and Kaunonen (2009) outline that there is an increased vulnerability of women with IUFD to experience undesirable emotional and social values, with greater severity primarily predicted by maladaptive coping skills, low social support and intense emotionality following the IUFD. There is currently no developed models and studies, indicating a critical need to develop appropriate intermediations by healthcare services for mothers who had IUFD, including developing positive family support.

The background of the study, the problem statement, research questions, objectives of the study, significance of the study and paradigmatic perspective are discussed in this chapter.

1.2 BACKGROUND

Following IUFD, women need to have closure with the tragedy of the Intrauterine Fetal Death (IUFD) to allay their fear regarding future pregnancies, by developing

models that incorporate support before, during and after delivery, and in subsequent pregnancies (Chaudhary & Gupta, 2014). Continuing emotional support should be provided to help women cope with and recover from the IUFD. Women are currently offered bereavement support and provided with written information regarding family support groups (Chaudhary & Gupta, 2014).

In agreement, Koopmans, Wilson, Cacciatore and Flenady (2018) state that IUFD, which results in a mother giving birth to either a fresh or macerated stillbirth, is a psychological trauma and causes major emotional problems in adjustment during the bereavement period. Therefore, women need support in overcoming the grief before it escalates into pathological grief reactions if there are no programmes in place to support the women. There is an increased risk for relationship breakdown (Koopmans *et al.,* 2018). Health care professionals also face the dilemma of breaking the news of IUFD to the woman, and find themselves not knowing how to counsel the woman in the grief (Gautam *et al.,* 2018).

King's interacting systems theoretical framework implies that a pregnant woman is an individual with selective inputs from her environment and has the potential for achievement, and mental health refers to individuals who interact optimally with their environment to achieve emotional balance. In concurring with other studies, this shows that maternal mental health could be positively or negatively affected by childbirth outcomes, and this contributes to mental health problems. Consequently, after IUFD, the mental health of a pregnant woman is compromised.

Côté-Arsenault and Denney-Koelsch (2016) also noted that childbirth should be one of the most significant milestones in the human life, filled with hope, expectation of joy, fear and faith. Yet, for 12% of women experiencing IUFD each year it becomes an experience filled with tragedy, mourning and despair. However, during this life-altering event, midwives should acknowledge a woman's past loss, address their concerns during a current pregnancy and

recognize the potential life-long effect that IUFD might have on the women (Côté-Arsenault & Denney-Koelsch, 2016). On the other hand Apter, Devouche and Gratier (2013) state that women and health care professionals attending to the women both carry the pain and memories of the loss and those experiences with them for years.

1.2.1 Support guidelines for women

The following are current support for the different categories of pregnant women, namely, young pregnant women, women living with HIV Aids, support for women in labour, support for pregnant women infected with COVID-19 disease and current support for women who had IUFD, discussed below:

1.2.1.1 Support for young pregnant women

Literature indicates that policies aimed at supporting young pregnant women should be developed, for them to successfully complete their education, this is viewed because of the stigma associated with young motherhood (Ngabaza & Shefer, 2013). Pregnant women of all age groups could have IUFD as an adverse outcome, but little is said about policies for them, the same support could be aligned for young pregnant women with IUFD, who have lost their babies before they could finish their education.

1.2.1.2 Support for pregnant women living with HIV

There are National guidelines for prevention of mother to child transmission for women living with HIV. Research by Richter, Rotheram, Boris, Van Heerden, Stein, Tomlinson, Harwood, Rochel, Van Rooyen, Comulada and Tang (2014) indicate Enhanced Intervention (EI) which is led by Peer Mentors was added to standard care, the outcome was adherence to treatment regimens, follow-up care and relief of depressed mood. This kind of support was vital in assisting pregnant women who had IUFD with HIV infection, but no literature was found regarding their support.

The World Health Organization (2018) report that though most women deliver their babies at health facilities, they still experience suboptimal quality of care which impede desired outcomes, some due to late interventions and recommended a '2030 Every Woman Every Child (EWEC)' and 'Every Newborn Action Plan (ENAP)' movement to ensure promotion of wellbeing at all stages of pregnancy and socioeconomic setting, to end preventable deaths to target a 12/1000 to single digits by 2030. The care include; Respectful maternity care, effective communication, companionship during labour and childbirth, and continuity of care. While this improves the health outcome and wellbeing of pregnant women, recommendations are quite regarding the mental health outcome for women with IUFD.

In India, being one of the countries with a high rate of IUFD, Karol and Pattanaik (2014) indicate there must be a reliable Health Information Management Systems (HMIS) to identify the magnitude of stillbirths and the risk factors. Vacancies such as Auxillary Nurse Midwife (ANM), Accredited Social Health Activist (ASHA) Angawadi Worker (AWW) were created to work with pregnant women at grass roots level to facilitate service delivery and to keep track of Maternal Perinatal Mortality (MPM) (Karol & Pattanaik, 2014). Free ambulance service availability 24/7 and Mother and Child Tracking System (MCTS) are in place to capture the health of women (Karol & Pattanaik, 2014). The support

that is directed at pregnant women for a healthy outcome, was likewise needed for the support of pregnant women who have IUFD for a healthy mental wellbeing.

1.2.1.3 Support for women in labour

According to Ηλιάδου (2014), the four dimensions to support women in labour include emotional support, informational support, physical support, companionship, advocacy, empathy and continuous support. Women with IUFD also go into labour, although they are not coming back with a live child, nothing has been said regarding the support that could relate well with their mental health. This is supported by Schimd, Fontijn, Ochsenbein-Kolbe, Berger and Bassler (2020) who said the national and international disease control authorities should continuously update guidelines for specific patient groups, supporting the fact that current literature does not exist that satisfy all patient groups, including pregnant women.

1.2.1.4 Support for pregnant women infected with COVID-19 disease

There are pregnant women who are infected with COVID-19, state Bonilla-Aldana, Cordona-Ospina, Jaime, Alfonso and Rodriguec-Morales (2020) where they indicate that infection with the disease is associated with poor pregnancy outcomes, and recommend that they should be admitted for observation. Women who have IUFD could also be infected with the COVID-19, it is not mentioned how should they be managed, literature is silent towards them. Favre, Pomar, Musso and Baud (2020) state that extended follow up is recommended for the mothers and their yet unborn child, further indicating prevention of adverse outcomes, and silent on the support for women with IUFD.

Women perceive emotional assistance to be most important, report Nikula, Laukkala, and Pölkki (2015) and care should be adopted to meet individual

needs of the woman, the fundamental need being a sense of control and empowerment (Iravani, Zarean, Janghorbani, & Bahrami, 2015). Another study by Sengane (2013) recommends that midwives should include a mother's expectations while caring for them, develop a bond, and include the women's partner in an interactive manner. Indeed this is aimed at positive outcomes, could the same be said for women who are delivering IUFD? Midwives do know the pervasive impact of IUFD, Fockler, Ladhani, Watson, and Barrett (2017) reports, hence the need for psychosocial support and sensitive delivery, but is it practiced? Women prefer to be cared by midwives who are trained in good communication skills, added Martínez-Serrano, Pedraz-Marcos, Solís-Muñoz and Palmar-Santos (2019); and Ladhani, Fockler, Stephens, Barrett, and Heazell (2018), that to facilitate a healthy mourning, there is a need for peer support, promoting family strengths and follow-up care. Jamal and Agarwal (2017) also mentioned that early interventions and adequate antenatal care are key in the prevention of IUFD, on the other hand Noge (2018) indicate the need for a flexible healthcare environment as well as competent midwives and individualized healthcare dialogue. As indicated above, most literature focus on the prevention of IUFD, which is crucial, but remain silent on the support for women who had IUFD.

1.2.1.5 Current support for women with IUFD

Current support for women who had IUFD, as discussed in the maternity guidelines (2016) and Saving Mothers Report (2017) insists on encouraging the woman to hold and spend time with the baby, thereafter transferring the woman to a non-maternity ward. If there are any suspected abnormalities, the cause of death is explained. Breasts' discomfort is treated with analgesics, breast binding and fluid restriction. The kind of support offered to the woman is not explained in detail nor the need for psychological support in the current or subsequent pregnancies, is never mentioned.

Bennet, Shannon, Litz, Maguen and Ehrenreich (2014) indicate that some women develop psychological problems after IUFD, and more likely if professional support is not given. The bereavement support should be coordinated by professionals. Women are sometimes advised to retain artefacts of remembrance. Midwives are advised to encourage desires of contact with the stillborn, but should avoid persuading the women. Women should be given information, such as if the cause of the IUFD is found, it could influence care in the future pregnancies, otherwise women are informed that no specific causes are found for the IUFD. Furthermore Bennet *et al.* (2014) detail that a higher number of IUFD correlate with poor health and the need for women to obtain professional support in dealing with the loss, and partner support is also important.

Women with mental health problems are incapable of handling the tasks of motherhood and they are unable to provide emotional nurturance, protection and stimulation that children count on, to their other children. They are less likely to care for their own needs, and less likely to seek and receive antenatal or postnatal care or to adhere to prescribed health regimens (Flynn, Henshaw, O' Mahen & Forman, 2018). Maternal traits include less affection towards their infants and lower attention span in the subsequent pregnancies. Studies suggest there is a prevalence of postnatal depression and is highest in low income developing countries, and these highlight the need for programme managers and policy makers to allocate resources and develop strategies to address postnatal depression and IUFD (Flynn *et al.,* 2018).

Furthermore, Flynn *et al.* (2018) indicate that for women who are unaccompanied, midwives should offer to call their partner or relatives. Written information is useful to supplement discussion as all initial discussions could increase choices in decision-making. Late IUFD is sudden and unexpected, this requires midwives to determine emotional feelings and needs of the women, and to understand the women's thoughts and wishes without trying to shape them, as women with IUFD value acceptance and recognition of their emotions highly.

According to Ney (2012) support after IUFD adheres to guidelines with substantial room for improvement, mentioning that midwives should increase women's choices regarding postpartum care and develop a checklist of potential procedures to be initiated after IUFD, namely:

- The opportunity to see and hold their baby and keep items of remembrance as per their wish.
- The nature and full explanation of all postnatal tests.
- Written and verbal information regarding care and respect for the baby during the post-mortem examination.
- Consent for placental histology, post-mortem examination and photographs of the foetus.
- An opportunity to choose funeral arrangement appropriate to their needs.
- All relevant healthcare professionals involved in the pregnancy care are notified and future clinic visits are cancelled. The checklist does not address the kind of support that could be offered to women, with a view to improving their mental health.

Kersting (2015) study demonstrate that grief declines over a period of two years after the loss, and that IUFD has shown to have substantial psychological impact in women and their families, and it is associated with post-traumatic stress, depression, anxiety and sleeping disorders. These grief reactions are more disruptive, pervasive and long-lasting (Kersting, 2015).

Women who had IUFD are found to be emotionally complex with long-lasting symptoms of grief and the struggles of finding meaning and emotional support helps women and their family cope with the long-term effects of the loss (Pullen, Golden & Cacciatore, 2018). Their studies (Pullen *et al.,* 2018) also revealed that IUFD has long-lasting effects on women and affects the women's perception. Social support, legitimization of the loss, opportunities for rituals and acknowledgement of existential emotions of guilt and shame likewise lead to enhanced understanding of the experience.

Osman, Egal, Kiruja, Osman, Byrskog and Erlandsson (2017); and Pullen *et al.* (2018) in Australia, indicate that when women received the news of the IUFD negatively, this adversely impacted their grieving process. This could be due to different interpretations of the IUFD, the fact being that midwives view IUFD as a medical problem, whereas women view IUFD as a major family tragedy. Pullen *et al.* (2018) suggest that the women's perception should be acknowledged. In communicating the news, there should be an expression of empathetic communication, continuity of care and provision of information using clear language. Dandona, Kumar, Kumar, Singh, George, Akbar and Dandona (2017) mention issues of expectant or active management when indicating options communicated during IUFD.

1.2.2 Risk factors associated with increased numbers of IUFD

Massyn in District Health Barometer (2019) and Disease Profile for Vhembe Health District identify some of the patient related risk factors associated with increased numbers of IUFD, such as: late attempt at terminating pregnancy, illegal abortion clinics, alcohol abuse during pregnancy, pregnant HIV positive women, late, insufficient or unbooked antenatal care (ANC), unprescribed or self-medications, traditional herbs, delay in seeking medical care and pre-existing medical conditions.

1.2.3 Expectant management of IUFD

Savaskar, Mundada, Pathan and Gajbhiye (2018) indicate that in managing IUFD, non-emergency women are advised that there is no physical harm if labour is delayed for a short period, but if women do go back home, they are given a 24-hour contact number for information and support. In this case support only referred to the management, and further stated that IUFD might be the basis for women to develop severe medical complications with prolonged intervals, but they should be tested twice weekly for DIC.

Henceforth, Dandona *et al.* (2017) state that in more than 90% of women with IUFD, labour occurs spontaneously within three weeks of the IUFD if there is no evidence of other medical conditions, but in this three-week period of the IUFD and thereafter, there is an increased risk of Disseminated Intravascular Coagulation (DIC). However prolonged expectant management worsens the appearance of the foetus. If the four weeks have passed without spontaneous labour, there is an increased risk of HELLP syndrome – haemolysis, elevated liver enzyme levels and low platelet count, active management is considered, i.e. induction of labour, vaginal birth is achieved within 24 hours of induction of labour and analgesia is important for women with IUFD and is frequently used (Dandona *et al.,* 2017).

While Gausia, Moran, Mohammed, Ryder, Fisher and Koblinsky (2013) mention that the common mental health problems are depression, anxiety, post-traumatic stress disorder and psychosis, Pullen *et al.* (2018) added that ignoring IUFD leads to more emotional trauma compared with mothers who face the grief that naturally follows the death of a baby. A mother‘s grief after the birth of her baby is further complicated by feelings of anxiety, failure and guilt. The ability to grieve the unborn baby creates many challenges for women and their family members. There are no present-day cultural references on how to grieve such a loss and women often do not have a roadmap about how to grieve (Gausia *et al.,* 2013).

Gausia *et al.* (2013) and Pullen *et al.* (2018) both agree with Gravensteen, Helgadottir, Jacobsen, Sandset and Ekeberg (2012) who state that if women with a previous IUFD and received support, they could share the same level of quality of life, well-being and global depression as women with live births. For women with IUFD the risk of experiencing Post Traumatic Stress Disorder (PTSD) is prevalent during the next pregnancies, particularly when the pregnancy occurs soon after the loss. Additionally, Gravensteen *et al.* (2012) measured outcomes of a cohort study and concluded that PTSD, partnership breakdown and depression are the long-term sequelae of IUFD, and increased psychological morbidity in subsequent pregnancies and the puerperium.

Statistically, Saving Mothers Report (2017) assert that in all parts of the world, one in three to one in five women in developing countries and about one in 10 in developed countries have mental health problems after IUFD. IUFD was reported from many African countries including South Africa, and are linked to adverse outcomes through general factors such as insufficient antenatal clinic attendance as well as unhealthy lifestyles (Saving Mothers Report, 2017) and that the prevalence of maternal mental problems is almost 40% in South Africa. Most of these mental health problems are being experienced by the poor from disadvantaged communities.

A previous study titled "experiences of women who had IUFD" by Kharivhe, Maluleke and Ramakuela (2016, unpublished) revealed that women still had signs of distress, months after the IUFD had occurred. It indicated that psychological support that they received from midwives was inadequate, hence the inability to promptly return to normalization. But, women benefitted from the sympathy of the medical staff and by being kept informed of problems as they developed state Depoers-Béal, Baccon, Le Bouar, Proisy, Arnaud, Legendre, Dayan, Bétrémieux and Le Lous (2019) consequently, the inability to grieve creates many challenges and there are no cultural mentions on how to mourn such a loss.

1.3 PROBLEM STATEMENT

Nursing theories, policies in obstetrics, and nursing acts primarily focus on the prevention of the IUFD, but remain silent in the support of women who had IUFD. Whereas studies (Gausia *et al.,* 2013) identified IUFD as an emotional trauma and causes major emotional problems in the adjustment during bereavement period, where feelings of unpreparedness and denial are commonly expressed and majority of cases go undetected and therefore are left untreated (Gausia *et al.,* 2013).

Later in their studies, Cacciatore (2013); and Chaudhary and Gupta (2014) found that women who had IUFD need to have closure with the tragedy and allay their fear regarding future pregnancies as well as diverse psychological support, and recommended that women require models that incorporate diverse support before, during and after delivery, and support in the subsequent pregnancies.

In South Africa, support for women who had IUFD as discussed in maternity guidelines (2016) and Saving Mothers Report SA (2017) insist on encouraging the women to hold and spend time with the dead baby, thereafter transferring the women to a non-maternity ward. The kind of support offered to women is not explained in detail, nor the need for mental health promotion in the current to subsequent pregnancies, is not mentioned. This is confirmed by Chojenta, Harries, Reilly, Forder, Austin and Loxton (2014) when indicating that less is known about the mental health impact in the current and in subsequent pregnancies.

In their investigation, Kharivhe *et al.* (2016, unpublished) study revealed signs of distress months after the IUFD has occurred and recommended that a model needs to be developed to support women who had IUFD in Vhembe District of South Africa. The study identified that women still show signs of distress even after they have been sent for psychological intervention. Women indicated that the support that they received was limited. As a result, this study's purpose was to develop a model to support the women who had IUFD.

While attending Combined Paediatric, Perinatal Maternal Mortality and Morbidity (PMMM) meetings, the prevalence of IUFD has shown that it occurs at an average rate of 21.90% per 1000 LB at a hospital in Limpopo Province, as shown on Table 1.1

Table 1.1: IUFD data during a 6-month period

Month	Total No. of deliveries	No. of IUFD	No. of Live Babies	% of IUFD per 1000 LB
June	282	6	276	21.28%
July	264	5	259	18.94%
August	293	6	287	20.48%
September	336	6	330	17.86%
October	284	6	278	21.13%
November	228	5	223	21.93%
Total	1687	34	1653	20.15%

1.4 PURPOSE OF THE STUDY

The purpose of the research study indicates the direction, it should be clear, acceptable and understandable (Polit & Hungler, 2013). The purpose of the study was to develop a model to support women who had IUFD in Vhembe District of Limpopo Province of South Africa.

1.5 OBJECTIVES OF THE STUDY

These are the steps that lead to the fulfilment of the study purpose, they are specific and measurable (Polit & Hungler, 2013).

- In this study, the objectives for Phase 1 were:
- To explore and describe experiences of women who had IUFD
- To identify and describe support that women who had IUFD need
- The objectives for Phase 2 were:
- To develop a model to support women who had IUFD
- To evaluate the developed model for women who had IUFD

1.6 RESEARCH QUESTIONS

Research questions were questions asked after the problem statement was formulated. The research questions in this study were:

- What are the experiences of women who had IUFD?
- What do the women who had IUFD need for them to feel that they have been supported?
- What model could be developed for women who had IUFD for them to feel that they have been supported?
- How should the model be evaluated to ensure that women who had IUFD receive the support that they need?

1.7 SIGNIFICANCE OF THE STUDY

This research study might contribute to health sciences' knowledge in a meaningful way (Brink, Van der Walt & Van Rensburg, 2017). Midwives, women and health sciences might benefit from the findings of the study, resulting in improvement and implementation of cost-effective health care practices. The significance of the study is directed to midwives, women who had IUFD and health sciences, as discussed below:

1.7.1 Women who had IUFD

After developing a health promotion mental model that supports women after IUFD, the mental health of women who had IUFD will be promoted and women may feel that they have been supported, during all stages of pregnancy, delivery and puerperium, through to subsequent pregnancies. Women who had IUFD will be able to interact optimally with their internal as well as their external environment. The signs of distress may disappear more quickly than at present, with quicker normalization and improvement in activities of daily living, and improve the quality of their lives.

1.7.2 Midwives

Midwives might be equipped with the necessary skills to support women who had IUFD. Support from midwives in their encounters with women who had IUFD might improve for women in their care, promoting quality patient care due to the model that will be developed.

1.7.3 Health science

The findings and the knowledge gained during the study could stimulate additional interest to conduct further research on the identified gaps, such as how other family members are affected by the grief, answering some of the questions and bringing in new ideas in obstetric care. The health establishment as a decision-making body will be able to maintain and regulate practices within, using the available models to develop policies and standard operating procedures. Student nurses entering midwifery could benefit when the model is incorporated into their curriculum.

1.8 DEFINITION OF KEY CONCEPTS

The following concepts were operationalized, namely, intrauterine fetal death, model and support:

1.8.1 Intrauterine Fetal Death (IUFD)

Intrauterine fetal death (IUFD) is described by Abizadeh, Kipnis and Carter (2015); and Sellers (2018) as the death of the foetus before birth through to eight hours before delivery and it is deemed an abortion if the death occurs before 24 weeks' gestation. In this study IUFD refers to the foetus that has no signs of life in-utero, an ultrasound display no audible fetal heart sounds and woman reports reduced fetal movements.

1.8.2 Model

A model is a representation of reality, such as social workers using the system model to represent the interaction in the family system and to discover where the pathology lies (Barker, 2016). In this study the model was a graphic representation of a series of activities of interaction between women and related agents such as health care providers and the procedures followed for women who had IUFD to feel that they have been supported.

1.8.3 Support

The concept support as defined by Bach and Grant (2015) indicate attention and loving consideration that is given to people. In this study, support means attention and a loving consideration that a woman receives from midwives, friends or family after intrauterine death.

1.9 PARADIGMATIC PERSPECTIVE

A paradigm is a collective ideology and it entails that the principles of allocating a worth to the procedures are in alignment within the known practices (Chinn & Krammer, 1999). The purpose of this study was to develop a model to support women who had IUFD in Vhembe District of Limpopo Province, this dependent upon the meta-theoretical assumptions, theoretical assumptions of the model, the theory guiding the study, the grounded theory for model development and the methodological assumptions, as discussed below:

1.9.1 Meta-theoretical assumptions

Meta-theory are assumptions about reality, or a theory behind a theory (Brink *et al.,* 2017). This study's point of departure is the assumption that IUFD is the same as any form of death. Death is mourned sometimes in large numbers, but for a woman who has experienced IUFD she is left to mourn the death alone. The grief that a woman experiences during the time of grief is not fully acknowledged, and this negatively affects the quality of life for women. Therefore, the study held a hypothesis that a support theory might assist in the support for women who had IUFD.

1.9.2 Theoretical assumption

Support theory that this study was conceptualized upon is King's Interacting Systems Framework, defined in Alligood and Marriner-Tomey (2013) as an interactive nursing theory; followed by the grounded theory for model development by Dickoff, James and Wiedenbach (1968), and the methodological assumptions (Walker & Avant, 2005; and Chinn & Krammer, 1999). Each are briefly described below:

1.9.2.1 King's Interacting Systems Framework

King's Interacting Systems Framework (KISF) in Alligood and Marriner-Tomey (2013) KISF is defined as an interactive nursing theory that emphasize the need for communication in a meaningful manner and relevant to this study as it emphasize interaction between women and healthcare professionals and explains women as interacting at personal, interpersonal and social systems of wellbeing, as discussed below:

1.9.2.1.1 Personal systems

Personal systems are entities that are sensible and emotional. Responses from the environment are accumulated through senses. Mental health of a woman who had IUFD is compromised, since not only the physical is affected. It is all about how the woman's personal systems pull together after IUFD (Alligood & Marriner-Tomey, 2013). In aligning to KISF, the study explored and described the experiences of women which unfolded the interaction at personal, interpersonal and social level. This occurred in situational analysis phase, where women narrated their lived experiences.

1.9.2.1.2 Interpersonal systems

Interpersonal systems are poised as two, three or more personalities interacting in a given situation. Concepts associated with this system are, namely, communication and transaction (Alligood & Marriner-Tomey, 2013).

Communication: information is given from one person to another either directly in a face to face meeting or indirectly through telephone, television or the written word. Human beings communicate to achieve goals that are valued, goal directed human behaviour, to obtain balance for growth, development and performance.

This involves an exchange of information between persons for regulation and control of stressors.

The study allowed women the role and power to communicate their needs in terms of support following IUFD through qualitative in-depth individual interviews.

1.9.2.1.3 Social systems

Social systems are organized boundary systems of social roles, behaviours and practices developed to maintain values and the mechanisms to regulate those practices and rules. Concepts related to social systems are the organization, authority, and decision-making, where there is a dynamic and systematic process by which goal- directed alternatives are acted upon by individuals or groups to answer a question and attain a goal (Alligood & Marriner-Tomey, 2013).

The developed model has guidelines to regulate practices within health facilities as described by the participants. The study ensured that the social systems are achieved by developing, evaluating and validating the model.

1.9.3 Grounded theory for model development

Phase 1 of this study provided information regarding the kind of support women need for them to feel supported after IUFD and followed by the theoretical framework for the development of the model which was informed by the six elements of practice theory (Dickoff *et al.,* 1968). These were the agents, recipients, the context, processes, dynamics and outcomes which were populated by the study participants for each element, for them to feel supported, discussed in Chapter 4. The developed model was evaluated by purposively sampled evaluators, following Chinn and Krammer (1999) for its clarity,

simplicity, generality, accessibility and importance; this has been discussed in Chapter 4.

1.9.4 Methodological assumptions

This study used qualitative approach and explorative, descriptive and contextual and design through in-depth individual interviews to produce data that provides an understanding of what could be done to support women who had IUFD. The results from Phase 1 formed the basis for Phase 2, and ensured that the model developed in Phase 2 might be used to assist in nursing practice in the hospitals within Limpopo Province. This might promote the mental health of women and improve their quality of life. The methods used are discussed in detail in the following Chapter 2.

1.10 RESEARCH METHODS

The research methods used for this study are detailed in Chapter 2. The study approach was done in two phases. Phase 1 indicated the situational analysis, which formed the basis for Phase 2, the model development to support women who had IUFD in Vhembe District of Limpopo Province, South Africa. The situational analysis discussed the study, research design, population, sampling method, data collection, data analysis, literature control, ethical considerations, and measures to ensure trustworthiness.

1.10.1 Qualitative Approach

The study adopted a qualitative approach with exploratory, contextual and descriptive design. Qualitative approach as the method used for this study was adopted to allow women the opportunity to narrate their lived experiences, the

kind of support that women need was explored, as the experiences could not be quantified.

1.10.1.1 Exploratory

Exploratory design allowed the women's narrations to be explored, probing for more, and literature was explored to align with what women have said. The theoretical framework to guide the study was also explored.

1.10.1.2 Descriptive

Descriptive design allowed the researcher to appropriately describe the kind of support that women need through the given narrations, the kind of support women need was described, the structure of the model was described and the appropriate theory guiding the study was described.

1.10.1.3 Contextual

Contextual design allowed the study to be focused to the context, not allowing deviations from the study context, the setting, inclusion criteria and literature were aligned to the study context.

1.10.2 Study setting

The study was conducted in Vhembe District of Limpopo Province, which is predominantly rural and falls under the second centile of socio-economic status in South Africa. Pregnant women use primary health care and community health centers as the first contact with health care services, before they are transferred to hospitals for further management.

1.10.3 Sampling method

Sampling occurred in three stages, where purposive sampling was used to sample the district, sampling of the hospitals and sampling of the participants, as described in Chapter 2.

1.10.4 Data collection

The researcher was the main instrument for data collection through interviews. Effective communication and listening skills were applied while collecting data, as discussed in Chapter 2.

1.10.5 Data analysis

Data was analyzed following Tech's steps of data analysis, two themes were revealed and discussed in Chapter 3, which led to the model development in Chapter 4.

1.10.6 Literature control

Literature was explored that was aligned with the findings of the research study, and this was discussed under Chapter 3.

1.10.7 Ethical considerations

Throughout the study, ethical principles of justice, beneficence, privacy, anonymity, confidentiality and informed consent were adhered to, and these were discussed under Chapter 2.

1.10.7.1 Permissions to conduct the study

Permission to conduct the study was received from University Higher Degrees Committee, University Research and Publications Committee, Limpopo Department of Health, District Department of Health and Consent from the participants.

1.10.8 Measures to ensure trustworthiness

Credibility, dependability, confirmability and transferability were the measures adhered to, to ensure trustworthiness, as discussed under Chapter 2.

1.10.9 Phase 2: Model development

The model development is discussed in detail in Chapter 4, and includes the structure and the evaluation of the model.

1.10.10 Dissemination of the research results

The research results will be disseminated through: National Health Research Database (NHRD), Presentations at national and international conferences, Presentations at Health Seminars, Presentations at Health Summits and Publications at accredited journals.

1.11 CHAPTERS OUTLINE

Chapter 1: Overview of the study

Chapter 2: Research methodology

Chapter 3: Discussion of the research findings

Chapter 4: Model development

Chapter 5: Evaluation and Validation of the model

Chapter 6: Guidelines to operationalize the model

Chapter 7: Conclusion, Limitations and Recommendations of the study

References

Annexures

1.12 CHAPTER SUMMARY

Chapter 1 introduced the study, background of the study, the problem statement, research questions, objectives of the study, significance of the study, definitions of key concepts and paradigmatic perspective. Chapter 2 will discuss the research methodology, flow chart indicating Phase 1 (Situational analysis) and Phase 2 (Model development) of the study, the setting, population, sampling method, inclusion and exclusion criteria, data collection method, data analysis method, ethical considerations and measures to ensure trustworthiness.

CHAPTER 2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

The previous Chapter 1 introduced the study background, the problem statement, research questions, objectives of the study, significance of the study, definitions of key concepts and paradigmatic perspective. Chapter 2 discusses the research method, the research process indicating Phases 1 and 2 of the study, the setting, population, sampling method, inclusion and exclusion criteria, data collection method, data analysis method, ethical considerations and measures to ensure trustworthiness.

2.2 RESEARCH METHOD

Research method refers to a set of logical steps taken to answer the research question (Brink, Van der Walt & Van Rensburg, 2017; and Fraser, Cooper & Nolte, 2014). Research design is a systematic plan to study a scientific problem, the study defines the type (explorative, descriptive and contextual designs), data collection methods and the analysis plan. Research design is the framework created to seek answers to research questions, and ensure that the evidence obtained enables us to answer the initial question as ambiguously as possible. Research design included discussions of the possibilities that might be considered and not yet employed.

In this study, a qualitative approach, using explorative, descriptive and contextual design was relevant as it allowed narratives through individual interviews, and findings were not quantifiable, but disseminated as themes and sub-themes. The study focused on the development of a model to support women who had IUFD through interviews to identify and determine the kind of support

that they need. Participants were allowed to narrate their needs; these were transcribed, and transcribed scripts were analyzed to produce themes. The kind of support that women need to feel that they have been supported was explored and described.

The research methodology was conducted in two phases, namely: Phase 1, the situational analysis was guided by theoretical framework (King's Interactive Systems Framework) and consisted of the setting, population, sampling methods, ethical considerations and measures to ensure trustworthiness. The findings from Phase 1 formed the basis for Phase 2, the model development which was guided by Dickoff's six elements of practice theory, a model was developed, and evaluated using the approaches as outlined by Chinn and Krammer (1999) as illustrated in Figure 2.1

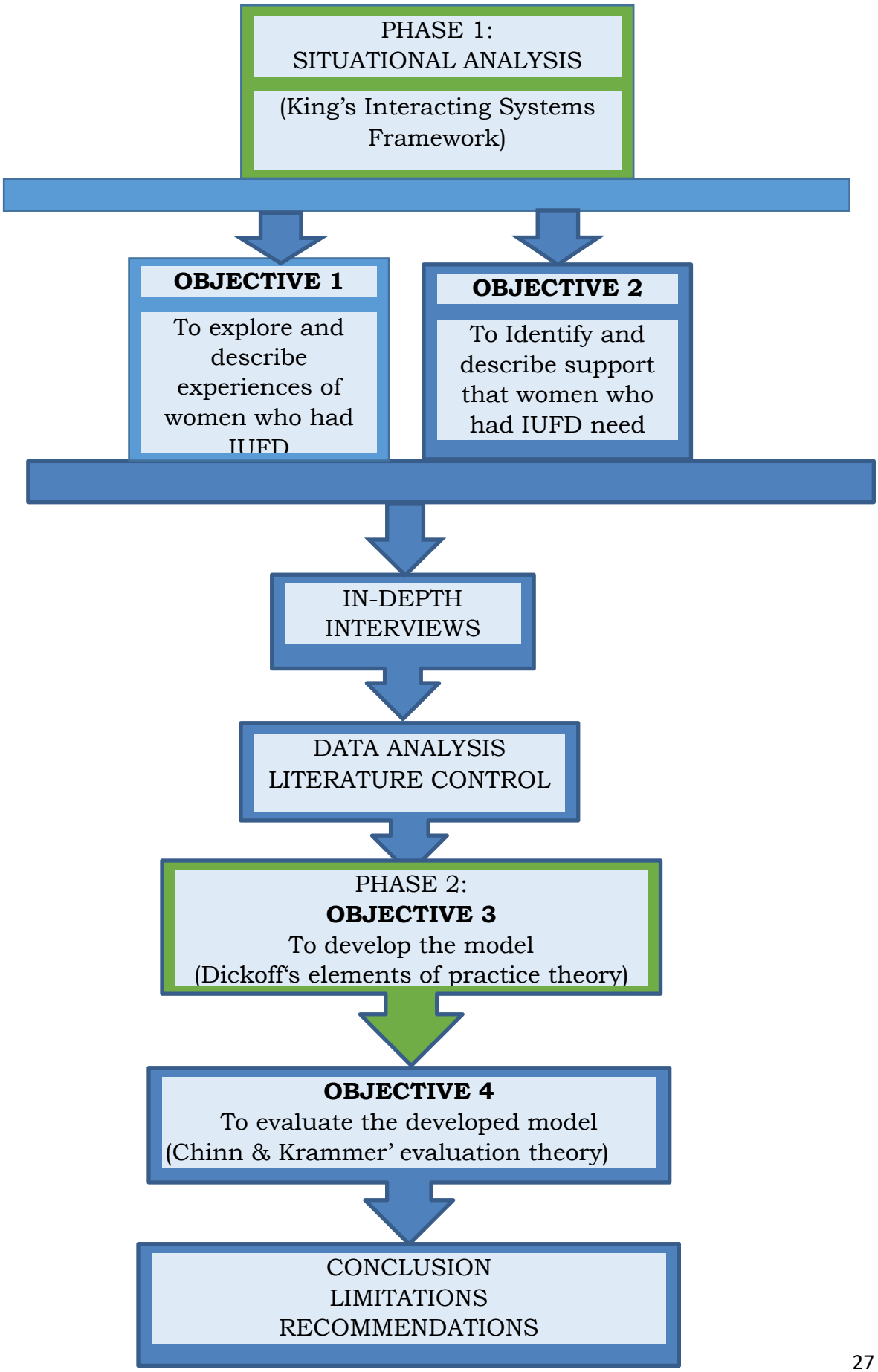

Figure 2.1: Research process

2.3 PHASE 1: SITUATIONAL ANALYSIS

Situational analysis is a comprehensive assessment of the current and projected health situation and their determinants fundamental to designing and updating national health policies, strategies and plans according to the needs (WHO, 2018). Situational analysis accurately describes the research approach, the setting, population, sampling method, ethical considerations and measures to ensure trustworthiness, to explore, describe and to determine the kind of support that women need. The research design that is chosen for this study is a qualitative approach, as described below.

2.4 QUALITATIVE APPROACH

Qualitative approach needs face to face contact with the research participants to promote understanding of human experiences, and findings cannot be generalized and quantified (Meyer, Naude, Shangase & Van Niekerk, 2014). Qualitative approach is the chosen approach to answer the purpose of this study to develop a model to support women who had IUFD. Personal interaction with the participants was done to listen to women as they narrate the kind of support that they need. Qualitative approach was relevant and effective in this study for its investigative nature. The questions asked were: could you please share with me your experience when you lost your baby before it was born, and the kind of support that you received? This was followed by probing questions. Narratives were reported through in-depth individual interviews. To achieve a qualitative approach, the study used exploratory, descriptive and contextual designs, which are discussed in the following paragraphs.

2.4.1 Exploratory

Exploratory design is more suitable where knowledge is scanty (Fraser *et al.,* 2014). An exploratory design was used to get reality regarding the kind of support those women who had IUFD need through individual interviews. The experiences of women were explored, the kind of support that women need was explored, the relevant theoretical framework guiding the study and relevant theories for the model development and model evaluation were explored, and literature control based on what the participants have said, was explored.

2.4.2 Descriptive

The purpose of a descriptive design was to gain more insight about the characteristics of situations and to provide a clear picture of situations being studied as they naturally happen (Brink *et al.,* 2017). Women were given time to accurately narrate their experiences. Through interviews, experiences of women were described in detail in Chapter 3, the needed support and literature control was accurately described in Chapter 3, following the kind of support that women need, a model to support women who had IUFD emerged from the data and was described in Chapter 4. The theory guiding the study was described in Chapter 1, the theory for developing the model was described in Chapter 4, and the theory for evaluating the model was described in Chapter 5. Transcripts of the interviews are attached in Annexure I.

2.4.3 Contextual

In contextual design, the phenomenon is studied for its intrinsic and immediate contextual significance in a setting free from manipulation (Grove, Burns & Gray, 2016; and Babbie, 2015). After exploring the experiences of women and the kind of support that women need, the study was focused on the context, refraining from entertaining any other things outside of the research topic. This study was

contextualized according to the topic, the purpose, population and the setting. This research study was done in a naturalistic context where women who had IUFD and have delivered in the hospitals in Vhembe District were interviewed individually in their own home, women who have delivered outside of Vhembe District were not be interviewed as they were out of context. Focus was maintained without any deviation or entertaining any other information or agenda outside of the purpose of the research study, and never allowed any divergence from the research topic. When the interviews were achieved, support derived from the interviews was accurately described, as discussed below.

2.5 STUDY SETTING

The setting is Vhembe District, one of the five districts of Limpopo Province. Vhembe District has four local municipalities and a total of 127 health care services that include six district hospitals that offer maternity services, and 1 regional hospital.

There are eight community health centers, 112 clinics in Vhembe District. Primary health care (PHC) is the initial step of accessing health services for diagnostics, treatment, referral and rehabilitation; some include 24-hr maternity services. Clinics and community health centers (CHC) are in close contact with communities and are served by community nurse practitioners. PHC and CHC provide care for pregnant women and refer to the district hospital under their clusters.

