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A Model to Enhance the Continuity of Postnatal Care by Primary Caregivers in Selected Districts of Limpopo Province

by

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Dissertation Submitted in Fulfilment of the Requirements for the Degree:

Doctor of Philosophy

Department of Advanced Nursing Sciences

School of Health Sciences

University of Venda

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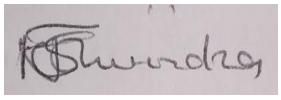
20 April 2021

DECLARATION

I, **Katekani Joyce Shirindza**, declare that the dissertation titled "**A Model to Enhance the Continuity of Postnatal Care by Primary Caregivers in Selected Districts of Limpopo Province, South Africa**,'' hereby submitted to the **University of Venda** for the degree **Doctor of Philosophy in Health Studies**, has not previously been submitted for a degree at this or any other University. It is my own original work in design and execution and all materials that I have used or cited have been indicated and acknowledged by means of complete references in the text and in the list of sources.

Katekani Joyce Shirindza	**:**	
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Place	**:**	University of Venda
Date	**:**	20 April 2021

DEDICATION

This dissertation is dedicated to:

- My late father, Sam Khazamula Yimeka Ndaheni Shirindz, who supported me throughout my study, but did not live to see it completed.
- Special gratitude goes to my loving children, Rilaveta Martin and Mixo Faith Baloyi, and my mom, Mphephu Lovhisa Nwa-Mavhavaza Shirindza. Thank you for your encouragement. I love you so much.

ACKNOWLEDGEMENTS

I wish to thank Almighty God for affording me good health, strength, wisdom, understanding, perseverance and dedication to carry out this study under trying circumstances. I wish to affirm that with God all things are possible.

I would like to express my warmest thanks to the following people for their support and encouragement towards the finalization of this study:

- Professor M.S. Maputle, my supervisor, for her support and wisdom in guiding me throughout my dissertation project.
- Dr T. Malwela, as a co-supervisor, a special thank you for your advice and encouragement.
- Limpopo Province Department of Health, for granting me permission to access their facilities.
- All midwives and managers from the health care facilities of Mopani, Sekhukhune and Vhembe Districts, Limpopo Province.
- Vhembe District Senior Manager and Maternal and Child Health coordinators of Vhembe District, for allowing me to validate the actionable plans with midwives and managers.
- A special thanks to Prof Donavon Hiss, for editing and typesetting assistance (Annexure O)
- I would like to express my thanks to the University of Venda for helping me fund the project.

- All the committees that were involved in the process of reviewing this work, including the Higher Degrees Committee of the University of Venda.
- All the participants in this study who did not hesitate to give information with so much enthusiasm.
- My son, Rilaveta Martin, for helping me to navigate graduate school.
- My daughter, Mixo Faith Baloyi, for being a true source of motivation.
- My mother, Mrs Lovhisa Mphephu Nwa-Mavhavaza Shirindza, for being a source of knowledge and wisdom.
- All my friends, brothers, sisters and extended family, for their continuous support and spiritual upliftment during my study.

ABSTRACT

Postnatal women are discharged within six hours after delivery and it is documented that about three quarters of neonatal and maternal deaths occur during the first week of life, of which about half of the deaths occur in the home environment during the immediate postnatal care period. The continuity of postnatal care by primary caregivers need to be explored. This study sought to develop a model to enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province of South Africa.

The convergent parallel mixed method was used where explorative, descriptive and contextual qualitative approaches were run concurrently with the descriptive quantitative approach. For the qualitative approach, non-probability purposive sampling was used to select 18 primary caregivers from the selected districts of Limpopo Province. Qualitative data were collected through in-depth one-to-one interviews and analysed through Tesch's open-coding method. Trustworthiness was ensured through credibility, confirmability, dependability and transferability. For the quantitative approach, non-probability sampling was used to sample 100 midwives at designated health facilities of the selected districts. Data were collected through the Likert scale questionnaire and analysed through the Statistical Package for the Social Sciences (SPSS) version 25.0. Reliability and validity of the instrument was ensured through systematic literature review and a pilot study.

Both quantitative and qualitative data analysis yielded three main themes as follows: facilitators to continuity of postnatal care by primary caregivers; barriers to continuity of postnatal care and perceptions of primary caregivers regarding the interactions with midwives on the continuity of postnatal care. In the discussion of findings, qualitative findings were supported by quantitative findings. Based on the findings of phases 1 and 2, Walker & Avant's method was followed to conduct concept analysis of the core concept. Concept analyses formed bases for the development of a model for continuity of postnatal care by primary caregivers. The model was validated with 19 participants consisting of managers and

midwives from the Vhembe District health care facilities. The group validated the actionable plans using a closed-ended checklist to verify whether the action plans were congruent with practice.

The results were analysed through simple descriptive statistics where the data were summarised using frequency distributions. The results indicated that the actionable plans could be applicable to practice and may need slight modification to suite the institutional needs prior operationalization. Recommendations were made on Maternal and Child Health Directorate, midwives and primary caregivers. Topics for further research were also suggested.

Keywords: model, enhance, continuity, postnatal care, primary caregivers

LIST OF ABBREVIATIONS AND ACRONYMS

ACOG	American College of Obstetricians and Gynaecologists
ANC	Antenatal Care
BANC	Basic Antenatal Care
CASP	Critical Appraisal Skills Program
DHIS	District Health Information System
DoH	Department of Health
EPISA	Expanded Programme of Immunisation in South Africa
ICM	International Confederation of Midwives
MCWH	Maternal, Child and Women's Health
MGP	Midwifery Group Practice
MDGs	Millenium Developmental Goals
MHCP	Maternal Health Care Procedures
MMR	Maternal Mortality Rate
MOH	Ministry of Health
NDoH	National Department of Health
NICE	National Institute for Health and Care Excellence
NCCEMD	National Committee for Confidential Enquiry into Maternal Deaths
NPRI	Non-Pregnancy Related Infection
PBCP	Post-Basic Care Practices/Procedures
PICOS	Population, Intervention, Comparison, Outcomes and Study
PPH	Postpartum Haemorrhage
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QUAL	Qualitative
QUANT	Quantitative
SANC	South African Nursing Council

SoWMy	State of the World's Midwifery
SPSS	Statistical Package for the Social Sciences
TBAs	Traditional Birth Attendants
UK	United Kingdom
UNICEF	United Nations Children's Fund
UNIFPA	United Nations Population Fund
USA	United States of America
USAID	United States Agency for International Development
WHO	World Health Organization

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

Postnatal care is provided to both mother and baby immediately after delivery. It is the care that attracts less attention to both midwives and primary caregivers in all the parts of the childbirth process as it is recommended that an uncomplicated vaginal delivery should only receive care in the facility for at least the first 24 hours after birth (World Health Organization/WHO, 2013). The Annual Report (2016/2017) by the National Department of Health (NDoH) advocates that healthy women and newborns should receive care in the immediate postnatal period before they are discharged, however, it reflected increased maternal and neonatal deaths (WHO, 2015).

Based on these, there is a consistent and remarkable report on maternal and neonatal deaths in many parts of the world immediately after delivery as a result of a neglected postnatal care by registered midwives (Ngunyulu, Mulaudzi & Peu, 2015). Chimtembo, Maluwa, Chimwaza, Chirwa & Pindani (2013) indicated the increased maternal and neonatal deaths as a result of substandard care services by registered midwives. The services that were provided during the hospital stay of postnatal women and the sub-standards postnatal care contributed to the high incidence of Maternal Mortality Rate (MMR). Pattinson, Fawcuss & Moodley (2013) elaborated guidelines on the National Strategy for Maternity Care focusing on improving maternal, perinatal, and family family health status. These guidelines indicate that women are assessed before pregnancy, during pregnancy, labour and delivery as well as post-delivery to maintain the total health of both the women and newborns.

The Maternal Mortality Ratio (MMR) has decreased in provinces such as Kwa-Zulu-Natal, Limpopo, Northern Cape and Western Cape, but increased in Free State and North-West. This was also noticed in other countries such as Malawi, hence, they were challenged with maternal deaths during the postnatal period, accounting up to 60% (Chimtembo *et al.,* 2013). To reduce the high MMR, care is structured into basic antenatal care (BANC), because pregnant women should attend 4 compulsory visits and the 5th if she is still pregnant, followed by labour and delivery conducted by midwives and primary caregivers at the setting where delivery took place.

The postnatal period is a six-week interval between birth of a newborn and the return of the reproductive organs to their normal non-pregnant state (Fraser, Cooper & Nolte, 2006). Therefore, it is considered a vulnerable time because most maternal and newborn deaths occur during this period (Dhaher, Mikolajezyk, Maxwell & Kramer, 2008). However, primary caregivers and midwives may be ill-prepared for the immediate postnatal complications when they cater for the baby and mother during the early hours of delivery. Consequently, there are serious complications which account for two thirds of all maternal and neonatal deaths during the postnatal period (Iyengar, Yadav & Swapnaleen, 2012). At the public health facilities, postnatal women are discharged within 6 hours if there are no birth complications and the baseline observations remained stable after delivery (NDoH, 2014). According to the National Institute for Clinical Excellence (NICE) guidelines (NICE, 2018), postnatal care should be a continuation of the care that women received during their pregnancy, labour and birth to promote the quality of health for both the mother and baby. There is a *MomConnect Programme* (Seebregts, Barron, Tanna, Benjamin & Fogwill, 2016) that help with communication between the women and the midwives at a distance so that women can get immediate help in the face of challenge. According to the Department of Health (DoH), the MMR has grown substantially,

despite the implementation of the *MomConnect Programme* for antenatal care (DoH, 2015).

In addition, community health workers' management of postnatal women pointed that there is knowledge deficit regarding postnatal care at home (Kleppel, Suplee, Stuebe & Bingham, 2016). In most cases, registered midwives only cater for postnatal women who are within the hospital setting and those discharged are given referral letters to the nearby clinics (Ngunyulu & Mulaudzi, 2009). However, there are conflicting ideas on the caring issues between the midwives and primary caregivers regarding postnatal care and this impasse has greatly affected postnatal women's health.

The maternal and neonatal deaths is a public and a global obstetric health concern that occurs in more than 62.8% of cases during the puerperium stage (NDoH, 2015). New York in the USA had more than 50% maternal deaths up to one year following delivery. However, the maternal mortality rose from 287 per 100 000 live births to 307 per 100 000 live births between the years 2008-2009, of which the major causes of deaths were due to the non-pregnancy-related infection (NPRI), especially in South Africa (DoH, 2014). Though the prevalence remains a worrying problem, the MMR dropped by over 30% during the period 2011 to 2013. Despite the decrease in maternal deaths in most of the provinces in South Africa, the primary caregivers seem to be less involved in the early care of postnatal women in the health care settings. The issue of non-involvement of primary caregivers in early postnatal care is affecting the health of most postnatal women.

1.2 Background

Postnatal women are examined by midwives or doctors, if there are no health problems, a postnatal woman and her baby are discharged within 6 hours (Iyengar

et al., 2012). Discharge is done if there are no surgical, medical, or obstetric problems that prompt an emergency on both the mother and the baby. The mother is assessed for the changes in skin colour, excessive vaginal bleeding, uterine tenderness as well as the changes in vital signs to prevent postnatal complications (Homer, 2014). During the postnatal period, the following practices such as care of the vulva to the mother, care of the breasts and lochia observations on the mother and cord care, eye care and mouth care are done immediately after delivery of the baby and before discharge for the safety of both mother and child, thus preventing the risks of developing complications (Hildingson & Sandin-Bojo, 2011).

However, the mother is not discharged if she presents with excessive uterine tenderness, urinary symptoms such as retention and incontinence as well as excessive abdominal pains (Islam, Islam, Christophi & Yoshimura, 2015). The baby also is not discharged if presenting with difficulties in the initiation of breastfeeding, convulsions and failure to thrive (Fraser & Cooper, 2009). Therefore, the midwife should undertake assessment of uterine involution at regular intervals until stable condition. The mother and primary caregivers are provided with verbal and written information which is also communicated to her following recovery from birth. The information helps postnatal women and primary caregivers to identify the signs of life-threatening conditions in both self and baby so that they can seek immediate help. Furthermore, postnatal women are given health education and counselling on breastfeeding, basic care of the baby as well as emotional support immediately after delivery.

If the woman is too unwell to receive this information within the first 6 hours after the birth, the information should be discussed with the primary caregiver who will assist the woman and baby at home. If the woman has made a recovery and is able to identify symptoms and signs of life-threatening conditions in herself, she should also

be provided with a contact number that can be used at any time of the day or night to seek urgent maternity advice (NICE Guidelines, 2018). The NICE guidelines indicate symptoms and signs that are suggestive of potentially life-threatening physical conditions in the woman, and must be reported immediately, this includes, but not limited to:

- sudden and profuse blood loss or persistent, increased blood loss,
- faintness, dizziness or palpitations or tachycardia,
- fever, shivering, abdominal pain, especially if combined with offensive vaginal loss or a slow-healing perineal wound,
- headaches accompanied by visual disturbances or nausea or vomiting within 24 hours of birth,
- leg pain, associated with redness or swelling, and
- shortness of breath or chest pain.

The symptoms and signs that are suggestive of potentially life-threatening mental health conditions in the woman include, but are not limited to:

- severe depression, such as feeling extreme unnecessary worry, being unable to concentrate due to distraction from depressive feelings,
- severe anxiety, such as uncontrollable feeling of panic, being unable to cope or becoming obsessive,
- the desire to hurt others or yourself, including thoughts about taking your own life, and

- confused and disturbed thoughts, which could include other people telling you that you are imagining things (hallucinations and delusions).

The woman and family may be discharged being unsure on how to continue with postnatal care practices. Therefore, the schedule for selective postnatal visit should be based on the midwife's schedule to avoid disappointment to the postnatal woman. Support of a practical, informational and psychological nature is important to women and their families and care should ideally be offered to enhance continuity of care while at home. Consequently, there is no dialogue and consultation with women and family, with consideration of their background, family circumstances and their expressed wishes. According to a study done in Australia by Pascal & Homer (2016), it was reflected that primary care givers are not involved in women's postpartum education to enhance continuity of postnatal care practices at home.

In addition, the lack of involvement of primary caregivers is made worse by the shortage of staff in health facilities in rural areas (Beake, Rose, Bick, Weavers & Wray, 2010). Consequently, the neglect and the unsupportive motion made postnatal women to seek postnatal health care services from unskilled childbirth care facilities (Dzomeku, 2016). Ngunyule *et al. (*2015) indicated that the use of unskilled birth facilities added to the high maternal death rates due to the use of various indigenous practices that promote unsafe postnatal care to women. The postnatal care by primary caregivers is highly valued as midwives focus less on both mother and baby during the postnatal period, thus, leading to postnatal complications.

The National Department of Health (NDoH, 2015) put in place guidelines for post-delivery monitoring. The policies were stipulated for economic reasons, hence, the care was not proper for postnatal women (Hildingson & Sandin-Bojo, 2011). During

this period, women and their babies are at a risk of developing complications. Such complications include postpartum haemorrhage (PPH), severe abdominal pains, abnormal vaginal discharges, breast engorgements and convulsions (Islam *et al*., 2015). PPH is experienced by postnatal women because of uterine sub-involution, retained products of conception and haematomas. Severe abdominal pains resulted from infection of the upper genital tract after delivery, including the entire peritoneal cavity. Abnormal vaginal discharges add to puerperal sepsis, leading to convulsions. According to Pascal & Homer (2016), the postnatal period is a critical time of death, hence, primary caregivers need an update to continue with postnatal care practices while at home. Newborns need special care on their cord to prevent septic wounds and to initiate breastfeeding to prevent diseases such as jaundice (Fraser & Cooper, 2009). The Annual Report 2016/2017 (NDoH, 2014) reported increased maternal death in spite of the launching of programmes such as *MomConnect* which started in 2014. Maternal deaths also escalated as a result of neglected postnatal care by registered midwives (Ngunyulu *et al.,* 2015). Bangladesh, Benin, Ghana, Nigeria, Tanzania and South Africa had a lot of maternal deaths that occurred due to improper assessment of women after delivery (Mannava *et al.,* 2015). Globally, over 500 000 women die of childbirth every year with over 90% occurring in developing countries (Chimtembo *et al.,* 2013). During the postnatal period, the services that are provided were not according to the service standards, hence, the postnatal services in countries like Malawi was at 48% score of which the recommended score was 80%.