Maternity services include basic antenatal services. Pregnant women are diagnosed and booked according to BANC. After she has been diagnosed as being pregnant, a woman is booked at 20, 28, 32 and 36 weeks respectively and ones referred to the hospital for ultrasonography. It is during these antenatal visits when the woman is referred to High Risk Clinic (HRC) at the hospital if there is a need for further management.

2.6 POPULATION

Population is described as the entire group that was of interest to the study and met the criteria; it was the aggregate or totality of all objects, subjects, or members that conform to a set of specifications (Brink *et al.,* 2017; Grove *et al.,* 2016). In this study, the study population are women who had IUFD in selected hospitals in Vhembe District of Limpopo Province, South Africa, and whose details are extracted from those sampled hospitals to form part of the study.

2.7 SAMPLING METHOD

According to Grove *et al.* (2016); and Brink *et al.* (2017), sampling is a process whereby a sample is selected from the population to obtain information regarding a phenomenon in a way that represents the target population. For the purpose of this study, the district, hospitals and participants were purposively sampled, as discussed hereunder.

2.7.1 Sampling of the District

Table 2.1 below indicates District Health Information Systems' (DHIS) statistics on perinatal deaths for the financial year 2016/2017. Vhembe District indicates the highest number of perinatal deaths (includes stillbirths and early neonatal deaths), and also shows the highest contribution of deliveries in the Limpopo Province. This is shown in Table 2.1

Table 2.1: DHIS FY 2016/2017

District	Vhembe	Mopani	Waterberg	Sekhukhune	Capricorn (Referral Hospital)
Perinatal deaths (Stillbirths+ ENND)	686	669	394	677	1196
Contribution of Total No. of Deliveries in Limpopo Province	25%	20%	12%	21%	22%

Limpopo Province has five districts as indicated in Table 2.1. Capricorn District has two tertiary hospitals where all four districts in Limpopo Province refer their patients for further management. Inclusion and exclusion criteria of the districts, hospitals and participants are discussed below:

2.7.1.1 Inclusion criteria of the district

Vhembe District is purposively sampled and is found to serve the largest population in Limpopo Province, highest numbers in perinatal deaths and contributes 25% of total deliveries in the Limpopo Province according to District Health Information Systems (DHIS) in Table 2.1.

2.7.1.2 Exclusion criteria of the district

Four districts in Vhembe District have a lower rate of combined early neonatal deaths and stillbirths, thus the district did not form part of the study.

2.7.2 Sampling of the hospitals

There are seven hospitals found in Vhembe District of Limpopo Province that offer maternity services. Inclusion and exclusion criteria of the hospitals are discussed below:

2.7.2.1 Inclusion criteria of the hospitals

In this study, a purposive sampling was used to select hospitals that have shown a high rate of IUFD, above 20% per 1000LB, as indicated during one of the Maternal Health Summits which was attended.by midwives working in Vhembe District Hospitals.

2.7.2.2 Exclusion criteria of the hospitals

Hospitals that reflected a rate of IUFD below 20% per 1000LB were not included.

2.7.3 Sampling of participants

All women who vaginally delivered IUFD as reflected by the hospital register from the selected hospitals, were selected purposively. The total number of women who met the criteria were sixteen (16) and were all contacted and recruited telephonically which resulted in thirteen (13) of them consenting to participate in the study.

Three (3) women who declined had reasons and said: *"My husband said I should not participate" another one said, "I am pregnant, my family said I should not talk about my previous pregnancy"* Whilst the third woman indicated to be far away and would not be back until Christmas time.

2.7.3.1 Inclusion criteria of participants

Criteria specified population characteristics that were present for women to be included in the study (Grove *et al.,* 2016). The study selected women who had vaginal delivery of IUFD between January 2018 and June 2018; 18years and above; with no record or history of mental health problems; complete details such as the address and the telephone numbers on the register; regardless of parity, marital status, religious background, level of education, or employment status, and give consent voluntarily.

2.7.3.2 Exclusion criteria of participants

Exclusion criteria were the population defined in terms of characteristics that other women did not possess (Polit & Beck, 2013). The study excluded women who delivered IUFD through caesarean section; below the age of 18; with record or history of mental health problems; incomplete contact details on the register, delivered at home, delivered after June 2018 and did not give consent.

2.8 DATA COLLECTION

Data collection is a process of identifying participants and the precise, systemic gathering of information relevant to the research purpose and the specific objectives of the research (Grove *et al.,* 2016). The researcher was the main instrument and used interviews as the method of collecting data. The role of the researcher during data collection is explained in the following paragraphs.

2.8.1 Preparation

In this study preparation detailed how the research participants were chosen. This also applied to interview schedules. All participants were listed and contacted telephonically, rapport was developed. Participants were recruited

telephonically for them to participate in the study. During the telephonic conversation, self-introduction, brief explanation of the study, and consent was asked and an appointment was set, in a place where they felt comfortable, at their own homes as per their preference, at a time that was convenient to them. The date, time and venue were agreed upon by the participant. The participants were informed that they were under no obligation to participate in the study, and that if they did participate they had the right to withdraw at any stage of the interview. The use of an audio recorder was explained, that it was to record the conversation, and they were shown a stop button so that the recording could be stopped at any time as they may wish.

2.8.2 Data collection instruments

Data was collected through in-depth individual interviews. Women who had IUFD were interviewed using this method. The interview was directed by the following two questions which was then followed by probing questions:

"*As you had IUFD, could you please share with me your experiences*"

"What could have been done differently to make you feel supported?"

The interviews were transcribed verbatim into English and analyzed. The in-depth account presented a lively picture of the participants' reality, presented in words as narratives, using individual quotes. The raw data of in-depth interviews was recorded in non-numerical form.

2.8.3 Pre-testing

Pretesting is about verifying the ability of the research instrument to collect data and ensuring that the instructions on the instrument are clear (Brink *et al.*, 2017). Two women who were interviewed formed part of the pre-testing. This was

done to check the probing and exploring skills of the interviewer, and to check if the probing could address the objectives and achieve the purpose of the study.

The first pre-test interview (refer to Annexure F1) was recorded and transcribed then presented to the promoters. The promoters commented the followings:

- *To improve more on reflection, exploring and clarifying on issues as soon as they arise*

-To align the probing questioning with Dickoff's framework theory.

The second pre-test interview (refer to Annexure F2) was conducted which saw some improvements from women's responses following probing and eventually moving on into model development.

The findings of pretest in terms of the experiences of women who participated in the pretest formed part of the study findings since experience it is unique and valuable.

2.8.4 The role of the researcher

A qualitative approach was the main research instrument for data collection, effective communication skills were used to facilitate the interviews as mentioned by Babbie (2015); and De Vos, Strydom, Fouche and Delport (2014) and recorded, analyzed and interpreted data as conscientiously as possible. Rapport was established and an attitude of unconditional acceptance displayed with respect, empathy, honesty, openness and modesty, and appeared relaxed and as natural as possible. An explanation was done that they should feel free to explain and that their anonymity and confidentiality would be maintained, and there was no right or wrong answer, just a differing in the points of view. Participants were thanked for their participation at the end of the interview. Data were collected until saturation. The following was kept in mind throughout the interview:

- Active Listening: Listening skills were applied by paying attention throughout the interview process, maintaining eye contact, nodding the head and listening attentively to get information and draw a conclusion.
- Probing questions: Probing questions were asked, emanating from the participant's answer to allow participants to give more clarity.
- Clarifying: Clarity on statements that have been misunderstood to avoid assumptions and jumping to a conclusion.
- Reflection: Reflection was demonstrated by repeating the statement as mentioned by the participant in a question form, in the participant's own words for clarity, and for the participant to expand more on the specified points.
- Focusing: Participants were given full attention as they expressed their needs, focusing on the topic at hand, the kind of support that women who had IUFD in hospitals around Vhembe District need, and any other subject apart from the topic was not entertained.
- Paraphrasing: Rephrasing the responses in participant's own words, but with the same meaning, before probing for more. This encouraged the participant to give more information.
- Linking: Information was linked relatively, where narrations appeared distorted.
- Summarizing: Throughout the interview summarizing important aspects of what the participant said was done that assisted the participant to recall some of the things that she had forgotten to mention.
- Using silence: Silence was used by nodding the head and minimal verbal response saying "mmm", "yes", "continue" to allow free flow of information and to encourage participants to talk. This made participants feel more relaxed and more willing to talk. Eye contact was maintained, demonstrating to the participant that she was being listened to.
- Establishing trusting relationship: Empathy was applied to enhance mutual trust. Data was then analyzed following the steps as proposed by Tech in Creswell and Creswell (2017), discussed below.

2.9 DATA ANALYSIS

Data analysis means that categorizing, ordering and summarizing of data and describing them was done in meaningful terms (Brink *et al.,* 2017). The aim of analyzing data was to sort raw data obtained during data collection and organizing it in a manner that themes and sub-themes emerged from the data and addressed the research problem (Creswell & Creswell, 2017). Data analysis was explained, including discussion and explanation of any statistical tests (Fraser *et al.,* 2014). Data was analyzed after data saturation was reached. This involved transcribing the interviews word for word and arranging data into different themes and sub-themes depending on the participants' responses. Data was analyzed following a step-wise format as proposed by Tesch (Creswell & Creswell, 2017).

- Data were transcribed into English exactly as the participant had related it. Once data were organized and prepared for analysis, all transcripts were read and notes taken as ideas came to mind.
- The shortest document was selected from transcribed interviews, and all this was done for several participants, to find the underlying meaning.
- Thereafter, a list of all topics was put together, then topics were divided into columns of major topics and unique topics.
- From the list of topics, each topic was assigned an abbreviated and identifiable code. From the abbreviated list of topics, data segments were written next to the code.
- The most descriptive words from the topics were turned into themes and sub-themes. Related topics were grouped together, thus reducing the list of themes.
- Sub-themes were finalized on the abbreviations for each theme and alphabetized the codes.

- Data were assembled accordingly, each theme in one place, and a preliminary analysis was done using cut and paste method.
- Data was interpreted, reported and recorded as research findings. The findings formed the basis for Phase 2, the model development, as described below:

2.10 PHASE 2: MODEL DEVELOPMENT

Phase 2 of this study comprised of model development. In developing the model, certain aspects needed to be considered, such as the setting, population, sampling methods, inclusion criteria, exclusion criteria, ethical considerations and measures to ensure trustworthiness. The model was developed using the theoretical framework, elements of practice theory by Dickoff *et al.* (1968); and evaluation theory by Chinn and Krammer (1999). Details of the model are discussed in Chapter 4. During the collection of data, ethical considerations and measures of trustworthiness were adhered to throughout the study, as discussed below.

2.11 ETHICAL CONSIDERATIONS

The researcher's moral principles were maintained as well as ethical implications stated in De Vos *et al.* (2014); and Kotze (2016) by obtaining ethical approval from the University of Venda Higher Degrees Committee. Permission to conduct the study was obtained from the relevant stakeholders (Annexures A-E). The possibility of harm to the participant was avoided, including physical or emotional trauma or lowered self-esteem. Strategies to maintain participants' anonymity and confidentiality were maintained, as mentioned in Fraser *et al.* (2014), permission to conduct the study, information sheet, informed consent, privacy, confidentiality, anonymity, principles of justice and principles of beneficence are discussed below.

2.11.1 Permission to conduct the study

Permission to conduct the study was requested and received from the relevant authorities:

- University of Venda Higher Degree's Committee Research and Ethics Committee, refer to Annexure A
- University of Venda Research and Publications Committee (RPC), refer to Annexure B
- The Limpopo Province Department of Health, refer to Annexure C
- The Vhembe District Department of Health, refer to Annexure D
- Approval letters from selected hospitals, refer to Annexure E

2.11.2 Information sheet

Information sheet, according to the university's standard information sheet as attached (refer to Annexure G) indicate that information about the study was introduced to the participants, the names of the researcher, the purpose and the use of an audio recorder, including the ethical considerations were explained.

2.11.3 Informed Consent

Informed consent indicates that women participated voluntarily in the study after they were given information about the study (Grove *et al.,* 2016; and Meyer *et al.,* 2014). Participants understood the aims, objectives, data collection methods, duration and participation needed from them. Information regarding the purpose of the study was briefly explained to the participants, consent was obtained from the participants by signing a consent form (refer to Annexure H). Their particulars were drawn from the hospital register with permission of the relevant stakeholders which included selected hospitals' management.

Participants gave consent of their own free will without coercion, harassment, manipulation or any form of remuneration. Privacy and confidentiality were maintained. All this was done to ensure that participants were free to participate in the study.

2.11.4 Privacy

Freedom of the participant to determine the time, circumstances and extent of private information was maintained (Grove *et al.,* 2016). Participants' attitudes, opinions, beliefs, medical records and identity were not shared with people who were not involved in the research project. All information was kept away from any possible intruder, and all interviews were done in privacy upon the participants' own free will, in their own language and without intimidation from fellow family/community members. Participants were assured that whatever they said will never be used against them or to embarrass them and also an explanation into why an audio recorder was used.

2.11.5 Confidentiality

Management of private data was in such a way that none knew the subjects' identities or any link with their responses (Grove *et al.,* 2016; Meyer *et al.,* 2014). Information obtained through the research was not made available to other people. Information gathered was never shared with anyone outside the research team, such as close friends, family members or any other unauthorized persons. Research records were kept in such a way that they were inaccessible to unauthorized persons.

2.11.6 Anonymity

When reporting the collected data, anonymity was used to protect the names of the participants.

2.11.7 Principle of justice

Participation was voluntary and participants were selected and treated fairly and they were allowed to ask questions.

2.11.8 Principle of beneficence

Beneficence was maintained, doing well and above all avoiding harming the participants (Brink *et al.,* 2017). The well-being of participants was protected from discomfort. It was explained that there were no legal implications as a result of participants giving their opinions.

2.11.9 The right to self-determination

Self-determination was ensured by allowing participants to decide whether or not to participate in the study, including the right to withdraw from the study at any time should they wish to discontinue.

2.12 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness refers to a degree of confidence qualitative researchers have in their data, and is important to evaluating its worth. This was assessed by using the criteria of credibility, transferability, dependability, confirmability and authenticity (Brink *et al.,* 2017; and Polit & Beck, 2013). This also referred to employment of procedures to ensure accuracy of findings. The methods employed to ensure trustworthiness were credibility, dependability, confirmability and transferability which are all discussed hereunder.

2.12.1 Credibility

Credibility implies confidence in the truth of the data and the interpretation thereof (Brink *et al.,* 2017). Credibility depends less on sample size than on the richness of the information gathered as well as analytical abilities of the researcher (Glesne, 2016). This was achieved by ensuring that the population is accurately identified and especially knowledgeable about the phenomenon being studied. Credibility was ensured through prolonged engagement, and member checking, as discussed below:

2.12.1.1 Prolonged engagement

Prolonged engagement refers to the investment of sufficient time during data collection to have an in-depth understanding of the phenomenon under study, thereby enhancing credibility (Polit & Beck, 2013). Initially, participants were contacted telephonically during introduction, giving brief information about the study, setting an appointment and travelling to the participants' homes. Sufficient time was spent with the participants during data collection.

2.12.1.2 Member checking

Member checking means that feedback is provided to study participants about emerging interpretations and obtains their realities (Polit & Beck, 2013). In this study, member checking was done throughout the study as the recorded tape was played back to the participant and determined that what has been recorded was what they have meant during the interviews, and this assisted the participant to recall if there were some things that were not mentioned.

2.12.2 Dependability

The concept dependability implies a track able variable, which could be ascribed to identify sources (Lincoln & Guba, 2017). Dependability refers to provision of evidence such that if the study were to be repeated with similar participants in similar context, its findings will be similar (Brink *et al.,* 2017). In this study data was collected, transcribed, coded and retained for a period of time, to ensure authenticity, accuracy and consistency of the information. Cross-checking of codes was allowed, also known as inter coder agreement by other qualitative research experts to see whether the experts would code the same as the researcher.

2.12.3 Confirmability

Confirmability refers to the degree to which the findings are a function solely of the participants and conditions of research, not biases, motivations and perspectives. This referred to the degree to which neutrality of the research interpretations could be demonstrated through a confirmability audit. This was achieved by providing an audit trail consisting of raw data, analysis notes, reconstruction and synthesis products, process notes, personal notes and preliminary developmental information (Lincoln & Guba, 2017). Confirmability guaranteed that the findings, conclusions and recommendations of the study are not biased and are non-judgmental, but supported by the data. The researcher ensured confirmability by playing back the recorded audio during interviews and the transcribed verbatim was retained for verification.

2.12.4 Transferability

Transferability refers to the ability to apply the findings in other contexts and settings to other participants (Brink *et al.,* 2017). The findings of the study would only be transferable if a similar study was done in a population whose

geographical background and characteristics are the same as the population studied. Transferability of the findings could not be specified, but sufficient information and description could be provided that could be used by the reader to determine whether the findings are applicable to the new situation (Lincoln & Guba, 2017). The study ensured transferability by appropriately describing the geographical background and context information of participants, as these allowed other researchers to assess how transferable the findings are.

2.13 CHAPTER SUMMARY

Chapter 2 discussed the research methodology, research process indicating Phases 1 and 2 of the study, the setting, population, sampling method, inclusion and exclusion criteria, data collection methods, data analysis method, ethical considerations and measures to ensure trustworthiness. The following, i.e. Chapter 3 introduces the research results.

CHAPTER 3

PRESENTATION AND DISCUSSION OF THE STUDY FINDINGS

3.1 INTRODUCTION

The previous Chapter 2 discussed the methodology that was used to conduct this study, a flow chart indicating Phases 1 and 2 of the study, the setting, population, sampling method, inclusion and exclusion criteria, data collection methods, data analysis method, ethical considerations and measures to ensure trustworthiness. This Chapter 3 gives detailed information of the findings obtained from collected and analyzed data on the development of a model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province, South Africa. The description of the sample, identified themes and sub-themes that emerged during the interviews are presented in this chapter in detail.

3.2 DESCRIPTION OF THE SAMPLE

The sample for this study consisted of women who had intrauterine fetal death as outlined in Chapter 2. The sample comprised all 13 participants who met the inclusion criteria, and consented for this study. Profile of participants are discussed below:

3.2.1 Profile of participants

Participants are profiled according to parity and age, as illustrated in Figure 3.1 and 3.2.

Participants comprised primigravida (4), para 1 (3), para 2 (3), para 3 (1) and para 5 (2). Figure 3.1 illustrates the parity of participants.

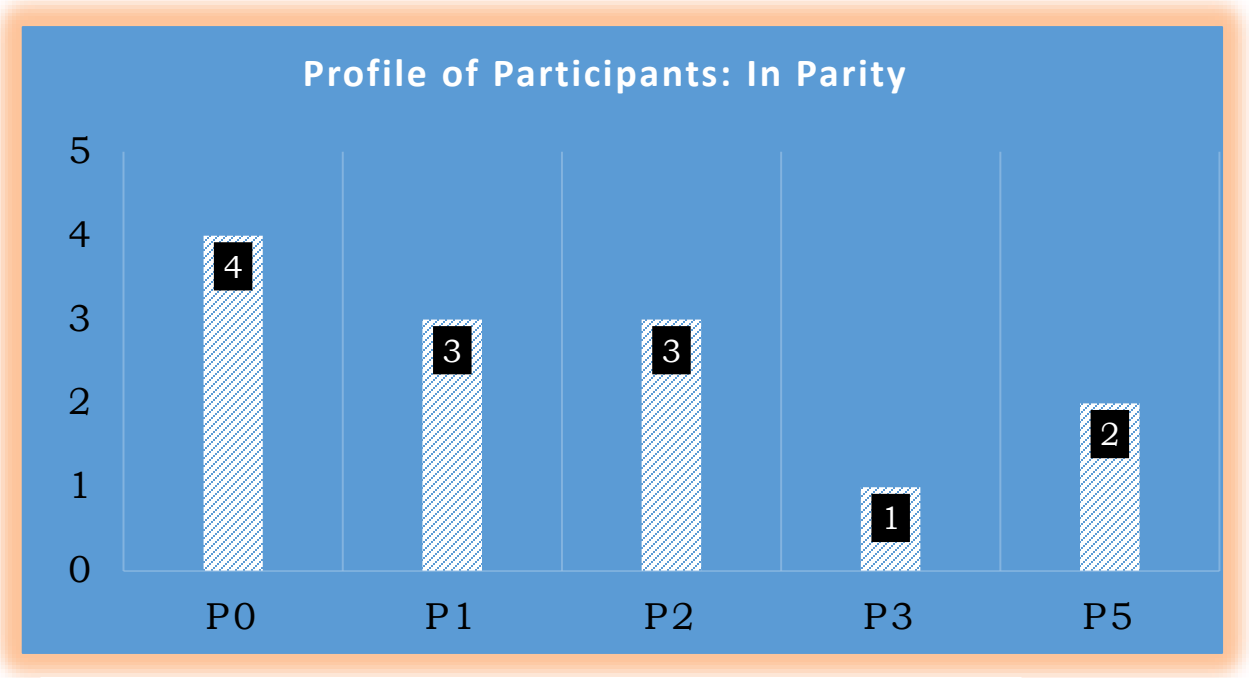

Figure 3.1: Graph represents Parity of women who had IUFD

Age of participants during the study ranged from 20 years to 45 years; from ages 20-24 (2), 25-29 (5), 30-34 (3), 35-40 (1) and 41-45 (2). The following Figure 3 shows the age ranges of the participants.

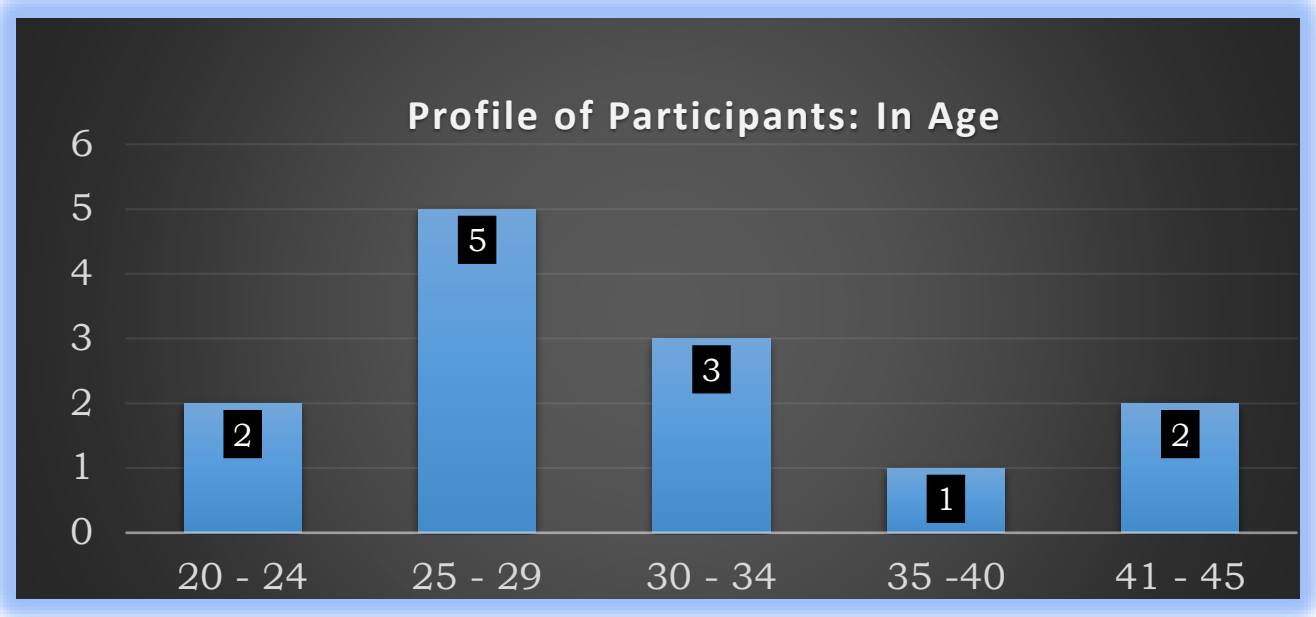

Figure 3.2: Graph represents Ages of women who had IUFD

by literature. The analyzed data revealed two themes with sub-themes as illustrated in Table 3.1

- Theme 1: Experiences of women who had IUFD
- Theme 2: Needed support by women who had IUFD

3.3 THEME 1: EXPERIENCES OF WOMEN WHO HAD IUFD

Participants narrated their experiences of IUFD, which emerged as theme 1, experiences of women who had IUFD, and five sub-themes, which are emotional response, somatic danger alerts, physical ill health, mental health problems and congenital fetal defects. Table 3.1 illustrates Theme 1 and sub-themes.

Table 3.1: Theme 1 and sub- themes

Theme 1	**Sub-themes**
Experiences of women who had IUFD	1.1 Emotional responses
	1.2 Somatic danger alerts
	1.3 Physical ill health
	1.4 Mental health problems
	1.5 Congenital fetal defects

3.3.1. Discussion of Theme 1: Experiences of women who had IUFD

Experiences of women align with the theoretical framework in King's Interacting Systems Framework (KISF) where the theory refers to personal systems, in this case, women defined as entities that are sensible and emotional then accumulate senses from the environment (Alligood & Marriner-Tomey, 2013). In this study,

women were given the platform to narrate their experiences of the IUFD which were coded as emotional responses, somatic danger alerts, physical ill health, mental health problems and congenital fetal defects. These are fully presented below.

3.3.1.1 Sub-theme 1.1: Emotional Responses

Emotional responses are displayed through thoughts and feelings which constitute women's awareness, indicating her internal environment, her ideas, attitudes, values, experiences and commitments. This study analyzed data revealed that upon realizing that something was wrong, immediately a message was sent to participants' minds which triggered their emotions. The emotional responses of participants to UIFD include curbing the worries, protecting self and loved ones, professional silence, shattered hopes, emotional pain and blaming.

3.3.1.1.1 Curbing the worries

Women normalized lack of babies' movement by curbing their worry for the baby. All participants develop their own interpretation such as the baby might be tired and is safe. Despite various evidence concerning normal fetal movements during the third trimester, there is a possibility that women were advised that the baby moves less towards the end of pregnancy. This made it difficult for women to distinguish decreased movements from lack of movement. Some participants narrated to be in denial as they concealed their worries from others, not wanting to display their disappointment, but consoled themselves by thinking that since they felt that they did not feel movement, the baby might be tired, or that the baby is too big. This was revealed by this participant:

"…On arriving at the clinic, they checked me, and the nurse (midwife) told me she couldn't feel anything, I told myself that the baby might just be tired…" (P7)

Another participant thought that since the pregnancy was at its last trimester, the space inside the uterus had diminished, and the baby had settled in its position. The response was as follows:

"…I thought since the baby was too big, there was not enough space to move around and it has settled down into a correct position, nothing is wrong…" (P1)

The research findings correlate with a study by Linde, Georgesson, Pettersson, Holmstrom, Norbeg and Radestad (2016) indicating that women become worried when they experience reduced fetal movements, but again could not distinguish these movements from contractions, the study state that women tried stimulating the fetus, thinking that there might be decreased movements towards late pregnancy.

3.3.1.1.2 Protecting self and loved ones

After hearing news of the IUFD, some participants kept it to themselves, unable to tell their relatives, some did not know how to tell their relatives, and needed to be given time. Furthermore, findings revealed that the parity and gravity status influenced how participants reacted to the sad news.

Few participants wanted to tell their family about loss of the baby but couldn't because they were overwhelmed by emotions and not ready to talk. Therefore, nurses are the once who informed their relatives about IUFD and said:

"…Because I was unable to phone my mother, I was unable to tell her telephonically, she was told by nurses (midwives)… I did not know how to tell her, and I was crying, unable to talk…" (P9)

Another woman managed to hide their disappointment and refrain themselves from disclosing the news to their relatives and said:

"…I didn't tell my relatives anything, it was my own secret…it was painful, but not yet time, I held on, just walking around without telling anyone…" (P8)

Furthermore, the study findings revealed that some participants took the news of IUFD as something which could be overturned, that maybe there could be a change from what the health professionals have said. They distanced themselves from the worst scenario – which was that the baby had died. Participant said:

"…When they first told me that my baby is dead, I thought they were not serious…" (P4)

"…I told the doctor that before he could do anything, he must give me the whole day so that I could be sure that there is no longer any baby kicks… the doctor agreed and I spent the day trying to feel that there were indeed no movements, of which I felt nothing…" (P5)

A study by Kiguli, Namusoko, Kerber, Peterson and Waiswa (2015) affirm that women with IUFD suffer shame and self-pity in solitude, due to the social stigma around the deaths, there are lack of knowledge regarding the causes as well as potential solutions. Their study further alludes that affected women are left to bore the burden without relating their feelings, women weep in silence, as there are no support for affected women (Kiguli *et al.,* 2015).

3.3.1.1.3 Professional silence

The non-verbal response from the health professionals are some of the experiences that the women revealed. Participants revealed that healthcare professionals, after making a diagnosis of the IUFD, just mumbled something, used silence or only talked to each other which made them sense that there is something that is not right. Some participants were afraid to ask for clarity from the nurses upon sensing, through their maternal instincts, that something might be wrong, instead, they harbored the feelings with them and felt left out. Participants depicted these statements:

"…I went for my 28 weeks scan and the doctor mumbled something to the nurse and walked out of the room. …I didn't know what he said so thought I could see that something is not right…" (P6)

"…The silence worried me, it would have been better if the nurses at the clinic had talked during the examination there, explaining what they saw or what was puzzling them, I was supposed to have been told at the clinic that the baby is dead… at the examination room the nurses there were communicating with each other without involving me in the discussion…" (P2)

To the contrary, other women narrated to be brave and to ask for clarity, they were able to stand up for what they believed in, their maternal instincts were immediately engraved in the following narrative:

"…They didn't say anything…everybody was totally silent, and I asked them 'what's going on, what's happening?'…they didn't say anything so I thought it could be serious, then I got out of bed and asked them again looking them and they were all talking to each other but not to me…obviously if you are lying there and you're expecting a baby and they don't tell you anything, then you imagine all kinds of things…"(P3)

A study by Andre, Dahlo, Eilertsen and Ringdal (2016) acknowledge silence by health care professionals as a response to an adverse outcome, that they tend to withdraw from the situation, although the reaction tends to be misinterpreted as inadequate patient care, this is how health care professionals display their emotional reaction, unexpressed, no communication, just silence.

3.3.1.1.4 Shattered hopes

Most women in this study expressed the feeling of shattered hopes when they uttered statements such as, losing the baby at seven months, while they were initially told everything was well without any problems, and never missing routine antenatal appointments, making all the preparations for the baby. Their hopes were shattered since, because IUFD occurring late into pregnancy, women were looking forward to having a baby. The following quotes substantiate this:

"…I never missed a single date, but realized that the nurses at the clinic only used to say all is well and that I should go home, until when I get to hospital I was told my baby is dead…When I lost my baby it was the same week that I went to the clinic. There is no greater pain than when you have waited for nine months, and told yourself that you will be carrying your baby, you have already bought the baby clothes, you know…Just like when attending at the clinic, I do think by the time you are around six to seven months you have to be taken to the machine to see if the baby you are carrying is well, and also how is the baby's heart…" (P3)

"…This one I carried until it was the 7th month, I did book because the last time I went to the clinic was in December when I was six months pregnant, and I lost my baby at seven months in January…" (P1)

"…At first everything was fine, I also attended clinic until around December, there were no problems,…I went to the clinic because it was my due date of my check-up, they checked me and found that everything was fine…The same week, around 08:00 in the morning I went back again after I checked myself and found that I was bleeding…When I arrived at the hospital it is then that they checked me again and told me that there is no more heart beat, I was given a pill and thereafter I delivered and my baby was no longer alive…" (P2)

"…I felt like I misunderstood what was being said, imagine spending the whole nine months and making all the preparations for the baby, only to be told the baby is not alive…" (P6)

The findings of the research study correlate with Gerber-Epstein, Leichtentritt and Benyamini (2016) when indicating that the greater the expectations of joy, the more painful it is when the hopes get shattered, due to grounded belief of fertility and the role of being a woman, because the loss undermines a woman's worth and motherhood.

The above narrations are in-line with Lindgren, Malm and Rådestad (2016) when indicating that the separation, going home empty-handed, letting go, leaving the baby at the hospital goes against a mother's biological instinct, this encounter is unprepared and ruins the expectation of motherhood women felt during pregnancy. This study revealed disappointment as a type of mental health problem, because women are unable to get over those feelings without support.

3.3.1.1.5 Emotional pain

Most women reported emotional pains as they felt hurt when remembering how they had waited for nine months, well prepared for the baby's arrival, with baby clothes already bought. They have indicated that the experience was unpleasant, something that was not hoped for. Women indicated not accepting what had happened. This was combined with how they were treated at the hospital, with most women reporting that the treatment was not good. This was indicated in the following quotes:

"…When I lost my baby I felt hurt, and I felt I needed someone who at least learned to assist me…I think that by talking to me, and I believe that by just talking to me I could have felt better…" (P2)

"…When I got to hospital I was told my baby is dead…When I lost my baby, I was hurt, it was the same week that I went to the clinic. There is no greater pain than when you have waited for 9 months, and told yourself that you will be carrying your bundle, you have already bought the baby clothes, you know, even you, if you go to school it means you are expecting something after you finish school…

but I do understand that after this happened, after they sent me to a psychologist, myself I did not go back because I did not want to be reminded about my misfortune, because I did not want to be always talking about it…" (P13)

In acknowledging the negative emotions, and women felt that their experiences were emotionally negative, Osman and Kersting (2017) indicate that IUFD encompasses several dimensions of loss for women, such as loss of future nurturance, loss of self-identity, and loss of anticipated motherhood. Therefore, women who had IUFD have a need to recover from their emotions, need acceptance and recognition of the validity of their grief and to avoid living in loneliness while suffering emotional pain (Osman & Kersting, 2017).

3.3.1.1.6 Blaming

This study findings revealed that all participants experienced a feeling of blame and declare that someone is responsible for the death of the baby by blaming themselves and others.

Study findings revealed that few women are more inclined to blame themselves for the IUFD, the anger, the self-blame provides a powerful indicator of how women construed their emotional experiences. This has been substantiated by the following narratives:

"…I couldn't believe it, I felt angry, but the anger was directed at myself thinking I have done something wrong, that maybe there must have been something that I did for this to happen…" (P3)

"…I used to blame myself that maybe what I ate led to the loss of my child, but all that has gone, and I look forward to raising up my other three children…" (P1)

In support of the above narratives, Adolfsson, Larson, Wiljma and Bertero (2010) state that women tend to blame themselves that maybe the loss has been through something that they did, eaten or thought, and thus grieve their

profound loss. Similarly, Women who encounter IUFD tend to blame themselves, tend to feel guilty about the loss even to subsequent pregnancies, reports Herz (2014), and becomes further increased if the woman was ambivalent about her pregnancy. Though the study did not investigate whether the pregnancy was planned or not, the feelings of blame were reported.

One participant reported to blame her spouse as the cause of enough stress to lose the baby.

"…Myself I used to blame my husband, thinking that he was the one who caused me stress that lead to the death of my baby…My husband used to give me too much stress, and I thought that it lead to me losing my baby…" (P2)

In contrary, majority of participants blame the health professional services that the sub-standard care they were provided with had led to the loss, substantiated in the following quotes:

"…My experience of it all was not good…At the hospital the support was not good, they took time in assisting me, I think my baby could have been alive if I was assisted on time…" (P4)

"…I never missed any of my due dates…my experience of it all was not good…If on my arrival I was attended to as soon as I arrived, I think my baby could have been alive…" (P3)

"…There were no nurses to accompany me, the ambulance personnel told me they are unable to take me if there are no nurses to accompany me, they had to leave me. Another date was booked for me…When the other date which was booked for me arrived, still there were no nurses to accompany me to the other higher hospital, and they had to leave me behind again. It was around those days that when they checked me they found that my baby was no longer alive…I felt the pain that I was not well treated at the hospital, because maybe if I had gone to see the specialist, maybe I could not have been in this situation…this pains me a lot even now…" (P7)

"…Those who went to school should know that this baby who is about to be delivered by an elderly woman, we could assist her by allowing the baby to be delivered earlier before it is due, like at eight months and a half, maybe the baby could have been alive, it was supposed to be that way, like a woman that I attend church with, her baby was delivered at eight months…She has said the doctors after assessing her saw that if they wait for the full term, the baby could die… Acceptance is what is needed, after all its God's doing, even when it happened to me, I only blamed the services at our hospitals…" (P3)

"…So, after they gave me a pill I had contractions until the early hours of morning, around 04:00 I delivered, but the nurse who assisted me was very nice, I did not have a difficult birth, but after the delivery there was no space, I had to sleep on the floor and they kept me with other women who had babies, which for me I did not enjoy…I still believe that if nurses had assisted me earlier and given me a bed, and also placed me in a place far from women who were having live babies, I could have felt better…" (P11)

"…Yes, when I first went to the clinic, I was six months pregnant. When I arrived there they took my Bp (Blood pressure), they also took my urine, and told me that everything was okay and even they checked my heartbeat…maybe if they checked me earlier they could have done something to save my baby…I think that I was assisted as soon as I arrived, I could have come back with an alive baby…" (P5)

The reports from the participants agree with a study by Gold, Sen and Leon (2017) who state that women who had IUFD attributes the blame to healthcare personnel, testifying that if something was done differently, their babies would have been alive.

3.3.1.1.7 Conclusion of sub-theme 1.1: Emotional responses

The study findings indicated that women had emotional responses which consisted of curbing the worries, protecting self and loved ones, professional

silence, shattered hopes, emotional pain and blaming. Emotional experiences emanated from circumstances surrounding the expectation and the delivery of the baby, from those experiences women were able to discuss their experiences in detail. The study explored how women emotionally responded to loss and their narratives highlighted the emotional responses due to the loss.

3.3.1.2 Sub-theme 1.2: Somatic danger alerts

The danger alerts were the indications that women experienced in the body while they were still at home, before contact with professional health care. According to participants, these alerts were feelings that informed them that something was not right in-utero before labour begun. These signals are forewarning and communication with the baby, discussed below.

3.3.1.2.1 Forewarning

Throughout the pregnancy a woman does feel some movement and they are used to feeling those movements. Getting used to the baby while still in the womb, helps women realize when there is a change. According to participants, these changes were referred to as a forewarning sign that something is not well in the womb and made them wonder if everything is still normal. Participants reported feeling stillness, painful umbilicus, vomiting, headaches and reduced fetal movements. Some reported that the baby did not kick like other days, they thought that maybe if they could change position the baby might move. The findings reveal that primiparous did not identify day to day changes, but the changes were only notifiable after some time in contrast with the multiparous women. The following quotes attest there to.

"…I did not feel anything at the time, by month end August I started to feel that there were no fetal movements…my umbilicus was painful…my baby was still…" (P2)

On the other hand, women who are of advanced maternal age and multiparous were able to wake up during the night to listen to the baby's movement, revealing that they were able to form strong bonds with the yet unborn baby, and are immediately aware if there are sudden fetal movement changes, unlike the primiparous. Diagnosis of IUFD is based on the absence of fetalheart tones, or lack of uterine growth during prenatal examinations. The following quotes reads:

"…I used to wake up at night because when the baby moved, but I slept all that night and woke early and the first thing I felt was the stillness in my stomach…" (P3)

"…I spent the whole day alone trying to feel that there were movements, of which I felt nothing… but I knew that when I went to the clinic because I had a problem that I did not feel the baby kicks like the other days… and at the clinic they did tell me that they could not hear anything…"(P1)

Osman and Kersting (2017) found that most participants indicated knowing the danger signs, which women have been taught to look out for at antenatal care Additionally, Jamal and Agarwal (2017) discuss issues of alertness and introspection as being important to reduce recurrence and incidence of IUFD, coupled with timely interventions. Both studies acknowledge that although IUFD causes are sometimes not explained, IUFD could sometimes be preventable.

3.3.1.2.2 Communication with the baby

Participants narrated the manner in which they communicated with the baby as a warning sign that something was not right. The feelings of motionlessness in the stomach and lack of kicks from the baby when a woman is expecting movements were perceived as unusual behavior. Therefore, when women actively sought contact with the baby by attempting different means of communication in the form of eating food, drinking or washing with water or by changing position, no response came from the baby. After realizing that there was no movement, primiparous did not worry much and said:

"…When I woke up in the morning I felt no movements…I just turned over to my other side of my stomach…. I thought that maybe the baby was just turning… I ended up just staying but there were no movements…" (P4)

To the contrary, upon realising the lack of movements, multiparous women immediately sensed that something is wrong and tried to re-establish contact by eating and taking a bath. This is because of the bond that the multiparous women had already developed with their yet unborn child. They depicted the following:

"… There always used to be a movement which I knew that everything is okay. One day I did not feel any movement, I then nudged and turned to another side… still there was no response, I then realized that my baby is in trouble. …" (P5)

"…I woke up in the morning and I couldn't feel the fetal movements… I went to the Tshitanga (outside hut used as a kitchen) and stayed there until late… then I went to wash myself… still I could not feel any movements…I then ate food thinking that my baby will move as usual… drank plenty of water…they (midwives) had said that I should drink cold water… still the baby never responded…" (P1)

In agreement , a study by Baghdari, Sahebzad, Kheirkhah and Azmoude (2016) report that fetal heartbeat, fetal movement and fetal response to outside stimulus are the means whereby mothers communicate with the fetus, this is interpreted as maternal fetal attachment or bonding. This relationship occurs when pregnancy begin. This indicates continued maternal affect and mothers could not shake off the belief that something might be wrong if they feel a change in the fetal response or movement.

3.3.1.2.3 Conclusion of sub-theme 1.2: Somatic danger signs

Study findings revealed that women were aware of the danger signs, forewarning and communicating with the baby are identified, indicating that the attachment

that was already formed with the baby made it possible to immediately sense when there were decreased fetal movements.

3.3.1.3 Sub-theme 1.3: Physical ill health

Data revealed that some participants experienced physical ill health before they were diagnosed to have IUFD. These physical ill health are the medical conditions that are related to IUFD. Majority of participants expressed to have had medical conditions which has caused the death of their babies. These medical conditions include feeling of pain, vaginal bleeding and discharges, running stomach, elevated blood pressure and diabetes mellitus. These are revealed by the following narratives:

"…I just felt pain, which became worse by afternoon, and during the night that I was even unable to sleep, until in the morning when I took a taxi to the hospital…" (P1)

"…I went to the clinic because it was my due date of my check-up, they checked me and found that everything was fine…The same week, around 0800 in the morning I went back again after I found that I was bleeding…When I arrived at the clinic still I was bleeding, they told me they are referring me to hospital as the baby's heart was also not beating properly…" (P2).

"*…I went to the clinic during my ninth month, when I was in pain and also I was having discharge…It was only for a day, but during the previous month on my eighth month I went to the doctor and they told me everything was ok…At the clinic the nurses checked me and they told me they could not hear the baby's heartbeat, and they said I should go to hospital, by the time I arrived at the hospital the pains were worse. On arrival I was sent to the sonar machine, where the doctor confirmed that there was no heartbeat…"* (P6)

"…I went back to the clinic, it was when I was eight months pregnant, this was around the time that I was going to deliver, and they said my baby was breech

and told me if there is anything I need to go to the hospital. The same week I was having a running stomach (watery stools), it was around Thursday, and I went to the clinic, when I arrived there they called an ambulance to take us to the hospital. When I arrived there at the hospital they didn't help us, they were asleep. Later they came and gave me the hospital clothes, they checked my file and called the doctor…" (P5)

"…When they checked me they told me that my baby was not growing properly, and also they said my Bp (blood pressure) was high…They then referred me to hospital, and on arriving at the hospital they checked me and told me the same thing that my baby was not growing well, and I should see a specialist, they booked a date for me at a higher hospital…I was not discharged, I was there the whole time, until the said date to see a specialist arrived…" (P7)

"…I was in hospital during February when I was told that there is no more a fetal heart, I was able to get sympathy and I was able to accept, like now I do not have any problem. I have sugar, I used to attend high risk clinic at the hospital because of sugar, even when I was admitted at hospital during my last month I was suffering from sugar. Yes, I have accepted it well and I was able to move on with my life, just like right now, as you are speaking to me, I am pregnant again…" (P9)

The study participants affirm with the study by Osman and Kersting ((2017) by knowing that their medical conditions might have been responsible for losing their baby, such as being diabetic, worsening pain, diarrhoea, elevated Bp (Blood pressure), per vaginal bleeding and discharges. The women reported that what they needed from the health care professionals was a rapid response to their physical conditions.

Murphy and Merrell (2009) indicate that a hospital setting is highly influential in shaping the care that health care professionals give to women, and this care influences women's experiences. In addition, Schott, Henley and Kohner (2016) state that women need good information about the importance of monitoring their baby's health during antenatal care, but despite keeping up with antenatal

care appointments, the outcome of a pregnancy cannot be guaranteed, as this study revealed. Sometimes IUFD occurred due to failure on the part of health care professionals, to not accurately diagnose or timeously refer patients whilst still at antenatal care.

3.3.1.3.1 Conclusion of sub-theme 1.3: Physical ill-health

From the participants' narratives, it is evident that women had medical conditions, such as elevated blood pressure, diabetes mellitus and antepartum hemorrhage at the time of IUFD. It is in this light that, Wojcieszek *et al.* (2018) state that in the subsequent pregnancies, women with a previous unexplained IUFD should be recommended to undergo a high risk antenatal care, and to have a screening for gestational diabetes. But, for women in whom a normally formed stillborn baby had shown evidence of being small for gestational age, serial assessment of growth by ultrasound biometry should be recommended. The history of a current IUFD should be clearly marked in the maternity case record and health care professionals should ensure they read all the notes thoroughly before seeing the woman (Wojcieszek *et al.,* 2018).

3.3.1.4 Sub-theme 1.4: Mental health problems

The study reveal that apart from physical ill health, the mental health of a woman who had IUFD is also compromised where some participants indicated that they were having insomnia, flashbacks of the incident, and nightmares following IUFD. Participants said:

"…It became worse during the night that I was even unable to sleep…" (P1)

According to Zammit, Hoskins and Lewis (2017), post-traumatic stress disorder is characterized by sleeping pattern disturbances, after suffering a loss, which

lead to difficulty falling asleep or having too much sleep, the study findings also confirm that some women suffered from difficulty falling asleep.

"…There was a time when I could not accept what has happened to me, even though my mother used to take care of me here at home…because sometimes it comes back…I imagine the time when I gave birth to him, I could still see that my baby was having peeled skin here on his back…" (P5)

"…I was left to wait the whole night while sitting on the sofa…Then the pain worsened, I gave birth right there and my baby fell down, the nurses were there and they did not assist me, I was told to pick up the baby myself, my experience was not well…It did not make me well at all, as a person who did not know what was happening, I felt that I should have been assisted…it still come back, the whole thing come back, especially when I am left being alone, it comes back even when I am alone, I can't get over it…Everything, especially when I remember the part when I was told to pick up my baby myself…" (P13)

Women with poor social support are particularly vulnerable to post traumatic stress disorder (Wojcieszek, Boyle, Belizán, Cassidy, Cassidy, Erwich, Farrales, Gross, Heazell, Leisher & Mills, 2018). Debriefing services must not care for women with symptoms of psychiatric disease in isolation. Though most women were referred to a psychologist after the birth of the baby, their circumstances surrounding the birth were not addressed, post-traumatic stress disorder emanated from having the flashbacks of seeing the dead baby, and were not addressed at psychological care. Women who had seen their stillborn baby had greater anxiety and more symptoms of post-traumatic stress disorder than those who had not, and their next-born babies were more likely to show disorganized attachment behavior (Wojcieszek *et al.,* 2018).

3.3.1.4.1 Conclusion of sub-theme 1.4: Mental health problems

The findings from the study indicate that women had elements of mental health problems, such as insomnia, recurrent flashbacks and nightmares. A model that

could be developed will accommodate circumstances that happened surrounding the birth experience, as this was the vital part that led to women having mental health problems, as discovered during the interviews, and support women to become mentally stable despite the occurrence of the IUFD.

3.3.1.5 Sub-theme 1.5: Congenital fetal defects

Majority of women reported the experience of fetal abnormalities that were discovered during routine antenatal care at primary health care such as that the baby's heart was not beating properly, the baby was not growing properly, the baby was breech, the baby was not growing well and even some were told that the fetal heart could not be heard, which indicated that the baby was already dead in-utero.

One woman reported seeing protruding intestines of the baby, indicating structural defect while the baby was still in-utero and said:

"…On arrival at the hospital before they could even ask what the problem was I started pushing, and the child came out with intestines hanging out, and it was dead …" (P1)

Studies by Meyer, Shaffer, Doss, Cahill, Snowden and Caughey (2015) is supported by the above narrative when reporting that the increased risk for IUFD after 32 weeks gestation in fetus with gastroschisis (intestines hanging outside the abdomen). The anomaly is detectable by ultrasound.

Some women narrated their experience of their babies not having the heart beat and said:

"…At the clinic the nurses checked me and they told me they could not hear the baby's heartbeat, and they said I should go to hospital, by the time I arrived at the hospital the pains were worse. On arrival I was sent to the sonar machine, where the doctor confirmed that there was no heartbeat …I later felt the pains worsening,

I called the nurses and they immediately responded to me, I pushed, the baby came out dead…" (P6)

"…When I arrived at the clinic, they told me they are referring me to hospital as the baby's heart was not beating properly…When I arrived at the hospital it is then that they checked me again and told me that there is no more heart beat, I was given a pill and thereafter I delivered and my baby was no longer alive…" (P2)

"…It was when I was eight months pregnant, this was around the time that I was going to deliver, and they said my baby was breech and told me if there is anything I need to go to the hospital…The doctor asked the nurses why I was not assisted as soon as I arrived because now my baby has died, maybe if they checked me earlier they could have done something to save my baby…The doctor checked me and said my baby is dead, the doctor showed me that there was no heartbeat, the baby was dead, the baby had died inside my womb…" (P5)

Da Silva, Gonik, McMillan, Keech, Dellicour, Bhange, Tila, Harper, Woods, Kawai, and Kochhar (2016) state that intrauterine fetal death is independently identified from real-time ultrasonography. They agree that the ultrasound gives an accurate diagnosis of intrauterine fetal death in the absence of fetal heart sounds, by presenting a picture of increasing degeneration and absent cardiac motion, occasional rise of intra-cardiac gas from maceration following fetal demise. This presence of gas in the heart and circulatory system alters the photographic image of the fetal body, poor visibility is secondary to tissue maceration. The study confirms that there are a series of changes in the fetal body that are identifiable by the ultrasound.

Most women experienced intrauterine fetal the growth retardation as informed by the health professionals during their antenatal care and said:

"…When they checked me they told me that my baby was not growing properly, and also they told me I had Bp…They then referred me to hospital, and on arriving at the hospital they checked me and told me the same thing that my baby was not

growing well, and I should see a specialist, they booked a date for me at a higher hospital…" (P7)

"…I attended high risk clinic and…was told that the baby was not growing well, they said the baby is very small…" (P8)

"…It started when I went for my check-ups, they told me my baby is not growing, and they referred me to hospital…Around six months again I was referred to hospital by the clinic nurses…I asked them what was the problem, they said that the baby's heart is not beating well, I was admitted to hospital again, the doctor checked me and told me that he cannot feel the baby's heart, as you know that the heartbeat is the life of the baby, when they told me I understood that it means there was no life anymore…" (P10)

Congenital defects, as stated by Heazell, Budd, Li, Cronn, Bradford, McCowan, Mitchell, Stacey, Martin, Roberts and Thompson (2018) state that, the defects and malpresentations contribute to IUFD, and alterations in the frequency of fetal movements are vital in predicting the birth outcome, thus women need to become aware and identify reduction in the fetal activity.

3.3.1.5.1 Conclusion of sub-theme 1.5: Congenital fetal defects

Findings of the study, indicate that women went through the unimaginable emotions of seeing the different kind of the fetal defects, which for some women also formed part of their long-lasting negative emotions that formed the basis of this study. Fetal defects were indicated in this sub-theme as fetus delivered with intestines outside of the abdomen, malpresentations, reduced fetal movement and reduced fetal heart rate.

3.3.2 Conclusion of Theme 1: Experiences of women who had IUFD

Through in-depth unstructured interviews, women were given an opportunity to narrate their experiences. Study findings revealed a theme, experiences of

women who had IUFD, and five sub-themes namely; emotional experiences, somatic danger alerts, physical ill health, mental health problems and congenital fetal defects. The study findings are supported by literature.

3.4 THEME 2: NEEDED SUPPORT AS PERCEIVED BY WOMEN WHO HAD IUFD

Participants' reports align with the KISF's theory for this study, by acknowledging the women's emotional pain, and indicates that support is important to women who had IUFD and depend on the interaction with their internal and external environment. This interaction between the internal environments involves experiences that a woman has regarding IUFD, the external environment shows the need to feel supported after IUFD. KISF further states that women try balancing feelings of anxiety, fear and worries for their own health and life; they try to reach their maximum functioning abilities, despite being in the midst of emotional pain. Table 3.2 depicts Theme 2 and sub-themes.

Table 3.2 Theme 2 and sub-themes

Theme 2	Sub-themes
Needed support as perceived by women who had IUFD	2.1 Prioritized and emergency care
	2.2 Holistic quality care
	2.3 Family involvement
	2.4 Availability of resources at primary health care level

3.4.1 Discussion of Theme 2: Needed support as perceived by women who had IUFD

Theme 2 consisted of four sub-themes, namely; prioritized and emergency care, holistic quality care, family involvement and availability of resources at primary health care level. The sub-themes are discussed below.

3.4.1.1 Sub-theme 2.1 Prioritized and emergency care

All participants were vocal in need for prioritized emergency care upon arrival at the health facilities irrespective of whether the baby is alive or not. These are depicted in the following narrations.

…This started when nurses at the clinic sent me to hospital, after the baby's heart was not felt…When I arrived at the hospital, I was in pain, a nurse at maternity said to me she was going to lunch, I remained there not knowing what to do, but it seems something told her to go back because she returned about 10 minutes later, when she returned she checked me and phoned the doctor…I would have preferred to be attended quickly on arrival, as I was in pain, I felt like they were not taking me seriously, remembering that I was attending high risk clinic, I should have been attended quickly…I had done caesarean in 2013, I had a cord prolapse, and this also happened because I was not attended timeously, it happened while I was still sitting on the sofa, my waters broke, when they checked me they found I was having a cord, it was then that I was taken for caesarean immediately…I believe that all pregnant women must be treated as an emergency, regardless of whether her baby is alive or not, for a person who loves her job, every-one must treat other women like she would like to be treated…" (P11)

"…If they checked me earlier they could have done something to save my baby. He told them that if I arrived by ambulance it means that it was an emergency, and I should have been assisted as an emergency…I only heard it from the doctor when he checked me, when the doctor checked me he also inserted his hand inside me, after that he took my file to check the time when I arrived at the hospital, that

is when he realized I should have been helped a long time ago…I think that if I was assisted as soon as I arrived, I could have come back with an alive baby, as I was feeling pain when I arrived and I was not checked…I did not know what was going to happen to me, I feel that if they have assisted me sooner on my arrival…" (P5)

"…At the hospital the care was not good, they took time in assisting me, I think my baby could have been alive if I was assisted on time…If on my arrival I was attended to as soon as I arrived, I think my baby could have been alive…I think that if women could be attended to as soon as they arrive at the hospital, in that way women could feel that they have been well cared …" (P4)

"…No, for me I did not get any support, because I was not assisted timeously on my arrival, I think that if I was assisted as soon as I arrived, I could have come back with an alive baby, as I was feeling pain when I arrived and I was not checked…'(P9)

For me to feel that I was not supported, I think that as I was feeling pain, and this was my first child, I did not know what it is that was going to happen to me, I feel that if they have assisted me sooner on my arrival, that way I was going to feel that I have received support…" (P2)

The above narratives are validated with a study by Flenady, Wojcieszek, Middleton, Jaap, Erwich, Coory M and Yee (2016) that indicate that women require prioritized and emergency care with the health of the fetus consult health care due to perceived danger in the fetus that they are carrying.

3.4.1.1.1 Conclusion of sub-theme 2.1: Prioritized and emergency care

Sub-theme 2.1 consisted of prioritized and emergency care, where women verbalized prompt interventions which was to be initiated upon arrival. Women

required to be attended immediately upon their arrival at the hospital, as they thought that maybe something could be done to save the baby.

3.4.1.2 Sub-theme 2.2 Holistic quality care

Some participants reported the need for holistic quality care wherein they indicated to be assisted by someone with good communication skills and be provided with counselling services by the health care professionals. These are revealed in the following quotes:

3.4.1.2.1 Effective communication

Majority of participants reported effective communication, wherein they indicated they did not want to be yelled at, to be assisted by someone with good communication skills, and to be sympathetically and empathetically addressed by the health care professionals and through counselling services, depicted through the following quotes:

"…It was when I arrived and before I could take my file, water was draining out, they gave me a wheelchair…A nurse came and pushed a bit here on my stomach and shouting, then the baby came out…For me when a woman is in pain, she does not want to be yelled at, because delivery is painful and every woman knows that, very painful, it requires that those who are assisting a woman should quickly do so without wasting time. Even when she calls for help, they should be there for her and assist her …" (P1)

"…For me when a woman is in pain, she does not want to be yelled at, because delivery is painful and every woman knows that, very painful, it requires that those who are assisting a woman should quickly do so without wasting time. Even when she calls for help, they should be there for her and assist her …" (P8)

"…Those who are knowledgeable should know these things. If there are things which might go wrong those who went to school should know that this baby who is about to be delivered by an elderly woman, we could assist her by allowing the baby to be delivered earlier before it is due, like at eight months and a half, maybe the baby could have been alive…" (P3).

"…The nurses and the doctors addressed me well when telling me that the baby is no more, the way they told me was well received, and I felt they sympathized with me…I think this should be done to all women who had lost their babies" (P12)

In agreement, Baile and Blatner (2014) state that effective communication is a core competency for a patient-centered collaborative practice, there is evidence of a link to positive patient outcomes, has bereavement benefits and reduce the

symptoms of mental health problems (Baile & Blatner, 2014). Poor communication skills have been shown to be a predictor of poor mental health outcomes. Health professionals should receive specific education on how to break bad news sensitively and a specialist midwifery needs to provide emotional support for women (Baile & Blatner, 2014).

Similarly, Schott *et al.* (2016) state that good communication ensures that women receive high-quality, sensitive and consistent care and information from all staff during and after an IUFD and is one of the most important elements of bereavement care for women during and following IUFD.

3.4.1.2.2 Professional Counselling services

Majority of women in this study were vocal about the need for professional counselling services to be provided by a professional person when coming and talking to women who had IUFD. The statements were as follows:

"…When I have lost my baby I felt hurt about it, and I felt I needed someone who was at least learned to assist me…I think that by talking to me, I believe by just talking to me I could have felt better…The support should be given by someone who has learned about talking to people who have been through the same tragedy, like a psychologist, or someone who knows how to talk to people…" (P2)

"…The support should be given by someone who has learned about talking to people who have been through the same tragedy, like a psychologist, or someone who knows how to talk to people…Yes, even the psychologist should give her other dates that the woman should go back…" (P11)

"…I think there is a need for someone from the hospital who needs to come and talk to me, maybe someone like you, since we have been talking I do feel relieved to feel there is someone who cares for me and understands what I have been through…Explanation that could be given is about what could have happened, like myself, I did not even know that when my waters broke what it meant, including

what could have happened to make me lose my child…If nurses could visit me at my home and give me a talk, just like you have done, I could feel that I have been supported…" (P5)

The above narratives from the study participants are in congruent with Baile and Blatner (2014) when indicating that a system should be in place to give clinical and emotional support for those involved with an IUFD. Similarly, Miller, Meredith, Temple-Smith and Bilardi (2019) in a qualitative study identified that both women and their partners need support through counselling.

3.4.1.2.3 Conclusion of sub-theme 2.2: Holistic quality care

Holistic quality care was reported, apart from clinical care that is given, as the need for effective communication. Effective communication, as literature indicate, is both sympathetic and empathetic, which improve positive patient outcomes. Participants again reported the need for professionals counselling services as someone who is a professional, who knows how to manage women in their grief, or even one who has been through the same incident.

3.4.1.3 Sub-theme 2.3: Family involvement

Some women narrated the need for family involvement from as early as possible by the health professionals. The family involvement will form the primary support to a bereaved woman and will assist the bereaved woman of attending to the community comments relating to the loss as illustrated in the following quotes:

"…It was only when a lot of people knew what had happened, and they stopped asking questions…When the family is able to explain to the community, those that have the interest to know what has happened…The family should be the one that tells the people who are asking questions…The family should tell them as myself

when people ask me, it brings back the memories of my loss, and I find that I don't know how to tell them…" (P6)

"…The other support was from my late mother in-law, she supported me throughout until I regained my strength, even from reading the bible I learned a lot…She never left me alone, She made sure that we did everything together as a family, jiving to music, watching Muvhango on TV together, in that way I felt that they supported me…" (P3)

"…I did not know where to say this, I only told my mother here at home… I *used to talk with my mother here at home…"* (P11)

Additionally, Wojcieszek *et al.* (2018) state that members of the women's family, including the siblings and woman's partner, can be severely affected by the loss. For women who experienced IUFD, family members and existing children are affected too and information is needed on how they can support their children recover from their loss, family relationships can be adversely affected if women have great difficulty coping with the loss.

Few participants reported the need of spousal support during the bereavement period and said:

"…Most of the support that I received came from here at home, my husband understood the pain that I felt about losing my child, he never even went out drinking, and seeing that he was also affected helped me to realize that I was not alone in the grief…" (P1)

"…A pregnant woman is like a baby, she needs to be treated like one by the person closest to her, her partner…It is when he treats me like a baby, when he is always there for me, not staying out with his friends…When my husband has given me support, even when I have lost the baby I can't blame him and it is easier to overcome the grief…" (P10)

The narration indicates that the involvement of the partner in the bereavement process. This is in-line with Bamniya, Bhatia, Doshi, and Ladola (2018) when

reporting that though health care providers should provide psychosocial support during antenatal, delivery and postnatal care, ongoing support involving the husband should be available where needed.

3.4.1.3.1 Conclusion of sub-theme 2.3: Family involvement

Family involvement was reported as needed support. Family involvement was regarded as the support from the mother of the woman, even the mother-in law, as well as the husband. Participants indicated that their support is shown when they show congruency in the grief. Literature indicate that the spouse are able to offer on-going support outside of a hospital setting.

3.4.1.4 Sub-theme 2.4: Availability of resources at the primary health care level

Most women reported availability of resources at primary health care facilities, where women reported provision of medical doctors at clinics, provision of patients' escorts to next level of care, and provision of diagnostic equipment at clinics, this is depicted in the quotations below:

3.4.1.4.1 Medical doctors

Some participants reported the need for availability doctors at clinics, who will see pregnant women there and only refer to next level of care when necessary. They vocalized the following:

*"…There should be a date when there is a doctor at the clinic so that they could see if everything is well and send a woman to hospital only when there is a problem… You know how difficult it is to see a private doctor, not all of us could afford…" (*P3)

"…Doctors, I believe doctors should be at clinics as well, when I am sent from hospital I am sent not understanding what has gone wrong. Nurses do not explain, they just write in your file and send you to hospital, and we don't know what is written there as we could not read their language…" (P4).

Studies by Nkosi, Horwood, Vermaak, Cosser and Haskins (2014) indicate that although primary health care is provided by registered nurses working at clinics, doctors based at hospitals conduct little clinic visits, the study report frequent changes and late comings by doctors visiting the clinics, lead to lack of forming meaningful relationships, both with staff and patients. On the other hand, doctors felt lack of essential equipment and drugs clinics. Support by doctors is welcomed, but nurses feel that doctors should spend time at clinics during their visits, and recommended that hospital managers should support doctors and ensure that the clinic visits are prioritized.

Additionally, doctors' views are supported by studies by Jung, Jo, Kim, Jang, Eun and Lee (2019) discovered that although people need primary health care services, they have indicated that clinics should be more equipped, more facilities and more qualified doctors who are able to diagnose and treat patients at primary health care level.

3.4.1.4.2 Patients escort

Other participants reported the need for a patients' escorts, to accompany women when they are transferred to next level of care. The nurses who accompany women are needed as a form of advocacy, where they advocate for women on arrival to the destination, the following quote depict this:

"…I would say that if there is anywhere that a woman would be transferred to another specialist doctors, let her be accompanied by nurses who are only there to assist in the accompaniment of the patients, because without them, the patients

are left behind… Our government or our hospitals should provide the nurses for accompaniment…" (P7)

A study by Nkurunziza (2015) indicate that a Right to Health Care Program which is district based and made of clinicians and district clinical leaders was initiated in Rwanda to ensure that patients who are escorted to referral hospitals receive quality medical care, complete information and appropriate care when they arrive at the referring destination (Nkurunziza, 2015). Patients escort build strong relationships, easy communication and sustains patient care between both sides.

Additionally, a study by Awoonor-Williams, Bailey, Yeji, Adongo, Baffoe, Williams and Mercer (2015) indicate that referral systems, where patients are transferred to next level of care, reduces dependancy on public transport. Patients' escorts ensure that patients arrive at their appropriate receiving facility after they have been alerted, and there is higher rate of feedback in both sides. The transferring system ensure that guidelines and facilitation mechanisms are utilized (Awoonor-Williams *et al.,* 2015).

3.4.1.4.3 Diagnostic equipment (Ultrasound machines)

Participants reported the need for ultrasound machines at primary health care, which must be made available for women attending antenatal care, this makes it easier for women to be monitored at primary health level, only to be sent for high risk when there is a need to be seen by a specialist, and the following was quoted:

"…I understand that sonar should not only be at the hospital, also at the clinic, since us pregnant women we spend most of our time at the clinic, even when there is a sonar, …Our government, they should bring a sonar and also a doctor who is experienced to operate the sonar, so that women are assisted at the clinic…" (P3)

"…there should be a date when there is a doctor at the clinic so that they could see if everything is well using a sonar and send a woman to hospital only when there is a problem…" (P5)

A study by Kim, Singh, Moran, Armbruster and Kozuki (2018) state that the use of ultrasound improves patient management, by diagnosing obstetric conditions and gynaecological conditions, and encourage women to adhere to antenatal clinic attendance (Kim *et al.,* 2018). Availability of ultrasound is not intended for determining fetal sex, but for improved management of obstetrics and gynaecological conditions (Kim *et al.,* 2018).

Similarly, Gururaj (2017) state that obstetric ultrasound is an essential element of antenatal care in High Income Countries (HIC) in accessing high quality examinations in obstetric care. The use of ultrasound guides in decision-making for referral practices of emergencies due to lack of essential equipment at primary health level (Gururaj, 2017).

3.4.1.4.4 Conclusion of sub-theme 2.4: Availability of resources at primary health care facilities

Availability of resources at primary health care facilities was reported by the participants. Availability of doctors, patients' escorts and ultrasound machines were mentioned. These were supported by literature where their availability was emphasized. Availability of these resources at primary health facilities improves obstetric management, the support and quality patient care.

3.4.2 Conclusion of Theme 2: Needed support as perceived by women who had IUFD

The support that women needed to be given at the time of IUFD was reported as prioritized and emergency care, holistic quality care, family involvement and availability of resources at primary health facilities. The needed support were

objectively described by women themselves, indicating that there is a gap in the current support. The integral part of this study was to determine and describe the support needed by women who had IUFD; this objective was met in this theme when women narrated how support should be provided. Through this study women revealed their needed support.

3.5 CHAPTER SUMMARY

This Chapter 3 presented, analyzed and discussed the data. Two themes and sub-themes that emerged from data were analyzed and discussed. The findings were supported by literature. The objectives of phase 1, the situational analysis were:

- Objective 1-To explore and describe the experiences of women who had IUFD
- Objective 2-To identify and describe support that women who had IUFD need

Objectives 1, and 2 were answered in Theme 1, experiences of women who had IUFD, and Theme 2, needed support by women who had IUFD. The study was aligned to King's Interacting Systems Framework as the theory relevant that guided this study. This theory discusses interaction at personal, interpersonal and social levels to achieve a goal. At personal level, women's experiences were explored and described. At interpersonal level, women's perceived support was reported, and at social level, needed support by women who had IUFD was described. The findings in Phase 1 met objectives for Phase 1, and formed the basis to proceed to Phase 2, the model development, to be discussed in detail in the next Chapter 4.

CHAPTER 4

MODEL DEVELOPMENT

4.1 INTRODUCTION

Chapter 3 presented and discussed the results regarding the experiences of women who had intrauterine fetal death, and the needed support as perceived by women who had IUFD. In this Chapter 4, attention will be given to the theoretical framework for the development of the model, the model description the purpose, the structure and the process of the model.

Dickoff *et al.* (1968) survey list was utilized to ensure a logical development of the model. Women's descriptions provided the basis for the needed support during Phase 1 of the study, and the theoretical framework by Dickoff guided the development of the model.

4.2 THEORETICAL FRAMEWORK FOR THE DEVELOPMENT OF THE MODEL

The theoretical framework for the development of the model was informed by the elements of practice theory outlined by Dickoff *et al.* (1968), these are context, agents, recipients, procedure, dynamics and outcomes. They are briefly explained below and are described and applied after data analysis of this study.

4.2.1 Context of the model

This is where the activity is performed. The context is viewed from the aspect of the matrix of activity, it is seen in relation to other things, including persons and other activities, and to see the interrelation of these other factors as constituting an organism, unity, or total context of activity. Furthermore the authors refer to the "context" as the setting, location, the physical structure of ward or unit, hospital, or medical center, time, space, or structure that constitute different elements of the situation in which the activity occurs (Dickoff *et al.,* 1968). In this study, findings revealed that women need support at the clinic, hospital and

at home. The context in which the model should be implemented is characterized by the different roles that each agent plays with regard to support for women at hospitals, clinics and at home where women stay. Figure 4.1 indicate the context:

Figure 4.1: Context

4.2.1.1 Hospital

The hospital according to Bush (2017) is defined as a place of specialized competency and education and emphasizes development of knowledge based in clinical practice. In addition, the Ideal Hospital and Maintenance Framework (IHMF) (2018) defines a hospital as having good infrastructure such as physical condition and spaces, and this is ideal for women who had IUFD as they require privacy, away from noises of crying babies, as the study revealed, and a place where women expected support, such as in the statement *"…If doctors could talk nicely and know that they are here to assist a person who cannot assist himself…they are here to assist a person who cannot assist himself…both at the clinic and in hospital…"*

Furthermore, the IHMF (2018) further states that the hospital should have use of adequate and appropriately managed staff, including a multi-disciplinary team and the provision of evidence based clinical practice, this is evidence based on findings from research are used in clinical trials.

In addition, communication and information for continuously improving quality of clinical care and uses patient experiences. This evaluates the quality of care provided, but is in contrast with findings as the study revealed inadequate care. Hospitals use integrated people-centered health services approach that encompass a continuum of care of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, over the different stages in the lifecycle of a person, IHMF (2018).

However, according to the IHMF (2018), clinical services are organized in terms of 24-hour services, ideal for emergency health services, obstetric and in-patient services, eight hour (day) services for ambulatory health services of outpatients, catering referrals from a lower level of care, such as from Primary Health Care (PHC) and Community Health Centers (CHC) obstetric services and other health support services. Hospital as a context is where women after they are diagnosed

IUFD, are referred for further management. Women expect quality care, revealed as talking in a nice way that shows sympathy, separating women who had IUFD in the wards from women who had live births, clear rules and directions at maternity and providing basic patient care.

Women are diagnosed initially at PHC where there are no doctors, as the study revealed, and these are attached to hospitals whereby after initial diagnosis, if the need arises, women are then referred to the next level of care, in this case the hospitals.

4.2.1.2 Clinic

Thesaurus dictionary (2016) identifies a clinic as being devoted to the diagnosis and care of outpatients at free or reduced costs. They receive medical treatment, advice and the clinic is connected to a hospital for the referrals. On the other hand, the IHMF (2018) defines an ideal clinic as a clinic with good infrastructure (i.e. physical conditions and spaces, essential equipment, and information and communication tools), adequate staff, adequate medicines and supplies, good administrative processes, and adequate bulk supplies. Such a clinic uses applicable clinical policies, protocols and guidelines, as well as partner and stakeholder support, to ensure the provision of quality health services to the community. It also cooperates with entities including government departments, public entities, private sector and non-government organizations to address social determinants of health.

Clinics were identified as the context. Clinics are where women have an initial encounter with health care, a statement *"…there should be a date when there is a doctor at the clinic so that they could see if everything is well and send a woman to hospital only when there is a problem. You know how difficult it is to see a private doctor, not all of us could afford…"* indicated this, and according to the IHMF (2018), clinics to be adequately equipped to play their role in diagnosing, treatment and rehabilitation. This study has revealed that since women spend

most of their time at clinics during antenatal care, they lack ultrasound machines. Clinics are the peripherals of hospitals and need to be equipped with ultrasound machines and a doctor, for problems to be identified quickly and referred, this could improve service delivery and patient care. The study revealed that if problems are identified sooner, interventions could be timely implemented and women would feel that they have received support.

4.2.1.3 Home

In their studies, Smith and Moore (2012) indicate that enhanced home visitations improved health literacy, and that depressed women have shown an improved gain. This indicates that visitations by health care providers increase mental health for women who had IUFD.

The study findings revealed a correlation when women report the home context to symbolize home visits by the nurses, such as in a statement *"… If nurses could visit me at my home and give me a talk, just like you have done, I could feel that I have been supported…"* home visits by counsellors, husband giving support at home, family acting as woman's advocate at home and receiving sympathy from relatives and neighbors at home.

4.2.2 Agents of the model

An agent is any person whose activity leads to the realization of the goal (Dickoff *et al.*, 1968). Questions that may be asked are: Who or what performs the activity? Will they be the experts, government officials, psychiatrists, physicians, midwives, et cetera? In this study, women identified agents as Doctors, Nurses, Family and Spouse. The study identified these agents to play a key role in the improvement of mental health in women. Figure 4.2 indicate the agents:

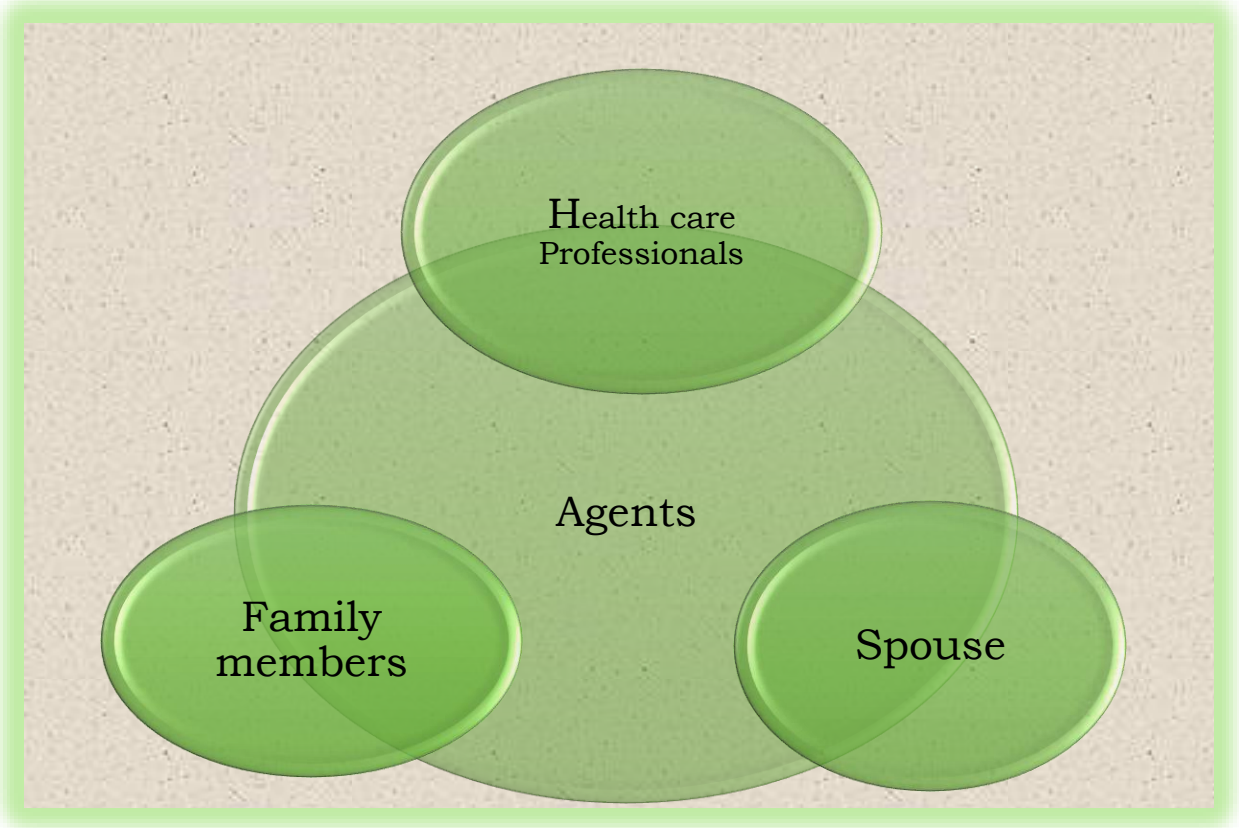

Figure 4.2: Agents

4.2.2.1 Health care professionals

Health care professionals are found in a hospital setting, they comprise doctors, professional nurses with psychiatry and midwifery, advanced midwives, advanced psychiatric nurses and psychologists. Scarf, Rossiter, Vedam, Dahlen, Ellwood, Forster, Foureur, McLachlan, Oats, Sibbritt and Thornton (2018) identified that in obstetric care team work is critical, this team work approach reduces adverse events. Scarf *et al.* (2018) further indicated good communication to build a loyal and a trusting relationship between the health care professionals and the patient, and improve long-term health outcomes. Ramsden, Pryor, Bose, Charles and Adshead (2018) affirmed in indicating that women need sympathy, to be treated as partners in their care, they need information and detailed explanations of what is happening in their health. To achieve that, as the study revealed, there is a need for communication, meaning that health care

professionals need an improvement on how they communicate with women in their care.