In most of the African countries, postnatal care practices are inadequate, thus resulting in complications to women and newborns (Chimtembo *et al*., 2013). Newborns develop complications such as asphyxia, jaundice and congenital anomalies (Islam *et al*., 2015). It is noted that during this period, women and their

newborns suffered postnatal care, thus adding to increased maternal and neonatal deaths (Ngunyulu *et al*., 2015). Secondly, registered midwives are unable to recognize the challenges as they had a limited time to counsel families and women on postnatal care practices to continue with while at home. However, the opportunity to develop interprofessional relationship with families and women was limited, hence it led to limited understanding of the contributions to postnatal care practices at home (Psaila, Schmied, Fowler & Kruske, 2014).

The *State of the World's Midwifery* report (SowMy,2014) initiated that high quality postnatal care is of utmost importance to both mothers and newborns to prevent high morbidity and mortality rates. However, there are limited models to enhance the continuity of postnatal care practices by primary caregivers at home. In India, 80% of postnatal women valued community postnatal care practices than the hospital settings (Fenwick, Butt, Dhaliwal, Hauck & Schmied, 2010). Chien, Tai, Ko, Huang & Sheu (2006) acknowledged that home-based postnatal care practices were valued due to inclusion of cultural practices. At the same time, postnatal women were treated with respect and dignity.

Beake *et al. (*2010) supported the notion that care that was received in the hospital setting did not match the needs of the women, hence, it was perceived inadequate. Women felt more comfortable while at home rather than being stressed at the hospital settings as the care was not culturally-related. In Bangladesh, Malawi and Nepal, postnatal care services that was provided by registered midwives in hospital settings decreased due to the establishment of a Midwifery Group Practice in their communities. This led to a 34% decrease in both maternal and neonatal death rate as women tend to receive care from the community members that was related to their culture. It was also noted that the routine postnatal care practices that were done to both the mother and the child were not clearly explained by registered

midwives as the postnatal women were only advised to bring their babies to the clinic or health centre for routine postnatal care practices by midwives.

Furthermore, the South African Nursing Council (SANC) Regulations (R.2488) of 1990 are not accurately followed regarding the postnatal care due to workload. In SANC Regulation (R.2488) of 1990, registered midwives are expected to attend to both mother and child following delivery until the condition of both appears satisfactory. The registered midwife ensures that health education and counselling are only done in cases where abnormalities are detected. Although the primary caregivers were willing to assist the postnatal women at home, registered midwives seemed unwilling to accommodate primary caregivers' postnatal practices and this added to increased maternal and neonatal deaths yearly (WHO, 2014). Primary caregivers should present themselves to the health facilities so that postnatal women and their families can experience equal and diverse consideration by midwives to meet the woman's postnatal needs. However, there is limited information reflecting the giving of information to postnatal women and primary caregivers by midwives at the health facilities.

Continuity of care is very much important between women, families and members of the maternity team. The researcher observed that postnatal women and family members displayed limited awareness of the danger signs following delivery of their babies. Furthermore, postnatal women who are mostly affected were the first-time mothers who faced with an unusual experience that need adjustment (Masala-Chokwe & Ramukumba, 2017).

1.3 Problem Statement

Pregnant women attend 4-5 antenatal care visits which focus more on pregnancy and to a limited extend on postnatal care. Postnatal care is a critical period that is

mostly ignored by the health facilities, thus resulting to complications to both the maternal and foetal well-being. The practice is that postnatal women are discharged within 6 hours after delivery, and thus during critical period women and babies are at risk of early physical and mental complications. It is documented that about three quarters of neonatal and maternal deaths occur during the first week of life, of which about half of the deaths occur in the home environment during the immediate postnatal care period. Newborns may develop complications such as asphyxia, jaundice and congenital anomalies while women may present with excessive uterine tenderness, serious urinary symptoms as well as excessive abdominal pains (Islam *et al*., 2015; Fraser & Cooper, 2009).

Postnatal women may also present with postpartum depression such as depressive mood, tearfulness, loss of interest in usual activities, sleep disturbances and some changes in appetite (Sellers, 1994). Most of the deaths can be averted if the primary caregivers are involved in the continuity of care which is very crucial because the woman and the infant are at risk of and vulnerable to complications related to bleeding and infections during the early discharge period. The early postpartum facility discharge could negatively impact the lives of both the mother and her baby while at home. The involvement of primary caregivers could assist with the provision of quality community-based postnatal care to save the lives of women and their newborn babies (Mrisho, Obrist, Schellenberg, Haws, Mushi, Mshid, Tanner & Schellenberg, 2009).

Primary caregivers may also face obstacles of taking care of postnatal women immediately after discharge from the hospital or clinic setup as registered midwives, due to facility challenges such as insufficient time to provide education and counselling on postnatal care practices. Secondly, the Department of Health (2015) had no guidelines on the role of community-based resources pertaining to postnatal

care by primary caregivers at home.

The researcher, as a registered midwife, observed that postnatal women are discharged within 6 hours after delivery and health education and counselling are rarely done due to increased deliveries with shortage of registered midwives. Due to an increased number of deliveries with shortage of registered midwives, primary caregivers are not adequately involved during the discharge plan. Little is known about the involvement of primary caregivers in the continuity of postnatal care.

Cognizant of these facts, the involvement of primary caregivers could complement facility-based care to reduce the maternal and neonatal mortality rate (Tiruneh, Shiferaw & Worku, 2019). This has prompted the researcher to develop a model that will enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province.

1.4 Purpose of the Study

The purpose of the study was to develop a community-based model to enhance continuity of postnatal care by primary caregivers in the Limpopo Province of South Africa.

1.5 Study Objectives.

The objectives of the study will be broken down into three phases as follows:

- **Phase 1a:**
  - To explore the knowledge of primary caregivers related to the continuity of providing postnatal care in the Limpopo Province of South Africa.
  - To describe the perceptions of primary caregivers on the interaction with midwives regarding provision of postnatal care in the Limpopo Province

of South Africa.

- **Phase 1b:**
  - To identify the facilitators for midwives related to involving primary caregivers on postnatal care in the Limpopo Province of South Africa.
  - To identify the barriers for midwives related to involving primary caregivers on postnatal care in the Limpopo Province of South Africa.
  - To assess how registered midwives implement education counselling of postnatal care in the Limpopo Province of South Africa.

- **Phase 2:**
  - To develop a community-based model that will enhance the continuity of postnatal care practices by primary caregivers in the Limpopo Province of South Africa.
  - To validate the developed model that will enhance the continuity of postnatal care practices by primary caregivers in the Limpopo Province of South Africa.

1.6 Significance of the Study

The study findings will be of benefit to the following:

1.6.1 Women and Primary Caregivers

The actionable plans of the developed model may be implemented and assist women and primary caregivers with the pre-education classes, counselling and support and the information might be both theoretical and practical. This model might promote the health status of both the mother and child, reducing maternal and deaths.

1.6.2 Midwives

The findings of this study might be used to guide all midwifery lectures in facilitating midwifery care to midwifery students, thus improving the teaching and learning environments. The operational rules and protocols of the model might be included in the midwifery curriculum to enable midwifery students to integrate both the theory and practice which might assist them to work collaboratively with primary caregivers during midwifery care, thus reducing maternal and neonatal deaths.

1.6.3 Maternal Child and Women Health Directorate

The model might improve the health status of both mothers and their babies, thus, adding to the women that might enable her to take care of the child. The model might assist midwives to provide prenatal education to prepare women to avoid maternal deaths.

1.6.4 Midwifery Practice

The developed model might be adopted as a protocol throughout the hospitals in the Limpopo Province of South Africa, aiding all midwives to address major challenges pertaining to postnatal care practices, thus saving the lives of women.

1.6.5 Midwifery Research

The recommendations of this study might be tested in some of the other provinces to validate its usefulness. If ever there are gaps identified, some changes can be effected by other researchers to close such gaps.

1.6.6 Policymakers

The buy-in of policymakers might utilize the model and to formulate policies that might guide midwifery practices, thus, improving the maternal and child well-being with the reduction of maternal and neonatal deaths.

1.7 Conceptual Framework

The researcher employed the Donabedian SPO (Structure, Process and Outcome) theoretical framework in the research study (Donabedian, 1966) as illustrated in Figure 1.1.

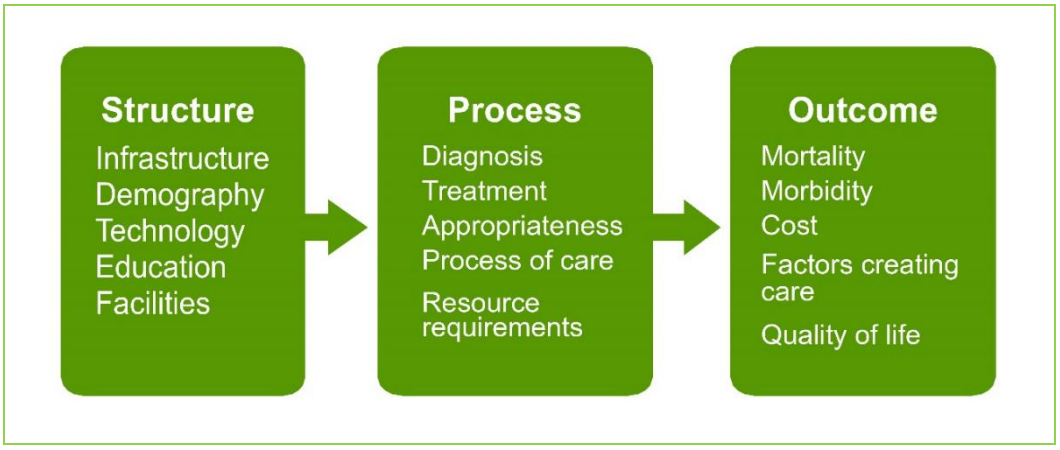

Figure 1.1: The Donabedian model (Donabedian, A: 1966)

The researcher selected the framework because it is widely used by South Africa's National Department of Health (NDoH) to evaluate the quality of care (Ameh, Gomez-Olive, Kahn, Tollman & Kerstin, 2017). The researcher used a conceptual model that provided a framework for examining the continuity of postnatal care by primary caregivers at home. The model consists of three distinct aspects of the continuity of postnatal care, which includes structure, process, and outcome. The researcher indicated that for continuity of care, there should be a good structure for the process to take place in order to obtain beneficial outcomes.

This means that primary caregivers should perform postnatal care activities in a conducive environment in order to improve the quality of life for both the mother and her baby. Donabedian (1966) postulated that there are relationships between the structure, process and outcome constructs based on the idea that a good structure

should promote good process and good process should, in turn, promote good outcome. The framework can be used to draw inferences about the continuity of postnatal care by primary caregivers at home.

Therefore, in applying the model, the researcher reflected that a structure constitutes the infrastructure, demography, the use of technology, educational background of primary caregivers as well as the facilities where continuity of care takes place. The researcher postulated that for continuity of care to be accomplished, the infrastructure should be acceptable for postnatal care activities, the population of primary caregivers should be willing to continue with postnatal care, should be able to use the technology, being able to capture knowledge accessible to the facilities for continuity of care, including the availability of resources (equipment and medicines), personnel, administration as well as facilities. In this study, primary caregivers should have access to all the equipment and medicines to assist postnatal women with continuity of postnatal care in mind. Primary caregivers should be properly trained to assist postnatal women when faced with complications at home. Process is defined as duities that are performed for the benefit of patients.

The researcher defined process as the activities that were performed with respect to client needs. The activities included all those performed with respect to the postnatal woman and her baby to maintain the health of both. Processes include the diagnosis and treatment plan to the postnatal woman and her baby, the appropriateness of the action plan, the correct process of care as well as the use of proper resources.

In this study, the researcher continued with postnatal care as evidenced by proper diagnosis and treatment of the woman and her baby, utilizing the correct and appropriate process with the available resources. Outcome was defined as the desired results of care provided by the health care provider. Therefore, outcomes

were the observed consequences of provider activities. The outcomes included the changes in mortality and morbidity rates, the cost of the treatment, the factors creating cost and the quality of life.

1.8 Definition of Key Concepts

The following concepts were repeatedly used in this study and, therefore, the theoretical as well as conceptual definitions are provided for clearer understanding.

1.8.1 Model

Model is defined as a symbolic depiction of reality that provides a schematic representation of relationships among phenomena and uses symbols or diagrams to represent an idea (Brink, van Der Walt & van Rensburg, 2018). In this study, the researcher used diagrams to represent the structure, process and outcomes that took place amongst midwives and primary caregivers in enhancing the continuity of postnatal care practices at home. The structure, process and outcomes of the model led to a reduction in maternal and neonatal mortality rates, thus improving the quality of life of both the mother and baby. In this way, the Donabedian conceptual framework was observed.

1.8.2 Enhance

Enhance is defined as the process of promoting the capacity of individuals and communities to take control of their lives and improve their health status (Clark, 2008). In this study, the structural, process and outcomes factors will promote community-based postnatal care by primary caregivers at home, thus, reducing the maternal and neonatal complications while at home.

1.8.3 Continuity

Continuity is defined as an ongoing process of taking actions or making changes in a plan (Clark, 2008). In this study, primary caregivers might continue with postnatal

care practices while midwives might provide the necessary education and counselling to the primary caregivers so that they can transact with caring during the process of postnatal period to a postnatal woman until recovery from the puerperal stage.

1.8.4 Postnatal Care

Postnatal care is defined as the care that is provided to the mother immediately after the expulsion of the placenta and membranes, and continues until six weeks after delivery of the baby (Fraser, Cooper & Nolte, 2010) In this study, postnatal care practice included the assessments and care provided to mothers and babies by the midwives and primary caregivers after birth and end at the period of six weeks.

1.8.5 Primary Caregivers

Primary caregivers are the people who took care of a child or someone who is sick (Longman, 2011). In this study, the primary caregivers were any family member who took the primary responsibilities to postnatal women and her baby immediately after discharge from the delivery facility to their homes to continue with the routine postnatal care at home.

1.9 Research Design and Methodology

Research design is the plan for gathering data in a research study (Brink *et al*., 2014). The approach that was used by the researcher depended on the expertise of the researcher, the problem, and the purpose of the study. The researcher used the mixed methods approach to achieve the objectives of the study. Table 1.1 outlines the qualitative approach, whereas Table 1.2 summarises the quantitative approach used in this study.

1.9.1 Mixed Methods Approach

The mixed methods approach is the combination of quantitative and qualitative

components in a single research project (De Vos, Strydom, Fouche & Delport, 2011). It involves the collection and analyzing of both the quantitative data, hence both the numeric and the text information is gathered to form a complete picture of the problem than they do when standing alone.

1.9.2 Convergent Parallel Mixed Methods Design

The convergent parallel mixed methods design is the phase whereby the researcher collects and analyses qualitative and quantitative data in the same phase and merges

Table 1.1: Summary of the qualitative approach

Research design	Special objective	Research setting	Research method				
			Population	Sampling and sample size	Data collection	Analysis	Trustworthiness
Qualitative	• Explore experiences of primary caregivers on providing postnatal care practices at home • Describe perceptions of primary caregivers on the interaction with midwives regarding the provision of postnatal care practices.	Three districts of Limpopo Province • Vhembe District is far north of Limpopo Province • Mopani District • Sekhukhune District • Vhembe District • Health centres (n=19)	• Primary caregivers providing continuity of postnatal care practices at home	• Non-probability purposive sampling: Primary caregivers aged 20-59 years • Both males and females **Criteria** • Primary caregivers taking care of postnatal women after delivery of a baby • Number will be determined by data saturation **Health centres** • All the 3 selected districts of Limpopo Province were purposively selected based on the ethnicity of the group. Vhembe District were select four health centres, Mopani four and Sekhukhune two health centres • Purposive convenience sampling was used to select the health centres. • Four health centres from each of the Vhembe and Mopani District and two health centres from Sekhukhune that gave a total of 10 health centres.	• In-depth face-to-face interview • Field notes were taken • Voice-recorder was used	• Open-coding method • Tesch's 8 steps done concurrently during data collection • Theme, categories, and sub-categories was developed	• Credibility • Dependability • Transferability • Confirmability

Table 1.2: Summary of the quantitative approach

Research design	Objectives	Research setting	Research method				
			Population	Sampling and sample size	Data collection	Analysis	Validity/reliability
Quantitative	• Identify the barriers and facilitators for midwives in providing postnatal care practices in the Limpopo Province of South Africa. • Assess how the registered midwives implement the education counselling of postnatal care practices in the Limpopo Province of South Africa	• Only three districts formed part of the research setting based on ethnicity. • Vhembe District has eight health centres • Mopani District has eight health centres • Sekhukhune District has three health centres • The 10 health centres from the 3 selected districts of Limpopo Province	• Population of midwives in the 3 selected districts are 112 • Age group is 25-59 years • Based on high maternal mortality rate per district	• Non-probability purposive sampling: midwives aged 20-59 Health centres • All the 3 selected districts with four health centres from Mopani and Vhembe Districts and two health centres from Sekhukhune District were included for sample representativeness • Non-probability purposive sampling	• Self-administered English questionnaire (Annexure K)	• SPSS was used • Statistical or numerical data from the computer software spreadsheet programme, MS Excel, and descriptive statistical frequencies & percentages to summaries of collection data • Univariate analysis using frequency distribution • Graphic presentation	• Pilot study • Validity • Reliability

the findings with the comparison of data in the interpretation and discussion phase (Creswell & Creswell, 2018). The type of mixed methods assisted the researcher to collect both forms of data using the same or parallel variables, constructs, or concepts in both the qualitative and quantitative data collection procedures.