Literature indicates that women need holistic quality care from the multi-disciplinary team, which include support from the midwives (Cacciatore, 2013). The involvement of social workers is required in the immediate and long-term support. Midwives where the delivery occurred are in the frontline of providing professional support, but the need for professional support after IUFD differs depending on the support provided by family and friends (Cacciatore, 2013.

This study's results revealed that what women need from health care professionals is holistic patient care. This is supported by Tant (2018) indicating that midwives must skillfully and compassionately meet the physical, emotional and physiological needs of women and WHO (2018) indicated that stillbirth requires an integrated, respectful and supportive approach, indicated by the statement *"…Nurses should give themselves time to explain…"*. Women wanted information, such as the cause, clarity, and just basic information of whether they could conceive again. Most of the time there was silence, the silence became the basis for inadequate support for which this study was based. If health care professionals could improve in the communication, following the identified dynamics and procedure, there could be a favorable outcome.

According to KISF, social systems are defined as social roles, behaviors and practices developed to maintain values and the mechanisms to regulate those practices and rules, where there is a dynamic and systematic process by which goal-directed alternatives are acted upon by individuals or groups to answer questions and attain a goal (Alligood & Marriner-Tomey, 2013).

In aligning to KISF, health care professionals should allow women the role and power to communicate, their needs in terms of support following IUFD through qualitative in-depth individual interviews. The developed model will have the status and the authority to regulate practices within health facilities.

4.2.2.2 Family

Merriam-Webster (2019) defined that previously "family" was used to refer to traditional family, that included a mother, father and the siblings, but currently there are different kinds of families. They could be blended, meaning to include step-parents and step-siblings, extended to include the in-laws, single parent families, etc. but what defines a family is the loyalty, respect, love, responsibility, sharing a common goal, values and long-term commitment.

In this study, when women referred to family, they indicated support from a traditional family, since most women indicated that through their grief they have expected their mothers to have the same feeling of grief, advocating for them. This shows that women felt protected when they are surrounded by their families. Advocacy by the family was indicated in the statement *"…Family must assist in dealing with those who are asking questions…They should explain to those asking questions…"*

4.2.2.3 Spouse

Edwards, Birks, Chapman and Yates (2018) in their studies identified that men do grieve, but less intensely than women. However they do not have increased depressive reactions, this difference in their grief reactions increases depressive reactions in women. On the other hand, Avelin, Rådestad, Säflund, Wredling and Erlandsson (2013) indicate that misunderstandings and relationship problems with a spouse during the time of grief increases stress. Her studies further indicated the need for the spouse's support, this was reveled in the statement *"…A pregnant woman is like a baby and should be treated as such by her partner…"* and when that support was not provided, women perceived the spouse as being negative. This study concurs with other researchers when indicating spousal support, indicated as being present in the home, without the spouse going out to his friends during the grief period.

Feelings of blame were also identified in this study and confirmed in Avelin *et al.* (2013) that these feelings of blame caused tension in the relationship. The study recommended working together as partners and communicating their feelings to each other, this would assist in avoiding causing added pain, tensions and misunderstandings, avoiding mirroring each other, but alongside each other in the support, never judging or accusing each other, or expecting or secretly demanding.

4.2.3 Recipients

Recipients are all those persons who receive action from agents and benefit from the activity (Dickoff *et al.,* 1968). Questions associated with recipients are: Who or what is the recipient of the activity? The findings of this study revealed that women who had intrauterine fetal death indicated themselves as the beneficiaries of the procedures from the activities performed by the agents, that if they have been given the necessary support they would feel that they have been supported well. Women who had IUFD are the recipients of the support that is provided by the agents. Figure 4.3 indicates recipients:

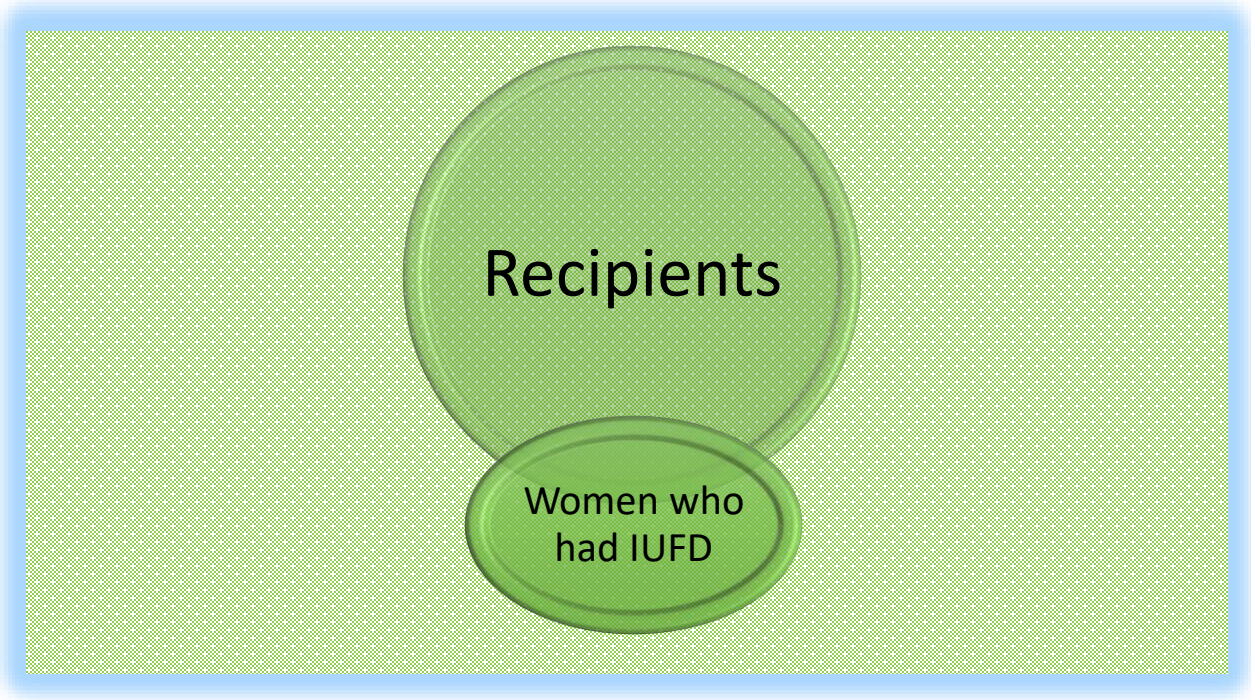

Figure 4.3: Recipients

4.2.4 Dynamics of the model

Dynamics involve the power sources for that activity (Dickoff *et al.*, 1968). Questions associated with dynamics are: What is the energy source of the activity? These are the energy sources that motivate agents to pursue their activity without getting discouraged. The dynamics for this study involved respect and care, sympathy, empathy and privacy. When the dynamics occurred between the participants and agents, the procedure could be implemented. This study revealed what health care professionals needed to do for women, for them to feel that they have been supported. The following illustrates the dynamics that should be considered for meaningful activities to be carried out by the agents to the recipients. Figure 4.4 indicates dynamics:

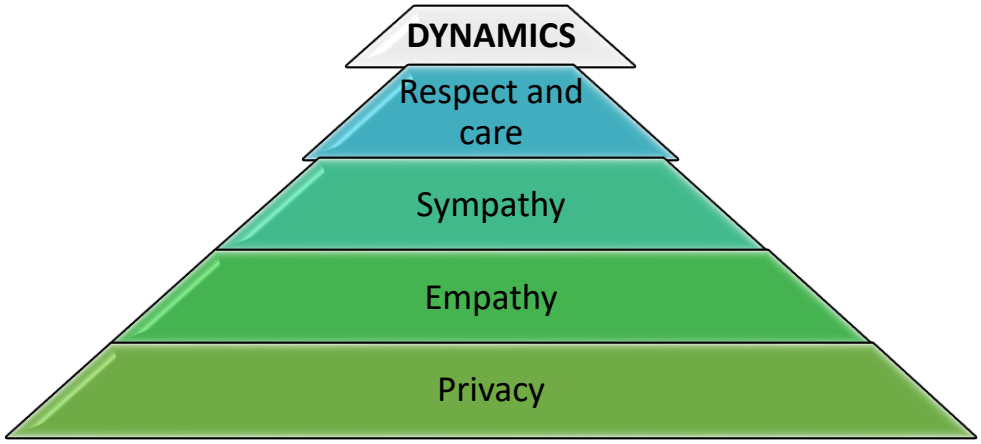

Figure 4.4: Dynamics

4.2.4.1 Respect and care

Respect and care DVD (2015, Medical aid films) state that health professionals have an important role in ensuring women receive standard respectful maternity care. This means support should be provided immediately after diagnosis of IUFD, and the film further stated the rights of women as follows; the right to fair and equal treatment, privacy and confidentiality, information and choice, dignity and respect and freedom from harm and abuse. The following quote *"…I saw the way they used to talk to me, they used to address me in a nice way…I stayed about 5more days after my loss, during the time the sisters talked nicely with me…At first they assisted in delivering my baby, I delivered well even though I delivered a dead baby…Thereafter I was sent to a psychologist, also she was able to talk nicely with me, by the time I went home I was well and took the whole ordeal in a positive way…I went home without any problems…It was not just one, but all of them who were there treated me well…The way they talked, just about anything, it was just okay…By talking in a nice way, it makes me to see that the nurse understand my situation…"* indicate respect and care. Women also revealed that they did not want to be yelled at - they needed to be assisted on a call for help and to be talked to in a nice way.

4.2.4.2 Sympathy

According to Sinclair, Beamer and Thomas (2016) they describe sympathy as a feeling of pity towards a distressing situation, but it could lack clear understanding of the situation. They consider using compassion and define it as an essential element in quality patient care. This study does not distinguish between the two words, it highlights that though sympathy is critical towards women, shows health care providers' actions towards women, the compassion enhances facets of empathy and is motivated by love, action and kindness, a statement *"…In the way they talked to me they showed sympathy, when they told me that it happens and I should accept, in a nice way…I do feel that if nurses and doctors could address to a women in a nice way that also show sympathy, this could make a woman to accept…"* and *"…I remember there was a student who came to me and said my sister, do not worry…he used to come to me and it made me feel better…"*. Sinclair *et al.* (2016) discovered that these were beneficial to the individuals at which it was directed, preferred and had impact and understanding suffering through this emotional resonance. This shows that if health care providers had this feeling of compassion towards women who had IUFD, their emotional health could improve. The findings from this qualitative study indicated that women expected emotional resonance from the health care providers.

4.2.4.3 Empathy

Empathy was described as it could be someone who has also lost a child. Women reported that by sending people who could talk well to women who have lost a baby, someone needs to come and talk to me, the way he talked to me, it showed that he felt my pain. Heazell, Siassakos, Blencowe, Burden, Bhutta, Cacciatore, Dang, Das, Flenady, Gold, Mensah, Millum, Nuzum, O'Donoghue, Redshaw, Rizvi, Roberts, Toyin Saraki, Storey, Wojcieszek and Downe (2016) indicate that negative effects on women's mental health are moderated by empathic attitudes

and tailored interventions of health care providers and affirm that a crucial component in determining the emotional feelings and needs of a woman, is done in an empathetic approach by health care providers. This makes it possible to identify and understand women's thoughts and wishes but without trying to shape those since women with an IUFD value acceptance and recognition of their emotions highly. The statement "*…words that are used must be selective, not just blast anything…"* and "*…I think there is a need for someone from the hospital who need to come and talk to me, maybe someone like you, since we have been talking I do feel relieved to feel there is someone who care for me and understand what I have been through…"* really indicate that health care professionals should be cautious in dealing with women who had IUFD. Empathetic techniques, mentioned by Crawley (2013) enhance recovery, can be learned and retained as a skill, therefore assumptions should be avoided as they could limit choices. Perceived professional support and variations in opportunities in sharing memories is associated with better maternal outcomes following IUFD.

4.2.4.4 Privacy

Hajbaghery and Chi (2015) indicate that privacy is a human right and an important variable that affects patient's satisfaction and their perception of the quality of care received. Privacy maintains the patient's dignity (Rasmussen & Delmar, 2014), as the disrespect for the patient's dignity affects the patient's sick role, loss of self-care and decreased participation. This correlates with the study findings that nurses should maintain the respect and dignity of patients by giving women the privacy that they need. This study labelled privacy as to separate women from the ones having newborns and to stay far away from those who have delivered. Women did not want to be exposed; they did not want to be seen among women who have given birth to live babies.

Women who experienced IUFD value privacy, as they do not want to hear noises of babies crying and comments given by new mothers, "*…you start to think about*

your situation, its better if they stay far from those who have delivered…Even when its' time for visitors when they have come to see the newborns, holding them…" with no critical care needs, women should ideally be able to choose between facilities which provide adequate privacy.

Privacy was also mentioned in a study by Bamniya *et al.* (2018) among Muslim women who experienced IUFD, where women reported experiencing lack of communication and privacy in the hospital during the period of grief. During the period of grief, women do not want noise, especially of newborns or new mothers showing their affection to their babies.

4.2.5 Procedure of the model

The description of the procedure to facilitate the dialogue among women and the health care professionals in Vhembe District of Limpopo Province of South Africa was based on the results of the experiences of women conceptualization and the relational statements (Chinn & Krammer, 1999). The procedure involves the guiding steps to be taken towards accomplishment of the goal. The process aims at providing sufficient information to enable the activity to be carried out. It safeguards the agent, recipient and the institution in that it provides knowledge and therefore lessens liability to criticism (Dickoff *et al.,* 1968).

In this study, the findings revealed the activities that need to be carried out by the agents in order to improve the support, by nurses and doctors by telling the cause, information sharing and giving clarity, nurses accompanying patients to the next level of care, talking in a nice way, treating patients as an emergency, assisting patients and giving them a bed, all these activities suit well to be the procedure that agents should follow in order to achieve support. Temple and Smith (2014) indicated that the support that could be given by health care professionals is to initially assist the women through the physical process. Thereafter to conduct a post-delivery evaluation and to give support to the grieving family. Indeed, there are limited studies that mention the kind of care

that could support women emotionally; it is through this study that in the development of the model, women will be supported emotionally. The procedures are discussed below. Figure 4.5 indicates the procedure:

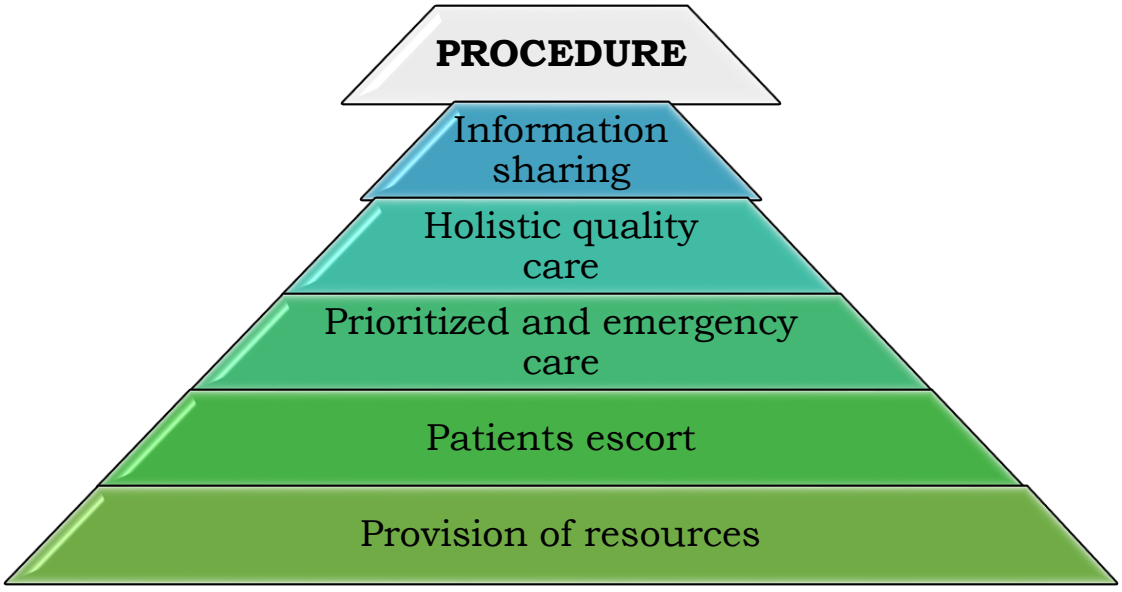

Figure 4.5: Procedure

4.2.5.1 Information Sharing

Information sharing is one of eight Bathopele priority principles, DPSA (2015) which regard being given full and accurate information about open administration regarding the departmental, district, provincial and national department. Women have narrated sharing information as being told where it comes from, to be told and to understand that it happens, to accept that it happened and nurses should give themselves time to explain as depicted in the quotes.

As women narrated, it further correlates with Wojcieszek *et al.* (2018)) when indicating that women need guidance. A statement *"…I think that the nurses should give themselves time to explain…Explanation that could be given is about*

what could have happened, like myself, I did not even know that when my waters broke what it meant, including what could have happened to make me lose my child…" indicated the need for information. In addressing what has been explored, the guidelines indicate that they should be advised about the cause of late IUFD, chance of recurrence and any specific means of preventing further loss. Pre-pregnancy advice should be offered, including support for lifestyle modifications such as cessation of smoking, avoiding weight gain if they are already overweight (body mass index over 25) and to consider weight loss. Discussion over the potential benefit of delaying conception should be offered until severe psychological issues have been resolved.

Furthermore, the guidelines state that the birth of a healthy baby does not compensate for a previous loss and can trigger a resurgence of grief; women might feel happy one moment and sad the next. Depression in the third trimester is highly predictive of depression one year after subsequent birth, particularly for women who conceive within less than 12 months from an IUFD.

Studies by Wojcieszek *et al.* (2018) indicate that follow-up care is a crucial part in the management of women and that staff should be sensitive to the expressed wishes of women themselves. This has concurred with Stillbirth and Neonatal Death Society (SANDS) in describing a follow-up visit as "essential" for all women who have lost babies.

Gravensteen, Jacobsen, Sandset, Helgadottir, Radestad, Sandvik and Ekeberg, (2018) and Irani, Khadivzadeh, Nekah, Ebrahimipour, and Tara (2019) mention that almost all women with stillbirth, 296 (95%) stated that it was important to have an explanation of the baby's death. The discussion should focus on the etiology of the baby's death. There are six identified priority categories in relation to women's encounters with caregivers that emerged: information sharing, timing of referral, getting to see the expert, describing the anomaly, availability of written information, and continuity of caregiver. Once an anomaly was suspected, women wanted information quickly, including prompt referral to the

fetal medicine specialist for confirmation of the diagnosis. It was reported during the study that women needed more information and prompt referrals.

4.2.5.2 Holistic quality care

Participants said that if health care professionals could talk respectfully, not yelling, they would feel that they have been supported well. Pockett, Peate, Hobbs, Dzidowska, Bell, Baylock and Epstein (2016) indicated that communication is part of a therapeutic relationship, and does not necessarily mean speaking, but could involve listening, maintaining eye contact and using encouraging remarks, it then enhances respect, concern and support, the quote *"…By talking in a nice way, it makes me to see that the nurse understand my situation…"* reveal that communication play a role in the recovery of women.

4.2.5.3 Prioritized and emergency care

Participants reported that when they have been referred to the next level of care, they need to be treated as emergency and be prioritized. Cooke, Watt, Wertzler and Quan (2015) state that when offering the emergency care, the patient's health records should be readily available These quotes were depicted: "*…If I was assisted quickly at the clinic, maybe I could have delivered an alive child…"* and*"…Pregnant women must be treated as an emergency…"* . Patients expect a short waiting time from the health care providers.

4.2.5.4 Patients escort

Women are preliminary diagnosed IUFD at PHC, and then referred to the next level of care for a final diagnosis. It is during this transfer to the next level of care that the participants said that they need accompaniment. This aligns with a study by Brown, Brett, Stewart and Marshall (2018) when they concluded that

patients escort has a positive effect on medical encounters, and those accompanying patients are able to advocate well for the patient, this was indicated in the quote *"…I believe that if there were nurses who are there to accompany us when we are transferred to other hospitals, it could improve the way we are treated in our hospitals…I would say that if there is anywhere that a woman would be transferred to another specialist doctors, let her be accompanied by nurses who are only there to assist in the accompaniment of the patients, because without them, the patients are left behind…Our government or our hospitals should provide the nurses for accompaniment…"*

4.2.5.5 Provision of resources

Women indicated that they expect health care professionals to identify their needs, such as if unable to walk, to be given a wheelchair. Assisting patients and providing comfort is affirmed by McLeod (2015) by saying that patient comfort is a priority and boosts patient satisfaction, and this leads to improved health outcomes and makes women feel more empowered in their care. Dissatisfaction was shown in the statement "…*doctors should know that we use hospitals because we are sick, not because we are well, so the way they should care for us should show that they also like what they are doing, they should learn how to deal with, patients, they should learn to be patient…I have seen that while caring for us there is no sympathy there, we go to public hospitals because we do not have money, but we are not expecting to be treated like we don't feel the pain…when working with patients doctors must show both sympathy and empathy…"* Comfort can even be discussion about measures that could make patients feel comfortable, during the period of hospitalization.

4.2.6 Outcome of the model

The outcome involves defining an activity from the perspective of an end point or its accomplishment (Dickoff *et al.,* 1968). Questions associated with the outcome are: What is the end point of the activity? The outcome is that the women who had IUFD should feel that the care that they have received during the entire period of confinement could be regarded as, according to the women, optimum and quality patient care that include feeling better, improvement, understanding, moving on and care. The outcome being mentally stable women, free of negative psychological traits that the findings revealed and discussed in Chapter 3. Figure 4.6 shows the outcome of the model:

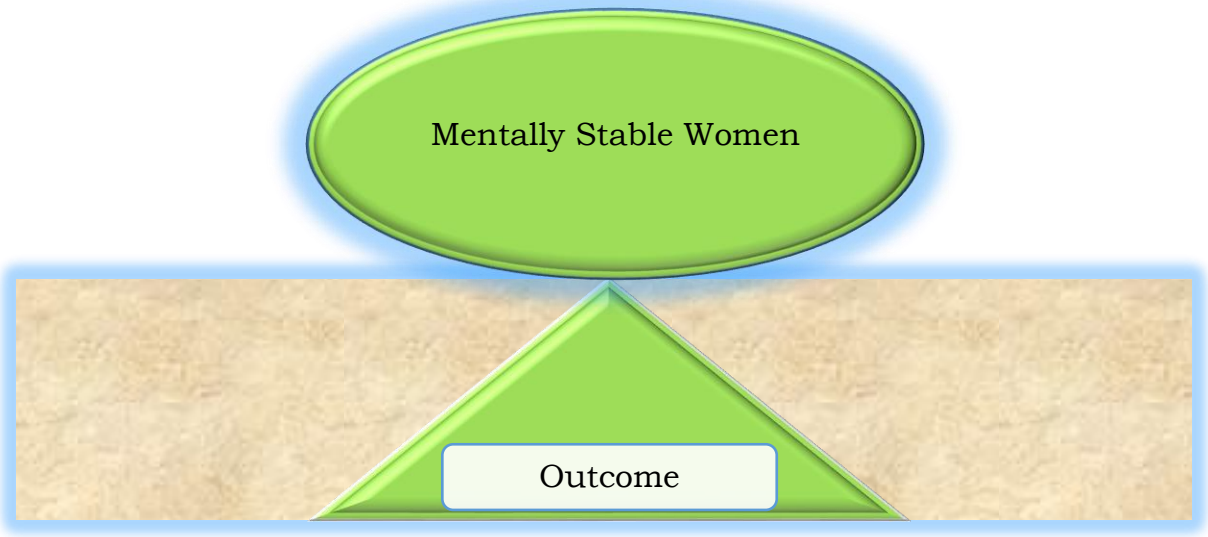

Figure 4.6: Outcome

4.3 MODEL DEVELOPMENT

A model is a symbolic depiction of reality. It provides a schematic representation of relationships among phenomena and uses symbols or a diagram to represent an idea. A model helps to structure the way any situation, event or group of individuals can be viewed (Chinn & Krammer, 1999). The model was developed based on the findings in Chapter 3 of this study following elements of practice theory in Dickoff *et al.* (1968) and evaluation outlined in Chinn and Krammer (1999), namely, for clarity, simplicity, generality, accessibility and importance of the model.

The findings from situational analysis (Phase 1), literature control and the theoretical framework of the study formed the basis for the development of the model in Phase 2. The model was developed according to the framework of Dickoff *et al.* (1968), in line with elements of practice theory, where the context, agents, recipients, dynamics, procedure and the outcome were identified. These concepts were applied to the development of the model in line with what the participants indicated as the kind of support that they need.

4.3.1 Theoretical departure and assumptions of the model

This study drew from three paradigms, namely, meta-theoretical assumptions, theoretical assumptions and methodological assumptions. These paradigms influenced the assumptions essential to the theoretical reasoning of this study. Each is described as follows:

4.3.1.1 Meta-theoretical assumptions

Meta-theory are assumptions about reality, or a theory behind a theory (Brink *et al.,* 2017). This study's point of departure is the assumption that IUFD negatively affect the quality of life for women, grounded on the fact that women

who had IUFD experience mental health distress. The study held a hypothesis that support theory might achieve the purpose and objectives of the study, and implied that a model to support women who had IUFD was required. Every person has an ability to become mentally healthy. Mental health is important to a woman who had IUFD and depends on the interaction with her internal and external environment. Internal environment amongst others involves experiences that a woman has regarding IUFD. External environment is the need to feel supported after IUFD, and a model is needed to aid in the mental health of women.

4.3.1.2 Theoretical assumption

This study is aligned to King's Interacting Systems Framework (KISF) in Alligood and Marriner-Tomey (2013) as the theory that is guiding the study; the grounded theory for model development by Dickoff *et al.* (1968) and the model evaluation by Chinn and Krammer (1999). These are described below:

4.3.1.3 King's Interacting Systems Framework

King's Interacting Systems Framework (KISF) explains the women as interacting with her personal, interpersonal and social systems of wellbeing. Through KISF the study discovered meanings attached to the complexity of mental health support at personal, interpersonal and social level and thereafter a model was developed that supports women who had IUFD.

4.3.1.3.1 Personal systems

Personal systems are entities that are sensible and emotional. Responses from the environment are accumulated through senses. Mental health of a woman who had IUFD is compromised, since not only the physical is affected. It is all about how the woman's personal systems pull together after IUFD (Alligood &

Marriner-Tomey, 2013). These emotions are through thoughts and feelings which constitute an individual's awareness of her individual existence, conception of who and what she is. The sum total of all she can call hers, her internal environment, her ideas, attitudes, values, experiences and commitments. This includes the need to move from a potential for achievement to actualization of self.

In this study the theory acknowledged the women's experience of the IUFD at personal level, aligning with her internal environment. The personal system processes select inputs from the environment through senses. The researcher applied this framework, accepting a woman as having experiences of the IUFD within herself, constituting her internal environment.

4.3.1.3.2 Interpersonal systems

Interpersonal systems are posed as two, three or more personalities interacting in a given situation. Communication is a concept associated with this system by Alligood and Marriner-Tomey (2013) and implies information is given from one person to another, either directly in a face to face meeting or indirectly through telephone, television or the written word. Women communicate to achieve goals that are valued, goal directed human behavior, to obtain balance for growth, development and performance. This involves an exchange of information between persons for regulation and control of stressors.

The study intends to allow women the role to communicate, their needs to be heard in terms of support following IUFD through qualitative in-depth individual interviews.

4.3.1.3.3 Social systems

Social systems are organized boundary systems of social roles, behaviors and practices developed to maintain values and the mechanisms to regulate those

practices and rules. Concepts related to social systems are organization, authority, and decision-making (Alligood & Marriner-Tomey, 2013). In this study the social roles are indicated as social support, whereby the agents, the health care professionals, the family and the spouse offer support to women, as discussed below:

- ***Health care professionals***

They consist of doctors, professional nurses with midwifery, advanced midwives, advanced psychiatric nurses and psychologists, they are able to offer professional support through good communication and patient care.

- ***Family support***

Family is widely defined, but in this study, family refers to the immediate family members, the mother of the women and included siblings, where they offer support by acting as women's advocate. When the woman is pregnant, the community also waits for the baby's arrival. When that does not happen, they start asking questions; this is when the family could address it in a way that the community understands without involving the woman.

- ***Spousal support***

Spousal support was revealed in this study to indicate congruency in the grief. The spouse offers support when they no longer involve their friends during the period of grief, but stay with the women, sharing the grief until she has improved.

The study ensured that the social systems are achieved by allowing maximum relationship and communication between the agents and the recipient, guided by the dynamics and the procedures followed to achieve a desired outcome. Dynamics are revealed as those that motivate the agents to perform the

procedures. The organization as the decision-maker will allow the model developed to have the status and the authority to regulate practices within that organization, in this case the hospital will allow the procedure to be followed to achieve the goal, which are mentally stable women.

4.3.1.4 Grounded theory for model development

Phase 1 of this study provided information regarding the kind of support women need for them to feel supported after IUFD. This was followed by the theoretical framework for the development of the model which was informed by the six elements of practice theory (Dickoff *et al.,* 1968). These were the agents, recipients, the context, processes, dynamics and outcomes. The model was evaluated according to Chinn and Krammer (1999) for clarity, simplicity, generality, accessibility and importance. The relational statements with regard to each element of practice theory were made to make the meaningful claims about the model to support women who had IUFD.

4.3.1.5 Methodological assumptions

Methodological assumptions that guided this study were in line with Poggenpoel (2001). A functional approach implies that research is functional and should contribute to the body of knowledge and the improvement of quality of life. This study assumed that a qualitative approach, explorative, descriptive and contextual design using in-depth individual interviews could produce data that provides an understanding of what could be done to women who had IUFD for them to feel supported. A functional approach was envisaged for this research because the model developed might be used to assist in policy developments within hospitals in Vhembe District of Limpopo Province. This might promote the mental health of women and improve their quality of life. Methodological assumptions include formulating criteria for concepts, structuring and

contextualizing the model, identifying and defining concepts, identifying assumptions as part of the model, clarifying the context, and designing relational statements of the model as discussed below:

4.3.1.5.1 Formulating criteria for concepts

Criteria provided guidelines for reorganizing experience that one needs to represent and to differentiate from other similar instances. Criteria for the concept emerge gradually and continuously as definitions, various cases, other sources and varying contexts and values are considered. The criteria was refined so that it reflects the intended meaning. The criterion for the concepts used in the model was described to enhance meaning (Chinn & Krammer, 1999).

4.3.1.5.2 Structuring and contextualizing the model

This involved establishing systemic linkages between and among concepts resulting in formal theoretical structure. Choice of approach depended on the purpose for developing the model, what was already known or assumed to be true and the underlying philosophical ideas about the nature of nursing knowledge. The interrelationships between the data clusters guided the structure that is created for the developed model (Chinn & Krammer, 1999).

4.3.1.5.3 Identifying and defining concepts

In structuring, the model concepts that formed the basis for the model were identified. These concepts emerged from collected data and the literature control. Abstract concepts were avoided as they carry a broad meaning and give a wide range of experience. In selecting concepts relationships among concepts were identified. These relationships were based on previous research, existing models, philosophies and personal experiences (Chinn & Krammer, 1999).

4.3.1.5.4 Identifying assumptions as part of the model

Assumptions are underlying issues that are presumed to be true. They are not intended to be empirically tested for soundness, but they can be challenged philosophically and may be investigated empirically (Chinn & Krammer, 1999).

4.3.1.5.5 Clarifying the context

This involved putting relationships among concepts within the context of the study (Chinn & Krammer, 1999). The context within which the model will be applicable is in hospitals, clinics and homes within Vhembe District of Limpopo Province of South Africa.

4.3.1.5.6 Designing relational statements of the model

Relationship statements described the nature of the interaction between the concepts of the model (Chinn & Krammer, 1999). The relationship between identified concepts was described. A detailed explanation of how concepts interact within the model was given in Chapter 4 of this thesis.

- The context of the study are the hospitals, clinics and the homes of women who had IUFD.
- The agents are the health care professionals, the family and the spouse.
- The dynamics are: information sharing, respect and care, sympathy, empathy and privacy.
- The procedure is telling the cause, identifying problems quickly, explaining and giving clarity, nurses accompanying patients to the next level of care, talking in a nice way, treating patients as an emergency, assisting patients and providing the necessary care.

- This involved interaction between the participants and the agents, within the said dynamics and the procedure, to achieve the desired outcome of emotionally stable women.

4.4 MODEL DESCRIPTION

Description of the model was facilitated by defining the overview of the model, the purpose of the model, the structure and the procedure, and answering the following questions: What is the purpose of the model? How are the concepts defined? What is the nature of the relationships? On what assumptions is the model built? What is the structure of the model? What is the procedure of the model? (Chinn & Krammer, 1999). These are discussed below:

4.4.1 Overview of the model

All elements and relational statements were highlighted, concerning how women with IUFD could be supported in Vhembe District of Limpopo Province, South Africa. A schematic representation was made to show the main concepts and the relation statements to construct a model (Chinn & Krammer, 1999).

4.4.2 The purpose of the model

The purpose of the model is to provide guidelines to support women who had IUFD, and improve their mental health leading to improved quality of life.

4.4.3 The structure of the model

Assumptions on which the model was based were described, including the main concepts, sub-concepts, the relational statements and the nature of the structure. The description of the nature made it possible to follow the reasoning of the model in its entire graphic representation, to demonstrate the nature, and

how the women were selected, to assist in emphasizing certain aspects (Chinn & Krammer, 1999).

Additionally, Chin and Krammer (1999) indicate that the structure of the model gives overall form to the conceptual relationships within it. The structure of the model was determined by bringing together the elements of practice theory identified and discussed in this Chapter 4. The structural form of the model is the graphic illustration of how the elements of the model relate to one another.

The structure shows an oval, indicating a hospital, clinic and home context, indicating that there is no beginning and there is no end of where support might be coming from, anywhere within the context. The two pyramids indicating the dynamics and procedure pointing in an upward direction, and shows how each element relates to the other. The arrows indicate the flow, sideways flow indicates relationship, and arrows pointing upward indicate the movement to the next concept. This structure shows that although there is an unfavorable outcome, if agents could give women, who in this study are the recipients, necessary support, and the outcome would be emotionally stable women. The outcome is indicated by an oval shape, indicating that women should not be affected by the outcome, regardless of how things turn out to be, women should remain mentally stable. Applying the correct procedures and dynamics, the improved relationship between the recipients and the agents, in the defined context, women would be emotionally stable. The following Figure 4.7 represents the structure of the model to support women who had IUFD:

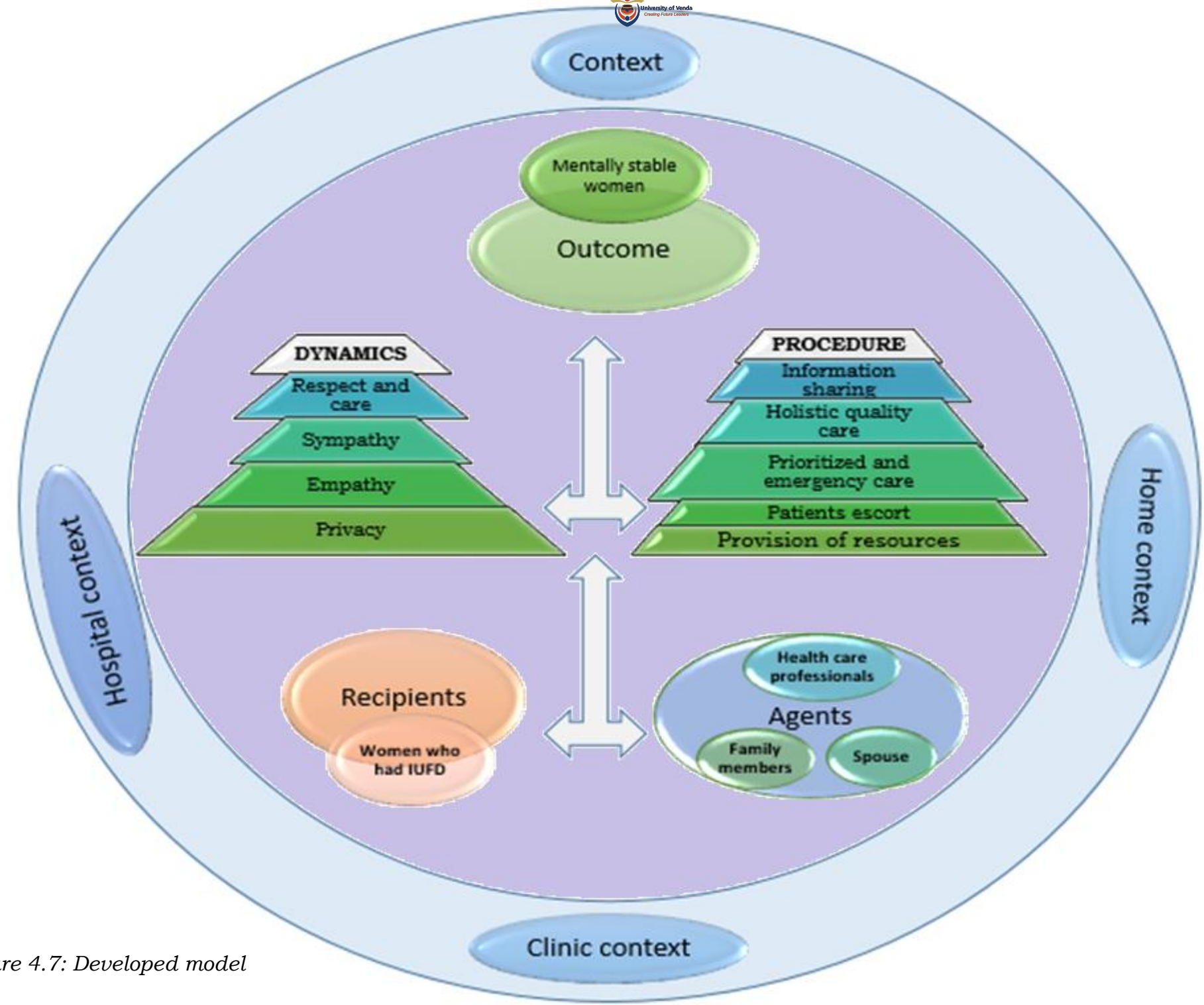

Figure 4.7: Developed model

4.5 CHAPTER SUMMARY

This Chapter 4 introduced Phase 2 based on the results from Phase 1. Phase 2 is the model development, formulating criteria for concepts, structuring and contextualizing the model, identifying and defining concepts, identifying assumptions as part of the model, clarifying the context and designing relationship statements.

The model was developed using the theoretical framework and approaches as outlined by Dickoff *et al.* (1968), based on what participants have said. The situational analysis (Phase 1) provided information regarding experiences and the kind of support that women who had IUFD need. The participants themselves indicated the agents, context, procedures and dynamics, to achieve the desired outcome. The model was described, and a structure was developed to indicate the structural representation. The overview of the model, the purpose, the structure and the procedure were discussed. The next Chapter 5 will discuss the model evaluation and validation.

CHAPTER 5

EVALUATION AND VALIDATION OF THE MODEL

5.1 INTRODUCTION

Chapter 4 comprise the model development, formulating criteria for concepts, structuring and contextualizing the model, identifying and defining concepts, identifying assumptions as part of the model, clarifying the context and designing relationship statements. The model description was also discussed; this included the overview of the model, the purpose, the structure and the process. Chapter 5 focuses on the evaluation of the model, profile of the evaluators, ranks, highest qualifications of the evaluators, current academic programmes and validation of the model. Evaluation was done in three sessions, two sessions were done with the research experts at the university, and the third session was done with maternity staff at the hospital.

5.2 MODEL EVALUATION

Model evaluation was conducted according to Chinn and Krammer (1999) where critical questions were posed to provide information on how the model might serve purposes, how the model was to be used and how it might be further improved. Evaluations were regarding clarity, simplicity, generality, accessibility and importance of the model. Evaluation of the model was done on three occasions, which was on 7 December 2019 for session 1, 4 January 2020 for session 2, and 31 January 2020 for session 3. Comments and annexures for all sessions are attached. Annexure J1 indicates the 1st session in the color green, Annexure J2 indicates the 2nd session in blue, and Annexure J3 indicates the 3rd session in yellow.

5.3 EVALUATION OF THE MODEL SESSION 1: 7 DECEMBER 2019

Evaluation during the first session was done on 7 December 2019. The profile of the evaluators, their academic qualifications and their current academic programmes are discussed. The model was evaluated for clarity and simplicity, without the model structure.

5.3.1 Profile of the evaluators

Evaluation was conducted according to evaluation theory by Chinn and Krammer (1999) which states that the model should be evaluated for its clarity, simplicity, generality, accessibility and importance. Sixteen health care professionals comprised of 14 registered nurses, all with midwifery, one with specialized midwifery and two social workers. They were purposively sampled from the research cohort group of Univen in the department of advanced nursing science. The evaluators are experts in research and midwifery, as described by Chinn and Krammer (1999) and were post graduate degree holders, some having Honors, Masters, PhDs and some are Post-doctoral students.

The study was presented verbally to the cohort group and a request was made for the model to be evaluated. Evaluators voluntarily agreed to evaluate the model.

5.3.1.1 Ranks of the evaluators

Evaluators are registered nurses who comprised those who are nurse managers at district level, some working at district hospitals, clinics, and some working at academic institutions of higher learning. Nurse Managers at strategic level management made it vital that their expertise in midwifery and research makes it possible for them to understand the model and are able to evaluate the model for its clarity, simplicity and generality and its applicability at district hospitals.

Registered nurses working at district hospitals and clinics are in the forefront of patient care. Their inputs in the model evaluation were important as they are practice based and able to determine that the terms used are general and applicable and that the model is feasible at operational level.

Registered nurses working at academic institutions of higher learning are lecturers (including the promoter) who are in the forefront of students entering the nursing field. Their expertise in research, nursing curriculum and midwifery was vital in the evaluation of the model and their inputs were applied.

There are two social workers working at district social services. Their knowledge in the social aspects and humanities included them in the model evaluation, which is socially based as there is a need for support that women have indicated, and social workers' inputs were included and applied. The following Figure 5.1 illustrates the ranks of the evaluators:

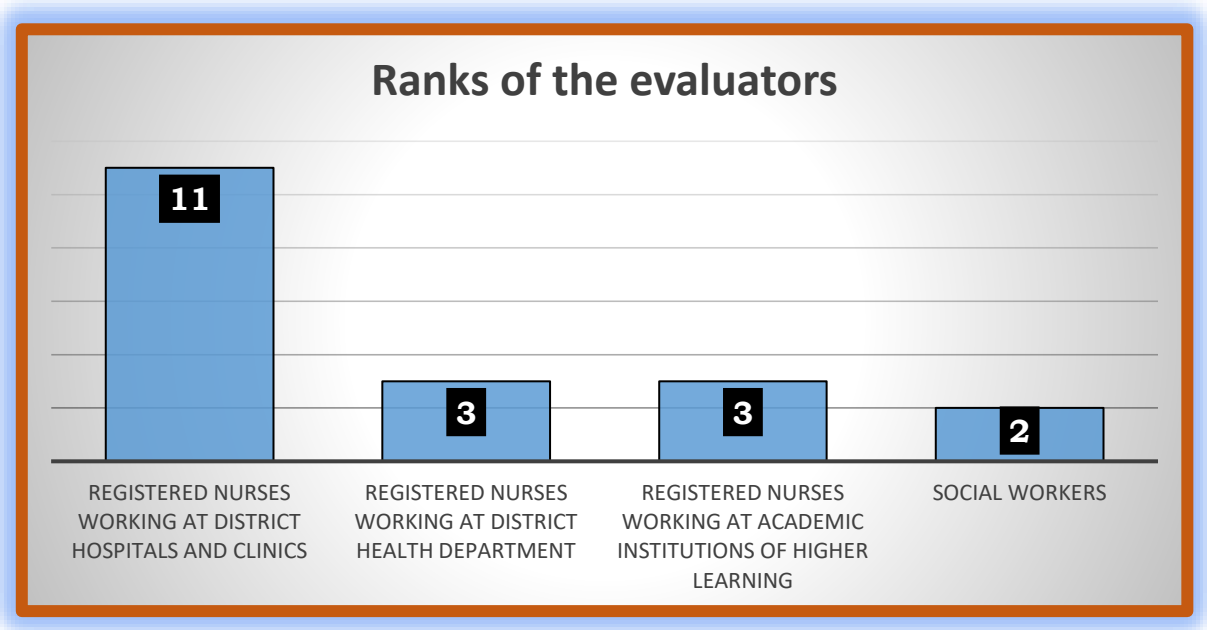

Figure 5.1: Ranks of the evaluators

5.3.1.2 Highest qualifications of the model evaluators

Evaluators are experts in research and three have Honors degrees (20%), eight have Master's degrees in Nursing (53%), two have Master's degrees in Public health (7%) and three have PhDs in Nursing (20%). Figure 5.2 represents the highest qualifications of the evaluators:

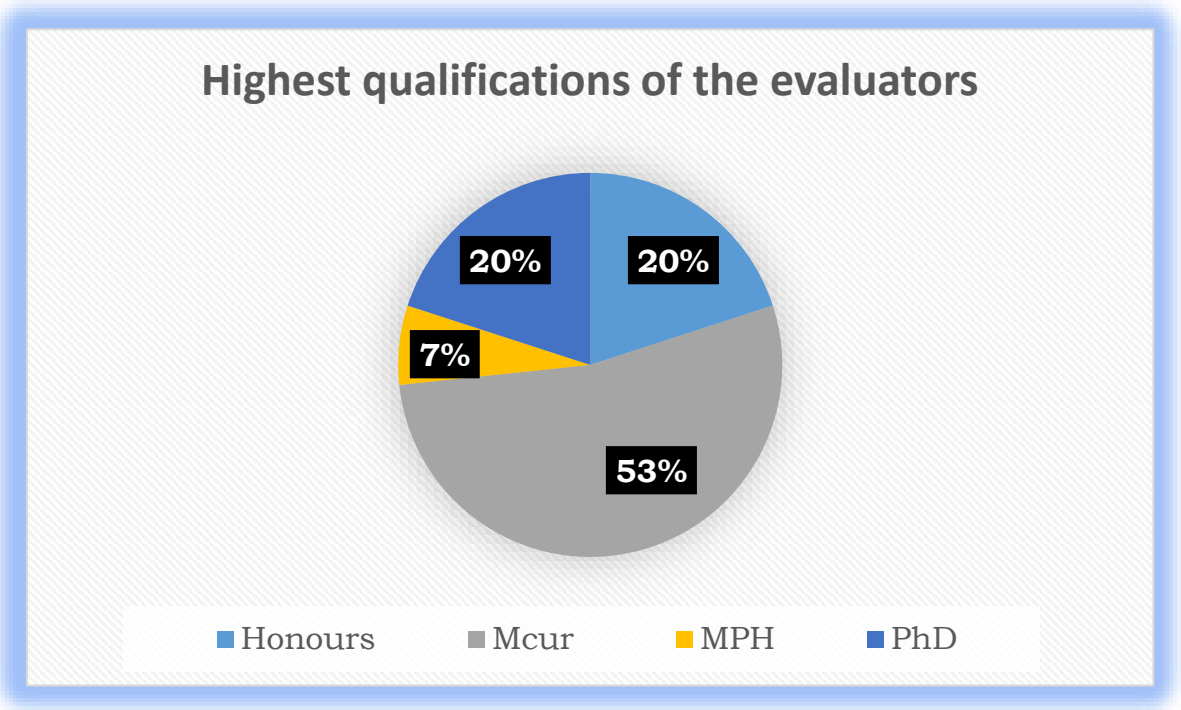

Figure 5.2: Highest qualifications of the model evaluators

5.3.1.3 Current academic programmes of model evaluators

There are four master's students (27%), nine PhD students (60%), two post-doctoral students (13%) and one promoter among the evaluators. Figure 5.3 depicts their current academic programmes:

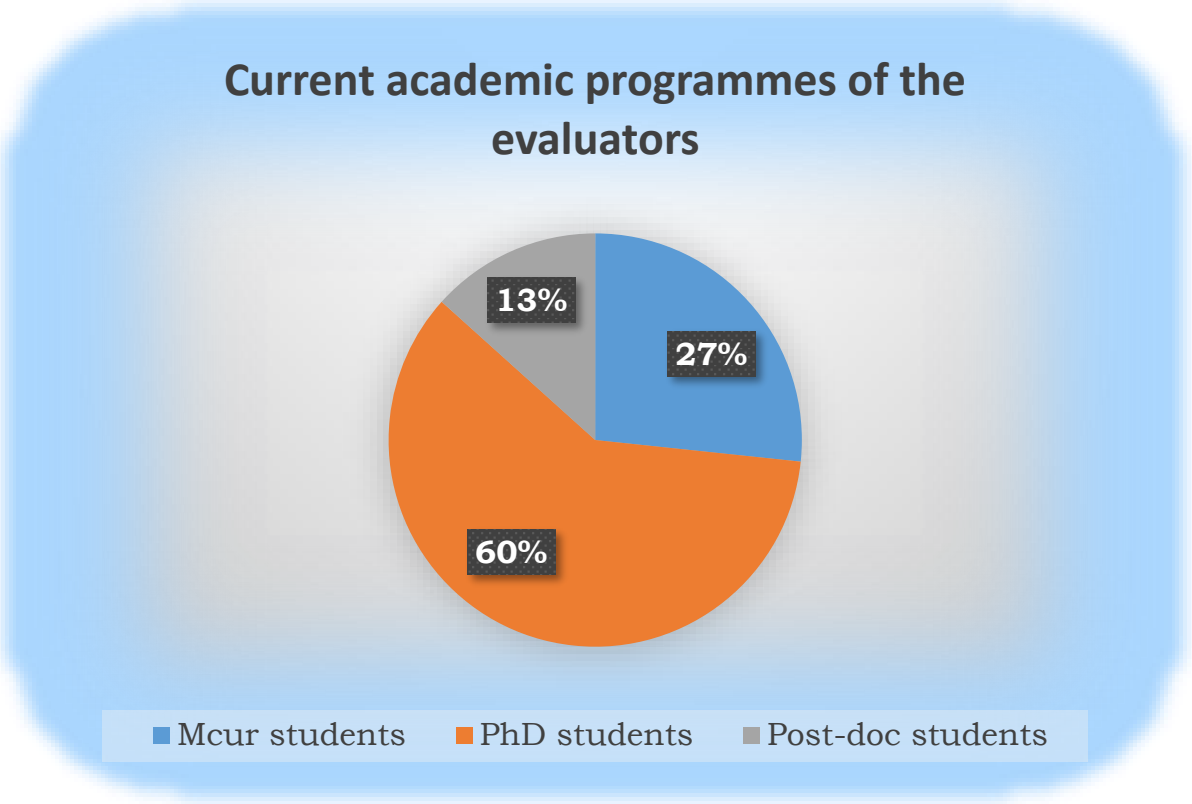

Figure 5.3: Current academic programmes of the evaluators

5.3.2 Evaluation of the model for clarity

Clarity refers to how well the theory can be understood and consistent ideas conceptualized in Chinn and Krammer (1999) that there is a minimal number of elements within the descriptive category, particular concepts as well as their relationship. This shows a simple structure that is also easy to follow, by indicating relationships between concepts. The following are the comments of the 1st session:

During session 1, Chapter 4 was presented without any diagrams, only the context, agents, recipients, procedure and dynamics were named. Inputs were given with regard to the content, that when the elements are named, the roles for each concept with regard to pregnant women should be indicated, there should be a colored diagram to show those concepts, their relationships and the outcome. Thereafter, when all the diagrams have been drawn for each concepts, they were to be combined to reveal a structure.

"Draw diagrams showing all the elements and the concepts under those elements, indicate where the activity is happening, is it the maternity ward of the hospital the clinic or home."

The context was identified as the hospital, clinic and home, but the role for each with regard to pregnant women was not indicated.

There were no comments with regard to recipients.

"The outcome of the study should never be supported women, but since this study is to support women emotionally, what we need to achieve is emotionally stable women."

5.3.3 Evaluation of the model regarding simplicity

The content with regard to simplicity showed that there were a lot of words used which could be clustered under one word, such as midwives, doctors, psychologists under a name of health care professionals. Another comment was when there was a lack of consistency where some concepts had quotations and some were without (Refer to Annexure J1).

"Midwives, psychologists and doctors could all be clustered as health care professionals." (Refer to Annexure J1).

"One word should be used, whether you are choosing process or procedure, you cannot use both of them." (Refer to Annexure J1).

"Information sharing is not a dynamic, but a procedure, dynamics are the privacy, sympathy, empathy." (Refer to Annexure J1).

"Quotations that are in Chapter 4 should be removed as they are a repetition of the findings in Chapter 3. Make sure that in Chapter 4 you remain consistent with the way you have started with the context and the agents where you did not include quotations." (Refer to Annexure J1).

"Remove Ramsden *et al.* (2018) *steps of achieving good communication as it is not in context with the study purpose."* (Refer to Annexure J1).

5.4 EVALUATION OF THE MODEL SESSION 2: 4 JANUARY 2020

Evaluation of the model session 2 was done on 4 January 2020 with the same group of evaluators as in session 1, this time the structure of the model was brought along to be evaluated. The model was evaluated under clarity, simplicity, generality, accessibility and importance, as discussed below:

5.4.1 Evaluation of the model for clarity

The inputs were with regard to clarity in session 2, where a structure was brought for presentation (see Annexure J2), and further inputs were given. In this model, different structures are consistently used and reflect the understandable collaboration of concepts within the whole model.

The comments indicated that the structure was not clear, there lacked a relationship within the concepts as there are no arrows to indicate direction, interaction, and the starting point. There is King's interacting systems at the top and why it is there is not known, since the framework guiding the study has been dealt with in Chapter 2, i.e. the methodology.

"The context is not clear, to show that all activities are happening within the context, it should show on the outer layer of the diagram." (Refer to Annexure J2).

"*The page borders must be removed as the borders obstruct the* ***context."*** (Refer to Annexure J2).

"Agents *and* ***recipients*** *are overlapping into the context."* (Refer to Annexure J2).

"Dynamics *and* ***procedures*** *should be written inside and be removed on boxes."* (Refer to Annexure J2).

"Arrows must point upwards to show that there is a relationship with the following steps." (Refer to Annexure J2).

All the concepts that are used are familiar in the nursing profession; there are no words that are unknown to the nursing profession. Concepts are used in a way that is consistent with the definition of concepts. Furthermore, basic

assumptions were used to clarify the meaning of other components of the model. All concepts used in the structure are similar and in alignment with the definitions used in a nursing profession. Elements of structures in the model and their relationships are described to provide clear understanding on how the structures integrate. Evaluators indicated that the developed structure is consistent with respect to colors chosen and a collaboration of structures and the concepts. Concepts used have a common meaning within the health profession.

5.4.2 Evaluation of the model regarding simplicity

When the structure was brought for evaluation, with regard to simplicity it was indicated that the structure was not congested, a minimal number of concepts and colors were used, and there were not many diagrams, all the diagrams were consistent, but it was indicated that the structure was not simple to follow.

"Recipients should show that there is an interaction with the agents. The relationship should be indicated, remove agents at the top as they serve no purpose. For recipients and agents to have an interaction this should be shown by arrows; both the agents and the recipients should be removed from the top." (Refer to Annexure J2).

"Leaving the outcome at the bottom shows that women are still oppressed, there is no rehabilitation, the outcome should be on top, remove the funnel, the outcome should be indicated by an arrow, not a funnel and should face upwards, use arrows to show an easy flow." (Refer to Annexure J2).

"King's interacting systems framework is used to guide the study; it should be removed from the diagram, and also remove the labeling as mental health promotion model." (Refer to Annexure J2).

All the concepts are identifiable, from interaction between the agents and the recipients, the relationship between the dynamics and the procedure, and how the expected outcome was achieved is easily identified, and the final structure is in Chapter 4.

5.4.3 Evaluation of the model for generality

Generality means that the structure should use general terms that refer to the breadth and scope of concepts and purpose within the model. After the model was described, evaluators indicated during the evaluation session that the model could be applied in hospitals where there are maternity services throughout Vhembe District hospitals in South Africa. The district contributes 25% of all deliveries in Limpopo Province and a high number of IUFD, throughout the district women who had IUFD would be supported emotionally.

5.4.4 Evaluation of the model for accessibility

Evaluators indicated that Limpopo Provincial Department of Health could have access to the developed model at the Limpopo health research database, the University of Venda library, Research and Publications Committees, in the journals after the manuscript has been published, and in presentations at national and international conferences.

5.4.5 Evaluation on the importance of the model

The study is rooted in midwifery and the selected health care professionals indicated that the developed model is practice based, as they have knowledge in midwifery and psychiatry and indicated that unresolved mental health problems negatively influence women's quality of life. The model has importance in nursing practice, since the midwives will be equipped with necessary skills to care for women who had IUFD if the model is implemented. In nursing education, the model could be incorporated into nursing curriculum for nursing entering into midwifery, which in turn leads to quality patient care. The respect, privacy and dignity of women will be preserved, as the study revealed how women contributed to how they wanted to be supported. The model could further bring the need for more research to be conducted in the identified gaps,

as this developed model was aligned with the purpose and objectives of this research study.

5.5 EVALUATION OF THE MODEL SESSION 3: 31 JANUARY 2020

Evaluation of the model session 3 was done with maternity staff on 31 January 2020. The model was presented to the maternity staff. Convenient sampling was done with maternity staff who were available on the date. Louis Trichardt hospital maternity staff were approached through the consent of the Deputy Nursing Manager and the Maternity Acting Area Manager. The maternity ward is a 10 bedded ward, overcrowded with patients most of the time. There is a cubicle used for antenatal care, perinatal, postnatal, post-caesarean and Kangaroo Mother Care (KMC). Attached is an outline of a maternity ward:

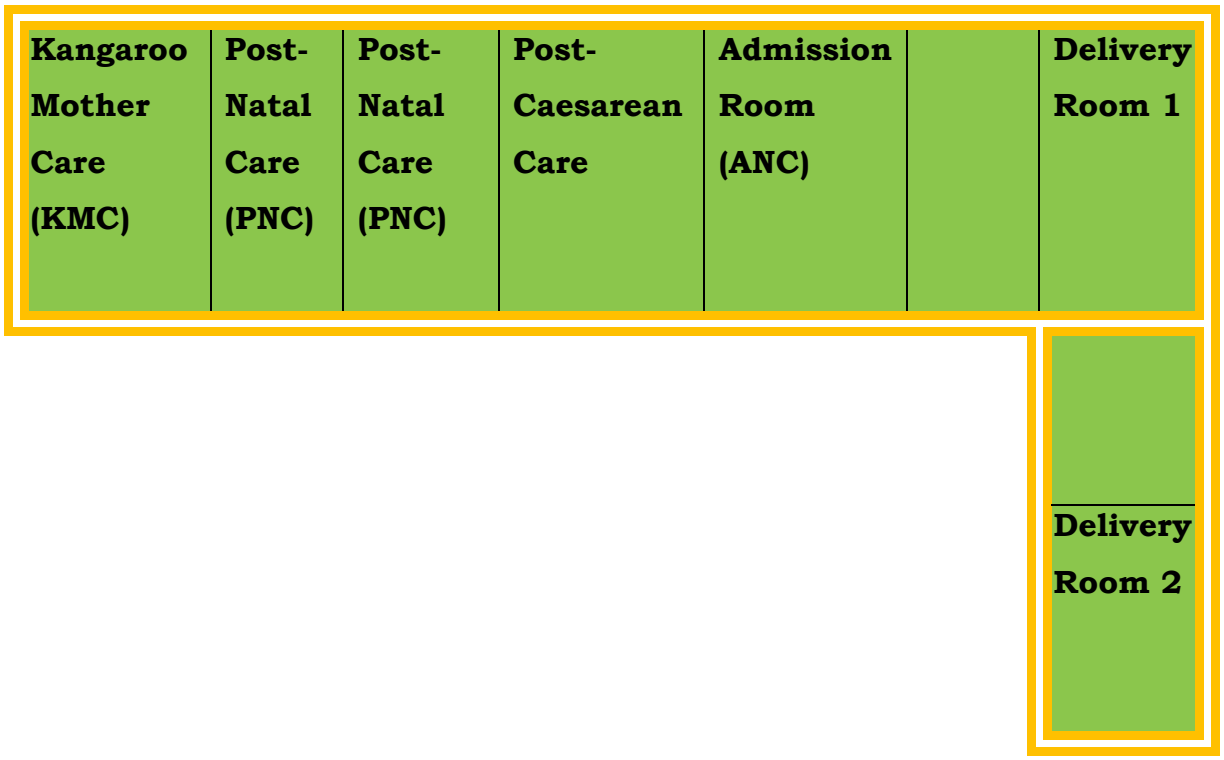

Figure 5.4: Physical layout of a maternity ward

5.5.1 Profile of the evaluators

Maternity staff comprised three Registered Nurses with Advanced Midwifery including the Acting Area Manager, and four Registered Nurses with midwifery, and one Registered Auxillary Nurse, as illustrated in Figure 5.5:

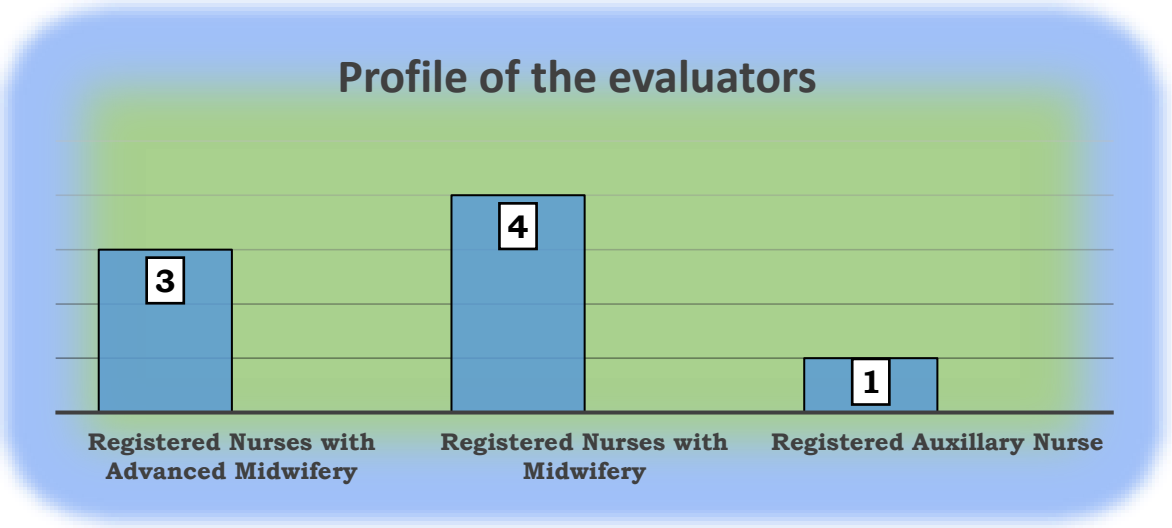

Figure 5.5: Profile of the evaluators

5.5.2 Evaluation for clarity

The model was evaluated under clarity and simplicity; the comments are attached under Annexure J3. All midwives agreed that the model is clear and easy to follow. The structure was presented and each element was explained, the relationship with regards to the use of arrows was indicated.

5.5.3 Evaluation regarding simplicity

All midwives agreed that the model was simple to follow, with the presentation itself, midwives indicated that the model was presented well and it could have an impact in the improvement of quality patient care, and could also improve nursing practice as the availability of the model is important.

5.5.4 General comments by the evaluators

Midwives agree that there is a need to improve good communication and form a trusting bond between the patients and the staff. However it could only be done under conditions where there is no shortage of staff; as it is, what is happening currently is that as soon as one attends a patient another patient is already

screaming for help. Midwives are prepared to provide assistance on a patient's arrival, but there is not enough space, the ward is always overcrowded.

The midwives indicated that in order to provide the service, there is a need for additional staff and equipment, so that they are ready to offer counselling services to women with IUFD before they are sent to the psychologist. Some midwives stated that lack of health talks at clinics and lack of giving exercises contributed to women giving IUFDs, as the service was supposed to have been done at clinics, just as it was done before. If the service of health talks and exercises to release their muscles for an easy delivery, could be re-instated at primary health care (PHC), they could reduce IUFDs, the importance of giving health education at clinics was emphasized. Other comments included showing courtesy to women with IUFD, thus allowing women to make choices with regard to their care, increasing one on one counselling services at PHC and in the hospital, and the giving of pain medication. It was indicated that the supermarket services given at PHC has a negative impact for pregnant women as they are no longer grouped together to come at a certain date, so that they could be taught, everyone is served as they enter.

In conclusion, the manager promised to delegate staff when nursing women with IUFD, and promised that they would do whatever is possible to assist women who had IUFD, and that when follow-up is done, the care that will be provided would be improved from how it was previously done. The attendance register is attached in Annexure J3.

5.6 MODEL VALIDATION

The model was taken to the maternity ward for implementation, where the guidelines regarding the context and the agents were stipulated, and the model was shown to the staff at the maternity ward. It was indicated that follow-up will be done with women who had IUFD to review the support that they have received. The attached Annexure K shows the model and guidelines that are placed at the maternity ward. Follow-up with women who had IUFD will be done at the maternity ward.

5.7 CHAPTER SUMMARY

Chapter 5 focused on the evaluation of the model. Evaluations were done by research experts in triple sessions where the model was presented. The model was evaluated according to Chinn and Krammer (1999) for its clarity, simplicity, generality, accessibility and importance. The following Chapter 6 will focus on the guidelines to operationalize the model.

CHAPTER 6

GUIDELINES TO OPERATIONALISE THE MODEL

6.1 INTRODUCTION

In the previous Chapter 5 of this study, attention was given to the evaluation of the model, profile of the evaluators, ranks, highest qualifications of the evaluators, current academic programmes and validation of the model. In this Chapter 6, the emphasis is on the guidelines to operationalize the model.

6.2 GUIDELINES TO OPERATIONALISE THE MODEL

According to Chinn and Krammer (1999) there are applications to be followed for the model to become operational. The operationalization of the model depends on the study findings in Chapter 3, following the elements of practice theory as revealed in the study, namely, the context, agents, recipients, dynamics and the procedure.

6.2.1 Guidelines regarding the context

Context was identified as hospital, clinic and home:

- The model should be presented at perinatal meetings to increase awareness and to orientate hospital and clinic nurses of the need for providing support.
- The model should be sustained by continuously engaging health care professionals at maternal health meetings and open dialogues for more inputs.
- Hospitals should advocate for the provision of human resource for the clinics under their cluster such as availability of doctors and sonar machines at clinics.

- Provision should be made for women to be treated as emergencies and to be offered professional assistance.
- Women should be offered a platform to address any concerns that a women might need, there is a need for information sharing and clarity.

6.2.2 Guidelines regarding the agents

The agents are the health care professionals, family and the spouse.

- Health care professionals should have the passion and readiness to provide maternal health, and the readiness to acquire more knowledge through in-service training in the promotion of good communication skills.
- Accompaniment of pregnant women to the next level of care. This means that shortage of staff should be addressed if some staff become part of a patients escort to the next level of care.
- To strengthen service delivery, importance and application of the Bathopele principles should be emphasized at all times with possibility of sanctioning in the event of failure, to improve the professional image of health care services.
- Consultation with social services to involve the women and her family to create a conducive environment to act as patient advocacy when women have lost their pregnancy.
- Social services should engage the spouse on how to assist in supporting women, such as by limiting movement, being there for the women and showing the congruency to the loss when offering psychotherapy.
- Health care professionals need to acquire knowledge in their work area. When they are knowledgeable, they are able to offer information and share the knowledge gained and clarify women's concerns.

6.2.3 Guidelines regarding the recipients

The model indicates women as the sole recipients of support.

- Women should communicate their needs and concerns to address issues that they require clarification on.
- Women should show interest in things that concern them regarding their care and need answers, second opinion and further referral.
- Women should actively participate and engage in decisions that concern their care.
- There is a need to build a trusting relationship between women and health care professionals, therefore communication should emanate from both.

6.2.4 Guidelines regarding the dynamics

Health care professionals should offer assistance while providing women the necessary privacy, providing respect and care of a women in an empathetic manner and showing sympathy.

6.2.5 Guidelines regarding the procedure

The procedure of this model is information sharing, patients' escort; holistic quality care; prioritized and emergency care and providing resources.

- After women have delivered an IUFD, what they need most is information regarding the causes and why it has happened, concerns regarding future pregnancies, concerns regarding medical conditions, how to address those medical conditions and prevention of further occurrences. After women had undergone an IUFD, they have questions that they need clarification on, such as regarding issues of burials, and clarity of other questions that they might have. When health care professionals have acquitted themselves with the pathophysiology they are able to share the knowledge with women.
- Women are initially diagnosed IUFD at PHC, they are transferred to the hospital for confirmation and further management. During a transfer they are not accompanied due to, in most cases, shortage of staff. They need to be accompanied, as the study revealed.

- When women arrive at a facility, they expect that health care professionals identify their needs. Challenges such as sometimes due to conditions they are unable to walk, and support which could be initiated is to provide them with a wheelchair to ease the ambulation; when these are offered it is the first realization that women feel that they have been well supported.
- Assistance could also be offered to women when they are referred for counselling services in the hospital, after IUFD women are sent to the psychologist for psychotherapy. The counselling services that women receive assist them in gaining their mental momentum to function optimally.
- The study revealed during data collection phase that women found health care professionals not displaying good communication skills. Good communication skills could be acquired through in-service training. The training could be combined with patients' charter, bathopele principles and customer care. Talking in a nice way includes awareness and rectifying the tone of the voice, hurried talk, unsympathetic talk and lack of listening skills.
- When women arrive at a facility after they have been diagnosed IUFD, they expect that all interventions will be promptly initiated. Interventions do not necessarily involve immediate expulsion of the fetus, as women indicated they wanted to be prioritized. Prioritized care is the realization that the women's concerns are taken into consideration. This might include taking vital signs, giving women comfort and notifying the doctor, as per the study findings.
- Professional Nurses with psychiatry and advanced psychiatry are equipped with the knowledge to manage the mental health disorders in women with IUFD, and should provide care at maternity before women are sent to the psychologist.

6.2.6 Guidelines regarding the outcome of the model

The model outcome depends on the interaction between the agents, and recipients, in a conducive context and applying the correct dynamics and procedures. When all have been done, the outcome is mentally stable women.

6.3 CHAPTER SUMMARY

Chapter 6 concentrated on the operationalization of the model in accordance with elements of practice theory according to Dickoff *et al.* (1968). The next Chapter 7 finalizes the study with the conclusion, limitations and recommendations of the study.

CHAPTER 7

EVALUATION, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

7.1 INTRODUCTION

Chapter 6 of this study dealt with the guidelines to operationalize the model. Guidelines with regard to the context, the agents, recipients, dynamics, procedure and the outcome were discussed. Chapter 7 focused on the aim and objectives of the study, themes identified, model development, model evaluation and guidelines to operationalize the model. The conclusion, limitations and recommendations of the study are also discussed.

7.2 THE AIM OF THE STUDY

The aim of the study was to develop a model to support women who had IUFD in Limpopo Province, South Africa. To achieve this aim, the experience of women who had IUFD and kind of support that women need was explored and described through in-depth individual interviews, which was fundamental in the development of a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.

7.3 OBJECTIVES OF THE STUDY

The objectives of the study were done in two phases, where in Phase 1 the objectives were:

- To explore and describe experiences of women who had IUFD
- To identify and describe support that women who had IUFD need

The study Phase 1 objectives were achieved through individual interviews. The experiences of women who had IUFD were explored, identified and described.

Secondly, the kind of support that women need was explored, determined and described. The findings were written as themes and sub-themes under Chapter 3.

The objectives for Phase 2 were:

- To develop the model to support women who had IUFD
- To evaluate the model to support women who had IUFD

The objectives for Phase 2 were achieved when a model was developed, described as discussed in Chapter 4 of this study, and evaluated as discussed in detail in Chapter 5.

7.4 PURPOSE OF THE STUDY

The purpose of the study was to develop a model to support women who had IUFD and this was achieved as the model was discussed in Chapter 4.

7.5 MEASURES TO ENSURE TRUSTWORTHINESS

The following Table 7.1 is a summary of how measures to ensure trustworthiness were applied in this study:

Table 7.1: Applicability of measures to ensure trustworthiness

Measure	Criteria	Applicability
Credibility	Prolonged engagement	The researcher has seven years' experience in the clinical field in which the study was conducted, and spent 3-4 months collecting data. Recorded data is retained.
	Member checking	Researcher constantly checked with the participants during data collection.

	Peer examination	A panel of experts that comprised of registered nurses, with midwifery were identified to evaluate the model.
	Structural coherence	Data was analyzed using Tech's framework of data analysis and the model was developed following Dickoff's framework of model development.
	Researcher authority	The researcher holds a master's degree in nursing research, and is an acting operational manager at the district hospital.
Transferability	Sample nominated	Purposive sampling was used to sample the district, hospitals and participants.
	Dense description	Description of the background information, the setting and participants characteristics are well described. King's interacting systems framework that guided the study, Dickoff's elements of practice theory that guided the development of the model, and Chinn and Krammer' s theory of model evaluation that was used to evaluate the model were all described.
Dependability	Dependable audit	The proposal was presented to the department of advanced nursing science, then to the school of health sciences. The model was presented to a panel of evaluators who are experts in research and midwifery to evaluate the model.

	Coding and recoding procedure	Coding was done by two research experts who hold PhD degrees and one is a post-doctoral fellow.
Confirmability	Confirmable audit	Received UHDC letter from the office of the University Deputy Vice Chancellor, Ethical Clearance from University Research and Ethics Committee, approval from the Limpopo Provincial Department of Health and approval letters from all selected hospitals, and consent from the participants.

7.6 PHASE 1 OF THE STUDY: SITUATIONAL ANALYSIS

In Phase 1, the research study identified two themes. Theme 1: Experiences of women who had IUFD and five sub-themes and needed support as perceived by women who had IUFD and four sub-themes for Theme 2. These are discussed below.

7.6.1 Theme 1: Experiences of women who had IUFD

Five sub-themes were revealed under this theme, emotional response, somatic danger alerts, physical ill health, mental health problems and congenital fetal defects.

7.6.1.1 Emotional response

Under this sub-theme, the study revealed that most women indicated curbing their worries, protecting self and loved ones, were concerned about the professional silence due to non-verbal response from health professionals, shattered hopes, felt emotionally pain and feelings of blame. These responses

formed the basis of emotions that women had, which left women with emotional scars that required appropriate support.

7.6.1.2 Somatic danger alerts

The study findings revealed the danger alerts that women had in their experience of the IUFD, which included forewarning such as feeling no baby movement and the fetal kicks. Communication with the baby was reported, where women attempted re-establishing contact with the baby by trying stimulation, which yielded no required results.