In this study, the researcher used the convergent parallel mixed methods design based on the following advantages:

- It took less time to complete than a sequential design,
- Each type of data were collected and analysed separately and independently,
- The results of the qualitative and the quantitative databases were merged to provide the researcher with a different insight, and
- The combination of the two phases contributed to seeing the problem from multiple perspectives (Creswell & Creswell, 2018).

The current study was divided into three phases that will be discussed in detail in Chapter 3.

Phase 1, addressed objectives 1 and 2. In Stage 1, a qualitative study was conducted to explore the knowledge of primary caregivers regarding the provision of postnatal care at home and to describe the perceptions of primary caregivers on their interaction with midwives regarding the provision of postnatal care. During Stage 2, a quantitative study was conducted to identify the facilitators for midwives related to involving primary caregivers on postnatal care in the Limpopo Province of South Africa; the barriers for midwives related to involving primary caregivers on postnatal care in the Limpopo Province of South Africa; to assess how the registered midwives implement the education counseling of postnatal care in the Limpopo

Province of South Africa.

Phase 2 addressed the purpose of the study; to develop a model that will enhance the continuity of postnatal care by primary caregivers in the Limpopo Province of South Africa under the following headings:

- Concept analysis
- Model development
- Description of the model

Phase 3 addressed model validation.

1.9.3 Study Setting

The study setting will be described in detail in Chapter 3 of the study.

1.9.4 Population

Phase 1: Stage 1, the target population comprised of primary caregivers. Phase 1 Stage 2, the target population were all registered midwives. Phase 2 comprised of concept analysis and model development. Phase 3 dealt with model validation, the target population comprised of all registered midwives working at the health facilities of the selected districts of Limpopo Province, South Africa.

1.9.5 Sampling

In this study, the non-probability purposive sampling was used to select participants from corresponding target populations, namely, primary caregivers as well as probability stratified random sampling to select registered midwives for phases respectively. Sampling process will be described in detail under Chapter 3 of the study.

1.9.6 Data Collection and Instrument

For Phase 1, Stage 1, data were collected by means of unstructured in-depth interviews with primary caregivers. In Phase 1, Stage 2 and Phase 3 data were collected by means of self-administered questionnaires from registered midwives.

1.9.7 Trustworthiness of the Data Obtained in Phase 1

Trustworthiness in this study was ensured by applying Lincoln & Guba's criteria for judging the quality in qualitative research. The four constructs, namely, credibility, transferability, dependability and confirmability were applied and described in detail in Chapter 3.

1.9.8 Validity and Reliability for Phase 2

Validity was ensured by conducting a literature review and providing operational definitions of key concepts. The researcher ensured validity by applying basic techniques to assess the validity of an instrument that include face, criterion, content and construct validity. The processes of validity and reliability are described in detail in Chapter 3.

1.10 Data Analysis

For Phase 1, Stage 1, the researcher used Tesch's open-coding system to analyse data. During data reduction, the richness of the data was maintained. The themes and sub-themes from the data were identified (Burns & Grove, 2011). In Phase 1, Stage 2 and Phase 3, data were analysed by means of a Statistical Product and Service Solution version 2.5 (SPSS). Finally, the researcher interpreted how the combined results answered the qualitative and quantitative, and mixed methods questions (Creswell, 2013).

1.11 Ethical Considerations

In this study, ethical procedures encompassed ethical clearance, approval to

conduct the study, quality of the researcher and the research project, confidentiality, anonymity and informed consent. In addition, these are deliberated in detail in Chapter 3.

1.12 Outline of the Dissertation

The study comprised eight chapters as set out in Table 1.3:

Table 1.3: Outline of the dissertation

Chapter 1	**Orientation to the Study** It is an introductory chapter. It discusses the background, rationale, significance of the study, problem statement, purpose of the study, research objectives, conceptual framework, definition of concepts, the outline of dissertation, a brief description of research design, trustworthiness as well as ethical consideration.
Chapter 2	**Literature Review** This chapter discusses the systematic literature review related to the topic of community-based postnatal care practices in the health care facilities of the selected districts of Limpopo Province, South Africa.
Chapter 3	**Research Methodology** An overview of the methodology used in Phases 1, 2 and 3 are presented. This chapter designates the research design, population, sampling, data collection and data analysis of this study. Ethical consideration and measures to provide trustworthiness are also deliberated.
Chapter 4	**Data Analysis, Interpretation and Discussion of the Findings** The findings of the study were analysed, interpreted and controlled through literature.

/Continued

Table 1.3: Outline of the dissertation (*continued*)

Chapter 5	**Concept Analysis** This chapter discussed the concept analysis of Phase 3 utilized in this study.
Chapter 6	**Model Development** This chapter discussed the model development and description of Phase 2 utilized in this study.
Chapter 7	**Model validation** This chapter discussed the model evaluation of Phase 3 utilized in this study.

Chapter 8	Limitations, Recommendations and Conclusion
	This chapter provides the conclusion, including the strengths and limitations of the research findings. There are also recommendations with reference to the presented research, action plans to operationalize the model and future research.

1.13 Conclusion

In this chapter, the following aspects dad been discussed. The introduction and background, rationale and significance of the study, problem statement, purpose of the study, research objectives, conceptual framework, definition of concepts, outline of the dissertation, and a brief description of research design, trustworthiness and ethical considerations as well as an outline of the dissertation. Chapter 2 will present the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The previous chapter discussed the introduction and background, rationale and significance of the study, problem statement, purpose of the study, research objectives, conceptual framework, definition of concepts, outline of the dissertation and a brief description of research design, trustworthiness and ethical consideration as well as the outline of the dissertation. This chapter provides a review of literature on research relevant to continuity of postnatal care by primary caregivers.

Various authors defined a literature review as a process of finding, reading, understanding and forming conclusions about published research methodology and theory by authoritative scholars on a particular topic. A literature review ascertains and compares prior studies and helps to evade duplication and preventable repetition (De Vos *et al*. 2011; Babbie & Mouton, 2003; Burns, Grove & Gray, 2011). In this study, the researcher reviewed literature that relates to the research problem and studies with similar topics and content to avoid duplication.

The researcher used the systematic literature review as a means of evaluating and interpreting all available research that is relevant to a particular research question which is a phenomenon of interest to the researcher (The Cochrane Collaboration, 2003).

The aim of a systematic review is to present a fair evaluation of a research topic by

using a trustworthy, rigourous, and auditable methodology. Systematic reviews are the essential tools for summarizing evidence accurately and reliably. It helps clinicians keep up to date; provide evidence for policymakers to judge risks; benefits, and harms of health care behaviours and interventions; gather and summarise related research for patients and their carers; provide a starting point for clinical practice guideline developers and summaries of previous research for funders wishing to support new research (Liberati, Altman, Tetzlaff, Mulrow, Gotzsche, Ioannidis, Clarke, Devereaux, Kleijnen & Moher, 2009).

A systematic review aims to provide a comprehensive, unbiased synthesis of many relevant studies in a single document (Edoardo & Alan, 2014). Based on this study, the researcher chose a systematic review to evaluate a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research and collect and analyse data from the studies that are included in the review (The Cochrane Collaboration, 2003).

There are defining features of a systematic review and its conduct that are defined and accepted internationally. They are identified as follows:

- Systematic reviews have clearly articulated objectives and questions to be addressed,
- The inclusion and exclusion criteria determine the eligibility of the study,
- There is a comprehensive search of sources to identify all relevant studies, both published and unpublished,
- There is an appraisal of the quality of the included studies, assessment of the validity of their results and the reporting of any exclusion based on the

quality of the sources,

- There is an analysis of data extracted from the included search,
- The presentation and synthesis of the findings extracted should be identified, and
- Transparency on the reporting of the methodology and methods used to conduct the review should be indicated (Edoardo & Alan, 2014).

In this study, the researcher used reliable methods to analyse and summarise the results of the included studies. The researcher chose the method to search extensive data related to continuity of postnatal care by primary caregivers.

The following are the characteristics of a systematic review according to CRD (2009):

- The scope of the review is identified in advance, whereby the review question and sub-questions and sub-groups analyses are undertaken,
- There is a comprehensive search to identify all relevant research studies,
- There is a use of explicit criteria to include or exclude studies that are relevant or irrelevant,
- There is an application of established standards to critically appraise the quality of the study, and
- It has the explicit methods of extracting and synthesising study findings.

2.2 Systematic Literature Search

There are different methodologies for the synthesis of findings across the included

studies in systematic literature review. The methodologies provide a framework which informs the relevant approach to the literature search and the selection, appraisal of many studies as well as the synthesis of results. The common methodologies include the following: thematic synthesis, meta-ethnography, critical interpretive synthesis, and meta-study (Tong, Palmer, Craig & Strippoli, 2016). Other approaches that can be used are framework synthesis and meta-aggregation. The realist reviews and narrative synthesis are some of the methodologies, but are not specific for the synthesis of qualitative data. The researcher used the thematic synthesis, meta-ethnography, critical interpretive synthesis and meta-study as discussed below.

2.2.1 Thematic Synthesis

This methodology deals with the generation of analytical themes that offer a new interpretation that goes beyond the findings offered by primary studies. The literature search is comprehensive and systematic. Quality appraisal is aimed at addressing aims, context, rationale, methods and findings, reliability, validity, and appropriateness of methods for ensuring that findings are grounded in participant perspectives. The methodological approach has the analytical principles and techniques that focus online-by-line coding of results and conclusions from the primary studies. It also ensures that codes are organized into descriptive themes and that data are further interpreted to develop analytical themes (Tong *et al*., 2016).

2.2.2 Meta-Ethnography

This methodology deals with the development of higher-order interpretations (ideas, theories) based on findings reported in primary studies. For quality appraisal, it assesses whether the study is relevant or not. The analytical principles and techniques include the comparison of concepts from individual studies to identify first- and second-order constructs. It also explores and explains the differences and

contradictions among studies and, lastly, the theory is based on synthesising translations and comparisons of the differences and similarities in the data.

2.2.3 Critical Interpretive Synthesis

This approach is intended to build a theoretical conceptualization. The literature search is based on the theoretical sampling, thus selecting studies that will inform theory development. The quality appraisal of the methodology is to determine the degree to which the research findings inform theory development. The analytical principles and techniques are the concurrent iteration of the research question, the extraction of data and summarising papers, definition and the application of codes and the development of a critique and generation of themes.

2.2.4 Meta-Study

This approach describes differences in research findings and also develops a new interpretation of the phenomena under investigation. The quality appraisal focuses on epidemiological soundness and the rigour of the research methods. The analytical principles and techniques inform that the findings, methods and theory are analysed, and the three components of the analysis are combined. The next section described the steps that are used in conducting a systematic literature review.

2.3 Steps in Conducting a Systematic Review

The Cochrane Library informs researchers to follow five steps when producing the review (MacGill, 2019). The researcher used the following steps in reviewing the literature:

2.3.1 Defining the Research Question or Selection of the Objectives

This was the first step in the conduction of the systematic review. The researcher identified the research question in order to focus on the solution to the problem. This

step indicated the problem that the researcher intended to address (MacGill, 2019). The research question or objective needed to be very specific and be clear, unambiguous and properly structured before the review process commenced. The researcher used PICO to determine if the research objective was relevant or can be used to answer it. The acronym PICO stands for Population, Intervention, Comparison and Outcome (The Cochrane Collaboration, 2003). In the current study, PICO was applied by the researcher as follows:

i. **Population:** Defines the subject group. In the current study, primary caregivers were the population.

ii. **Intervention:** This includes the prognostic factor. In this study, continuity of postnatal care through community-based was the intervention. It is the procedure that addresses a specific issue (Kitchenham, Mendes & Travassos, 2007).

iii. **Comparison:** The population and intervention are combined. In this study, the primary caregivers and continuity of postnatal care were compared.

iv. **Outcome:** Outcome relates to factors of importance to postnatal women such as improved maternal health with reduced maternal deaths. In this study, the implementation of community-based postnatal care outcomes was proper in the improvement of maternal and neonatal lives, hence, increased maternal and neonatal deaths were reduced.

2.3.2 Search Methods

This is the review protocol that specifies the methods that were used to undertake a specific systematic review. It is the planning phase of the systematic review process

in which the research questions or objectives are broken down into concepts to create search terms. The pre-defined protocol was necessary to reduce the possibility of research bias. Without a protocol, it is possible that the selection of individual studies or the analysis may be driven by researcher expectations (Kitchenham, Brereton, Budgen, Turner, Bailey & Linkman, 2009). In this stage, alternative terms and concepts which address the same question or objectives were also searched. The researcher determined the inclusion and exclusion criteria during this stage.

2.3.3 Search Identification and Selection

The components of search identification and selection included all the elements of the review plus additional planning information:

- Background, specifying the rationale of the study. In this case the rationale of this study was the continuity of postnatal care by primary caregivers.
- The research question was the identification of the knowledge of primary caregivers regarding the continuity of postnatal care at home that the review is intended to answer.
- The strategy that was used to search for primary studies included searching the terms and the resources. The resources included digital libraries, specific journals and conference proceedings. An initial mapping study helped to determine an appropriate strategy.
- Study selection criteria were used to determine which studies were included in or excluded from a systematic review. In this study, relevant articles were discussed in the next section of this literature review.
- Study selection procedures described how the selection criteria were applied.

The researcher specified the rationale for the selection of relevant articles as discussed in the sections below.

The aim of this stage was to identify all the available published and unpublished work which address the question or objective. The database selected was relevant to the area of study also considering the inclusion and exclusion criteria set. A librarian was involved to help with expanding the search, ensuring a comprehensive search which increases the robustness of the entire study (Kitchenham, 2004). The selection of relevant articles was based on two concepts: sensitivity and specificity. To ensure sensitivity, the total number of studies that meet the inclusion criteria of the search strategy was recorded, although some were discarded owing to a lack of relevancy. To ensure specificity, non-relevant studies were excluded by the researcher in the next phase. The relevance of some studies was determined from the title and abstract if available, but in other cases the decision was only made after the full-text article has been reviewed.

Throughout the search, all studies reviewed were recorded by the researcher (Centre for Evidence-Based Conservation, 2009; Centre for Review and Dissemination, 2009).

2.3.4 Quality Appraisal

This is an in-depth appraisal of the selected studies so that reported research not meeting the inclusion criteria, including the strength of the evidence, can be excluded from the final sample (Centre for Evidence-Based Conservation, 2009). In this study, the search outcomes according to the Prisma flow chart was used by the researcher as depicted in Figure 2.2. A systematic review does not seek to create new knowledge, but rather to synthesize and summarise existing knowledge (Edoardo & Alan, 2014). During the critical appraisal, all studies included were first

assessed by the researcher for methodologic rigour (Egger, Smith & Ahman, 2001).

The quality appraisal is akin to assessing the risk of bias in reviews that ask questions related to the effectiveness of an intervention. Such articles of low methodological quality were excluded. Therefore, critical appraisal is very much important to avoid poorly conducted, reported and unreliable findings that may bias the outcome. The quality of bibliographic sources, relevance and the academic prestige of the authors and the impact factor of the journal in which it was published was assessed by the researcher for quality appraisal (Kitchenham *et al.,* 2009).

2.3.5 Data Extraction and Synthesis

Data extraction refers to the process by which researchers obtain the necessary information about study findings from the included studies (Centre for Reviews and Dissemination, 2009). This is the step in which all relevant findings meeting the selection criteria were aggregated to form the body of evidence regarding the research question posed by the researcher.