7.6.1.3 Physical ill health

Physical ill health was reported when some women indicating that they suffered from medical conditions such as pregnancy induced hypertension, diabetes mellitus and antepartum hemorrhage at the time of IUFD.

7.6.1.4 Mental health problems

Mental health problems were identified when women reported insomnia, in which their sleeping patterns were disturbed, flashbacks of the incident and nightmares following IUFD. During the study it was revealed that support was limited that addresses the mental health problems, but the developed model could improve the mental health of women who had IUFD.

7.6.1.5 Congenital fetal defects

Congenital fetal defects due to structural defects were reported, some women reported malpresentations, pathological heart defects during Cardio-Tocography (CTG) scans, fetal demise in-utero and intrauterine growth retardation (IUGR). The findings reveal that for some of these fetal abnormalities, with timely interventions, they were preventable. For instance,

pathological heart defects should have been treated as an emergency, but the delay at initial diagnosis at PHC until the next level of care, without prioritized or emergency care, could have led to the fetal demise. It is through some of these findings that identified that emergency care is vital for women who had IUFD.

7.6.2 Theme 2: Needed support as perceived by women who had IUFD

Four sub-themes were revealed under this theme, which are: prioritized and emergency care, holistic quality care, family involvement and availability of resources at primary health facilities.

7.6.2.1 Prioritized and emergency care

This sub-theme shows that women need prompt assistance, early interventions, as well as prioritized and emergency care.

7.6.2.2 Holistic quality care

Holistic quality care was substantiated by effective communication viewed as good communication skills, humanity and provision quality patient care by healthcare professionals and the provision of professional counselling services. Counselling services included referrals to psychologist and where someone sent by the hospital comes and talks to women who had IUFD

7.6.2.3 Family involvement

Family involvement included support by the spouse, and advocating for the patient to those asking questions. Women perceived partner support as feelings of congruency in the loss.

7.6.2.4 Availability of resources at primary health care facilities

Availability of resources at primary health care facilities was mentioned as provision of human resource through availability of doctors at primary health care, patients escort and support through provision of equipment such as sonar machines during antenatal care.

7.7 PHASE 2: MODEL DEVELOPMENT

Findings in Phase 1 formed the basis for Phase 2, the model development, explained in detail in Chapter 4. The model was developed guided by Dickoff's six elements of practice theory.

7.7.1 Theoretical framework for the development of the model

The model was developed using the theoretical framework and approaches as outlined by Dickoff *et al.* (1968), refer to Chapter 4, based on what participants have said. The situational analysis (Phase 1) provided information regarding experiences and the perceived needed support for women who had IUFD. The participants themselves indicated the agents, context, procedures and dynamics, to achieve the desired outcome, these are briefly discussed below:

7.7.1.1 Context

According to the research findings, the context (in Figure 4.1) is regarded as where the activity should be performed. Women who had IUFD regard the context where support for women who had IUFD could be rendered, being at hospitals, clinics and at their homes.

7.7.1.1.1 Hospital

Participants identified hospitals as places where they needed support. Hospital health services encompass a continuum of care of health promotion, specialized

competency, diagnostics and 24-hour services, ideal for emergency health services, obstetrics, in-patient services and disease management. Hospitals make use of adequate and appropriately managed staff including multi-disciplinary team and provide evidence based clinical practice.

7.7.1.1.2 Clinic

Participants also named clinics as places where they needed support. Clinics offer primary health care services such as outpatient care and antenatal care.. Primary health care services include clinics and community health centers. IUFD is initially diagnosed at PHC level, where there are no doctors, and thereafter women are referred to hospitals for the next level of care because there are no diagnostics and specialist care, hence women are sent to the next level of care.

7.7.1.1.3 Home

After the IUFD, women come back home. Webster (2016) defined home as a place of permanent residence, with a familiar setting and is formed by a family living together and having focus of domestic attention. Support was also needed at home, as the participants revealed.

7.7.1.2 Agents

The agents (in Figure 4.2) are regarded as those whose activity leads to the realization of the goal. According to the participants, the agents were identified as health care professionals, family and the spouse, briefly discussed hereunder.

7.7.1.2.1 Health care professionals

Health care professionals comprise doctors, professional nurses with midwifery and psychiatry, advanced midwives, advanced psychiatric nurses and

psychologists. Health care professionals are found at initial encounter at primary health care and at second level in hospitals, where women are referred to the next level of care.

7.7.1.2.2 Family

Family is a traditional family, comprised of parents and siblings, but could be extended to include in-laws and step-parents, but family is mainly defined by sharing common goals, values and long-term commitment. Participants reported support from their mothers, mother-in laws and their spouse.

7.7.1.3. Recipients

Recipients (in Figure 4.3) are those who are benefitting from the action of the agents. Participants themselves indicated that they are the ones who are benefitting support from health care professionals, the family and their spouse.

7.7.1.4 Dynamics

Dynamics (in Figure 4.4) indicate energy source that motivate the agents to perform the activity without getting discouraged. Participants indicated they needed respect and care, sympathy and empathy from the health care professionals, and also expected empathy, congruency in grief from both their mothers and spouse.

7.7.1.4.1 Respect and care

Literature indicate that health care professionals should give respectful maternity care as a standard, and it goes in hand with the rights of the women as patients, that is the right to fair and equal treatment, the right to privacy and confidentiality.

7.7.1.4.2 Sympathy

Participants indicated sympathy by the health care providers, since literature indicate that compassion enhances facets of empathy and is motivated by love, action and kindness, where participants alludes by saying how the health care professionals talk shows emotional resonance and is essential element in showing support.

7.7.1.4.3 Empathy

Studies show that empathetic techniques, which are learned and retained as a skill, enhances recovery. Also opportunities of sharing memories are associated with better emotional outcomes. These opportunities could be made available when women are given the opportunity to converse with someone who has been through the same incident, and the same could be done at the home context when all are in congruent in the grief.

7.7.1.4.4 Privacy

Studies indicate that privacy is a human right and affects patient satisfaction and perception of quality care. Privacy maintains patient dignity, where disrespect leads to loss of self-care and decreased participation. Participants reported the need for adequate privacy such as being far from women who have delivered alive babies, being away from noise and also not to be exposed by the health care professionals. Health care professionals should provide women with the privacy that they need.

7.7.1.5 Procedure

Procedure (in Figure 4.5) involves the guiding steps to be taken towards accomplishment of the goal and facilitates activity to be carried out. It safeguards the agent, recipient and the institution in providing knowledge, and therefore lessens liability to criticism or litigations. Participants reported information sharing, effective communication, prioritized and emergency care, patients' escort and provision of resources at PHC level as discussed below.

7.7.1.5.1 Information sharing

Information sharing require that women are given accurate information with regard to requested or anticipated information at departmental, district and national levels. Participants reported wanting more information and guidance about their condition, the pathophysiology as well as any information regarding future pregnancies and follow-up care.

7.7.1.5.2 Holistic quality care

Holistic quality care includes effective communication and counselling services. Literature indicate that effective communication does not necessarily involve speaking, but involve listening, making eye contact and using encouraging remarks. Effective communication enhances respect, support and concern. Participants supported this when they said they needed health care professionals to talk to them in a respectful way and showing understanding of their situation.

7.7.1.5.3 Prioritized and emergency care

Participants reported that they needed to be treated as emergencies and also be prioritized. Being emergency included that the patient's emergency records be readily available.

7.7.1.5.4 Patients escort

Patients escort involve accompanying patients to the next level of care, and it enhances patient advocacy. Patients' escorts ensure that patients arrive at their appropriate receiving facility after they have been alerted, and there is higher rate of feedback from both sides. Participants reported this need because they stated that it could improve the way they are being treated.

7.7.1.5.5 Provision of resources

Resources that participants mentioned to enhance service delivery included the provision of doctors and ultrasound machines at PHC level. Doctors on the other hand reported that if essential drugs and equipment are available at clinics, they are ready to offer their services there. Participants reported the provision of the equipment as a way of easing their frustrations especially in the diagnosis of IUFD where they are sent to the next level of care.

7.7.1.5.6 Outcome of the model

The outcome (in Figure 4.6) is an end point of the activity. The meta-theoretical assumption was that though IUFD is a loss, providing support and following the procedures and guidelines will ensure that women will be managed well to achieve emotional balance, despite the occurrence of the IUFD.

7.8 MODEL DEVELOPMENT

The model was developed based on the findings in Chapter 3 of the study, and used a schematic diagram to present relationships among the phenomena. The model was developed following the theoretical framework and the approaches as outlined by Dickoff et al. (1968). The study departed from three paradigms, the meta-theoretical assumption; theoretical assumption, grounded theory for model development and methodological assumptions, all which are discussed in detail in Chapter 4. Criteria for formulating concepts; structuring and contextualizing the model; the defining concepts were identified; assumptions were identified; context clarified and relational statements designed, all discussed in detail in Chapter 4.

7.9 MODEL DESCRIPTION

The description of the model was facilitated by defining the purpose of the model; the structure of the model; and the overview of the model until the final structure was represented in Figure 4.7.

7.10 EVALUATION OF THE STUDY

Evaluation of the study was done in three sessions; 7 December 2019 for session 1, 4 January 2020 for session 2, and 31 January 2020 for session 3. Comments and annexures for all sessions are attached as annexures J1, J2 and J3 respectively. Evaluations were regarding clarity, simplicity, generality, accessibility and importance of the model. Discussions of the evaluations are presented in Chapter 5.

7.11 GUIDELINES TO OPERATIONALISE THE MODEL

To operationalize the model, findings in Chapter 3 became the basis for the development of the model following the elements of practice theory as revealed in the study, namely, the context, agents, recipients, dynamics and the procedure. The guidelines were developed in accordance to the concepts and discussed in Chapter 6.

7.12 LIMITATIONS TO THE STUDY

This was a contextual study, limited to women who had IUFD, meaning that the study could not be generalized. However, the recommendations and contributions to the body of knowledge is meaningful, in promoting awareness of mental health in women who had IUFD.

7.13 RECOMMENDATIONS

The recommendations of this study are based on nursing practice, nursing education and for further research, as discussed below:

7.13.1 To nursing practice

The developed model could assist health care professionals in their encounters with women who had IUFD, to be equipped with the necessary skills to support women who had IUFD. The support will promote quality patient care leading to mentally stable women.

7.13.2 To nursing education

Recommendations for nursing education include incorporating the model into nursing curriculum and that student midwives should receive in-service training on good communication skills with regard to supporting women who had IUFD. This will contribute to relevant and appropriate care leading to improved quality of care.

7.13.3 Further research

The following are recommendations for further study:

This study recommends that a study should be conducted on a wider scale to assess the impact of the developed model to support women who had IUFD and its contribution to the improvement of mental health for all women.

7.14 CONCLUSION OF THE STUDY

The study concludes that women who had IUFD need support in these identified areas; home, clinic and hospital, and could be provided by the spouse, mother or mother in law in the family, and by the health care professionals in clinics and hospitals. Women might become mentally stable despite the occurrence of an IUFD.

7.15 CHAPTER SUMMARY

In this closing Chapter 7 of the study, the following were outlined: evaluation of the study based on the aim and objectives as set in Chapter 1, conclusion was based on the themes and sub-themes as outlined in Chapter 3, the model development, model evaluation and guidelines to operationalize the model. Further discussions were the limitations and recommendations to nursing practice, nursing education and recommendations for further research as discussed in this Chapter 7.

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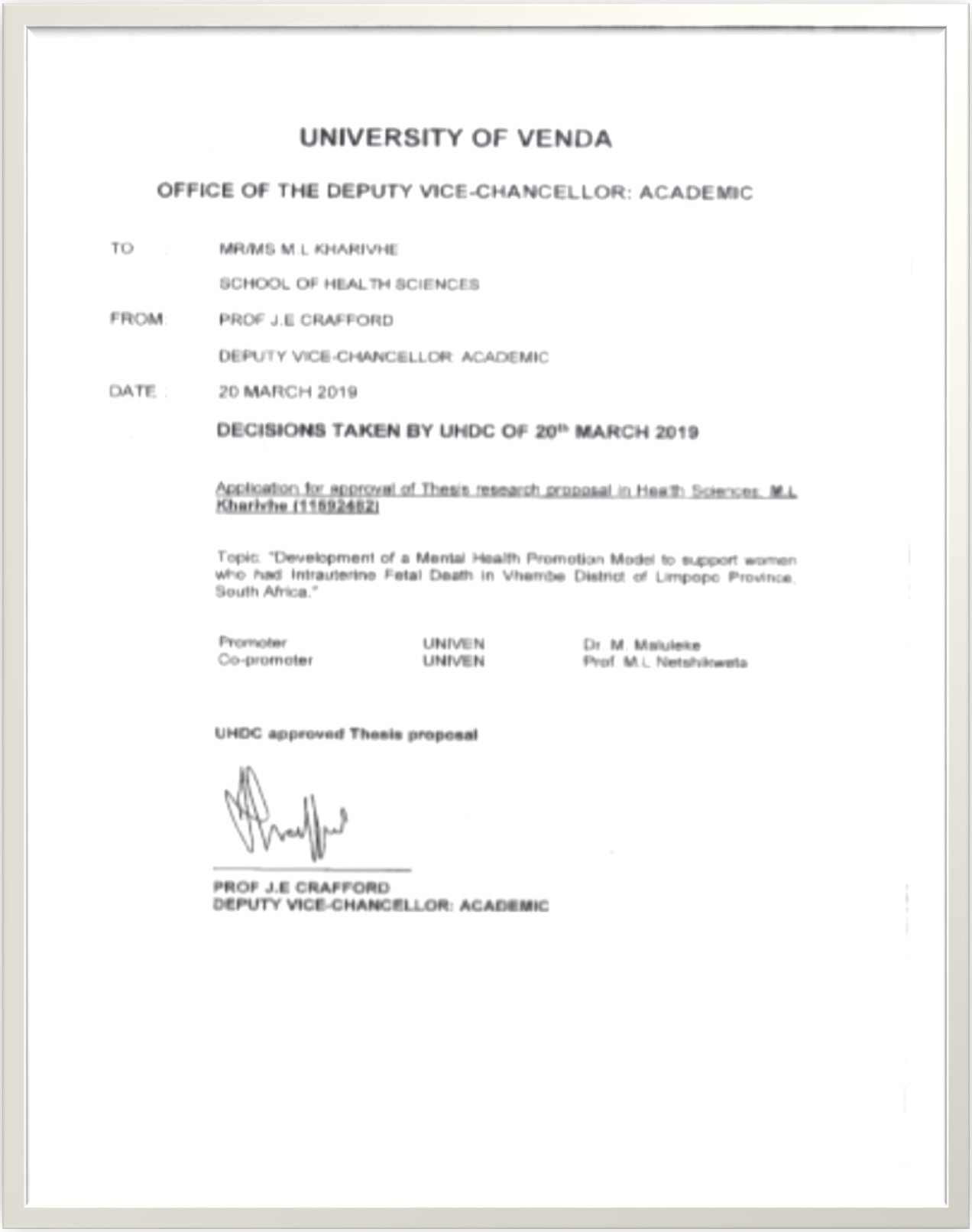
ANNEXURES

ANNEXURE A: APPROVAL LETTER FROM UNIVERSITY HIGHER DEGREES COMMITTEE (UHDC)



UNIVERSITY OF VENDA

OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC

TO: MR/MS M.L KHARIVHE

SCHOOL OF HEALTH SCIENCES

FROM: PROF J.E CRAFFORD

DEPUTY VICE-CHANCELLOR: ACADEMIC

DATE: 20 MARCH 2019

DECISIONS TAKEN BY UHDC OF 20th MARCH 2019

Application for approval of Thesis research proposal in Health Sciences: M.L Kharivhe (11692462)

Topic: "Development of a Mental Health Promotion Model to support women who had Intrauterine Fetal Death in Vhembe District of Limpopo Province, South Africa."

Promoter	UNIVEN	Dr. M. Maluleke
Co-promoter	UNIVEN	Prof. M.L Netshivhweta

UHDC approved Thesis proposal

PROF J.E CRAFFORD
DEPUTY VICE-CHANCELLOR: ACADEMIC

ANNEXURE B: ETHICAL CLEARANCE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Mrs ML Kharivhe

Student No:
11592482

PROJECT TITLE: Development of a mental health promotion model to support women had intrauterine fetal death in Vhembe District of Limpopo Province South Africa.

PROJECT NO: SHS/19/PDC/09/1405

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr M Maluleke	University of Venda	Promoter
Prof ML Netshikweta	University of Venda	Co - Promoter
Mrs ML Kharivhe	University of Venda	Investigator - Student

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: May 2019
Decision by Ethical Clearance Committee Granted
Signature of Chairperson of the Committee: .....
Name of the Chairperson of the Committee: Senior Prof. G.E. Ekosse

UNIVERSITY OF VENDA
DIRECTOR
RESEARCH AND INNOVATION
2019 -05- 20
Private Bag X5050
Thohoyandou 0950

University of Venda
PRIVATE BAG X5050, THOHOYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 8504/8313 FAX (015) 962 9060
"A quality driven financially sustainable, rural based Comprehensive University"

ANNEXURE C: APPLICATION LETTER

The Head of Department
Provincial Department of Health
P/Bag x9302
Polokwane
0700
Tel: (015) 293 6000

Dear Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: DEPT OF HEALTH, LIMPOPO PROVINCE

This letter serves as an application to conduct research about 'Development of a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.'

The researcher is a doctoral degree in nursing student at University of Venda. The study will be conducted in Vhembe District of Limpopo Province, South Africa. This study is conducted under the supervision of Dr M. Maluleke and Prof. M.L. Netshikweta.

The purpose of the study is to develop a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.

To achieve this purpose, the researcher needed to interview women who had IUFD in Vhembe District Limpopo Province, South Africa. In this current study interview is a method of data collection that will be used to explore and describe the support that women who had IUFD need.

For any information contact the researcher on the following numbers: Cell: 082 5045 223.

Kind regards,

Ms Kharivhe M.L. (Researcher)

ANNEXURE C1: APPROVAL: LIMPOPO DEPT. OF HEALTH

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Ref : LP_201907_004
Enquiries : Mrs K. Letsoparela
Tel : 015-293 6028
Email : Kurhula.Hlomane@dhsd.limpopo.gov.za

Martha Kharivhe

Faculty of Health Science

University of Venda

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

Development of a mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province South Africa

1. Permission to conduct research study as per your research proposal is hereby Granted
2. Kindly note the following
   a. Present this letter of permission to the institution supervisor/s a week before the study is conducted
   b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
   c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   e. The approval is only valid for a 1-year period.
   f. If the proposal has been amended, a new approval should be sought from the Department of Health
   g. Kindly note that, the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated

Head of Department **Date** 25/07/19

Private Bag X9302 Polokwane
Fidel Castro Ruz House, 18 College Street, Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.
Website: http//www.limpopo.gov.za

The heartland of Southern Africa – Development is about people!

ANNEXURE D: APPLICATION LETTER

Departmental Research and Ethics Committee
Dept. of Health
Vhembe District
P/Bag x5009
Thohoyandou
0950
Tel (015) 962 1000/0265
Email: www.dhsd.limpopo.gov.za

Request for Permission to Conduct Research: Vhembe District

To: Chief Executive Officer

This letter serves as an application to conduct research about 'Development of a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.'

The researcher is a doctoral degree in nursing student at University of Venda. The study will be conducted in Vhembe District of Limpopo Province, South Africa. This study is conducted under the supervision of Dr M. Maluleke and Prof. M.L. Netshikweta.

The purpose of the study is to develop a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.

To achieve this purpose, the researcher needed to interview women who had IUFD in Vhembe District Limpopo Province, South Africa. In this current study interview is a method of data collection that will be used to explore the kind of support that women who had IUFD need.

For any information contact the researcher on the following numbers: Cell: 082 5045 223

Ms Kharivhe M.L. (Researcher)

ANNEXURE D1: APPROVAL: VHEMBE DISTRICT DEPT. OF HEALTH

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OFHEALTH
VHEMBE DISTRICT

Ref: S5/6
Enq: Muvari MME
Date: 01.08.2019

Dear Sir/Madam Khorommbi M.L

Permission to conduct a research on the
" Development of a mental health promotion ... **"**

1. The above matter refers.

2. Your letter received on the 01-08-2019 requesting for permission to conduct an investigation is hereby acknowledged.

3. The District has no objection to your request.

4. Permission is therefore granted for the study to be conducted within Vhembe District. You are expected to submit the results to the District.

5. You are however advised to make the necessary arrangements with the facilities concerned.

Wishing you success in your endeavors.

CHIEF DIRECTOR: DISTRICT HEALTH — DATE 2019/08/02

Private Bag X5009 THOHOYANDOU 0950
OLD parliamentary Building Tel (015) 962 1000 (Health) (015) 962 4958 (Social Dev.) Fax (015) 962 2216/9633
Old Parliamentary Building Tel: (015) 962 1848, (015) 962 1852, (015) 962 1754, (015) 962 1000/2/3/4/5/6 Fax (015) 962 2074, (015) 962 227

The heartland of Southern Africa - development is about people

ANNEXURE E: APPLICATION LETTER

Departmental Research and Ethics Committee
Dept. of Health
(State) Hospital
P/Bag Xxxxx
Xxxxx
0000
Tel (015) 000-0000

Request for Permission to Conduct Research: (State) Hospital

To: Chief Executive Officer

This letter serves as an application to conduct research about 'Development of a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.'

The researcher is a doctoral degree in nursing student at University of Venda. The study will be conducted in Vhembe District of Limpopo Province, South Africa. This study is conducted under the supervision of Dr M. Maluleke and Prof. M.L. Netshikweta.

The purpose of the study is to develop a model to support women who had IUFD in Vhembe District of Limpopo Province, South Africa.

To achieve this purpose, the researcher needed to interview women who had IUFD in Vhembe District Limpopo Province, South Africa. In this current study interview is a method of data collection that will be used to explore and to describe the kind of support that women who had IUFD need.

For any information contact the researcher on the following numbers: Cell: 082 5045 223

Ms Kharivhe M.L. (Researcher)

ANNEXURE E1: APPROVAL: HOSPITAL 1

LIMPOPO
PROVINCIAL GOVERNMENT

DEPARTMENT OF HEALTH
DONALD FRASER HOSPITAL

Ref 4/2/2
Enquiries: Mphephu VF
Tell no 072 1880 436
Ext 9364/9348
18/10/2019

TO: Kharivhe ML
School of Health Sciences
Department of Advance Nursing Science
University of Venda
Private Bag X5050
Thohoyandou
0950

RE: Permission to conduct access Maternity register and files

Topic for research : Development of mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province South Africa

The above matter refers

1. Permission to access Maternity register and files is hereby granted

2 Please bring along the following documents

- Permission letter granted from department of health.
- Permission letter granted from educational institution.
- This letter

Hoping you will find this in order

SIGNED ..... Date 18/10/2019

CHIEF EXECUTIVE OFFICER

LIMPOPO PROVINCE
DONALD FRASER HOSPITAL
2019 -10- 18
PRIVATE BAG X1172
VHUFULI
DEPARTMENT OF HEALTH

Private bag X1172, Vhufuli 0971
Tel: 015 963 1778/9, 015 1783 1791/2 • Fax: 015 963 1773, 015 963 1796
Cell: 083 248 0184

ANNEXURE E2: APPROVAL: HOSPITAL 1

LIMPOPO
PROVINCIAL GOVERNMENT

DEPARTMENT OF HEALTH
DONALD FRASER HOSPITAL

Ref: 4/2/2
Enquiries: Mphephu VF
Tell no: 072 1880 436
Ext: 9364/9348
18/10/2019

TO: Kharivhe ML
School of Health Sciences
Department of Advance Nursing Science
University of Venda
Private Bag X5050
Thohoyandou
0950

RE: Permission to conduct research study on "Development of mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province South Africa."

The above matter refers

1. Permission to conduct the above mentioned study is hereby granted.
   - Kindly be informed that in the course of your study there should be no action that disrupts the services.
   - You are to give report to quality assurance manager of Donald Fraser Hospital after completion of research study at Donald Fraser Hospital
   - After completion of the study, a copy should be submitted to our institution to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   - You are therefore requested to contact nursing administration office number 7, OPD basement for logistic arrangements.

3. Please bring along the following documents:

- Permission letter granted from department of health.
- Permission letter granted from educational institution.
- This letter.

LIMPOPO PROVINCE
DONALD FRASER HOSPITAL
2019 -10- 18
PRIVATE BAG X1172
0971 VHUFULI
DEPARTMENT OF HEALTH

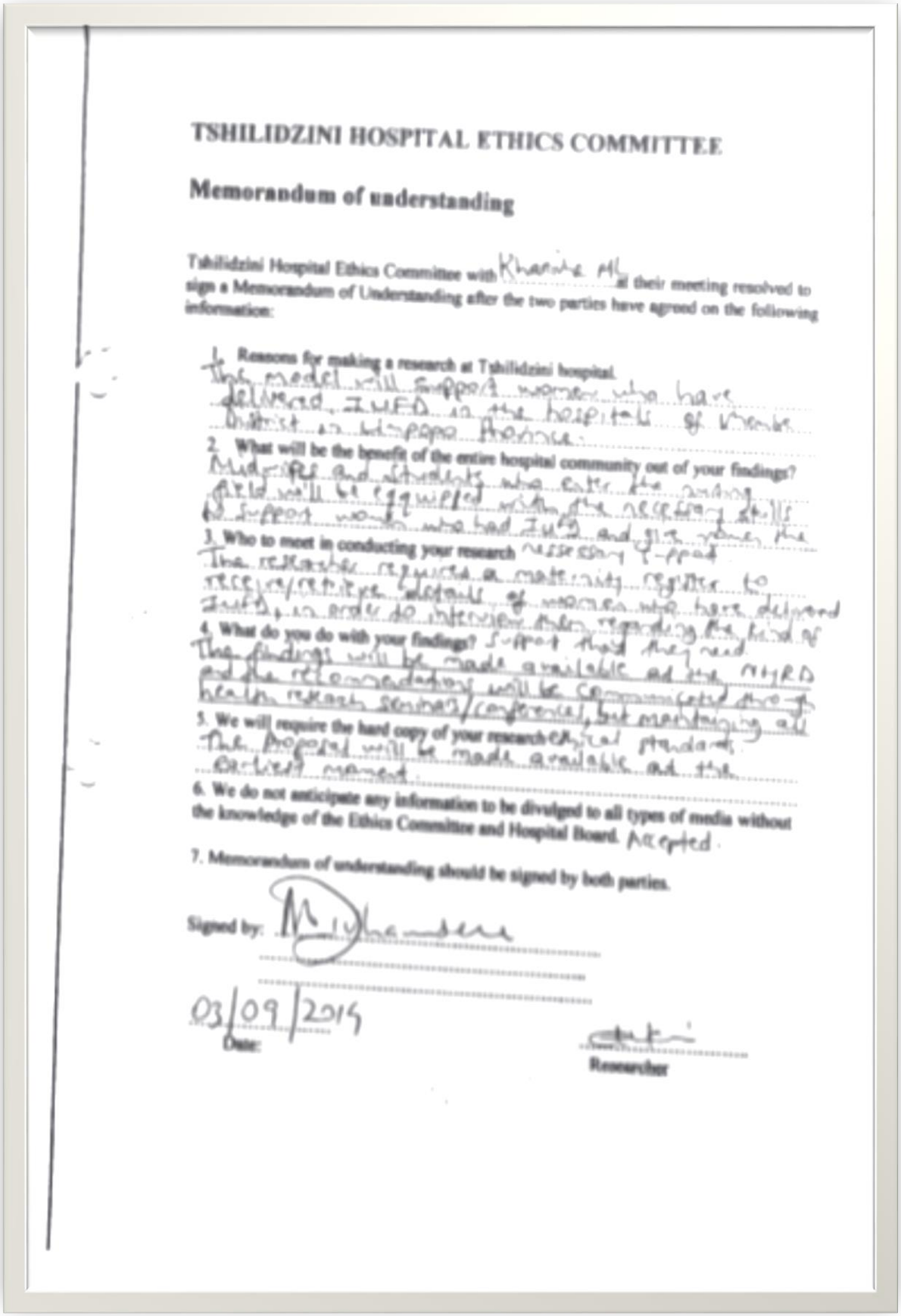
Hoping you will find this in order

SIGNED ..... Date 18/10/2019

CHIEF EXECUTIVE OFFICER

Private bag X1172, Vhufuli 0971
Tel: 015 963 1778/9, 015 1783 1791/2 • Fax: 015 963 1773, 015 963 1796
Cell: 083 248 0184

ANNEXURE E3: APPROVAL: HOSPITAL 2



TSHILIDZINI HOSPITAL ETHICS COMMITTEE

Memorandum of understanding

Tshilidzini Hospital Ethics Committee with Khaviha ML at their meeting resolved to sign a Memorandum of Understanding after the two parties have agreed on the following information:

1. Reasons for making a research at Tshilidzini hospital.
This model will support women who have delivered IUFD in the hospitals of Vhembe District in Limpopo Province.
2. What will be the benefit of the entire hospital community out of your findings?
Midwives and students who enter the nursing field will be equipped with the necessary skills to support women who had IUFD and give value the
3. Who to meet in conducting your research
The researcher requires a maternity register to receive/retrieve details of women who have delivered IUFD, in order to interview them regarding the kind of
4. What do you do with your findings?
The findings will be made available and the report and the recommendations will be communicated thro health research seminars/conferences, but maintaining all
5. We will require the hard copy of your research ethical standards.
The proposal will be made available and the
6. We do not anticipate any information to be divulged to all types of media without the knowledge of the Ethics Committee and Hospital Board. Accepted.
7. Memorandum of understanding should be signed by both parties.

Signed by: .....

03/09/2019
Date:

.....
Researcher

ANNEXURE E4: APPROVAL: HOSPITAL 3

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Ref. S5/3/2
Enq. Makondo A.T
Date 2019.08.27

To Ms. Khamvhe M.L

Cc Acting Deputy Director: Risk Management Service Mr. Matsheka N.J

Cc The Manager: Nursing Services: Mrs. Mabunda K.G

From Human Resource Organizational Strategy and Planning

SUBJECT: PERMISSION TO CONDUCT A RESEARCH ABOUT DEVELOPMENT OF A MENTAL HEALTH PROMOTION MODEL TO SUPPORT WOMEN WHO HAD IUFD IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

1. The above matter bears reference.
2. Receipt of your dated letter 8th of August 2019 together with the approval from the Provincial Office is hereby acknowledged with thanks.
3. You are hereby granted permission to access the hospital to conduct the research as requested.
4. When collecting the data, you are kindly advised to liaise with Mr. Matsheka: Acting Deputy Director: Risk Management Service and the Manager Nursing Services: Mrs. Mabunda K.G regarding issues of information security and the patient's rights.
5. Your urgent attention is always appreciated.

Mabunda K.G
CHIEF EXECUTIVE OFFICER

27.8.2019
DATE

P/Bag X312, Elim Hospital, 0960
Tel (015)556 3201/2/3/4/5, Fax (015)556 3160,
The heartland of Southern Africa - development is about people
RESTRICTED

ANNEXURE E5: APPROVAL: HOSPITAL 4

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
SILOAM HOSPITAL
Confidential

Ref : S4/2/1/1/3
Enq : Mushaphi N.T: HRD
Date : 25 September 2019

To: Kharivhe M.L

RE: PERMISSION TO CONDUCT RESEARCH: YOURSELF.

1. The above matter refers.
2. The Hospital highly acknowledges the receipt of your letter dated 17/09/ 2019 regarding the above matter
3. Kindly note that the institution is granting you permission to come and conduct research on Development of a model to support woman who had IUFD in Vhembe District Hospitals in Limpopo Province.
4. You are kindly requested to adhere to the conditions as set out in your approval from the Provincial Office.
5. Hoping you will find the above in order

Chief Executive Officer

25/09/2019
Date

Private Bag X2432, Makhado, 0920
Tel (015) 973 0004/5/6, 015 973 1447/8, 015 973 1977, 015 973 1892/4/9 Fax (015) 973 0607.

The heartland of Southern Africa – development is about people!

ANNEXURE E6: APPROVAL: HOSPITAL 5

CONFIDENTIAL

LIMPOPO
PROVINCIAL GOVERNMENT

DEPARTMENT OF HEALTH
LOUIS TRICHARDT HOSPITAL

Ref 4/2/2
Enq Masindi L P
Email Londani.Masindi@dhsd.limpopo.gov.za
Date 30/08/2019

To KHARIVHE M.L
15th Ruth Street
LOUIS TRICHARDT
0920

SUBJECT: APPROVAL TO CONDUCT RESEARCH AT LOUIS TRICHARDT HOSPITAL: KHARIVHE M.L

1. The receipt of your letter dated 08/08/2019 is hereby acknowledged

2. Permission to conduct the following research topic "**DEVELOPMENT OF A MENTAL HEALTH PROMOTION MODEL TO SUPPORT WOMEN WHO HAD IUFD IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA**" has been granted

3. The above permission is subject to the conditions as set down in both permission letters from Provincial Health Department dated 20/07/2019 and Vhembe District Office dated 02/08/2019

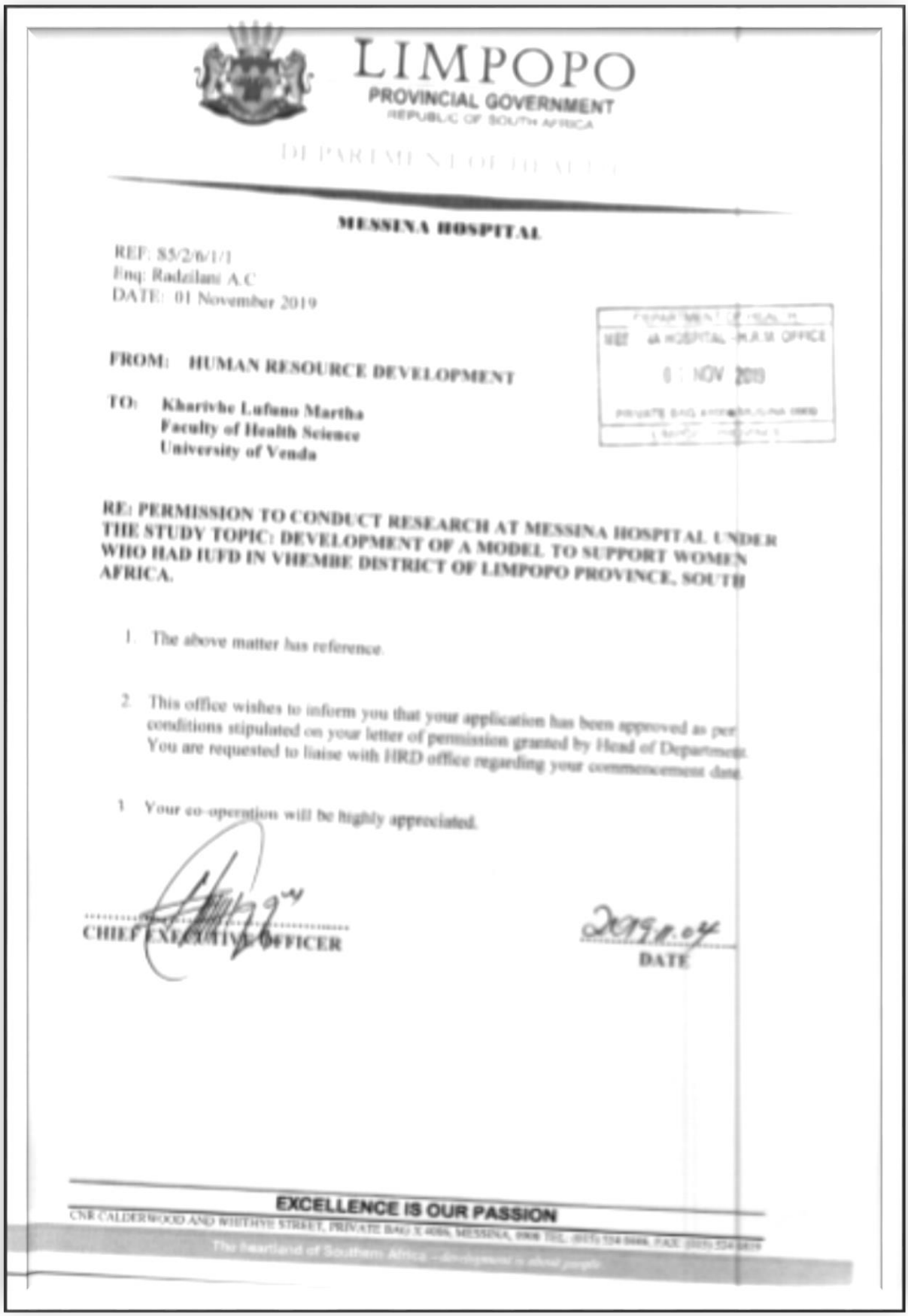
4. Thank you

DEPARTMENT OF HEALTH
LOUIS TRICHARDT HOSPITAL
03 SEP 2019
CHIEF EXECUTIVE OFFICER

ACTING CHIEF EXECUTIVE OFFICER — DATE 03/09/2019

P/BAG X 2417 LOUIS TRICHARDT 0920
TEL: 015 516 0148 Crn. Hospital & Snyman Street Fax: 015 516 3252/ 4658
The heartland of Southern Africa- development is about people

ANNEXURE E7: APPROVAL: HOSPITAL 6



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

MESSINA HOSPITAL

REF: 85/2/6/1/1
Enq: Radzilani A.C
DATE: 01 November 2019

DEPARTMENT OF HEALTH
MEC & HOSPITAL MANAGEMENT OFFICE
01 NOV 2019
PRIVATE BAG X5009, POLOKWANE, 0700

FROM: HUMAN RESOURCE DEVELOPMENT

TO: Kharivhe Lufuno Martha
Faculty of Health Science
University of Venda

RE: PERMISSION TO CONDUCT RESEARCH AT MESSINA HOSPITAL UNDER THE STUDY TOPIC: DEVELOPMENT OF A MODEL TO SUPPORT WOMEN WHO HAD IUFD IN VHEMBE DISTRICT OF LIMPOPO PROVENCE, SOUTH AFRICA.

1. The above matter has reference.

2. This office wishes to inform you that your application has been approved as per conditions stipulated on your letter of permission granted by Head of Department. You are requested to liaise with HRD office regarding your commencement date.

3. Your co-operation will be highly appreciated.

.....
CHIEF EXECUTIVE OFFICER

2019.11.04
DATE

EXCELLENCE IS OUR PASSION
CNR CALDERWOOD AND WHITHYE STREET, PRIVATE BAG X 9086, MESSINA, 0900 TEL: (015) 534 0000, FAX: (015) 534 0019
The heartland of Southern Africa – development is about people

ANNEXURE F: PRE-TESTS

Pre-Test 1

Participant T1, PT1, P0G2, 25 years

R: Good morning.

PT1: Good morning.

R: How are you?

PT1: I am fine

R: You look happy, is it because it has rained well these days?

PT1: It has been very hot, at least now the weather has favored us.

R: As we have agreed, I am here to interview you about the kind of support that you feel that women who had IUFD need for them to feel that they have been supported. Let me introduce myself again, I am Martha Kharivhe, a PhD student in nursing at the University of Venda. With me I have an audio recorder, everything that we say will be recorded here, and if you need to press the stop button you just press here. Everything that we are going to talk about will never be used against you, and the information that you tell me will remain confidential. No-one that is not involved in this research is allowed access to the information, and that when we disseminate the results only coding will be used to prevent any linking of the information with your name or with the name of the institution. I am in no way forcing you to participate in this interview, and anytime you want you can withdraw from the interview. I am asking for your permission for me to conduct the interview with you. The interview could be about 30 to 45 minutes.

Please sign this consent form for me from the university, which you will take and I will leave with the copy, to show that I have explained all this to you and that you understand and agree with me, but still you can withdraw from this interview at any time.

PT1: Okay. She agreed and signed the consent form

- Ethical issues well done
- The researcher was quick in getting to the core without much linking with the rapport

PT1: Yes, I agree.

R: Please tell me, from what you have experienced, where did you get the support from? What kind of support did you receive?

PT1: I received support from my family and also myself, (How did your family support you?) as I believe in God, He is the one who gives me strength, I felt that God helped me all the way.

R: From your experience, if one does not have that belief, what could you tell them? Irrelevant

PT1: There are challenges (what were those challenges?)indeed that I have went through though I believe in God, but for someone not taking God as her only strength, that could be a challenge, I can't even think of how could one get along.

R: Starting at the hospital, please tell me, what kind of support did you receive?

- The researcher was never supposed to direct the interviewee about where she was supposed to get support

PT1: There was none, though I was sent to the psychologist, it just ends there in her office and one still has to go back home and face reality (what reality are you talking about) alone.

R: In your view, what is it that could be done for women to feel that they have been supported?

- The researcher did not probe reality

PT1: In my view, at the hospital (this has been directed), the very first thing when one has been through the loss, is to be placed away from women who have given birth to live babies, a place where there is no noise, because the

women there will not be in the same thoughts, others are thinking about their babies, others are thinking about their loss.

- The researcher was never supposed to direct the woman where support should have come from

R: So you are saying the focus is about being separated from women who gave birth to live babies? Paraphrased

PT1: Yes, first the difference in the age groups matters, the young mothers would be having conversations about how their babies look, the comparisons, the discussions around baby appearances. You see, another thing is during visiting times, their families might be bringing clothing for the newborn and you are watching them dressing up the baby whereas your own relatives are just standing there without any words, it traumatizes.

R: Okay, when looking at our hospitals, what then could be changed to bring in comfort in women who had IUFD? I mean, in an atmosphere where change is possible, what is it that could be changed?

PT1: There is a need for space. Nurses need not handle women like they have all been through the same situation, we are not the same, one has a child, the other one does not have a child.

R: Are you saying that support needs to start with the nurses?

PT1: Yes, support needs to start with the nurses in a place where women are far from hearing noises of crying babies. When women have been separated and grouped together, they are also able to help each other in the same language as they have both been through the same experience.

R: Are you saying that women who have delivered IUFD need a separate ward?

PT1: Yes.

R: A separate ward, are you saying that they could be accommodated together with women who have not yet delivered?

PT1: Absolutely not, because there could be conditions that have led to the woman to lose the baby, such as in my case. I had a Bp (Blood pressure), so

this could mean that if there is another woman who is also having a Bp (Blood pressure) she might think she is going to lose the baby, so it is much better if women who have lost a baby to stay separate in their own ward.

R: I understand what you are saying (Summary). What else if women are in their own ward, ward next?

PT1: There is a need for someone to come and visit the women, talk to them, someone who understands what happened.

R: Who is this someone?

PT1: A nurse who has helped to deliver the baby.

R: Are you saying that it should be a midwife who has been there during the childbirth?

PT1: Yes, because she will be understanding of the situation around us.

R: So you are saying that support needs to start in the hospital, before a woman goes home, right, how then is the support offered? Is it not that the women get the support from the psychologist?

PT1: No, the psychologist only asks a few questions which are not helpful, as I feel I need someone who understands what I have been through. The nurse who will be coming to us has the sympathy as she is the one who assisted in the delivery of the baby, and also has the empathy of what I have been through.

R: So, there is no one else who could be involved in the process?

PT1: No one else, just the nurse who assisted in the childbirth is necessary for coming to talk with the women.

R: How could support be done as the nurse comes to visit the women in the ward? Well explored

PT1: The nurse should listen to what women are saying, this assists the women in the sense that as they hear other women's stories, they relate to themselves and they get comfort through that.

R: The nurse that you are talking about, the one who assisted in the delivery, is an advanced midwife, (the interviewee need not to know who does what) are you saying that she is the one who should spearhead this?

- The researcher was never supposed to reveal the level or category of nurses, it is not related to the objectives of the research

PT1: Yes, she should not only take care (to explore more on the care part) of those that have babies, she should also care for the ones without babies.

R: I understand, is there anything else that you could ask me or add?

PT1: No, I have nothing more to say.

R: Thank you very much for your time, let me play back the tape so that you listen to our interview, and if there is anything more that you would like to add.

The tape was played back.

R: Is there anything else that you would like to add?

PT1: No.

R: Thank you for your time. What you have said will help others who will find themselves in the same situation, the aim being that mothers who have lost their babies receive support and are able to carry on with their lives like everyone else. These interviews help in bringing in change in our hospitals, changes are brought in by people who have been through and are knowledgeable of the situation. (The researcher's views were not necessary). I ~~will~~ (might) come back to show you the written document to make sure that you agree with what is written. Thank you and goodbye.

Remarks

- Researcher needs to improve on reflection
- Using silence
- Exploring and clarifying more – following up on issues as soon as they arise and Paraphrasing throughout

- To keep summarising
- To contextualise participants and questions
- To add ethical information during closure

Pre-Test 2

Participant T2, PT2, P3G4, 43 years

R: Good afternoon.

PT2: Good afternoon.

R: How are you?

PT2: I am fine, I was about to leave for church, thinking you were no longer coming.

R: I was on my way, it is far to get here and the roads are not in good condition.

PT2: Yes, especially after the rains, it gets muddy.

R: Its better we start the interview before you are late for church not so?

PT2: Mmm!

- **FIRST QUESTION:**

R: As a woman who experienced the loss of your yet unborn child, and as we agreed during our phone conversation when we set our appointment for today, I have come to interview you about the kind of support that you needed after your loss, which made you feel that you have been supported.

PT2: Mmm!

R: But let me introduce myself again, my name is Kharivhe Martha, a PhD in nursing student at the University of Venda. With me I have an audio recorder, which is on right now, everything that we say is recorded here, and if there is a need to press the stop button, you just press this red dot here.

PT2: Okay!

R: Everything that we are going to talk about will never be used against you, and the information that you tell me will remain confidential, no one that is not involved in this research is allowed access to the information.

PT2: Mmm hmm!

R: When we disseminate the results only coding will be used to prevent any linking of the information with your name or with the name of the institution.

PT2: Mmm hmm!

R: I am in no way forcing you to participate in this interview, and anytime you want you can withdraw from the interview.

PT2: Mmm!

R: I am asking for your permission for me to conduct this interview with you, the interview could last about 45 to 60 minutes.

PT2: Okay! Nodding her head.

R: Please sign this consent form for me from the university, which you will take and I will leave with the copy, to show that I have explained all this to you and that you understand and agree with me, but still you can withdraw from this interview at any time.

PT2: Okay. She agreed and signed the consent form

R: Tell me about the kind of support that you needed to feel that you were supported, to overcome your grief considering the loss of your baby?

PT2: After the loss of my child, I went back to work a month later, until this year I was still working at the crèche, I think that being surrounded by children has healed me.

R: How did the children affect your healing?

PT2: Whenever I saw them I would imagine that my own child would have been this age also, that imagination helped me as if I am still having my child with me. It helped me a lot, and considering that I have my other children to look after.

R: How could you describe the support that you have received that has led you to regain your strength?

PT2: It took me about a year to overcome the grief. At first when working with the children I couldn't let go even if the child cried, I just continued holding the child and couldn't even realize that the child is crying, and when co-workers took the child away from me I didn't like that.

R: Why didn't you want to let go?

PT2: That embrace made me to feel like I was holding my own child.

R: Please describe to me in detail the support you have received until you felt that you are now okay.

PT2: Most of the support that I received came from here at home. My husband understood the pain that I felt about losing my child, he never even went out drinking, and seeing that he was also affected helped me to realize that I was not alone in the grief.

R: Mmm!

PT2: The other support was from my late mother-in-law, she supported me throughout until I regained my strength, even from reading the bible I learned a lot.

R: I understand that from your husband the support you received was that he was always there for you. Then, how was the support from your mother-in-law, how did she support you, could you please explain?

PT2: She never left me alone. She made sure that we did everything together as a family, jiving to music, watching Muvhango on TV together, in that way I felt that they supported me.

R: Who are they?

PT2: I mean my family, my husband, my children and my late mother-in-law.

R: You have told me that working at the crèche, support from your husband, your mother-in-law and also having your other children assisted you to heal, is that all that led you to regaining your strength?

PT2: Mm, even the neighbors here, they used to come to me with their little ones and I would be very happy to see their babies running around. The only problem was that some neighbors would speak negative comments such as don't go there, and when I hear that my heart would feel sore.

R: How did you want your neighbors to support you?

PT2: I wanted them to understand that even thou I have lost my baby, I am still human and I feel bad by their negative comments, but if they just came, and leave their children with me when let's say they are going to town, I would be happy to look after their children, but you know us blacks, some would think maybe I want to bewitch their children.

R: How did being left with the children to look after support you?

PT2: I enjoyed watching them, especially these small ones, because they keep me busy. Their laughter, when they run around it makes me feel as if I am a parent again.

R: In summary, we have talked about how it took you a year to overcome the grief, working at the crèche where you looked after children, the support you got from your husband when you realized that he was also affected and that you were not alone in the grief, the support from your mother-in-law when she could not leave you alone, your family as a whole when you did everything together, such as dancing to music and watching TV soapies like Muvhango, but why did it take you so long?

PT2: I used to feel blame, blaming myself or others, like thinking that if I had not gone to the private doctor and went straight to the clinic maybe my child could have survived, because the doctor was the one who used to say that the pain I used to feel was normal.

R: And how do you feel currently?
PT2: I am very well now, I am looking forward to taking care of my children.

SECOND QUESTION:

R: Thank you, please allow me to proceed. Please tell me, if you could tell me the support that women who find themselves in what you have gone through need, what is it that could you advise me?

PT2: From what I remember during my experience, there were things that were not explained to me. I did not know what was going on, so I feel that if nurses could have explained clearly what was happening, I could have been much better.

R: You could have been much better, please explain what were those things which nurses needed to explain?

PT2: Everything about the baby, I could have felt better, so I do think that nurses should have been able to explain everything to me. In that way I could have left without questions.

R: What questions did you have about the baby?

PT2: The nurses should have involved me in their discussions. By talking to each other I felt I was left out from the things which concerned me, they did not even ask me if I had any questions in mind. To be informed is what I feel is needed as a way of showing support; maybe I would not even have blamed myself for such a long time.

R: To be informed is what you feel is needed as a way of showing support, who should inform you and what information did you need?

PT2: By the nurses, about what could have caused the loss, if there was anything that I did or did not do, things like that.

R: How should they have given that information?

PT2: The nurse or the doctor, by politely explaining everything to me I could have felt that I was supported.

R: Hmmm, so from what you have explained to me, you are saying that the nurse or the doctor should share information politely with the woman by explaining about the possible causes of the loss, to avoid the woman from blaming herself, is that what you are saying? What do you think should be done for the nurses or the doctors to share information?

PT2: I think they need to find out if I have any questions or any other things that I need to know, they never asked me anything.

R: Mmm Hmmm! Is there anything else?

PT2: No, That is all.

R: In summary, you have said that, the support you got from your husband when you realized that he was also affected and that you were not alone in the grief, the support from your mother-in-law when she could not leave you alone, your family as a whole when you did everything together, and regarding the support that other women might need, you are saying that the nurse or the doctor should share information politely with the woman about the possible causes of the loss, to avoid the woman from blaming herself, by asking if there are any questions or if there are any other things that she would like to know, is that true?

PT2: Yes.

R: Who then do you think is required to explain?

PT2: I needed the information, and no-one explained to me, and I do feel other women would also benefit by being provided with information, especially anything concerning the baby.

R: Thank you very much for your time, is there anything else that you would like to add?

PT2: No, there is nothing more to add.

R: Thank you, I might come back after the written transcript so that you can see and also add if there are things that you may wish to add. Here, let me play back the audio tape.

The audio tape was played back.

R: After listening to this audio, is there anything else that you might like to add?

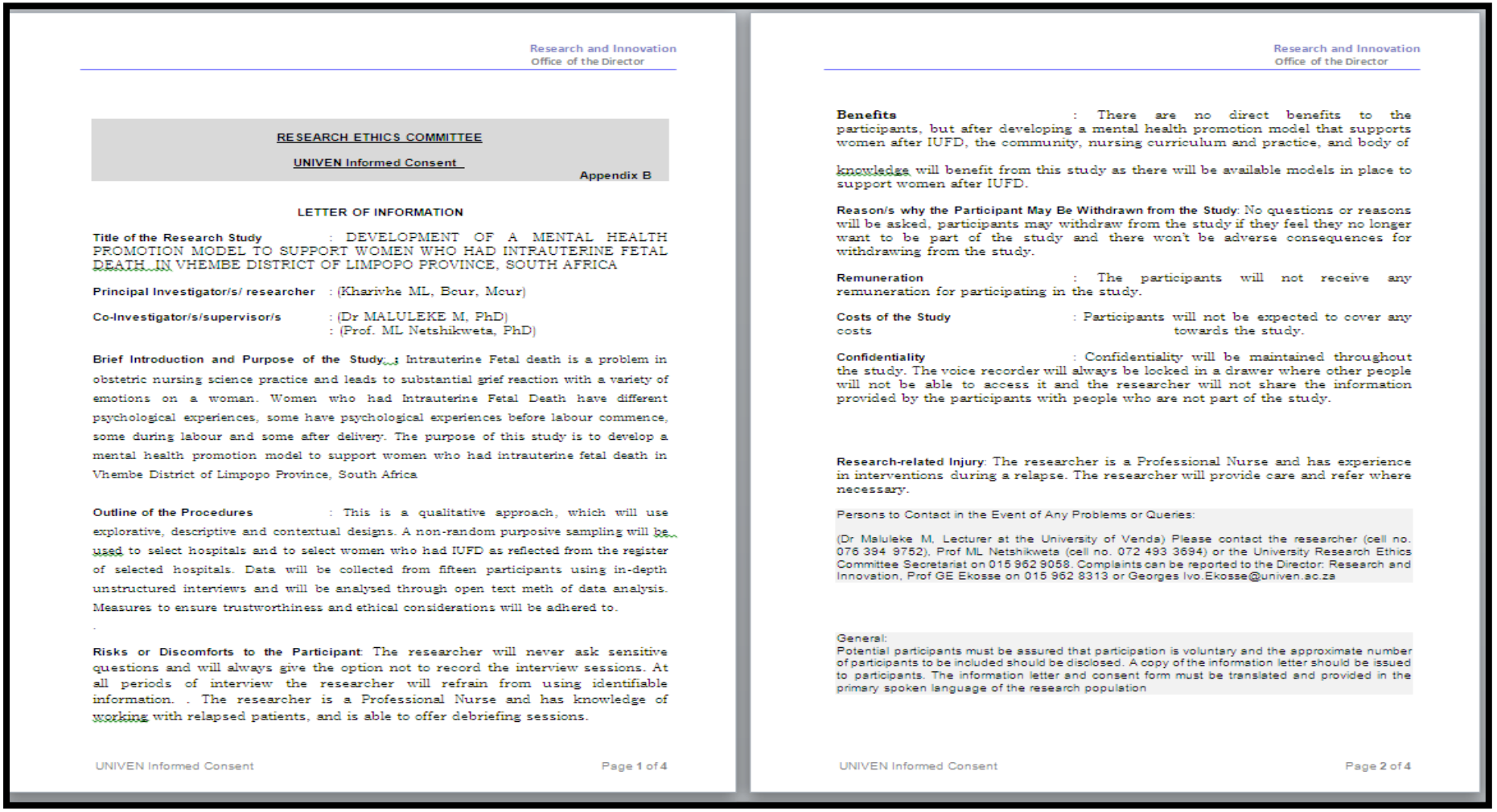
PT2: Hhh Mmm! Shaking her head.

R: As I have told you, only coding will be used when I report the results, no information will be shared with anyone outside the research, all information that we shared will remain confidential. Thank you very much. Good-bye.

PT2: Good-bye!!

The corrections in this interview were that the interview went well in the first question, but the second question was not fully explored, we have managed to arrive at the river but did not really cross it, meaning that the researcher did not align the questioning will Chinn and Krammer's framework of six elements of practice theory.

ANNEXURE G: INFORMATION SHEET



RESEARCH ETHICS COMMITTEE

UNIVEN Informed Consent

Appendix B

LETTER OF INFORMATION

Title of the Research Study : DEVELOPMENT OF A MENTAL HEALTH PROMOTION MODEL TO SUPPORT WOMEN WHO HAD INTRAUTERINE FETAL DEATH IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Principal Investigator/s/ researcher : (Kharivhe ML, Bcur, Mcur)

Co-Investigator/s/supervisor/s : (Dr MALULEKE M, PhD)
: (Prof. ML Netshikweta, PhD)

Brief Introduction and Purpose of the Study: Intrauterine Fetal death is a problem in obstetric nursing science practice and leads to substantial grief reaction with a variety of emotions on a woman. Women who had Intrauterine Fetal Death have different psychological experiences, some have psychological experiences before labour commence, some during labour and some after delivery. The purpose of this study is to develop a mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province, South Africa

Outline of the Procedures : This is a qualitative approach, which will use explorative, descriptive and contextual designs. A non-random purposive sampling will be used to select hospitals and to select women who had IUFD as reflected from the register of selected hospitals. Data will be collected from fifteen participants using in-depth unstructured interviews and will be analysed through open text meth of data analysis. Measures to ensure trustworthiness and ethical considerations will be adhered to.

Risks or Discomforts to the Participant: The researcher will never ask sensitive questions and will always give the option not to record the interview sessions. At all periods of interview the researcher will refrain from using identifiable information. . The researcher is a Professional Nurse and has knowledge of working with relapsed patients, and is able to offer debriefing sessions.

Research and Innovation
Office of the Director

Benefits : There are no direct benefits to the participants, but after developing a mental health promotion model that supports women after IUFD, the community, nursing curriculum and practice, and body of knowledge will benefit from this study as there will be available models in place to support women after IUFD.

Reason/s why the Participant May Be Withdrawn from the Study: No questions or reasons will be asked, participants may withdraw from the study if they feel they no longer want to be part of the study and there won't be adverse consequences for withdrawing from the study.

Remuneration : The participants will not receive any remuneration for participating in the study.

Costs of the Study : Participants will not be expected to cover any costs towards the study.

Confidentiality : Confidentiality will be maintained throughout the study. The voice recorder will always be locked in a drawer where other people will not be able to access it and the researcher will not share the information provided by the participants with people who are not part of the study.

Research-related Injury: The researcher is a Professional Nurse and has experience in interventions during a relapse. The researcher will provide care and refer where necessary.

Persons to Contact in the Event of Any Problems or Queries:

(Dr Maluleke M, Lecturer at the University of Venda) Please contact the researcher (cell no. 076 394 9752), Prof ML Netshikweta (cell no. 072 493 3694) or the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

General:
Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population

ANNEXURE H: INFORMED CONSENT FORM

CONSENT

Statement of Agreement to Participate in the Research Study: Development of a mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province, South Africa

- I hereby confirm that I have been informed by the researcher, (Kharivhe Martha), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____.
- I have also received, read and understood the above written information (*Participant Letter of Information*) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant Date Time Signature

I..... ....

(Kharivhe Martha) herewith confirm that the above participant has been fully

Informed about the nature, conduct and risks of the above study.

Full Name of Researcher

..... Date..... Signature.....

Full Name of Witness (If applicable)

..... Date ..... Signature.....

Full Name of Legal Guardian (If applicable)

..... Date..... Signature.....

Please note the following:

Research details must be provided in a clear, simple and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade 10 level- use Flesch Reading Ease Scores on Microsoft Word), selecting of a non-threatening environment for interaction and the availability of peer counseling (Department of Health, 2004)

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. a wrong date or spelling mistake, a new document has to be completed. The incomplete original document has to be kept in the participant's file and not thrown away, and copies thereof must be issued to the participant.

References:

Department of Health: 2004. *Ethics in Health Research: Principles, Structures and Processes*

http://www.doh.gov.za/docs/factsheets/guidelines/ethnics/

Department of Health, 2006. *South African Good Clinical Practice Guidelines*. 2nd Ed. Available at:

http://www.nhrec.org.za/?page_id=14

ANNEXURE I: TRANSCRIBED INTERVIEWS

1st Interview

25 years P2G4

R: Hi, you have cute little babies, how are you and the little ones?

P1: We are fine.

R: I am putting my laptop here, to record everything that we are going to be talking about, so that nothing is missed, is it ok?

P1: Ok.

R: My name is Martha, Martha Kharivhe and I'm working in the Department of Health at Louis Trichardt hospital, and also a student at university of Venda. All information I get is from the Department of Health, concerning women who have lost a baby before it was born. As I have talked with you earlier, I have come to interview you concerning the loss of your yet unborn baby, are you allowing me to proceed with the interview?

P1: Yes, we can continue.

R: I am not forcing you to take part in this research study. Everything that we are going to talk about is recorded in this recorder here, and all information will never be disclosed to anyone outside this research study, it will only be disclosed to my supervisors, and your name and the names of the institutions will remain confidential., Also, there is no payment in taking part in this interview.

P1: Okay.

R: Can I start with the interview?

P1: Yes.

R: The interview would take about 45 – 60 minutes.

P1: Okay.

- **FIRST QUESTION**

R: *Please tell me about your experience of the loss of your baby, I see this happened in January this year. It was you're.....?*

P1: It was my third child, but it was my fourth pregnancy.

R: What happened to the third pregnancy?

P1: The third pregnancy miscarried at two months, but this one I carried until it was the 7th month. I did book because the last time I went to the clinic was in December when I was six months pregnant, and I lost my baby at seven months in January.

R: What did you feel when you went to the hospital?

P1: I just felt pain, the pain became worse by the afternoon, but it became worse during the night that I was even unable to sleep, until in the morning when I took a taxi to hospital. On arrival at the hospital before they could even ask what the problem was I started pushing, and the child came out with hanging intestines, and it was dead.

R: You mean they were not covered.

P1: Yes.

R: So you think this might be what caused the baby to die?

P1: Mmm, but I used to blame myself that maybe what I ate led to the loss of my child, but all that has gone, and I look forward to raising my other children.

R: When you look at the kind of support that you received, how was it?

P1: At the hospital they treated me well.

R: What can you tell me about the good treatment?

P1: The good treatment? It was when I arrived and before I could take my file, water was draining out. They gave me a wheelchair, my husband pushed me

there, and when I arrived I could feel that I was unable to walk. I was told to stand up and go to the bed. When I reached the bed, they didn't come near me to check me they only told me to push. They saw that I was pushing with difficulty, the intestines were visible, then a nurse came and pushed a bit here on my stomach, then the baby came out.

R: Okay. The way I understand you, in summary, you are saying that you have been well supported when on your arrival you were able to be assisted quickly. As you were unable to walk they quickly gave you a wheelchair and your husband wheeled you to the maternity ward, there the nurses quickly gave you a bed, and in seeing that you were giving birth they told you to push. After you pushed you found that the baby was having protruded intestines, and you also think that this could be the reason your baby died, am I correct?

P1: Yes because they did not waste time in asking any questions, for me when they arrived at my bed already the head was coming out, they only said to me push, push, at a distance, but there was no yelling.

R: But, they only said push push at a distance, without coming closer to you, not so? But you are happy that there was no yelling?

P1: Yes.

- **SECOND QUESTION**

R: *So please tell me, if there is another woman who could be in your situation, what kind of support do you think should be given to her?*

P1: For me when a woman is in pain, she does not want to be yelled at, because delivery is painful and every woman knows that, very painful. It requires that those who are assisting a woman should quickly do so without wasting time. Even when she calls for help, they should be there for her and assist her.

R: So after a woman has given birth, how can she be supported?

P1: After giving birth, she must be told that she should understand that it happens; she needs to understand that indeed the baby is not alive; she just needs to be told where the problem comes from.

R: How and who should make the woman understand?

P1: The doctor.

R: What does the doctor need to tell to the woman?

P1: The doctor should tell the woman the cause of what could have happened for the baby to die.

R: You are saying that the doctor needs to explain what the cause could be?

P1: Yes, so that I could know.

R: Why?

P1: Because after I have lost my baby, what I needed most was to be told why it had happened.

R: Where does the doctor say these things?

P1: At the hospital.

- **THIRD QUESTION**

R: *What else could you tell me for a woman to feel that she has received support? Why I'm asking you this is that as a woman who has been through this you are the only person who could say the kind of support that women need that could make them to feel that they have been supported, there are a lot of women who are going through this.*

P1: You mean support at the hospital?

R: Anywhere, women are going through a lot of pain, but need support, not only at the hospital, anywhere that you feel is where you are expecting support.

P1: I feel that a woman needs to also go to churches and to prophets, because some things don't end up at hospitals only, because some of the things are caused by witches, so when you go to church they could assist you.

R: Hmmm, so you mean you can also get assistance from church?

P1: Mmm.

R: Okay, what kind of assistance does one get at church?

P1: At church they could reveal the cause of the death, but at hospital they just say there is no problem, at church they will explain where it comes from, and give you things to use.

R: So in summary, you said that after a woman has lost her baby, what she needs most is to be told by the doctor about what could have happened for her to have lost the baby, and otherwise she could be assisted by the prophets who could tell her why it has happened, am I correct?

P1: Yes.

R: Anything else to tell me?

P1: From me it's only that.

R: What I mean is that some people may not believe about church, what could you tell them?

P1: Church helps, because some things will be said by people who don't even know you, like myself you will find people who don't know me saying things of where I'm coming from, telling me exactly what has caused that, that's why I say church helps.

R: Mmm.

P1: The doctor would say there is no problem, and that you will conceive again, and then it happens again. Just like myself, the doctor told me that I will get

pregnant again, but it happened again, I have just recently lost twins at 1 month, but at church they will tell you exactly what is going on and also assist you.

R: The way you are explaining to me is that support is when the doctor explains everything about the causes, and secondly is when she finds a church where they could explain to her where it comes from and this means that women earnestly need to know what caused their loss.

P1: Yes, because doctors never say much, they only say you will have another child, or just say you are ok. Whereas you know at church they will also tell and give you something that you will use and the way they say it you can see that they are telling the truth, because your mind will be asking what happened.

R: Mmm, so is there anything more to add?

P1: At the hospital they do give medicine to take, but at church they give you concoctions and they even tell you where it comes from.

R: Thank you, is there anything else to add?

P1: No, there is nothing to add.

R: As I told you earlier, there is nowhere that your name or the names of the institution will be revealed, only codes will be used. No information will be shared with anyone who is not part of this research, and I might come back after transcribing to show you the transcript, so that if there are things that you may wish to add or to remove you might do so. Thank you very much.

P1: Good-bye.

2nd Interview

33 years P2G4

R: Good day.

P2: Good day.

R: I have come again, I am Kharivhe Martha, I have come earlier and you were not around.

P2: Yes, Where do you stay?

R: I stay in Louis Trichardt. I have come here to interview you about your experiences on the loss of your baby.

P2: Okay.

R: I am a student at the University of Venda; I am the one who called you about the interview. I am studying towards a doctoral degree in nursing, and I am also working at the Department of Health. Here I have a recorder with me, to record our discussion. Everything that we talk about will remain confidential, even your name will not be disclosed, I am not forcing you and if at any time you would like to withdraw from this interview, you can do so without any further questions. Can we proceed with the interview?

P2: Yes.

R: I won't take much of your time, this interview could last for about 40 – 60 minutes.

P2: Okay.

- **FIRST QUESTION**

R: *Please share with me about your experience of the loss of your baby.*

P2: At first everything was fine, I also attended clinic until around December, and there were no problems.

R: How many months were you at the time of your loss?

P2: In December I was eight months.

R: When you went to the clinic, what was happening? Was it because of the pain or it was your due date?

P2: I went to the clinic because it was my due date of my check-up, they checked me and found that everything was fine.

R: Mmm.

P2: The same week, around 0800 in the morning I went back again after I checked myself and found that I was bleeding.

R: Mmm.

P2: When I arrived at the clinic I was still bleeding. They told me they are referring me to hospital as the baby's heart was also not beating properly.

R: Mmm.

P2: When I arrived at the hospital it is then that they checked me again and told me that there is no more heart beat. I was given a pill and thereafter I delivered and my baby was no longer alive.

R: How was the support during the experience?

P2: Support? On my side I didn't get any support.

R: When you say you didn't get any support, what was it that you had expected to be done to you in order for you to say you have received support?

P2: Like after it happened I was not even taken to a psychologist.

R: So you were expecting to be taken to a psychologist?

P2: Yes, because I believe that the psychologist is educated in dealing with counseling.

R: What was it that made you feel you needed counseling?

P2: When I lost my baby I felt hurt about it, and I felt I needed someone who was at least learned to assist me.

R: How did you think you wanted to be assisted?

P2: I think that by talking to me, I believe by just talking to me I could have felt better.

- **SECOND QUESTION**

R: *Okay, please tell me, for other women who might find themselves in the same situation, how do you think they could be supported?*

P2: I could tell her to accept what has happened, only God who has done this.

R: The support, how should it be given and by whom?

P2: The support should be given by someone who has learned about talking to people who have been through the same tragedy, like a psychologist, or someone who knows how to talk to people.

R: Who is this person who knows how to talk to people and what should this person talk about?

P2: Other than the psychologist, it could be someone who has also lost a child.

R: So you are saying that someone who has also lost a child is the same person who is in a position to support the woman who has just lost a child? They could support each other?

P2: Yes, even the psychologist should give her other dates that the woman should go back.

R: But sometimes you find women not going back to the psychologist after they have been given a date to come back. Why, can you please elaborate on this?

P2: Yes, because sometimes they might be saying, it's just the same whether I go back or not, my baby is never going to come back, but when women who have been through the same pain, they support each other.

R: How do they support each other?

P2: When they have been through the same situation, whatever they might talk about they understand each other.

R: In summary, you are saying that for women to feel that they have been supported is when after they have been taken to a psychologist, and when they have been in contact with another woman who has lost a baby, could be the way a woman receives support, am I correct?

P2: Yes.

R: Is there anything else that you might like to add?

P2: Myself, I used to blame my husband, thinking that he was the one who caused me stress that lead to the death of my baby.

R: So you say you used to blame your husband?

P2: Yes.

R: How?

P2: My husband used to give me too much stress, and I thought that it led to me losing my baby.

R: How did you want your husband to support you?

P2: A pregnant woman is like a baby, she needs to be treated like one by the person who is closest to her, her partner.

R: So you are saying that if a woman receives support from someone closest to her, whether during pregnancy or after the outcome of the pregnancy, it assists woman to overcome the grief?

P2: Yes, when my husband has given me support, even when I have lost the baby I can't blame him and it is easier to overcome the grief.

R: How could you explain this kind of support?

P2: It is when he treats me like a baby, when he is always there for me, not staying out with his friends.

R: So you are saying that if your husband treats you like a baby, always there for you and not going out to his friends is how he could show his support?

P2: Yes.

R: Is there anything else that you would like to tell me?

P2: No, that's all.

R: Thank you very much, as I have said, what we have discussed will never be shared with anyone other than my supervisors, and no one outside the research will be given this information, your name and the name of the institution will remain confidential. Let me play back the recorded interview and if there are things that you might like to add, you may add after the playback.

Tape was played back.

R: After listening to this interview, is there anything you might like to add or to remove?

P2: No.

R: Thank you very much. Good-bye.

P2: Good-bye.

3rd Interview

42 years P5G8

R: Aa!

P3: Aa!

R: I've come into your house today. My name is Martha, as I've said over the phone that I will come to do the interview, since you have invited me to come over before 12:00 because you are going to church. Could we also start now with the interview?

FIRST QUESTION

It is concerning the kind of support that you needed when you lost your baby

P3: Yes.

R: I'm working at the Department of Health, and I am also a doctoral student at the University of Venda. Whatever we are going to talk about I am recording here using an audio recorder. Taking part in this interview is voluntary, I am not forcing you, and there is no payment to participate in this interview. Your name and the name of the institution will remain anonymous, this interview is between you and me and my supervisors only at the university.

P3: Mmm.

R: This interview could last about 30 – 60 minutes.

P3: Mmm. Myself, what did not go well with me was when, since it was known when I was going to give birth, but since I do not know what you people have learnt at school, isn't it you have the knowledge - and that since I have been attending my antenatal care without missing a date, there was never a time when I was told that things are not well with my baby. Those who are knowledgeable

should know these things. If there are things which might go wrong those who went to school should know that this baby who is about to be delivered by an elderly woman, we could assist her by allowing the baby to be delivered earlier before it is due, like at eight months and a half. Maybe the baby could have been alive, it was supposed to be that way, and like a woman that I attend church with, her baby was delivered at eight months.

R: Was she also an elderly woman?

P3: She has said the doctors after assessing her saw that if they wait for the full term, the baby could die.

R: Mmm.

P3: And I saw that that means if doctors could try everything, if there is no other way, then let it be, I tried everything, like never missing a single date, but realized that the nurses at the clinic only used to say all is well and that I should go home, until when I get to hospital I was told my baby is dead.

R: When was the last time you attended clinic?

P3: When I lost my baby it was the same week that I went to the clinic. There is no greater pain than when you have waited for nine months, and told yourself that you will be carrying your bundle, you have already bought the baby clothes, you know, even you, if you go to school it means you are expecting something after you finish school.

R: Mmm.

P3: Just like when attending at the clinic, I do think by the time you are around six to seven months you have to be taken for an ultrasound to see if the baby you are carrying is well, and also how is the heartbeat.

- **SECOND QUESTION**

R: *Mmm, so looking at the kind of support, what kind of support could have made you to feel you have been supported?*

P3: For me, it's only that I have a heart of stone and I'm very tough. I grew up without my parents, which is why though it happened, I was hurt but I accepted that it had happened. Imagine waiting for the whole year and come up with nothing, my baby was delivered whole; nothing was missing that maybe I could say this might be the cause.

R: And what kind of support did you need?

P3: When I arrived at the hospital they said there is no sonar machine, I had to come back the following day, I was assisted around 3 p.m. after I was checked and went back home. On arrival at home my waters broke, and I went to the clinic. At the clinic I was transferred to hospital right away, if I was assisted earlier maybe my child could have been alive.

- **THIRD QUESTION**

R: *Yes, Ok, from your experience, what kind of support could be given to women who might find themselves in the same situation, women who also lost a baby?*

P3: Heish, I understand that sonar should not only be at the hospital, also at the clinic, since us pregnant women we spend most of our time at the clinic. Even when there is sonar, there should be a date when there is a doctor at the clinic so that they could see if everything is well and send a woman to hospital only when there is a problem. You know how difficult it is to see a private doctor, not all of us could afford.

R: In summary, when I asked about the kind of support that you needed, you said, that it could have been better since you are elderly, for the doctors to have removed the baby at eight and a half months. You also recommended that at the

clinic there should also be sonar to assist women as they spend most of their time at the clinic, and that there should also be a doctor at least ones to assist women, am I correct?

P3: Yes.

R: Who should bring the sonar?

P3: Our government, they should bring sonar and also a doctor who is experienced to operate the sonar, so that women are assisted at the clinic. If I was assisted quickly at the clinic, maybe I could have delivered an alive child and, yes, even like you are here, a person who could speak well to a woman who has lost a baby, this kind of talk is very helpful.

R: How does this talk assist you?

P3: Just to realize that there are people who care about my situation, it makes me to heal inside. I believe that as you visit other women as well they would also feel the same.

R: Anything else that you can add?

P3: Acceptance is what is needed, after all, it's God's doing, even when it happened to me, I only blamed the services at our hospitals.

R: What kind of support could have been given?

P3: I think I have said enough, as you continue with other women some will give you their mind as well.

R: Thank you very much, in summary, what you say is that women need someone who can talk to them, someone who could come and see how the woman is doing?

P3: Yes, but I do understand that after this happened, after they sent me to a psychologist, myself I did not go back because I did not want to be reminded about my misfortune, because I did not want to be always talking about it.

R: Thank you, let me play back the recorded tape so that you can add if you have left out something.

The tape was played back.

R: Is there anything else that you might like to add?

P3: No, I have said enough.

R: Thank you, as I have told you earlier, all that we have discussed will remain confidential, and your name and the names of the institution will remain anonymous, no information will be shared with anyone outside this research. It is only between me and my supervisors. I might come back after the transcribing so that you could agree or disagree with what I have mentioned. Thank you.

P3: Thank you for your time as well, some people are singing at church and here you are visiting us, I also thank you for visiting me.

5th Interview

27 years P0G1

R: Aa, I am a visitor at your house today.

P5: Yes, I was waiting for you.

R: As I said, my name is Martha Kharivhe, I am working at Louis Trichardt hospital, and I am also a student at university of Venda. I am not sent by the hospital, I have only been given permission to do research on women who have lost their babies before the baby was born. I need to find out the kind of support that you think you needed, for you to feel that you have been supported. Are you allowing me to conduct the interview with you regarding the support?

P5: Yes.

R: Before we proceed, I am recording everything using this audio recorder, but just know that everything is also confidential, your names, the names of the institution, it will remain confidential, it is only between me, you, and my supervisors at the university.