The objective of this stage was to design data extraction forms to accurately record the information researchers obtained from the primary studies. The data extraction forms reflected the name of review, date of data extraction, title, authors, journal, publication details and a space for additional notes (Egger, 2001).

A standardised extraction tool was used to minimise the risk of error when extracting data. The reviewers extracted all necessary raw data independently before conferring. The extracted data were synthesised after data extraction (Briggs, 2013). Synthesis can use various analytic frameworks, such as meta-ethnography, meta-analysis, thematic synthesis or framework synthesis.

The method used will depend on the types of evidence collected and appraised during the process (Ten Ham-Baloyi & Jordan, 2015). Depending on the heterogeneity or homogenous nature of the data extracted, the synthesis can be concluded and presented either thematically or on a forest (odds ratio) plot or scatter diagram (Ten Ham-Baloyi & Jordan, 2015). In this study, the researcher used the process as reflected in Figure 2.1.

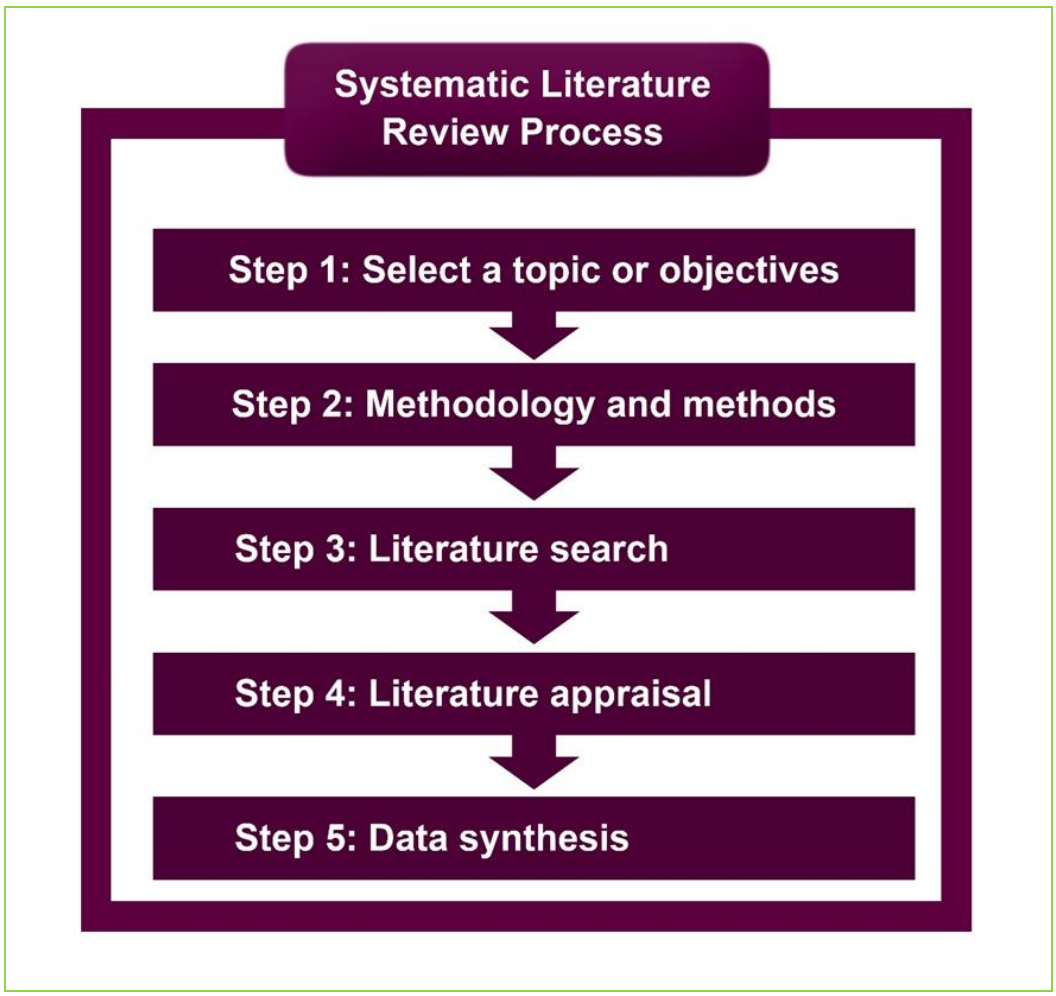

Figure 2.1: Outline of a systematic literature review (self-developed)

2.4 Advantages of a Systematic Review

The following advantages of the systematic review influenced the process of review:

- The methods that scientists use to find and select studies reduce bias and are more likely to produce reliable and accurate conclusion.
- A review summarises findings from multiple studies, and this makes the information easier for the end user to read and understand.

- It gives an idea of how well the findings might apply to everyday practice.
- It identifies knowledge gaps that call for more research.
- It reduces bias when drawing conclusions as it takes in a range of views and findings (Cochrane Handbook for Systemic Reviews, 2011).

2.5 Disadvantages of a Systematic Review

The following disadvantages of a systematic review were noticed, but were minimised to make the review valid anyhow:

- It can be hard to combine the findings of different studies because the researchers have carried out their investigations in different ways.
- The number of participants, the length of the original study and many other factors can make it hard to compare the findings of two or more studies.
- Authors of a review must decide whether the quality of a source is “high” or “low” bias.
- Depending on the research question, if the literature on the topic is inadequate, the review process can be influenced.
- Unpublished studies can be hard to find, but using published literature alone may lead to misrepresentation because it does not include findings from all the existing research.
- Results that are negative or inconclusive may remain unpublished, and the publication bias can cause positive results to become exaggerated, because the findings do not incorporate neutral or negative results.

2.6 Review Process

In this study, the researcher involved several discrete activities. The review process had three stages that dealt with planning, conducting, and reporting the review. Therefore, the researcher chose the systematic mapping reviews that are designed to provide a wide overview of a research area to establish if research evidence exists on a topic to provide an indication of the quantity of the evidence (Kitchenham, 2007).

2.6.1 Planning Phase—Selection of the Objectives or Questions for the Review

The first step in the systematic mapping review was the identification of the current state of the research problem or research objectives which aim to answer the research study (Edoardo & Alan, 2014). This method is aimed at broader research questions, drawing them, and asking multiple research questions. It is also aimed at pulling together data across different contexts, generate new theories, search gaps, inform the development of primary studies and provide evidence for the development of a model to enhance the continuity of postnatal care by primary caregivers (Tong *et al*., 2012). It is very important to state or put in the objectives or topics that are properly structured. In this study, the researcher used the framework to assist in the formulation of the questions based on the research topic. In this study, the objectives of the systematic mapping review were to explore the quality of literature relating to the following questions:

- What are the factors contributing to continuity of postnatal care by primary caregivers?
- How do primary caregivers influence the continuity of postnatal care?

2.6.2 Search Methods

The aim of the systematic review was to identify all reviews relevant to the topic of interest that were important to the answering of the research question and research objectives. In identifying the sample, multiple sources had been used such as electronic databases, catalogues, and grey literature (Ten Ham-Baloyi, 2013). The search in the electronic databases was followed by manual searching whereby journals that were not available electronically were scanned, reference lists from the relevant studies and the content of journals, abstracts and other data relevant to the research topic were also scanned in order to serve as a compensation for inaccurate databases (CRD, 2009).

The researcher used multiple and specialist databases to reduce a too extensive literature. In this study, the researcher used an extensive systematic search of databases in CINAHL, MEDLNE, Science Direct and Cochrane (Systematic review of studies). A search in electronic databases did not always yield efficient results, therefore, the searching continued using references from reference lists and seeking relevant advice from experts. The internet search engines such as Google and Google Scholar were used in order to ensure that all relevant documents were identified (Eysenbach, Tuische & Diepgen, 2001).

The search focused on continuity of postnatal care by primary caregivers. The literature that was published from 2007 to 2018 was used as the researcher assumed that literature over a decade can provide adequate information regarding the studies conducted on continuity of postnatal care. The titles and abstracts of the searched topics were first reviewed by the researcher and thereafter full-text versions of the articles that described qualitative design were retrieved. Studies with only abstracts with no full-text were excluded from the study.

2.6.2.1 Search Terms

In searching the literature, the search combined terms related to the population, with the clinical or health topic and also terms relating to qualitative methodology and social phenomena (Tong *et al*., 2016). In this study, the following keywords were used to retrieve relevant literature for this review:

- postpartum, postpartum period, postpartum care postnatal, postnatal care, postnatal period, postpartum care for mothers and newborn, newborn improvement program, postnatal care programme, home-based postnatal care, continuity of care, primary care providers.

The researcher had used only the selected keywords to obtain sufficient and relevant results.

2.6.2.2 Inclusion and Exclusion Criteria

In order to select only the relevant documents from a large corpus of literature obtained from the search, the search stated the inclusion and exclusion criteria beforehand (Ten Ham-Baloyi, 2013). The criteria for selection were related to the elements of the research question, such as the subject and outcome (Kitchenham, 2004). The inclusion criteria could concern the study design, since reliability of the study and validity overall are related to the study design (CRD, 2009). Language could be a criterion in order to avoid the infiltration of language bias which happens when one language is used and publications in other languages are excluded (CRD, 2009). The exclusion criteria could also involve that the documents or studies did not answer the research question or address the hypothesis, the study design was not appropriate to the research question and the sample size was not large enough or that lack of control within the study existed (Ten-Ham-Baloyi, 2013). In this review, the following were the exclusion criteria that the researcher used when reviewing

documents.

❖ **Exclusion Criteria**

All documents that met the following criteria were excluded:

- ❄Studies irrelevant to the research question,
- ❄Studies concerning something else rather than the continuity of care by primary caregivers,
- ❄No-research documents when classified as non-expert opinion, and
- ❄Duplicates records

The aim of the search was to include all the documents relevant to the review question. The research conducted a broad search to ensure that all possible documents were included during the search strategy. After a broad search, filtering was also done to ensure that relevant documents were included.

2.6.3 Search Outcomes

An extensive literature search was done using different databases and the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) was used to search for literature. PRISMA is an evidence-based minimum set of items for reporting in systematic review in which authors can ensure transparency and the complete reporting (Liberati, Altman, Tetzlaff, Mulrow, Gotzsche, Ionnidis, Clarke, Devereaux, Kleijnen & Moher, 2009). Figure 2.2 shows the selection process that was done.

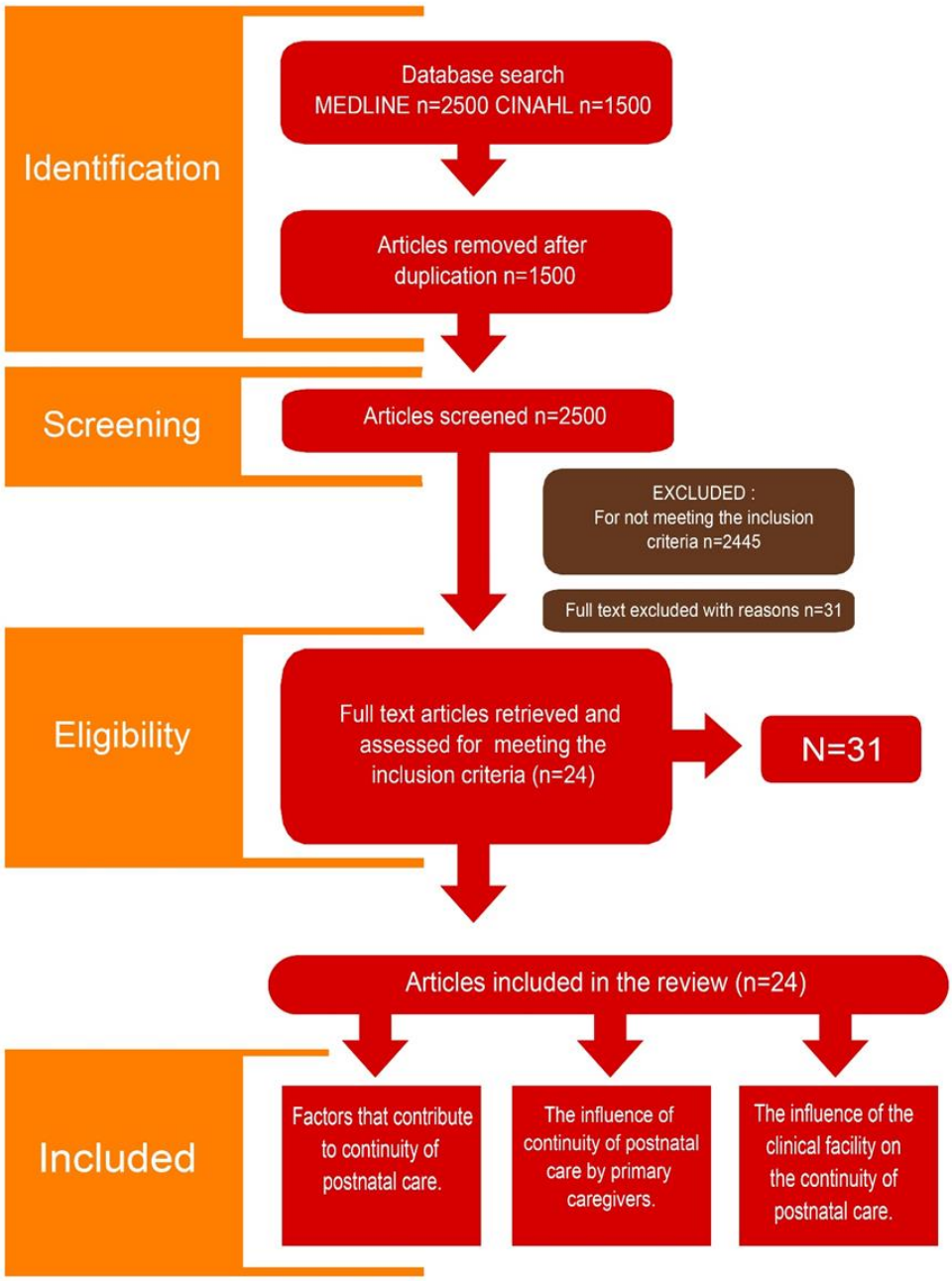

Figure 2.2: Search outcomes according to Prisma flow chart (self-developed)

2.6.4 Quality Appraisal

Quality appraisal is an in-depth judgement of the selected studies in order to ensure that the reported research that do not meet the inclusion criteria can be excluded

from the final sample (Ten Ham-Baloyi & Jordan, 2016). Both the researcher and the two promoters used the Critical Appraisal Skills Program (CASP, 2013) research checklist and the Critical Appraisal Skills Program (CASP, 2013) to assess the quality of data (Singh, 2013). Each reviewed the articles separately and then met to discuss the findings. Table 2.1 indicates the CASP checklist that was used during the appraisal.

Table 2.1: Critical Appraisal Skills Program (CASP) Checklist (CASP, 2013)

Critical Appraisal Skills Program (CASP) criteria	**Criteria Used**
Clear statement of the aims of the research?	• Goals of research • Significance of research • Relevance of research study
Is qualitative methodology appropriate methodology used?	• If the research seeks to interpret or illuminate the actions • Is qualitative research the right methodology for addressing the research goal
Was the research design appropriate to address the aims of the research?	• Were the research design justified
Was the recruitment strategy appropriate to the aims of the research?	• Was participation selection explained • Was justification of the participants explained • Was recruitment of participants explained
Was the data collected in a way that addresses the research issue?	• Was setting of data collection justified • Was data collection method indicated • Was the data collection method justified? • Was the data collection method explicit? • Was the data collection method modified during study? • Was form of data clear • Was data saturation discussed

Continued/ ...

Table 2.1: Critical Appraisal Skills Program (CASP) Checklist (CASP, 2013)(*continued*)

Has the relationship between researcher and participants been adequately considered?	• How the researcher examines their potential role to bias • How did the researcher respond to events during the study
Have ethical issues been taken into consideration?	• Was the research explained to the participants? • Were the ethical standards maintained? • Was informed consent explained? • Was approval from the committee sought?
Was the data analysis sufficiently rigourous?	• Was data analysis process described • Were themes clearly derived? • Was there sufficient data to support findings? • Was contradictory data considered and to what extent? • Was research bias critically examined?
Is there a clear statement of findings?	• Are findings explicit? • Was there a discussion of the evidence? • Was the credibility of findings discussed? • Were the findings discussed in relation to the research question?
Is the research valuable?	• Was contribution to the body of knowledge discussed? • Were areas of research identified? • Were limitations of the study discussed?

2.6.5 Data Extraction

Data extraction refers to the process of identifying and recording relevant details from the original research studies that the researcher included in the systematic review (Oh, 2016). It is the process by which researchers obtain the necessary information about the study findings from the included studies (Ten Ham-Baloyi & Jordan, 2016). Data extraction was facilitated using a tool or an instrument that ensures that the most relevant and accurate data are collected and recorded (Pearson & Averis, 2003). A tool may prompt the reviewer to extract only the relevant citation details, details of the study participants, including their number and eligibility, descriptive details of the intervention and comparator used in the study and all the important outcome data. The articles extracted for this study are depicted

in Table 2.2.

2.6.6 Data Synthesis Process

Data synthesis process is the coding of findings reported by the primary study, identifying themes, comparing across studies, how studies are related, synthesising themes and generating new knowledge (Tong *et al*., 2016). This is the step that can be either descriptive or statistical, combining all the relevant findings that meet the inclusion criteria to form evidence regarding the research question asked. Based on the meta-ethnography described by Noblit & Hare (1988), the researcher used a reciprocal translation, analogous to constant comparison in primary qualitative research, to compare the themes identified in each study.

2.6.6.1 Identifying Themes and Concepts

Concepts, themes and patterns were identified by reading and rereading the included studies. In this process, primary themes were understood as reflecting participants' understandings and secondary themes were understood as the interpretations of participants' understandings made by authors of these studies. The researcher recognised that all the reported data are all the products of author interpretation.

2.6.6.2 Determining How Studies Are Related

Thematic analysis was used by the researcher to develop categories from the first-order themes and concepts identified in the included studies. These categories represent related themes and concepts and initially included: The Health Care System, Transportation, Communication with Providers, Poor Compliance with Postpartum Visit, Knowledge, Attitudes and Beliefs About Postnatal Care.

Table 2.2: Articles selected for review for The Continuity of Postnatal Care by Primary Caregivers

No	Reference	Country	Sample	Sample size and data collection	Research aim	Findings
1	Aaserud, Tveiten and Gjerlaug (2016)	Norway	Postnatal women	Semi-structured interview	To explore women's experiences of home visits by local midwife	Women satisfied with visit by local midwife
2	Azher (2017)	India, Rajasthani	Postnatal women	Semi-structured interview	Explore postnatal care practices with traditional midwife	No collaboration on traditional practices between professional midwife and traditional midwife
3	Balbierz, Bodnar-Deren, Wang and Howell (2015)	New York	Postnatal women	Interviews	To assess the influence of maternal depression on parenting practices during the postnatal period.	Mothers who are negatively depressed lead to non-adherence to parenting skills.
4	Baxter (2017)	UK	Postnatal women	Questionnaire with Likert Scale	Midwives views of knowledge and education during postnatal care	Insufficient knowledge on postnatal care practices
5	Beake (2005)	United Kingdom	Postnatal women	Unstructured interview	To identify the women s' expectations concerning postnatal care in hospitals and home settings	Women value home environment than hospital environment on postnatal care
6	Beake, Page and McCourt (2001)	United Kingdom	Postnatal women	In-depth, semi-structured interview with 22 postnatal women	To explore women's views and experience on postnatal care	There is inadequate support of postnatal care
7	Birdee, Kemper, Rothman and Gardiner 2013	United State of America	Pregnant and postnatal women	Semi structured interviews	To explore the use of traditional medicine during pregnancy and postnatal period	There is no collaboration on the traditional medicine and modern medicine
8	Bowers, Cheyne, Mould and Page (2015)	United Kingdom	Community midwives Postnatal	Semi-structured interview	To evaluate the continuity of care by community midwife	Team-midwifery and case-load midwifery are the best models proposed

			women			
9	Bryant, Blake-Lamb, Hatoum and Kotelchuck (2016)	America	Midwives Postnatal women	Retrospective cohort study of women delivering at medical hospital	To assess how care is accessed in urban areas medical centres	No collaboration of care models
10	Chimtembo, Maluwa, Chimwaza, Chirwa and Pindani (2013)	Malawi	60 midwives	Questionaires with 60 midwives	To identify factors contributing to postnatal care practices	There is an imbalance on the structure, process and outcome during postnatal care
11	Crecious, Lonia, Patricia& Maimbolwa, 2018	Zambia	30 postnatal women	Semi-structured interview	To explore the experiences and expectations of mothers' care during the immediate postnatal period	There are inadequacies regarding the immediate postnatal care
12	Dennis, Fung, Grigouriadist, Robinson, Romans and Ross (2007)	Twenty different countries, e.g., East, South-East, South Asia, Middle –East, Oceania, Latin America, Africa	Postnatal women	Qualitative systematic review	To review traditional postpartum practices across diverse cultures.	There is a need for organized support for the mother, periods of rest, food and hygiene
13	Fadel, Ram, Morris, Begum, Shet, Jotkar and Jha	India	Postnatal women	Semi-structured interviews	To identify causes of neonatal death at facility during delivery and postnatally	Facility delivery has no contribution on neonatal death, only delay in seeking help contribute to maternal death
14	Forster, McLachlan, Davey, Biro, Farrel, Gold, Flood, Shafiei and Waldenstroom (2016)	Australia	Pregnant women	Questionnaire	To evaluate the effect of caseload midwifery women satisfaction	Case-load midwifery satisfactory during antenatal care, delivery and postnatal period
15	Gatsinzi and Maharaj (2008)	KwaZulu-Natal	Primary caregivers	Interviews	To determine primary caregivers' views on the continuity of postnatal care at home	Most primary caregivers are unclear about the continuity of postnatal care at home.
16	Homer, Henry, Schmied, Kemp, Leap and Briggs (2009)	United Kingdom	Midwives	Questionnaires	To identify effective models of postnatal care	Midwife and interprofessional collaborative models are effective

17	Kleppel, Suplee, Stuebe and Bingham (2016)	United States of America	Midwives and primary caregivers	Interviews	To identify midwives' collaboration with primary caregivers and doctors	There should be collaboration between doctors, midwives and family structures
18	Marchant and Garcia (1995)	United Kingdom	Postnatal women Midwives	Unstructured interviews	To identify the value of postnatal care provided by midwives	The care mode was not matching postnatal women's needs.
19	Martin, Horowitz, Balbierz and Howell (2014)	United States of America	Postnatal women Midwives	Semi-structured interviews	To explore views of women and clinicians on postpartum preparation and recovery.	There is poor communication between postnatal women and clinicians regarding postpartum preparation and recovery
20	Ntuli, Mogale, Hyera and Naidoo (2017)	South Africa	Midwives	Questionnaires	To identify factors influencing maternal death	Lack of human resources and infrastructures
21	Tambakad and Samitra (2015)	Belgaum	60 Postnatal women	Questionnaires	To evaluate effectiveness of planned teaching program on postnatal women	There is a need for teaching programme during postnatal care
22	Verbiest (2008)	United States of America	Postnatal women Midwives	Questionnaires and semi-structured interviews	To identify factors that impact postpartum visit	Health providers are not meeting the women's health and psychosocial needs during the early weeks postpartum
23	Whappies (2016)	United Kingdom	Midwives Postnatal women	Semi-structured interviews	To identify competences of midwives during the postnatal period	There is an unsatisfactory postnatal care by midwives
23	Whitaker, Young-Hyman, Vernon and Wilcox (2014)	United State of America	Postnatal women Midwives	Semi-structured interviews	To evaluate the effect of maternal stress on weight retention postnatally.	Postnatal women gain more weight postnatally due to lack of support for parenting decisions as evidenced by stressful life events
24	Wlicox, Levi and Garrett (2016)	United Kingdom	Midwives Postnatal women	Semi-structured interviews and questionnaires	To assess the predictors of non-attendance to the postpartum follow up visit.	Midwives and postnatal women are faced with structural, processes and outcome challenges with postnatal care.

2.6.6.3 Reciprocal Translation of Studies

Following the meta-ethnographic method closely, the concepts and themes in one article were compared with the concepts and themes in others. Translation involves the comparison of themes across papers and an attempt to match from one paper with themes from another, ensuring that a key theme captures similar themes from different papers (Britten, Campbell, Pope, Donovan, Morgan & Pill, 2002). The researcher approached the reciprocal translation by arranging each paper chronologically, comparing the themes and concepts from each paper with the next paper and the synthesis of the papers against the next paper.

2.6.7 Results

2.6.7.1 Description of Studies

Twenty-four studies published between 1995 and 2018 were included in the review. The studies were conducted in Africa, Belgium, New York, North America, Malawi, Zambia, United Kingdom, East Asia, South Asia, Oceania, Latin America, Australia, Alaska, India, Middle-East, Kwazulu-Natal. It was difficult to discern the study setting from the published reports, but most were conducted within a clinic or health service setting. Most studies were concerned with models of postnatal care, others focused on experiences of postnatal women about postnatal care and some considered both. Most of the studies involved postnatal women, often also including obstetric clinicians such as doctors and midwives.

2.6.7.2 Description of Themes

The following are the structural factors that contribute to the continuity of postnatal care by primary caregivers. Such factors include the distance to travel, lack of knowledge, cultural beliefs, immigrant status, language barriers, health care provider attitudes, non-adherence to postpartum visit, inconsistent screening guidelines and

health care not matching women's needs (Koblinsky, Chowdhurry, Moran & Ronsmans, 2012).

2.6.7.2.1 Organization of Postnatal Visit

For most of the postnatal women, access to a health care facility depended on distance and the availability of transport and the physical condition of both the mother and the baby. Although the intention was for a midwife to visit the postnatal woman's home, in practice the woman had to walk to the clinic or health care setting for postnatal check-up. These proved especially difficult for women with episiotomy and Caesarian section. Postnatal visit was compromised if the distance from the woman's home to the nearest clinic was too great and the bad roads were amongst the difficulties. If the postnatal woman's home was close to a clinic, however, the postnatal woman could attend postnatal visit regularly. For postnatal women with Caesarian section and episiotomies, the time needed to present for postnatal check-up compromised their ability to other daily tasks at home. In some studies, postnatal women found traditional birth attendants more accessible, whereas in some countries, skilled birth attendants were not in the slums and tribal areas (Ngunyulu, 2015; Islam *et al*., 2015). Some countries have volunteers without formal education for postnatal visit, but postnatal women are reluctant to use them due to inadequate knowledge, hence they relied to traditional birth attendants at home.

Problems manifested, especially at health facilities included long waiting times, queues, lack of privacy, provider attitudes and practice, the content of care, inconvenient appointment times and language barriers. Many studies reported that postnatal women experienced difficulties in accessing clinics due to physical health problems such as fatigue, bad headaches and backaches following delivery. A large number of studies indicated that poor follow-up by health care providers and maltreatment such as scolding a postnatal woman for missing an appointment or

late coming resulted in challenges to postnatal care visit, whereby postnatal woman became reluctant to visit the clinic for check-up (Moyer, Gyeke & Adamu, 2013; Esena & Sappor, 2013; Verbiest, 2008). Some postnatal women did not receive a full examination within the early postnatal period, hence, only vital signs were done (Patricia, Concepta, Victoria & Emmanuel, 2019). Maternal health services are used as a last resort in countries such as Ghana due to the maltreatment by skilled birth attendants (Banchani & Tenkorang, 2014; Moyer *et al.,* 2013; Esena & Sappor, 2013; Verbiest, 2008).

2.6.7.2.2 Knowledge, Attitudes and Beliefs About Postnatal Care Visit

Many studies centreed on the influence of postnatal woman's understanding of postnatal check-up, including its duration. According to the Maternity Guide (WHO, 2015), women are discharged from the clinic or hospital setting in less than six hours after delivery if there are no obstetric problems that require attention; however, there are possible complications that are anticipated during the postnatal period. Complications such as urinary incontinence, faecal incontinence and dyspareunia following episiotomy influence postnatal women to use unskilled health care providers, leading to maternal and neonatal mortality (Dzomeku, 2014). Some studies reflected that after discharge from the hospital or clinic, postnatal women do not attend the six-week follow-up visit due to insufficient information received from primary caregivers regarding the general care, breastfeeding, baby illnesses, prevention on child illness and this led to undiagnosed postpartum depression, unaddressed infant feeding problems and a delay in contraception intake (Khalaf, Ali, Furocher & Rahbar, n.d). The physical examination of the mother is slowly being neglected as it has shifted to newborn-only in many of the countries (Hildingson, 2007). Studies reflected that many postnatal women are consistently less satisfied with the postnatal care than with prenatal care, meaning that providers are

consistent with prenatal care of a women rather than postnatal care (Waldenstrom, Brown, MacLachlan, Forster & Brennecke, 2000). Postnatal women expected to be properly treated by care providers as well as being ill-treated. When they deliver at the hospital, they expected good care, but due to shortage of staff, they received inadequate examination immediately after delivery (Crecious, Lonia, Patricia & Margaret, 2018).

Postnatal women had poor information delivery from the health care providers, especially the primi-parous who are experiencing delivery for the first time, hence, women could not come back for future postnatal check-up because they were not given adequate information on the value of postnatal check-up (Fernwick, Butt, Dhaliwal, Hauck & Schmied, 2010). The poor information and information giving by caregivers had a negative impact experience on the part of the mother (Correa, Feliciano, Pedrosa & Souza, 2014; Bhavnani & Newburn, 2010). Postnatal women believe that with successful delivery there will be no complications afterwards, whereas a successful delivery might be followed by postnatal birth complications leading to maternal deaths (Magayane, Konye, Matovela & Devey, 2016; Pascal & Homer, 2014). The lack of information contributed to women not coming back for future postnatal check-up because they are not given necessary data on the value of postnatal check-up (Fernwick, Butt, Dhaliwal, Hauck & Schmied, 2010).

2.6.7.2.3 Family and Household Influences

A main theme across the included studies was the influence of family members on postnatal visits. Studies indicated that there is no provision of postnatal care at the family level as there is no trained village health worker. The postnatal care is restricted and is sometimes restricted by cultural traditions as the mother and her baby remain indoor for a period of two months for traditional seclusion (Ngunyulu, 2015; Dzomeku; Chien, Tai, Ko, Huang & Sheu, 2006; Fikree *et al.,* 2004). Some

studies reflected strategies to implement multidisciplinary team approach, but according to the family there is no training of traditional birth attendants and traditional healers' programmes in place.

Many women were compelled to be dishonest about the issue of receiving help from traditional healers because they avoided the negative perceptions of health practitioners linked to their beliefs (Nemutandani, 2016). Several studies reported that the way in which postnatal women were treated at the clinic postnatally drove them away from the health facility as they were disrespected (McMahon *et al*. 2014). Midwives and family members have not been working together during the postnatal period, thus leading to inadequate knowledge of family members regarding postnatal care (Ngunyulu, 2015). These resulted in family members employing various indigenous practices such as the avoidance of sexual relations for complete recovery and child spacing.

Poor personal and environmental hygiene practices while caring for mothers and babies have been identified in some family members such as cutting umbilical cord with an unsterilized razor blade. When women were faced with postpartum haemorrhage, family members instructed them to sit on top of the soil that was prepared in the hut to stop the bleeding, whereas that strategy was the spread of tetanus to the postnatal woman's body (Ngunyulu, 2015).

In contrast, family members supported postnatal women for healing during the postnatal period such as denying the postnatal women to perform household duties, wherein the postnatal woman was thus kept in the house for recovery, keeping the baby warm while being served with soft porridge to promote breast milk (Van Esterik, 1992).

2.6.7.2.4 Organizational Level Factors

Some studies reported that there are factors at the health facilities that affect the continuity of postnatal care, resulting in postnatal women not being assisted with quality postnatal care services. Our synthesis has found that even when the postnatal women were willing to continue with postnatal care, the midwives were working under stressful situations with shortage of equipment and unsupportive environments, working long hours and poor relations with the support staff (Warren, Daly, Toure & Mongi, 2007; Bondas-Salonn, 1998, Beake, Rose, Bick, Weavers & Wray, 2010; Khalaf, Ali, Furocher & Rahbar, n.d). The working conditions and the working environment resulted in stress, fatigue, frustration and poor job satisfaction leading to poor communication and uncaring attitudes towards postnatal women (Moyer, 2013; Esena & Sappor, 2013; Bailey, 2010 & Khalaf *et al*., n.d). The inflexibility of the postpartum ward routine disregarded the postnatal woman as a centre of attendance (Beake *et al.,* 2010). Primary caregivers resorted to home care without skilled midwives due to maltreatment received from fatigued staff (Okafor, Ugwu & Obi, 2014).