P5: Hmmm.

R: Feel free to ask me anything and if there is anything that you want to be clarified about.

P5: Hmmm.

- **FIRST QUESTION**

R: As I said, as a woman whose baby died before it was born, could you please take me through the care that made you to feel that you have been supported?

P5: Yes, when I first went to the clinic, I was six months pregnant. When I arrived there they took my Bp (Blood pressure), they also took my urine, and told me that everything was okay and even they checked my heartbeat.

R: Hmmm.

P5: I went back to the clinic when I was eight months pregnant. This was around the time that I was going to deliver, and they said my baby was breech and told me if there is anything troubling me I need to go to the hospital. The same week I felt that I was having diarrhea, it was around Thursday, and I went to the clinic, when I arrived there they called an ambulance to take us to the hospital. When I arrived there at the hospital they didn't help us, they were asleep. Later they came and gave me the hospital clothes; they checked my file and called the doctor.

R: Hmmm.

P5: The doctor took me to the sonar machine, he asked me if I could see, I said yes, the doctor showed me that there was no heartbeat, the baby was dead, the baby died inside my womb.

R: Hmmm.

P5: The doctor asked the nurses why I was not assisted as soon as I arrived because now my baby has died, maybe if they checked me earlier they could have done something to save my baby. He told them that if I arrived by an ambulance it means that it was an emergency, and I should have been assisted as an emergency, and the nurses said it was because there were too many patients.

R: Hmmm. What were you feeling when you went to the clinic?

P5: It was only pain and I was also having a loose stomach.

R: Were you attending high risk clinic, since you have said your baby was breech?

P5: No, I only went to the clinic on the second occasion when I was eight months, when they told me if I felt anything I must go to the hospital.

R: When you felt that there was no longer a heartbeat, how did you feel?

P5: I only heard it from the doctor when he checked me. When the doctor checked me he also inserted his hand inside me, after that he took my file to check the time when I arrived at the hospital - that is when he realized I should have been helped a long time ago.

R: Yourself, there is nothing that you have felt? Accept for the pain and diarrhea, nothing else?

P5: No, it was just the diarrhoea and the pain.

R: When did it start?

P5: It started on the same day that I went to the clinic.

- **SECOND QUESTION**

R: From your experiences, what kind of support did you receive that made you feel that you have been supported?

P5: No, for me I did not get any support, because I was not assisted timeously on my arrival. I think that if I was assisted as soon as I arrived, I could have come back with an alive baby, as I was feeling pain when I arrived and I was not checked.

R: What do you think was supposed to be done for you to feel that you have been supported?

P5: For me to feel that I was supported, I think that as I was feeling pain, and this was my first child, I did not know what was going to happen to me. I feel that if they had assisted me sooner on my arrival, that way I was going to feel that I have received support.

R: In summary, you have said that when you went to the clinic you were around eight months pregnant, and you were feeling pain and also having diarrhea. You were sent to the hospital the same day and when you arrived at the hospital you were not assisted promptly, until later when they called the doctor and he said that your baby has died.

P5: Yes.

R: And when I asked you the kind of support that you needed, to make you feel that you have been supported, you said that if the nurses had assisted you sooner, as soon as you arrived at the hospital, you think that in that way you could have felt you had been supported.

P5: Yes.

R: So, please tell me, after your experience of losing the baby, what is it that made you feel that you had received support, even though your baby was not alive?

P5: There was a time when I could not accept what has happened to me, even though my mother used to take care of me here at home.

R: What made it difficult for you to accept?

P5: Because sometimes it comes back.

R: Please clarify to me, what is it that comes back?

P5: I imagine the time when I gave birth to him, I could still see that my baby was having peeled skin here on his back.

R: If your baby was having a peeled-off skin, this means it was something that happened earlier, not the same day, because if the skin was already peeled off, then it means that by the time you arrived at the hospital, it could have been two or three days after your baby died.

P5: It could be true.

R: How were the baby's kicks, was the baby kicking normally? Or you felt some changes?

P5: I cannot differentiate them (baby kicks), I think you are correct.

- **THIRD QUESTION**

R: Ok, let's proceed; when you explain support, what do you think could be the kind of support that women who have gone through the same kind of experience need?

P5: I think there is a need for someone from the hospital who needs to come and talk to me, maybe someone like you. Since we have been talking I do feel relieved to feel there is someone who cares for me and understands what I have been through.

R: Please explain to me how then the support needs to be.

P5: I think that the nurses should give themselves time to explain.

R: To explain about what, let's say here is a woman who had lost a baby, what explanation should nurses give to her?

P5: Explanation that could be given is about what could have happened. Like myself, I did not even know that when my membranes have ruptured what it meant, including what could have happened to make me lose my child.

R: Where should these nurses be?

P5: If nurses could visit me at my home and give me a talk, just like you have done, I could feel that I have been supported.

R: In summary, when I asked you about the kind of support that you received, you said you never received any support because you were not assisted in time. They took time in assisting you and you felt that maybe your baby could have survived if you had been assisted sooner. When I asked you what you think could be the kind of support that could be given to women who have been through the same experience as yours, you said that if the hospital could send a nurse to come and talk with you, talking about what could have been the cause and also explaining things that maybe you don't know as it was your first time, it is then that you could have felt that you had been supported - that could make women feel that they have been supported, am I correct?

P5: Yes.

R: Ok, as I have told you before, what we have discussed is confidential, and has been recorded. This is between me, you and my supervisors. If there is anything that you would like to know, you have my numbers, and I might also come back after transcribing, to make sure that what we have talked about is correct and if there is anything that you might like to add. Here is the recording, please listen and tell me if you agree or if you might like to add to it.

Recorder played.

R: Is there anything that you might like to add or to remove?

P5: No.

R: Thank you very much for your time, and have a good day. Good-bye.

P5:Good-bye.

ANNEXURE J: MODEL EVALUATION

Evaluation Session 1: 7 December 2019

ANNEXURE J: MODEL EVALUATION

COMMENTS OF THE 1ST SESSION: 7TH DECEMBER 2019

PHASE 2: MODEL DEVELOPMENT

4.1 INTRODUCTION

Chapter 3 presented the results of the data collected concerning the experiences of women who had intrauterine fetal death, and the kind of support that they needed. In this chapter, attention will be given to the theoretical framework for the development of the mental health promotion model to support women who had intrauterine fetal death in Vhembe District of Limpopo Province, South Africa.

Dickoff *et al* (1968) survey list was used to integrate results of phase 1 of the study (the situational analysis) and this gave the structure for the theoretical foundation. This survey list was utilized to ensure a logical development of the model. During situational analysis of the study, women described the kind of support that they need in order for them to feel that they have been supported. Women's descriptions provided the basis for the kind of support during phase 1 of the study, and the theoretical framework by Dickoff guided the development of the model.

4.2 THEORETICAL FRAMEWORK FOR THE DEVELOPMENT OF THE MODEL

The theoretical framework for the development of the model was informed by the elements of practice theory outlined by Dickoff, James and Wiedenbach (1968). These are context, agents, recipients, procedure, dynamics and outcomes. They

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are briefly explained below and are described and applied after data analysis of this study.

- **Context**

This is where the activity is performed. The context is viewed from the aspect of the matrix of activity, it is seen in relation to other things, including persons and other activities, and to see the interrelation of these other factors as constituting an organism, unity, or total context of activity. Furthermore the authors refer to the "context" as the setting, location, the physical structure of ward or unit, hospital, or medical centre, time, space, or structure that constitute different elements of the situation in which the activity occurs (Dickoff, et al., 1968). In this study, findings of the study revealed that women need support at the clinic, hospital and at home. The context in which the model should be implemented is characterized by the different roles that each agent plays with regard to support for women at hospital, clinics and at home where women stay.

- **Hospital**

The hospital according to Bush (2017) is defined as a place of specialized competency and education and emphasize development of knowledge based in clinical practice, in addition, the ideal hospital framework (2019) define a hospital as among others:

Having good infrastructure such as physical condition and spaces, and this is ideal for women who had IUFD as they require privacy, away from noises of crying babies, as the study revealed.

The ideal hospital framework (2019) further states use of adequate and appropriately managed staff, that includes a multi-disciplinary team and the provision of evidence based clinical practice, this is evidence based as findings from research are used in clinical trials.

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In addition, communication and information for continuously improving quality of clinical care and uses patient experiences, this evaluates the quality of care provided, but this is in contrast with results findings as the study revealed inadequate care.

Furthermore, hospitals use integrated people-centred health services approach that encompass a continuum of care of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, over the different stages in the lifecycle of a person , ideal hospital framework (2019).

However, according to the ideal hospital framework (2019), clinical services are organized in terms of 24-hour services, ideal for emergency health services, obstetric and in-patient services, eight hour (day) services for ambulatory health services of outpatients, catering referrals from a lower level of care, such as from Primary Health Care (PHC) and Community Health Centres (CHC) obstetric services and other health support services. Hospital as a context is where women after they are diagnosed IUFD are referred for further management. Women expect quality care, this is where they expect that doctors and nurses, and those who are learned to give support, talking in a nice way that show sympathy, separating women who had IUFD in the wards from women who had live births, clear rules and directions at maternity and providing basic patient care.

Women are diagnosed initially at PHC where there are no doctors, as the study revealed, and these are attached to hospitals whereby after initial diagnosis, if need arise, women are then referred to the next level of care, in this case the hospitals.

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- **Clinic**

Thesaurus dictionary (2016) identify a clinic as being devoted to the diagnosis and care of outpatients at free or reduced costs, they receive medical treatment, advice and that the clinic is connected to a hospital for the referrals, on the other hand, the ideal hospital framework (2019) defines an ideal clinic as a clinic with good infrastructure (i.e. physical condition and spaces, essential equipment, and information and communication tools), adequate staff, adequate medicines and supplies, good administrative processes, and adequate bulk supplies; and such a clinic uses applicable clinical policies, protocols and guidelines, as well as partner and stakeholder support, to ensure the provision of quality health services to the community, and cooperates with entities including government departments, public entities, private sector and non- government organizations to address social determinants of health.

Clinics were identified as the context where women feel that they need to be supported. Clinics are were women have initial encounter with healthcare, and according to the ideal hospital and maintenance framework (2018), clinics to be adequately equipped to play their role in diagnosing, treatment and rehabilitation. This study has revealed that since women spend most of their time at clinics during antenatal care, they lack ultrasound machines. Clinics are the peripherals of hospitals and need to be equipped with ultrasound machines and a doctor, for problems to be identified quickly and referred, this could improve service deliver and patient care. The study revealed that if problems are identified sooner, interventions could be timely implemented and women would feel that they have received support.

- **Home**

In their studies, Moore and Smith (2012), indicated that enhanced home visitations improved health literacy, and that depressed women have shown an

improved gain. This indicate that visitations by healthcare providers increases mental health for women who had IUFD.

The study findings revealed a correlation when women report the home context to symbolize home visits by the nurses, home visits by counsellors, husband giving support at home, family acting as woman's advocate at home and getting sympathy from relatives and neighbours at home.

- **Agents**

Who or what performs the activity? Will they be the experts, government officials, psychiatrists, physicians, midwives, etc.? An agent is any person whose activity leads to the realization of the goal (Dickoff *et al.* 1968). In this study, women identified agents as, Doctors, Nurses, Family and Spouse. The study identified these agents to play a key role in the improvement of mental health in women.

- **Healthcare professionals**

Healthcare professionals are found in a hospital setting, they are comprised of doctors, nurses and midwives, and other multi-disciplinary teams. Guier [2016] identified that in obstetric care team work is critical, this team work approach reduces adverse events. Guier [2016] further indicated good communication to build a loyal and a trusting relationship between the healthcare professionals and the patient, and improve long-term health outcomes. Chaney [2017] affirmed in indicating that women need sympathy, to be treated as partners in their care, they need information and detailed explanations of what is happening in their health. To achieve that, there is a need for communication, meaning that healthcare professionals need an improvement on how they communicate with their patients. Chaney [2017] further indicated the 13-16 minute steps in achieving good communication, which are:

- Sitting down while talking

- Making eye contact
- Avoiding checking the watch while talking
- More of listening than talking
- Asking open-ended questions
- Acknowledging patient's concerns
- Overcoming biases of age, race, weight etc.
- Respecting cultural and personal beliefs and accommodating culture
- Understanding of medical information.

This study results revealed that what women need from healthcare professionals was basic patient care and support, this is supported by Tant (2018) indicating that midwifes must skilfully and compassionately meet the physical, emotional and physiological needs of women and WHO (2018) indicated that stillbirth requires an integrated, respectful and supportive approach. Women wanted information, such as the cause, clarity, and just basic information of whether they could conceive again. Most of the time there was silence, the silence became the basis for inadequate support for which this study was based. If healthcare professionals could improve in the communication, following the identified dynamics and procedure, there could be a favourable outcome.

- **Family**

Merriam-Webster (2019) defined a family that previously family used to refer to traditional family, that included a mother, father and the siblings, but currently there are different kinds of families, they could be blended, meaning to include step parents and step siblings, extended to include the in-laws, single parent families, etc. but what defines a family is the loyalty, respect, love, responsibility, sharing a common goal, values and long-term commitment.

In this study, when women referred to family, they indicated support from a traditional family, since most women indicated that through their grief they have expected their mothers to have the same feeling of grief, advocating for them.

This shows that women felt protected when they are surrounded by their families.

- **Spouse**

Beutel, Willner, Deckardt, Von Rad and Weiner (2016) in their studies identified that men do grieve, but less intensely than women but do not have increased depressive reactions, this difference in their grief reactions increases depressive reactions in women, on the other hand Corbet-Owen (2015) indicated that misunderstandings and relationship problems with a spouse during the time of grief increases stress, and her studies further indicated the need for the spouse's support, and when that support was not provided, women perceived the spouse as being negative. This study concur with other researchers when indicating spousal support, indicated as being there, without the spouse going out to his friends during the grief period.

Feelings of blame were also identified in this study and confirmed in Corbet-Owen (2015) that these feelings of blame causes tension in the relationship, but recommended working together as partners and communicating their feelings to each other, this assist in avoiding causing added pain, tensions and misunderstandings, avoiding mirroring each other, but alongside each other in the support, never judging or accusing each other, or expecting or secretly demanding.

- **Recipients**

Who or what is the recipient of the activity? Recipients are all those persons who receive action from agents and benefit from the activity (Dickoff et al., 1968). The findings of this study revealed that women who had intrauterine fetal death indicated themselves as the beneficiaries of the procedures from the activities performed by the agents, that if they have been given the necessary support they

would feel that they have been supported well. Women who had IUFD are the recipients of the support that is provided by the agents.

- **Dynamics**

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

DPSA (2015) define Batho pele service delivery as underpinned by eight (8) priority principles, which are: **consultation** about the quality of services that one receives and to make choices about those services, **service standards** being that one should be told about the services so that one becomes aware of what to expect, **access** in that all citizens should have equal access to entitled services, **courtesy**- not accepting insensitive treatment, **information** – being given full and accurate information, **openness and transparency** - open administration about the departmental, district, provincial and national department, **redress** – being offered an apology, full explanation and a speedy and effective remedy, and **value for money** - giving the best possible value for money on service delivery, findings indicated that their implementation is still a challenge.

The dynamics for this study, are sharing information, respect and care, sympathy, empathy and privacy. When the dynamics occurred between the participants and agents, the procedure could be implemented. This study revealed what healthcare professionals needed to do for women for them to feel that they have been supported. The following illustrates the dynamics that should be considered for meaningful activities to be carried out by the agents to the recipients.

Information Sharing – is a procedure

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Women have narrated sharing information as being to be told where it comes from, to be told and to understand that it happens, to accept that it happened and nurses should give themselves time to explain as depicted in the quotes:

As women narrated, it correlates with Green-Top guidelines (2019) when indicating that women need guidance, in addressing what has been explored, the guidelines indicate that they should be advised about the cause of late IUFD, chance of recurrence and any specific means of preventing further loss. Pre-pregnancy advice should be offered, including support for lifestyle modifications such as cessation of smoking, avoiding weight gain if they are already overweight (body mass index over 25) and to consider weight loss. Discussion over the potential benefit of delaying conception should be offered until severe psychological issues have been resolved.

Furthermore, the guidelines state that the birth of a healthy baby does not compensate for a previous loss and can trigger a resurgence of grief; women might feel happy one moment and sad the next. Depression in the third trimester is highly predictive of depression one year after subsequent birth, particularly for women who conceive within less than 12 months from an IUFD.

Fox, Pillai, Porter and Gill (1997) indicate that follow up care is a crucial part in the management of women. And that staff should be sensitive to the expressed wishes of women themselves. This has concur with Stillbirth and Neonatal Death Society (SANDS) in describing that a follow up visit as "essential" for all women who have lost babies.

Rådestad I, Nordin C, Steineck G and Sjögren (2018) and Lalor, Devane, Begley (2015) mentioned that almost all the women with stillbirth 296 (95%) stated that it was important to have an explanation of the baby's death, the discussion should focus on the aetiology of the baby's death, there are six identified priority categories in relation to women's encounters with caregivers that emerged: information sharing, timing of referral, getting to see the expert, describing the anomaly, availability of written information, and continuity of caregiver. Once an

anomaly was suspected, women wanted information quickly, including prompt referral to the fetal medicine specialist for confirmation of the diagnosis. It was discovered during the study that women needed more information and prompt referrals.

- Respect and care

Respect and care DVD (2015, Medical aid films) state that Health professionals have an important role ensuring women receive standard respectful maternity care, this means support should be provided immediately after diagnosis of IUFD, and the film further stated the rights of women as follows, the right to fair and equal treatment, privacy and confidentiality, information and choice, dignity and respect and freedom from harm and abuse. These are herein included as they concur with the study findings, when women revealed that they did not want to be yelled at, to be assisted on a call for help, talking in a nice way, revealed in the quotes:

"…Yes because they did not waste time in asking any questions, for me when they arrived on my bed already the head was coming out, they only said to me push, push, at a distance, but there was no yelling…For me when a woman is in pain, she does not want to be yelled at, because delivery is painful and every woman knows that, very painful, it requires that those who are assisting a woman should quickly do so without wasting time. Even when she calls for help, they should be there for her and assist her…" (P1)

"…A pregnant woman is like a baby, she needs to be treated like one by the person is closest to her, her partner…Yes, when my husband has given me support, even when I have lost the baby I can't blame him and it is easier to overcome the grief…It is when he treat me like a baby, when he is always there for me, not staying out with his friends…" (P2)

"...I saw the way they used to talk to me, they used to address me in a nice way...I stayed about 6more days after my loss, during the time the sisters talked nicely with me...At first they assisted in delivering my baby, I delivered well even though I delivered a dead baby...Thereafter I was sent to a psychologist, also she was able to talk nicely with me, by the time I went home I was well and took the whole ordeal in a positive way...I went home without any problems...It was not just one, but all of them who were there treated me well...The way they talked, just about anything, it was just okay...By talking in a nice way, it makes me to see that the nurse understand my situation..." (P8)

- **Sympathy**

According to Sinclair, Beamer and Thomas (2017) they describe sympathy as feeling of pity towards a distressing situation, but it could lack clear understanding of the situation, they consider using compassion, and define it as an essential element in quality patient care. This study does not distinguish between the two words, it highlights that though sympathy is critical towards women, shown healthcare providers actions towards women, the compassion enhances facets of empathy and is motivated by love, action and kindness, Sinclair et al. (2017) discovered that these were beneficial to the individuals at which it was directed, preferred and had impact and understanding suffering through this emotional resonance. This show that if healthcare providers could have this feeling of compassion towards women who had IUFD, their emotional health could improve. The findings from this qualitative study indicated that women expected emotional resonance from the healthcare providers.

- **Empathy**

Empathy was described as it could be someone who has also lost a child, by sending people who could talk well to women who have lost a baby, someone need to come and talk to me, the way he talked to me, it showed that he felt my pain. Heazell, Siassakos, Blencowe, Burden, Bhutta, Cacciatore, Dang, Das,

Flenady, Gold, Mentah, Millum, Nuzum, O'Donoghue, Redshaw, Rizvi, Roberts, Toyin Saraki, Storey, Wojcieszek and Downe (2016) indicate that negative effects on women's mental health, are moderated by empathic attitudes and tailored interventions of healthcare providers. Green-top guidelines (2019) also affirm that a crucial component in determining the emotional feelings and needs of a woman, is done in an empathetic approach, by healthcare providers, this makes it possible to identify and understand women's thoughts and wishes but without trying to shape them since women with an IUFD value acceptance and recognition of their emotions highly. The statement *"...words that are used must be selective, not just blast anything..."* and *"...I remember there was a student who came to me and said my sister, do not worry...he used to come to me and it made me feel better..."* really indicate that healthcare professionals should be cautious in dealing with women who had IUFD. Empathetic techniques, which can enhance recovery, can be learned and retained as a skill, therefore assumptions should be avoided as they could limit choices. Perceived professional support and variations in opportunities in sharing memories is associated with better maternal outcomes following IUFD (Crawley, 2016).

- **Privacy**

Hajbaghery and Chi (2015) indicate that privacy is a human right and an important variable that affects patient's satisfaction and their perception of the quality of care received. Privacy maintains the patient's dignity (Rasmussen & Delmar 2014) as the disrespect for the patient's dignity maintain the patient's sick role, loss of self-care and decreased participation, this correlate with the study findings that nurses should maintain the respect and dignity of patients by also giving women the privacy that they need. This study labelled privacy as to separate women from the ones having newborns and to stay far away from those who have delivered. Women did not want to be exposed, they did not want to be seen among women who have given birth to live babies.

"...Yes, another thing is that for women who have lost a baby, it is better that they do not stay with women who have delivered alive babies, because those that have alive babies, when they show each other their babies and even baby clothes, it's very painful, even when they are being called to be checked, you start to think about your situation, its better if they stay far from those who have delivered...Even when its' time for visitors when they have come to see the newborns, holding them... Yes, separate, even if they could stay with those who have babies at nursery, as long as there is no baby in sight..." (P6)

"...She explained to me that it happens, and I need to accept, thereafter I was also sent to a psychologist, they treated me well, after I delivered I was placed with a woman who has also lost her baby...We were only the two of us...we were far from women who have delivered live babies..." (P9)

Women who had IUFD value privacy, as they do not want to hear noises of babies crying and comments given by new mothers, *"...you start to think about your situation, its better if they stay far from those who have delivered...Even when its' time for visitors when they have come to see the newborns, holding them..."* with no critical care needs, women should ideally be able to choose between facilities which provide adequate privacy.

Privacy was also mentioned in a study by Sutan and Miskam (2017) among Muslim women who also experienced IUFD, where women reported experiencing lack of communication and privacy in the hospital during the period of grief. During the period of grief, women do not want noise, especially of newborns or new mothers showing their affection to their babies.

- **Procedure**

What is the guiding procedure? The procedure involves the steps to be taken towards accomplishment of the goal. The process aims at providing sufficient information to enable the activity to be carried out. It safeguards the agent,

recipient and the institution in that it provides knowledge and therefore lessens liability to criticism (Dickoff *et al.* 1968).

In this study, the findings revealed the kind of support that women need for to feel that they have been supported. furthermore the study revealed the activities that need to be carried out by the agents in order to improve the support, support by nurses and doctors by telling the cause, identifying problems quickly, explaining and giving clarity, nurses accompanying patients to the next level of care, talking in a nice way, treating patients as an emergency, assisting patients and giving them a bed, all these activities suit well to be the procedure that agents should follow in order to achieve support. The following are some of the quotations that depict what the participants indicated as procedures to be followed by agents.

Support groups, Sands, have been developed to offer support. In an observational study of women who attended pregnancy loss groups, interviews showed that the primary focus for women was the need to seek recognition and acceptance of their grief, information and informed choices. The introduction of bereavement support officers has been shown to improve the management of IUFD.

- **Outcome**

What is the end point of the activity? This involves defining an activity from the perspective of an end point or its accomplishment (Dickoff *et al.* 1968). In this study the outcome are women who had IUFD should feel that the care that they have received during the entire period of confinement could be regarded as, according to the women, optimum and quality patient care that include feeling better, improvement, understanding, moving on and care, in one word, being mentally stable women.

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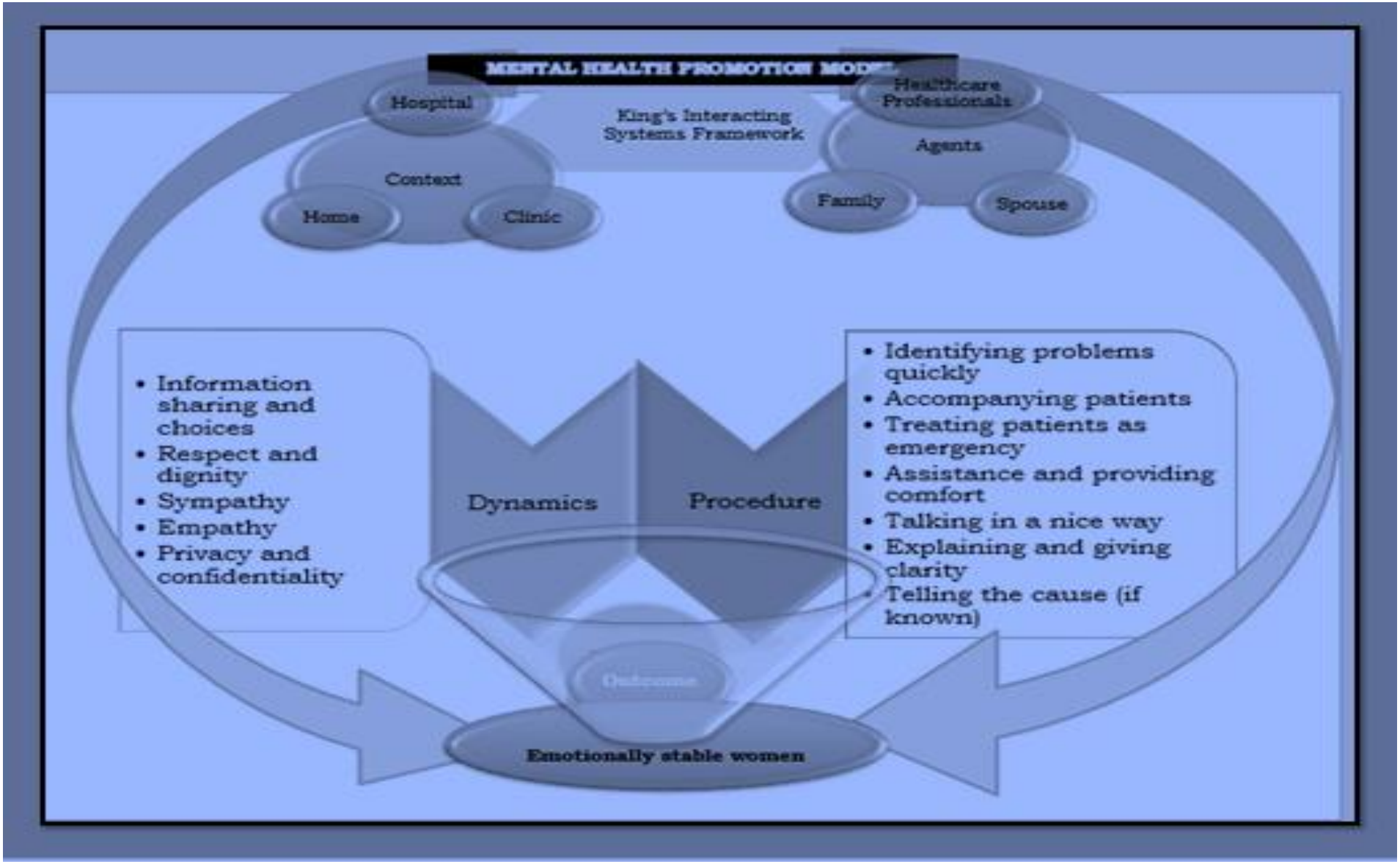
Evaluation Session 2: 4 January 2020: Draft Model Structure



COMMENTS OF THE 2ND SESSION: 4TH JANUARY 2020

- The **context** is not clear, to show that all activities are happening within the context, it should show on the outer layer of the diagram.
- **Recipients** should show that there is an interaction with the agents, the relationship should be indicated, remove agents at the top as they serve no purpose, for recipients and agents to have an interaction this should be shown by arrows, both the agents and the recipients should be removed from the top.
- Leaving the **outcome** at the bottom shows that women are still oppressed, there is no rehabilitation, the outcome should be on top, remove the funnel, the outcome should be indicated by an arrow, not a funnel and should face upwards, use arrows to show an easy flow
- King's interacting systems **framework** is used to guide the study, it should be removed from the diagram, and also remove the labeling as mental health promotion model.
- The page borders must be removed as the borders obstruct the **context**
- **Agents** and **recipients** are overlapping into the context
- **Dynamics** and **procedures** should be written inside and be removed on boxes
- Arrows must point upwards to show that there is a relationship with the following steps

The final structure is in chapter 4.

Evaluation Session 3: 31 January 2020

(Signatures and contact details withheld for security reasons)

LIMPOPO

PROVINCIAL GOVERNMENT

DEPARTMENT OF HEALTH

Attendance Register

Date: 31/01/2020
Venue: Maternity
Topic: Model to support women who had [illegible]
Presenter: [illegible] ML

Name and Surname	Designation	Section	Contact No's	Signature
[illegible] R.M	RPN	Maternity		
[illegible] M.M	RPN	Maternity		
[illegible] M.J	[illegible]	Maternity		
[illegible] M.M	ASM	Maternity		
[illegible] T.S	RN	Maternity		
[illegible]	[illegible]	Maternity		
[illegible] LP	RPN	Maternity		
[illegible] RS	[illegible]	Maternity		

LIMPOPO
PROVINCIAL GOVERNMENT

DEPARTMENT OF HEALTH
LOUIS TRICHARDT HOSPITAL

Date: 31/01/2020
Venue: [illegible]
Topic: [illegible]
Presenter: [illegible]

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		
Is the model simple and easy to follow? (structure)	✓		
Does the model use general terms? (generality)	✓		
Who should have access to this model? (accessibility)			Patient and Nurses [illegible]
Is the model important?	Yes		
How about the presentation?			Simple and understandable
Does the presentation have impact on improving quality patient care?	✓		
Does the presentation have impact on improving nursing practice	✓		

Other inputs that might be considered:

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....

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9

LIMPOPO
PROVINCIAL GOVERNMENT
DEPARTMENT OF HEALTH
LEDIG TEBOGHAFET HOSPITAL

Date: / /2020
Venue: .....
Topic: .....
Presenter: .....

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		
Is the model simple and easy to follow? (structure)	✓		
Does the model use general terms? (generality)	✓		Well explained throughout
Who should have access to this model? (accessibility)	✓		
Is the model important?	✓		It is a good model to implement
How about the presentation?	✓		Presentable and good
Does the presentation have impact on improving quality patient care?	✓		
Does the presentation have impact on improving nursing practice	✓		Management staff participating the nursing process

Other inputs that might be considered:

In order to provide the service to have additional staff, equipments and To consider the counselling service as important to each and every patient visited

5

LIMPOPO
PROVINCIAL GOVERNMENT
DEPARTMENT OF HEALTH

Date: 31/07/2020
Venue: Maternity
Topic: .....
Presenter: ML Khanise

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		
Is the model simple and easy to follow? (structure)	✓		Well unders tandable
Does the model use general terms? (generality)	✓		Good.
Who should have access to this model? (accessibility)			Health care workers
Is the model important?	✓		It assist the nursing care worker and the patient
How about the presentation?	✓		good
Does the presentation have impact on improving quality patient care?	✓		It has impact on quality patient care
Does the presentation have impact on improving nursing practice	✓		yes it has an impact on improving nursing practice

Other inputs that might be considered:

Nice.

9

LIMPOPO
PROVINCIAL GOVERNMENT
DEPARTMENT OF HEALTH

Date: 21/10/2020
Venue: [illegible]
Topic: .....
Presenter: .....

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		
Is the model simple and easy to follow? (structure)	✓		
Does the model use general terms? (generality)	✓		
Who should have access to this model? (accessibility)	✓		
Is the model important?	✓		
How about the presentation?	✓		
Does the presentation have impact on improving quality patient care?	✓		
Does the presentation have impact on improving nursing practice	✓		

Other inputs that might be considered:

.....
.....
.....

9

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HEALTH
[illegible]

Date: 3/10/2020
Venue: Makuya
Topic: .....
Presenter: [illegible]

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		The language was clear and understandable
Is the model simple and easy to follow? (structure)	✓		
Does the model use general terms? (generality)	✓		Because all was understandable
Who should have access to this model? (accessibility)			Health care providers
Is the model important?	✓		
How about the presentation?	✓		It was discussed and easily understandable
Does the presentation have impact on improving quality patient care?	✓		
Does the presentation have impact on improving nursing practice	✓		

Other inputs that might be considered:

Exercises for pregnant women at the hospital were very important previously, it was very important and helping.

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LIMPOPO
PROVINCIAL GOVERNMENT
DEPARTMENT OF HEALTH

Date: 31/01/2020
Venue: [illegible]
Topic: [illegible]
Presenter: [illegible]

Presentation and Model Validation Form

Ratings	Yes	No	Comment
Is the model clear and understandable?	✓		
Is the model simple and easy to follow? (structure)	✓		
Does the model use general terms? (generality)	✓		
Who should have access to this model? (accessibility)			Health Care Professionals
Is the model important?	✓		
How about the presentation?			Well presented
Does the presentation have impact on improving quality patient care?	✓		
Does the presentation have impact on improving nursing practice	✓		

Other inputs that might be considered:
Women must be given health education during their ANC visits.

9

ANNEXURE K: MODEL VALIDATION

Supporting Women Who Had IUFD

BACKGROUND

Literature indicate that women who had Intrauterine Fetal Death need a comprehensive perceived psychological social support from the multi-disciplinary team that include midwives, partner support, and support from friends and family. The following are guidelines that could be followed in supporting women who had IUFD.

1. GUIDELINES REGARDING THE AGENTS: HEALTHCARE PROFESSIONALS

➢ *Healthcare professionals are found in a hospital setting and are in the frontline of offering assistance while providing women the necessary privacy, providing respect and care of women in an empathetic manner and showing sympathy. Healthcare professionals should have the passion and readiness to provide maternal health, and the readiness to acquire more knowledge through in-service training and promotion of good communication skills. Accompaniment of pregnant women to the next level of care, this means that shortage of staff should be addressed if some staff become part of a transfer team to the next level of care. To strengthen service delivery, importance and application of the Bathopele principles should be emphasized at all times to improve the professional image of healthcare services. Consultation with social services to involve women and her family to create a conducive environment and act as patient advocacy during the loss. Social services should engage the spouse on how to assist in supporting women, such as by limiting movement, being there for the women and showing congruency to the loss when offering psychotherapy.. Healthcare professionals need to acquire knowledge in their work area, when they are knowledgeable, they are able to offer information and share the knowledge gained and clarify women's concerns.-To promote good-communication, health care professionals need improvement on how they communicate with their patients, as indicated in a 13 minutes steps in achieving good communication, namely: Sitting down while talking, Making eye contact, Avoiding checking the watch while talking, More of listening than talking Asking open ended questions, Acknowledging patient's concerns, Overcoming biases of age, race, weight etc., Respecting cultural and personal beliefs, and Understanding of medical information.*

2. GUIDELINES REGARDING THE PROCEDURE

➢ *The procedure of this model is information sharing and giving clarity, accompanying patients, talking in a nice way, treating patients as emergency and assisting and providing comfort. After women have delivered an IUFD, what they need most is information regarding the causes and why it has happened, concerns regarding future pregnancies, concerns regarding medical conditions, how to address those medical conditions and prevention of further occurrences. After women have undergone an IUFD, women have questions that they would like to be clarified upon, questions regarding issues of burials, and they would need clarity in those questions that they might poise. When healthcare professionals have acquitted themselves with the pathophysiology they are able to share the knowledge with women. Women are initially diagnosed IUFD at PHC, and transferred to the hospital for confirmation and further management. During a transfer they are not accompanied. They need to be accompanied, as the study revealed. When women arrive at a facility, they expect that healthcare professionals identify their needs. Challenges such as being unable to walk, and support which could be initiated is to provide them with a wheelchair to ease the ambulation, when these are offered it is the first realization that women feel that they have been well supported. Assistance could also be offered to women when they are referred for counseling services in the hospital, after IUFD women are sent to the psychologist for psychotherapy. The counseling services that women receive assist them in gaining their mental momentum to function optimally, The study revealed during data collection phase that women found healthcare professionals not displaying good communication skills. Good communication skills could be acquired through in-service training. The training could be combined with patients' charter, bathopele principles and customer care. Talking in a nice way includes awareness and rectifying the tone of the voice, unhurried talk, sympathetic talk and listening skills. When women arrive at a facility after they have been preliminary diagnosed IUFD, they expect that all interventions are promptly initiated. These interventions do not necessarily involve immediate expulsion of the fetus, as women indicated the realization that the women's concerns are taken into consideration. This might include taking vital signs, giving women comfort and notifying the doctor.*

3. GUIDELINES REGARDING THE OUTCOME OF THE MODEL

➢ *The model outcome depends on the interaction between the women and health care professionals, and applicable dynamics, procedures, when these have been done, the outcome are mentally stable women.*

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CHIEF EXECUTIVE OFFICER

ANNEXURE L: LANGUAGE EDITING

STEVENS EDITING AND PROOFREADING

BA: English; Industrial psychology (UNISA)

Sole Proprietor

Membership:

PEG (SA)

March 2020

THIS IS TO CERTIFY THAT:

I have language edited a thesis for Ms Martha Lufuno Kharivhe; Email: marthalufunokharivhe@gmail.com; Cell: 082 504 5223; Student No. 11592482. The title of the thesis is: '**DEVELOPMENT OF A MODEL TO SUPPORT WOMEN WHO HAD INTRAUTERINE FETAL DEATH IN VHEMBE DISTRICT OF LIMPOPO PROVINCE SOUTH AFRICA.'**

The scope of my editing comprised:

- Spelling
- Tense
- Vocabulary
- Punctuation
- Word usage
- Language and sentence structure
- Checking of in-text referencing style

The student presented a very well-prepared document which was sent timeously as agreed. She also paid the invoice promptly which shows integrity. I wish her all of the very best with her further studies and career.

Yours faithfully,

Charlotte Stevens (Ms)

Stevens Editing and Proofreading

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[Note: Signature withheld for security purposes.]