Studies indicated that primary caregivers build a solitary network among themselves to encounter the lack of welcoming assistance and the difficulty to attend their necessities (Bondas-Salonen, 1998). Primary caregivers resorted to other support structure such as traditional birth attendants, relatives and friends together with partners who helped with baby and house chores to meet their postnatal care practices (Bryant, Blake-Lamb & Hatoum, 2016, Noblit & Hare, 1988; Bondas-Salonen, 1988).

At the community level there were no guidance for postnatal care and the only programmes that were available dealt with counselling and self-care education. In low-income countries, quality postnatal care was done by midwives in collaboration

with inter-professionals with the use of midwife-led model (Pascal & Homer, 2014). The model was used in low-income countries as there were no community services available, hence, the midwives were always busy (Fernwick *et al*. 2010; Forste, MacLanchlan, Davey, Biro, Farrell, Gold, Flood, Shafiel & Waldenstrom, 2016, Beake *et al*. 2010, Rayner, MacLanchlan, Peters & Forster, 2016; Yelland, Kvasteu & Brown, 2009).

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter focused on the literature review that identified the research problem and studies with similar topics and context to avoid duplication. The researcher employed the systematic literature review that combined the evidence of multiple studies converging on continuity of postnatal care by primary caregivers to inform clinical practice. This chapter describes the approach, design, population, sampling procedure and technique, sample size, data collection methods, data processing and analysis of the study. The study used the convergent parallel mixed methods for an empirical and Donabedian framework to develop a model to enhance the continuity of postnatal care by primary caregivers in selected districts of Limpopo Province in South Africa. The qualitative and quantitative approaches were conducted in parallel and the results were integrated to develop the model (Creswell & Creswell, 2018).

3.2 Mixed Methods Design

Research design is a procedure for collecting, analyzing, interpreting and reporting data in a research study (Creswell & Creswell, 2018). In this study, the researcher used the parallel mixed methods which combined both the qualitative and quantitative research techniques, methods, approaches, and concepts into a single study.

3.3 Convergent Parallel Mixed Methods Design

The convergent parallel mixed methods design is a phase wherein the researcher collects and analyses qualitative and quantitative data in the same phase, and merges findings; this is a side-by-side approach with comparison of data in the interpretation and discussion phase (Creswell & Creswell, 2018). According to Polit & Beck (2008), the convergent parallel mixed methods design is the concurrent equal-priority mixed methods design in which different, but complementary qualitative and quantitative data are gathered about the central study and can also be called triangulation (Figure 3.1).

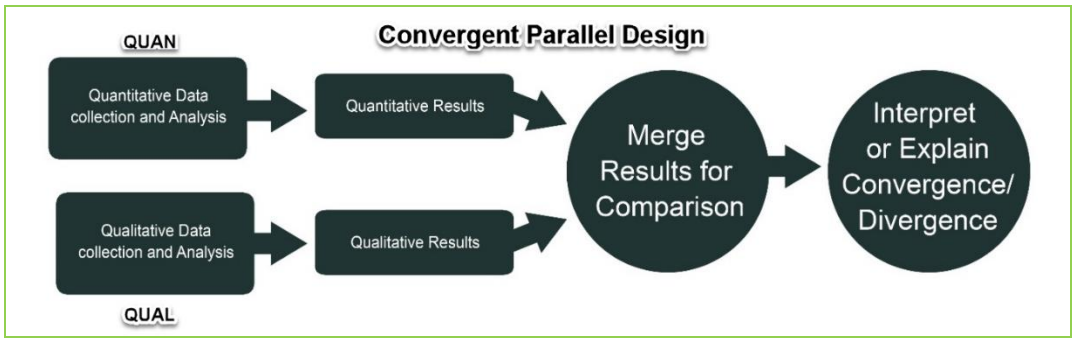

Figure 3.1: Convergent parallel mixed methods process (Creswell, 2018)

In this study, the researcher used the convergent parallel mixed methods design based on the following advantages:

- It took less time to complete than a sequential design,
- Each type of data set was collected and analysed separately and independently,
- The results of the qualitative and the quantitative data sets were merged to provide the researcher with a distinctive insight,

- The combination of the two phases contributed to seeing the problem from multiple perspectives (Creswell & Creswell, 2018),
- It allowed the researcher to develop a life skill programme and instrument to measure its effectiveness based on the qualitative information,
- The design was straightforward to describe, implement and report the phenomena,
- It provided strength that offsets the weaknesses of both qualitative and quantitative designs and, therefore, had provided better inferences, and
- The other intention was to merge the results from quantitative and qualitative data sets to provide a discrete insight.

3.4 Study Setting

The study was conducted in the health centres of the three selected districts of Limpopo Province of South Africa. The province consists of 5 districts with 443 clinics, 27 community health centres, 30 district hospitals, 4 regional hospitals and one tertiary hospital complex which is a of 2 hospitals. The province is considered the most rural province. It borders Botswana, Mozambique and Zimbabwe. The researcher purposively selected health centres in the three districts of the Limpopo Province, based on the different ethnicity amongst the groups. The selected districts were Mopani, Sekhukhune and Vhembe Districts based on the ethnic group as displayed in Figure 3.2. The researcher used stratified random sampling whereby the population of the health centres was divided into subgroups according to the variables of importance to the study.

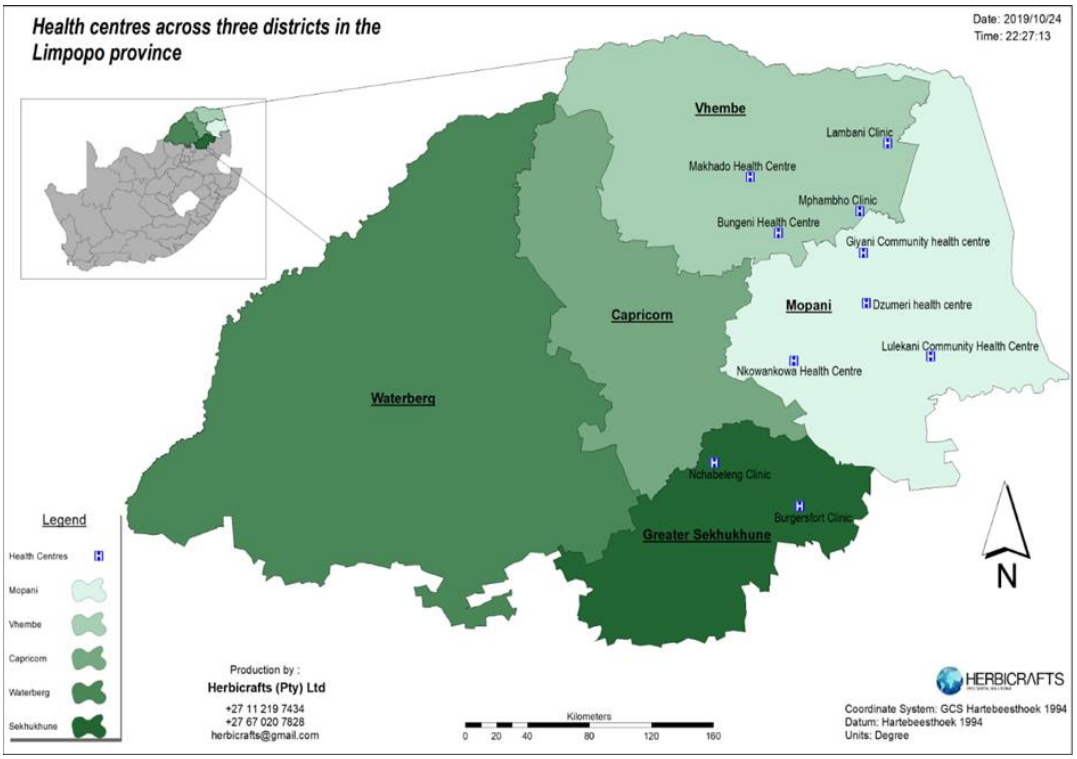

Figure 3.2: Map showing selected districts of Limpopo Province (self-developed)

The variable in this study was ethnicity, and using a table of random numbers, the researcher drew a 50% sample from each district. The total number of health centres within the three selected districts is 19. Mopani had 8 health centres, Vhembe had 8 health centres and Sekhukhune had 3 health centres. The resulting sample consists of 4 health centres in the two districts of Mopani and Vhembe and 2 health centres in the district of Sekhukhune. In this manner, all the segments were proportionally represented in relation to the size of the stratum in the population (Brink *et al*., 2018). The districts were thus selected based on ethnicity.

3.5 Sampling of Health Facilities

The researcher selected the three districts with the highest births and maternal deaths, based on the ethnicity of the group. Simple random sampling was used to select health centres from the three selected districts of Limpopo Province. The

participants were drawn randomly from the sample frame of district health centres. The three districts selected were Mopani, Sekhukhune and Vhembe with health centres providing postnatal care services immediately after delivery of the baby. Mopani had 8 health centres, Vhembe had 8 and Sekhukhune had 3 health centres (Table 3.1).

Table 3.1: Population frame of health centres of the three selected districts of Limpopo Province

Name of District	Total Number of Health Centres	Percentage	Number Purposively Chosen
1. Mopani • Cottondale • Dzumeri • Giyani • Lulekani • Nkowankowa • Mariveni • Shiluvani • Sekhuming	8	50%	1. Dzumeri 2. Giyani 3. Nkowankowa 4. Lulekani
2. Sekhukhune • Burgersfort • Malebitsa • Nchabeleng	3	50%	5. Burgersfort 6. Nchabeleng
3. Vhembe • Bungeni • Lambani • Makhado • Mphambo • Thohoyandou • Tshilwavhusiku • Tiyani • William Eddies	8	50%	7. Bungeni 8. Makhado 9. Mphambo 10. Lambani
Total number	**19**	**50**	**10**

The researcher selected the districts based on statistics of maternal deaths. Mopani had 8 health centres, Sekhukhune had 3 health centres and Vhembe had 8 health centres. In this study, the researcher used a convenience sampling method to select three districts based on the ethnic groups of Limpopo Province.

3.6 Phase 1: Qualitative Approach

3.6.1 Objectives

The objectives that guided the qualitative phase were to:

- Explore the knowledge of primary caregivers in the continuity of providing postnatal care in the Limpopo Province of South Africa, and
- Describe the perceptions of primary caregivers on the interaction with midwives regarding the provision of postnatal care in the Limpopo Province of South Africa.

3.6.2 Research Design

3.6.2.1 Exploratory Design

Exploratory research strives to explore the dimensions of the phenomenon so that they provide more insight into its nature and the manner in which it manifests itself (De Vos *et al*., 2011. The study was exploratory because the researcher explored the knowledge of primary caregivers in the continuity of postnatal care to postnatal women using in-depth individual interviews and observations.

3.6.2.2 Descriptive Design

Description involves identifying and understanding the nature and attributes of the phenomenon and sometimes the relationship (De Vos *et al*., 2011). This study was a descriptive in nature, i.e., an in-depth description of the knowledge of primary caregivers in the continuity of providing postnatal care in the Limpopo Province of South Africa.

The researcher chose the descriptive design for the following reasons:

- It is flexible and unique and evolves throughout the research process,

- The design has no fixed steps to be followed and cannot be easily replicated,
- It allows for the merging of various data collection strategies and requires the researcher to be actively involved or remain in the field for a long period as a research instrument,
- The unit of analysis in this design is holistic, as it is striving for an understanding of the whole, and
- The design ensures that the study is done in a natural setting where the participants narrate their lived experiences (De Vos *et al*., 2011).

3.6.3 Research Population and Sampling

3.6.3.1 Population

In this study, the population for the objectives were all primary caregivers. The researcher defines the primary caregivers as the persons in the universe who possess specific characteristics (De Vos *et al*., 2011).

3.6.3.2 Accessible Population

In this study, the accessible population was all primary caregivers who took care of postnatal women. Furthermore, the accessible population was the primary caregivers of postnatal woman at the health care facilities of the three selected districts of Limpopo Province.

3.6.3.3 Target Population

The target population is the entire set or aggregation of objects, persons, behaviours or events, or any other single unit of a study sometimes called element of single unit that meet a sampling criterion (Botma, Greef, Mulaudzi & Wright, 2010). In this study, the target population were all primary caregivers in the postnatal care units of

the health centres of the districts of Limpopo Province. Moreover, the target population interviewed were primary caregivers who were able to express themselves during interviews. The researcher arranged with the unit managers to avoid interrupting daily routines at the facilities.

3.6.4 Sampling

3.6.4.1 Sampling of Facilities/District Health Centres

Purposive sampling was used to select health care facilities from Mopani, Sekhukhune and Vhembe Districts of Limpopo Province, as all the institutions have similar characteristics of being selected, thus providing the maternal health care services. The researcher purposively selected the health centres of the selected districts based on ethnicity (Table 3.2). The health centres were selected based on the increased maternal deaths.

3.6.4.2 Sampling of Participants

Sampling is a process of selecting the sample from a population to obtain information regarding a phenomenon in a way that represents the study population (Brink *et al*., 2018). In this study, the researcher used the non-probability sampling method as the researcher did not know the members of the population size or the members of the population (De Vos *et al*., 2013). Also, in this phase, non-probability sampling was approp[riate because not all individuals had an equal opportunity to participate, as the researcher did not know the odds of selecting participants. Primary caregivers were selected using purposive sampling, especially those who were willing to participate.

3.6.4.3 Inclusion Criteria

Inclusion criteria refer to the characteristics that a element possess to be part of the target population (Grove, Gray & Burns, 2015). In this phase, inclusion criteria were

all health care facilities providing maternal health care services, and all primary caregivers who were assisting postnatal women with continuity of postnatal care. The researcher arranged telephonically with the health care facility managers to confirm the dates to conduct interviews and the convenient times which the primary caregivers would be available at the health care facilities.

3.6.4.4 Sample Size

Patton (2002) cited in De Vos *et al*. (2011) indicated that there are no rules for sample size in qualitative enquiry. However, sample size is being relatively limited, based on saturation, not statistically determined and involving low cost and less time. In this study, the qualitative sample size was determined by data saturation. Therefore 18 primary caregivers were the sample size at the point of saturation.

3.6.5 Data Collection

Data collection describes the way in which the researcher approaches answering the research question (Maree, 2016). It provides a clear and specific explanation of how data were collected, how the results or findings were derived as well as the rational for all methods selected or used (Brink *et al*., 2018).

3.6.5.1 Plan for Data Collection

The researcher received ethical clearance from the University of Venda (Annexure A) and was granted a permission to conduct the study from the Limpopo Province Department of Health (Annexures B & C), the 3 selected districts and the 10 selected district health centres (Annexures D–G). After the responses from the respective stakeholders, the researcher phoned the midwives to secure the meeting for arranging a convenient time to conduct interviews with the primary caregivers to gather detailed information. The researcher used an unstructured in-depth interview at the health facility with primary caregivers for the qualitative approach. Data

collection processes were arranged for primary caregivers around Mopani, Sekhukhune and Vhembe Districts health care facilities of Limpopo Province. In that meeting, the participants were briefed on the procedure of the interviews (Annexure H), the risks and benefits involved within the study, the use of a voice recorder was also explained to prepare them to avoid unnecessary confusion.

3.6.5.2 Data Collection Method: In-Depth One-to-One Interview

In this study, the researcher used in-depth one-to-one interviews to collect data from primary caregivers to gather detailed information. This method was used by the researcher at the health care facility to collect data based on the knowledge the primary caregivers had regarding the continuity of postnatal care while at home. The data collection process was arranged for primary caregivers around Mopani, Sekhukhune and Vhembe Districts health care facilities of the Limpopo Province.

3.6.5.3 Process of Data Collection to Primary Caregivers

During this phase the researcher was the main instrument as she was collecting data from the identified primary caregivers. In-depth one-to-one interviews were conducted with primary caregivers. The researcher collected data using only one broad opening question: “Can you describe the knowledge you have regarding the continuity of postnatal care as a primary caregiver from immediately after delivery until six weeks?’’ Arrangements were made with the selected district health centres to use the cubicles or duty rooms to conduct interviews with primary caregivers. Interviews were conducted during the child health services as the primary caregivers were bringing the newborns and their mothers. Interviews were conducted using Xitsonga, Tshivenda or Sepedi based on the language used by primary caregivers. Each interview took 30 minutes, or until data saturation, if reached sooner. A voice recorder was used in agreement with the primary caregivers to ensure the correct capturing of data. Probe follow-ups were used to increase detailed exploration that

encouraged the interviewee to elaborate on their statements (Brink *et al*., 2018). The researcher used the following communication techniques throughout:

- **Paraphrasing:** the researcher expressed clearly what had been said by the participant to reflect to the participant that the researcher was with him or her and that she understood what she was explain. In this manner, the researcher checked that her perceptions on the participants description was understood clearly.

- **Summarizing:** this allowed the researcher to condense the data obtained from the participant and crystallize the essence of the participant's statement.

- **Probing:** the researcher requested more information from the participant, more especially when the statement was vague to come out with multiple meanings to what was said.

- **Listening:** the researcher listened carefully to the participant's messages and responded accurately to the meanings attached to what was said by the participants.

Data collection took 20 weeks (5 months; from September 2019 until January 2020), followed by data analysis and model development through concept analysis until July 2020.

3.6.6 Data Analysis

Data analysis was done to reduce, organize and give meaning to the data (Grove *et al*., 2014). Qualitative data were transcribed verbatim and themes, sub-themes were deduced from the participants' rich data (De Vos *et al*., 2011). In this study, qualitative data were analysed with non-numerical assessment of observations

made through unstructured individual in-depth interviews. Data were analysed using Tesch's steps of open-coding (Creswell & Creswell, 2018). The following steps were followed during the process of data analysis:

❖ **Step 1: Reading Through the Data**

The researcher got a sense of the whole by reading all the verbatim transcriptions carefully. This gave ideas about the data segments and what they looked like. The meanings and ideas that emerged during the reading were written down. The researcher carefully read the transcripts of all the participants and understood them repeatedly. The researcher committed an uninterrupted period to digest and reflect on the data in totality. The researcher engaged in data analysis and wrote down notes as well as the impressions that came to mind.

❖ **Step 2: Reduction of the Collected Data**

The researcher picked one document (that is one interview), especially the most interesting one, the shortest and the one on top of the pile. The researcher read through all the transcriptions again and analysed them. During that period, the researcher asked questions about the transcriptions of the interview, based on the codes which existed from the frequency of the concepts. Such questions were like: "Which words describe it?" ''What is this about? and ''What is the underlying meaning?'' The researcher did not think about the substance of the information, but its underlying meaning. The researcher wrote down the thoughts in the margin.

❖ **Step 3: Asking Questions About the Meaning of the Collected Data**

The researcher read through all the transcriptions again and analysed them. During that period the researcher asked questions about the transcriptions of the interview. The researcher scaled down the data collected to codes based on the existence of concepts or the frequency of concepts used in the verbatim transcriptions. The

researcher listed all the topics identified from the participants during data collection during the scaling down. The topics were collated into columns, arrayed as major, unique and leftover topics.

❖ **Step 4: Abbreviation of Topics as Codes**

The researcher took the list of topics and revisited the data. All the topics were abbreviated as codes and the codes were written next to the appropriate segment of the text. Differentiation of the codes by including all meaningful instances of a specific code's data were done and all these codes were written down in the margins of the paper against the data they represented with a different pen colour as to the one in Step 3.

❖ **Step 5: Development of Themes and Sub-Themes**

The researcher found the most descriptive wording for the topics and turned them into categories. The researcher looked for ways to reduce the total list of categories by grouping topics that related to each other. Connecting lines were drawn between categories to show interrelationships.

❖ **Step 6: Make a Final Decision on the Abbreviation for Each Category and Alphabetize Codes**

The researcher reworked from the beginning to check the work for duplication and refined codes, topics and themes, where necessary. Similar codes were grouped together and others were re-coded where necessary to fit in the description.

❖ **Step 7: Initial Grouping of all Themes and Sub-Themes**

The researcher assembled all the data material belonging to each category in one place and performed a preliminary analysis. The preliminary analysis was followed by a meeting between the researcher and the co-coder to reach consensus on the themes and sub-themes that each one has come up with independently.

❖ **Step 8: Recoding Existing Data, If Necessary**

A necessity to recode emerged as some of the themes reached independently were merged.

3.6.7 Measures to Ensure Trustworthiness

Guba's model (Lincoln & Guba, 1985) for ensuring and assessing trustworthiness was used in this study. Trustworthiness is a method of establishing rigour in qualitative research without sacrificing relevance. This was to ascertain that the outcomes of this study could be trusted and were reproducible.

3.6.7.1 Truth Value (Credibility)

Truth value asks whether the researcher has established confidence in the truth of the findings from the participants and the context in which the study was undertaken (Lincoln & Guba, 1985). In this study, credibility was established by:

❖ **Prolonged Engagement in the Field**

The researcher immersed herself in the world of the participants to gain insight into the context of the study and minimise distortions of information and this helped to understand core issues that may affect the quality of data and to develop trust with the participants by:

❖ **Peer Debriefing**

The researcher asked for support from other professionals, including the postgraduate committees, the supervisors and co-supervisors who gave comments and expert perceptions before the conclusion of the project.

❖ **Triangulation**

The researcher used different methods and strategies to strengthen the integrity of the findings. In this study, the researcher used multiple instruments to collect data

such as the unstructured in-depth individual interview, the summated rating scale and the qualitative and quantitative methods to obtain clear evidence.

❖ **Member Checking**

The researcher interpreted and tested data as derived from members of various audiences and groups from which data were obtained and all the voices of the participants were included to minimise biases. Both the analysed and interpreted data were sent back to participants to evaluate if the participants were misinterpreted.

❖ **Negative Case Analysis**

The researcher reported issues that was contradicting the researcher's ideas and beliefs.

3.6.7.2 Dependability

This is the stability or reliability of data over time and over conditions. It describes the way the findings of the study can give the same results if it can be repeated with the same participants in the very same context (De Vos *et al*., 2011). In this study, the researcher has done the following:

❖ **Audit Trail**

The researcher kept a detailed record of all the decisions made before and during the research, the description of the research, and documented all the non-verbal communications that were observed during the in-depth unstructured individual interviews to enrich the data (De Vos *et al*., 2011).

❖ **Stepwise Replication**

The researcher and the supervisors analysed the data separately and compared the results for inconsistencies. The similarities of the results proved the dependability of

the study findings.

❖ **Code-Recode Strategy**

The data were coded twice by the researcher with the allowance of two weeks in-between to evaluate if the results were similar with the initial coding. In this manner, the researcher proved the dependability of the findings.

❖ **Peer Examination**

The researcher discussed the results with a neutral colleague in order to determine honesty. The negative case analysis and the identification of categories were also distinguished.

❖ **Theoretical/Purposive Sampling**

The researcher selected key informants in the study who were knowledgeable about the topic under investigation. In this study, both the primary caregivers and the midwives were selected as they were caring for postnatal women immediately after delivery.

3.6.7.3 Transferability

Transferability refers to the generalizability of the study findings, which is the extent in which the results can be transferred in other settings or groups with similar participants and similar contexts. In this study, the researcher has done a thick description of the methodology selected and provided thick descriptive data and report in order to assist the consumers to evaluate the applicability of the information to other contexts.

The researcher did the triangulation of the data collection method, using the in-depth unstructured individual interviews and summated rating scales. The use of the in-depth unstructured individual interviews and the summated rating scales enhanced

the transferability of the study findings to other contexts. The researcher also used data from different sources to corroborate, elaborate or illuminate the research question (De Vos *et al*., 2011). Data were collected from primary caregivers and midwives in the three selected districts of the Limpopo Province.

3.6.7.4 Confirmability

Confirmability refers to the objectivity of the data regarding the accuracy of the data, its relevancy and meanings. This is the process whereby the study is concerned with the establishment of the fact that data presented provided the exact information from the participants and not the imagination of the researcher (De Vos *et al*., 2011). In this study, the researcher established confirmability by ensuring the following: carefully planning the research process, the design, sampling methods and procedures, data collection methods and processes, transcribing raw data from the audiotape, analysing raw data and findings through contextualization. The researcher employed the independent coder to analyse the transcripts, review the raw data and the tape recorder, the written field notes and the results were documented independently. The independent coder also verified the representativeness of the collected data to check whether the researcher had interviewed the relevant categories of participants that gave a clear picture of the study project.

3.7 Quantitative Approach

3.7.1 Research Objectives

The objectives that guided the quantitative approach were to:

- Identify the facilitators for midwives in involving primary caregivers on postnatal care in the Limpopo Province of South Africa,

- Identify the barriers for midwives on involving primary caregivers on postnatal care in the Limpopo Province of South Africa, and
- Assess the implementation of education and counselling of postnatal care by registered midwives in the Limpopo Province of South Africa.

3.7.2 Design

A quantitative approach was used because of the following reasons: Its structured meaning that the processes, objectives, design sample and the measuring instrument were predetermined. It was more appropriate in determining the extent of the problem. Data collection was systematically done and standardised and can be replicated. The findings can be generalised (De Vos *et al*., 2011).

3.7.3 Sampling of Facilities

The sampling of facilities in this quantitative phase was analogous to the procedure explained in the qualitative approach above. The same strategy was used to select the district health centres (Table 3.2).

3.7.4 Population and Sampling Method

3.7.4.1 Population

Population is the entire group of persons or objects that is of interest to the researcher and which meet the criteria they are interested in studying (Burns & Grove, 2011; De Vos, 2005; Polgar & Thomas, 2000; Polit & Beck, 2017; Rossouw, 2003, as cited in Brink *et al*., 2018). In this study, the population was all midwives who were registered with the South African Nursing Council (SANC) in terms of the Nursing Act, 1978 (Act No. 50 of 1978) (R.2488) and who have obtained their midwifery qualifications. The target population were all registered midwives in the three selected district health centres of the Limpopo Province in South Africa. The

accessible population was the registered midwives providing postnatal care in the selected district health centres based on the ethnicity of the groups of the Limpopo Province.

3.7.4.2 Sampling Method

In this phase, the researcher used probability sampling, which refers to the fact that every member of the population has a probability higher than zero of being selected for the sample (Burns & Grove, 2009). The researcher systematically administered the summated rating scale on the registered midwives of the selected district health centres of the Limpopo Province (De Vos *et al*., 2011).

3.7.4.3 Sampling of Participants

Registered midwives from the three selected districts health centres were selected, based on their willingness to participate in the study. The researcher used panel sampling in which the fixed panel of midwives was selected from the population of midwives involved in postnatal care (De Vos *et al*., 2011). The participants were all the registered midwives who were working in the postnatal unit for more than two years providing postnatal care to postnatal women and their babies.

3.7.4.4 Inclusion Criteria

Midwives in the postnatal units of the Mopani, Sekhukhune and Vhembe District health centres in the Limpopo Province formed part of the study. All midwives from the district health centres within the 3 selected districts who were willing to participate were included in the study.

3.7.4.5 Sample Size

There are no precise rules that were applied to the determination of sample size (Brink *et al*., 2018). In this study, the sample size was based on the number of

midwives in a health facility. The researcher selected probability sampling in which each person in the population had the same known probability to be representatively selected that permits the researcher to compute an estimate of the sample even before the study was done (De Vos *et al.,* 2011). Midwives were selected based on their availability and convenience (Creswell & Creswell, 2018). The total number of midwives from the three selected districts were 112. The midwives ranged between 10-14, including night staff and those on leave to make a total of 112. Therefore 112 midwives in the selected district health centres formed part of the study to ensure validity and reliability of the study (De Vos *et al*., 2011). Total sampling method was used to select all the registered midwives to form part of the study (Table 3.2).

Table 3.2: Population frame of registered midwives in the selected district health centres

District	Tools distributed	Total number of midwives	Tools completed	Tools not completed	Sample
Mopani:					
• Giyani Health Centre	16	16	10	6	10
• Dzumeri Health Centre	12	12	10	2	10
• Nkowankowa	14	14	12	2	12
• Lulekani	10	10	10	0	10
Sekhukhune:					
• Nchabeleng	16	16	14	2	14
• Burgersfort	10	10	10	0	10
Vhembe:					
• Bungeni	12	12	12	0	12
• Lambani	4	4	4	0	4
• Mphambo	10	10	10	0	10
• Makhado	8	8	8	0	8

Total	**112**	**112**	**100**	**12**	**100**
N=112 and sample size n=100					

3.7.5 Data Collection

3.7.5.1 Plan for Data Collection

The plan for data collection was the same as described under qualitative research design above.

3.7.5.2 Training of Research Assistants

The researcher recruited and trained one research assistant who was a primary health care nurse and coordinated community services in the selected district and who was conversant with the routes to Sekhukhune and Mopani District. The assistant helped the researcher with the distribution and collection of the rating scales to the midwives. The training took only three days. The training included the following:

- Activities related to the explanation of the rating scale and how to select and circle the correct option,
- How to explain the procedure to the midwives to get permission for informed consent, and
- Fieldwork that consisted of demonstrations and the return demonstrations regarding questionnaire administrations.

The assistant was recruited because she met the following criteria:

- Could speak and write in English,

- Worked in the areas within the selected district health centres and was conversant with research and had good interpersonal relations, and
- Could speak English, Tshivenda, Sepedi and Xitsonga.

3.7.5.3 Data Collection Method

The researcher used the summated rating scale to collect data from the midwives.

❖ **Likert Scale (Summated Rating Scale)**

In this study, the researcher used a Likert scale that consisted of declarative statements about the topic with four responses for each statement ranging from strongly agree to strongly disagree (Brink *et al*., 2018). The researcher asked similar questions that were combined into a single composite score. The researcher had removed Neutral from the scale, following a recommendation that the no-opinion options may prevent data quality and the measurement of some meaningful opinions may be obscured (Krosnick, 2002).

❖ **Advantages**

The Likert scale is frequently used to test attitudes or feelings towards the phenomenon and is commonly used in a clinical learning environment to measure the degree of quality care. The researcher used the trained data collector to distribute questionnaires and, at the same time, assisted participants to complete the questionnaires. The scale was written in English and the research assistant and with the researcher were available to assist them with clarity on certain aspects on an instrument.

3.7.5.4 Process to Collect Data

The research assistant met with the researcher at the selected health care facilities of the three districts of Limpopo Province at 07h00 in the morning when all

registered midwives were accessible in their institutions. The research assistant distributed the questionnaires to all participants and explained the whole process of completing the questionnaires to the registered midwives. She remained in the cubicle or unused office, clarifying participants on the issues on the scale that was not clear enough to the participants. Participants took only 30 minutes to complete the questionnaires. After the completion of the questionnaires, the research assistant collected all the questionnaires to the researcher. The researcher took six months collecting data due to distance from one district to another and the difficulties that was experienced in the gravel roads of Limpopo Province.

3.7.6 Data Analysis

Quantitative data were analysed through descriptive statistics, where it was reduced, summarised, organised, evaluated, interpreted and communicated. Data were condensed and organised into the visual representation or pictures, tables and graphs (Brink *et al*., 2018). In this study, data were analysed through the computerised Statistical Package for the Social Science (SPSS) programme version 25. Tables were used to help the researcher in describing and explaining the data.

3.7.7 Validity

Validity is the ability of an instrument to measure the variable that it is intended to measure (Brink *et al*., 2018). It seeks to ascertain whether the instrument accurately measures what it is supposed to measure given the context in which it is applied (Brink *et al*., 2018). In this study, the researcher conducted a pilot study in Vhembe District to test the instrument before undertaking the full study. A total of 4 midwives completed the rating scales. The literature review and the results from the pilot analysis were used to modify the instrument to make sure that it adequately measures the variables within the study project. The supervisors and the statistician assisted the researcher with the modification of the instrument. After the modification

of the instrument, the instrument was used to collect data from the selected participants at the selected district health centres.

3.7.7.1 Content Validity

Content validity is an assessment of how well an instrument represents all components of the variable to be measured (Brink *et al*., 2018). When two or more components are neglected, the researchers cannot claim to be measuring whatever they were interested in. In this study, the researcher conducted an in-depth literature review to reveal all the aspects of the variables to be measured that can be included in the development of the questionnaire. The developed instrument was submitted to the promoter and co-promoter, as well as the statistician, to check the feasibility of the instrument before the actual study was conducted.

3.7.7.2 Internal Validity

The researcher selected participants randomly and ensured that the sample size was large enough to close the gap that can result from a high attrition rate (Grove *et al*., 2015).

3.7.8 Reliability

Reliability refers to the degree to which an instrument can be depended upon to yield consistent results if used repeatedly over a time on the same person of if used by two researchers (Brink *et al*., 2018). In this study, the researcher conducted a pilot study and distributed the same rating scale to 4 participants and made sure that all items on the instrument measured the same variables.

3.7.9 Applicability

Applicability refers to the stage in which the research instrument can be applied to the same group of participants 2-3 times, giving the same ratings 2-3 times. This

means that the instrument was consistent and was reliable as it ensured the same results over different periods with the same participants.

3.8 Phase 2: Model Development

This phase involved concept analysis, model development, model description and evaluation. In conceptualization, concepts that emerged from data analysis and literature control were identified and analysed and these concepts formed the basis for model development. Concept analysis and model development were guided by the adapted phases as explained in Rodgers & Knafl (2000) and Chin & Kramer (1999). The framework of Dickoff, James & Wiedenbach (1968) was used to classify the concepts and model development was guided by Chin & Kramer (1999).

3.8.1 Concept Analysis

According to Mouton (1996), concept analysis refers to the clarification and analysis of the lay concepts in the study and the way in which one's research is integrated into the body of existing theory and research. It is a thought process coming in one's minds when one gathers the perceptions or impressions and identifies the similarities, putting them together to make up a single thought, which expresses the similarities and then gives them a name (Lebese, 2009).

Concepts that emerged from data analysis were analysed, described, interpreted and the relationships between concepts and statements were constructed and this formed the basis of model development (Walker & Avant, 2013). Concept analysis was conducted according to eight steps in Walker & Avant (2013) which are the following:

- Selecting a concept,
- Aims of analysis,

- Identification of uses, characteristics, or connotations of the concept,
- Determining defining attributes,
- Developing the model cases,
- Identifying antecedents and consequences,
- Defining empirical referents,

3.8.2 Conceptual Framework

The concepts were then classified using the elements of the practice model by Dickoff *et al*., 1968). The survey list discussed within this theory, including the agents, recipient, framework, terminus, procedure and dynamics was used as a basis for the classification (Dickoff *et al*., 1968).

3.8.2.1 Agent

An agent is a person or any other person or thing whose activity contributes towards realization of the goal (Dickoff *et al*., 1968). Agents, in the context of postnatal care are the midwives and primary caregivers. The agent's goal was to enhance the continuity of postnatal care.

3.8.2.2 Recipients

Recipients are persons who receive action from agents and this activity contributes to a certain goal (Dickoff *et al*., 1968). In this study, the recipients were the postnatal women who were receiving care from both midwives and primary caregivers.

3.8.2.3 Context

The context is viewed from the aspect of the matrix of activity. To view an activity is to see it in relation to other things, including persons and other activities, and to see

the interrelation of these other factors as constituting an organism, unity or total context of activity (Dickoff *et al*., 1968). The context within which this study was conducted was a mainly rural context within the health care centre.

3.8.2.4 Dynamics

Dynamics are the power sources for the activity which can be chemical, physical, biological and psychological for persons or things functioning as part of the framework in realising the goal (Dickoff *et al*., 1968). Dynamics for this study was the outcome of the storylines shared by the participants as forming the source of energy.

3.8.2.5 Procedure

This is to view the activity from the vantage of the principle, rule, routine or protocol governing activities. This is to emphasize the path, steps and pattern according to which the activity is performed. The procedure was also guided by the outcome of the concept analysis.

3.8.3 Model Development

A model is a symbolic of reality. It provides a schematic representation of relationships among phenomena and uses symbols or a diagram to represent a specific idea. It helps to structure the way in which a situation, event or a group of individuals can be viewed (Chinn & Kramer, 2011). In this study, a model was used in the form of a diagram to represent how the continuity of postnatal care can be enhanced by primary caregivers in the selected health districts of Limpopo Province in South Africa. Chapter 5 of this thesis discusses fully how the model for the enhancement of continuity of postnatal care is developed and presents a schematic representation of the model. The model discusses in full details as to how the concepts in the diagram relate to each other (Chinn & Kramer, 2011).

3.8.3.1 Formulating Criteria for the Concept

Criteria provide guidelines for reorganising experience that one needs to represent and to differentiate it from other similar instances. Criteria for the concepts emerged gradually and continuously as definitions, various cases, other sources and varying contexts and values were considered. The criteria were refined so that they reflected the meaning intended. The criteria that were used in the model were described to enhance meaning (Chinn & Kramer, 2011).

3.8.3.2 Structuring and Contextualizing the Model

This involves the establishment of the systemic linkages between and among the concepts resulting in the formal theoretical structure. The choice of approach depended on the purpose for developing the model, what the researcher already knew to be true and the researcher's underlying philosophical ideas about the nature of the nursing knowledge. The interrelationships between the data clusters guided the structure that the researcher created for the model (Chinn & Kramer, 2011).

3.8.3.3 Identifying and Defining the Concepts

In structuring the model, the researcher identified concepts that formed the basis for the model. The concepts are the ones that emerged from the collected data and the literature control. The researcher avoided the abstracts concepts due to a broad meaning and the giving of a wide range of experience. In selecting concepts, the researcher thought of relationships among concepts so that the researcher was guided about the concepts to include. The relationships were based on previous research, the existing models, philosophies and the personal experience (Chinn & Kramer, 2011).

3.8.3.4 Identifying Assumptions as Part of the Model

Assumptions are the underlying issues that are presumed to be true. These

assumptions are not intended to be empirically tested for soundness but can be challenged philosophically and may be investigated empirically (Chinn & Kramer, 2011).

3.8.3.5 Clarifying the Context

This involves putting the relationships among concepts within the context of the study (Chinn & Kramer, 2011). The context within which the model will be applicable will be the health care settings.

3.8.3.6 Designing Relationships Statements

Relationship statements that describe, explain or predict the nature of the interaction between the concepts of the model were discussed (Chinn & Kramer, 2011). The researcher described the relationship between all the concepts identified. The explanation of how the concepts interacted within the model will be given in the next chapter.

3.8.4 Model Description

The description of the model was facilitated by the following questions: What is the purpose of the model? How are concepts defined? What is the nature of the relationships? What are the assumptions on which the model is built? What is the structure of the model? And, what is the purpose of the model (Chinn & Kramer, 2011).

3.8.4.1 Overview of the Model

The researcher highlighted all the elements and the relational statements concerning how postnatal care can be continued between midwives and primary caregivers in the three selected districts of the Limpopo Province, South Africa. A schematic representation was made to show the main concepts and the relation statements to

construct a model (Chinn & Kramer, 2011).

3.8.4.2 Purpose of the Model

The purpose of the model was to promote the continuity of postnatal care by primary caregivers in the selected districts health centres of Limpopo Province, South Africa (Chinn & Kramer, 2011).

3.8.4.3 Structure of the Model

The researcher described the assumptions on which the model was based, the main concepts and sub-concepts, the relational statements deduced and the nature of the structure. The description of this nature made it possible to follow the reasoning of the model in its whole graphic representation.

3.8.4.4 Process of the Model

The adapted model guided the description of the procedure to facilitate the continuity of postnatal care by primary caregivers in the home environment. The description was based on the results of the views of primary caregivers and midwives, conceptualization and the relational statements (Chinn & Kramer, 2011).

3.8.5 Model Evaluation

Evaluation of the model was conducted according to the questions in Chinn & Kramer (1999) which are as follows:

- How clear is the model?
- How simple is the model?
- How general is the model?
- How accessible is the model?

❄How important is the model?

3.9 Ethical consideration

Ethical considerations imply that the researcher carried out the research completely, managed resources honestly and acknowledge fairly those who contributed for guidance and assistance, and communicate results accurately and consider the consequences of the research for society and by acknowledging any contributor to the research in the report (Mothapo, 2019). Ethical clearance was obtained from the University of Venda Ethics Committee and permission to conduct the study was obtained from the University of Venda Higher Degrees Committee (Annexure A), the Department of Health Ethics Committee in the Limpopo Province (Annexure B) and the District Managers of the three selected districts of Limpopo Province (Annexures, C,D,E,F, and G).

The principles of respect for person, principles of beneficence and justice was considered, as well as the issue of vulnerable subjects.

3.9.1 Principles of Respect for Person

- The Right to Self- Determination

The right to self determination has to do with autonomy, that agreeing to participate rest on the hands of the participants without force (Brink et al., 2018). Participants were made aware that they had the right to stop participating at any given time, free to refuse to give information on any question and were welcomed to ask for clarity at any given time. The risk of coercion was dealt with by indicating the nature and purpose of the study (Annexure H).

- The Right to Self-Disclosure and Information

The right to full disclosure and information implies that participants must be told about the nature of the study (Brink et al., 2018). Participants were fully briefed about the extent of the study before data collection.

- Informed Consent

Informed consent means that subjects had full knowledge and understanding of the research project in which they were asked to participate. It includes providing subjects with a full description of the purpose of the project and its value. All procedures used in the research and the reason thereof, the amount of time and energy that the research took and the way data would be used were spelled out clearly to participants (Brink et al., 2018). The consent form was designed so that the participants signed it to show that they have entered an agreement with the researcher at the participants'free will and that they were free to withdraw from the study at any time (Brink et al., 2018) (Annexure).

3.9.2 Principles of Beneficence

- Right to Freedom

Freedom from harm involved the researcher taking actions necessary to reduce threats from the subjects of the study, including physical harm such as injury or fatigue, harm to participants'development, loss of self-esteem, stress, fear or economic harm such as loss of wages (Brink et al., 2018).The researcher was aware that the study did not expose participants from any physical harm, but nevertheless made an effort to be sensitive and responsive to any psychological discomfort and was also prepared to offer clarity where necessary. The risk of economic harm was explained when informed consent was obtained and commitment made regarding the use of time was adhered by the researcher.

- Risk/Benefit Ratio

Before the inception of the project, the researcher must check the ratio between the benefits and the risk of the study. If the risks are more than the benefits, an effort must be made to maximize benefits and minimize risks (Brink et al., 2018). In this study, the benefits outweighed the risks. Primary caregivers would gain knowledge from the study and the model that was developed will capacitate them, hence, successful community-based postnatal care. The possible risks identified were loss of time during data collection.

3.9.3 Principles of Justice

This principle embraces right to fair selection and treatment and the the right to privcy.

- Right to Fair Selection

Right to fair selection implies that participants must be chosen based on the characteristics that are related to the problem under study and not only because of their availability. In this study, participants were selected because they were suitable and met the requirements of the study. Sampling techniques were used, hence subjects were selected fairly as they were neither related to the researcher nor the researcher's friends.

- Right to Fair Treatment

Subjects must be treated fairly and the researcher has to respect any agreement made with subjects. When data collection requires an appointment, the researcher should be on time and should terminate data collection at the agreed time. The benefits promised to the subjects should be provide. Subjects should be treated

respectfully and courteously at all times (Brink et al., 2018). In this study, subjects were respected by displaying an understanding on their culture. The researcher indicated that the completion of the interview took 45 minutes and the researcher did not exceed the agreed time.

- Right to Privacy

Privacy is the extent in which participants' information will be shared with or withheld from others. Invasion of privacy occurs when private information is shared without the individual's knowledge and against his will or wishes (Brink et al., 2018). Data were collected with the subject's knowledge and consent. The individuals who agreed to participate in research had the right to expect that the information collected from or about them remained private and this occurred through their anonymity or confidentiality procedures. The researcher collected data with each participant in a private consulting room.

- Confidentiality and Anonymity.

Confidentiality entails that no informationprovided by the participants should be revealed or made available to any person (Brink et al., 2018). When the participant agreed to take part in a research project, this right does not apply anymore since the information was included in a research report. The researcher ensured that anonymity of any person or an institution was protected in the report by safeguarding that it was not possible to relay particular data to a particular person.

The project leader and all professional people involved in the research were responsible for this aspect of the research project. Complete anonymity is seldom possible. If the anonymity of the participants was threatened, all research records

should be destroyed. A code was assigned to every participant so that they remained anonymous. Participants did not write their names on the questionnaires and also did not include anything that one can be able to trace them.

- Protection from Harm

Research was planned and undertaken in such a manner to avoid as far as possible any physical or psychological harm to the participants. Participants were respected, not looked down upon. The researcher related well to participants, understood their culture and did not say anything which might be regarded as an insult and did not ask questions that offended participants. The researcher was very transparent during questions (Brink et al., 2018).

3.10 Summary

This chapter described the detailed process of how the study was conducted in order to achieve the study objectives. The phases of the research approach were described. The study design was mixed method. Phase 1 consisted of exploration of knowledge of primary caregivers in the continuity of providing postnatal care, description of the perceptions of primary caregivers on the interaction with midwives regarding the provision of postnatal care, the identification of the enhancers for midwives in involving primary caregivers on postnatal care, the identification of the barriers for midwives in involving primary caregivers on postnatal care and to assess how the registered midwives implement the education and counselling of postnatal care. Phase 2 consisted of concept analysis, model development, model description and evaluation. Ethical considerations and trustworthiness were also described. Chapter 4 discusses data analysis, interpretation, and literature control.

CHAPTER 4

PRESENTATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

The previous chapter presented and discussed research methods and design, including measures to ensure validity and reliability, trustworthiness and ethical considerations. This chapter presents the qualitative and quantitative results, and discusses the findings of the study conducted in two phases: Phases 1a, 1b and 2.

The objectives in **Phase 1a** entailed **qualitative methods** to:

- Explore the knowledge of primary caregivers regarding the continuity of providing postnatal care, and
- Describe the perceptions of primary caregivers on their interactions with midwives regarding the provision of postnatal care.

The objectives in **Phase 1b** entailed **quantitative methods** to:

- Identify the facilitators for midwives in relation to involving primary caregivers in the continuity of postnatal care, and
- Identify the barriers for midwives in relation to involving primary caregivers on the continuity of postnatal care.

Both qualitative and quantitative approaches were merged in order to achieve these objectives, i.e. the **parallel convergent mixed method**.

The objectives of **Phase 2** were to:

- Develop a model to enhance the continuity of postnatal care by primary caregivers in the health care facilities of the selected districts of Limpopo Province, South Africa, and
- Validate the developed model for continuity of postnatal care by primary caregivers in the health care facilities of the selected districts of Limpopo Province, South Africa.

Data collection was done using both the quantitative and qualitative approaches. Qualitative data were collected using in-depth individual interview and quantitative data were collected using a Likert scale. The qualitative data were analysed using Tesch's eight steps of open-coding. The quantitative results were further analysed through the computerised Statistical Package for the Social Science (SPSS) version 25. Tables were used to present demographic and observation variables. The quantitative results were presented first followed by the qualitative findings.

4.2 Presentation of the Quantitative Approach

4.2.1 Overview of Fieldwork Activities in the Quantitative Approach

In the quantitative research approach, data were collected through a Likert scale from 10 selected district health centres. The objectives of the instrument were to assess the facilitators and barriers of midwives when providing continuity of postnatal care services. The Likert scale asked the respondents to record their attitudes or feelings on a continuum. The Likert scale was composed of a set of letters that have rules and which was used to locate individuals on a continuum. The

scale had several declarative statements about the topic with responses for each statement ranging from 'Strongly Agree' to 'Strongly Disagree'. The researcher planned what was going to be identified on the scale and had a clear purpose. The Likert scale tool included the date of completion, the gender and age of the respondents. The Likert scale was divided into 4 sections relevant to continuity of postnatal care. Under each section, a series of items were included that represented criteria for assessing the section's characteristics.

The questions were divided into the following sections, namely:

1. **Section A:** Demographic Data

2. **Section B:** Facilitators for involving primary caregivers on the continuity of postnatal care by midwives (counselling, informational, practical, and psychological).

3. **Section C:** Barriers to involving primary caregivers in the continuity of postnatal care by midwives.

4. **Section D:** Support (effective support) from midwives that can help primary caregivers to continue with postnatal care at home.

With the help from the statistician, quantitative data obtained from 100 respondents were entered into the computer software, SPSS version 25, for analysis. In this study, descriptive statistics, specifically frequency distributions and percentages were used to summarise data collected. Frequency distributions were used for standard deviations, means and categorical variables.

4.2.2 Section A: Presentation of Demographic Profile of Midwives

Demographic data of the midwives who completed the Likert scale are presented in Tables 4.1 to 4.8.

4.2.2.1 Distribution of Midwives by District

Table 4.1 shows that only 100 completed questionnaires were returned from the respondents and 12 questionnaires were missing and not retrieved from the respondents. Mopani Districts returned 42% (n=42) questionnaires; Sekhukhune returned 24% (n=24) and Vhembe returned 34% (n=34).

Table 4.1: Distribution of midwives by district

District	Frequency (n)	Percentage
Mopani	42	42%
Sekhukhune	24	24%
Vhembe	34	34%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

4.2.2.2 Distribution of Midwives by Gender

Table 4.2 displays the gender of respondents. The gender of the midwives were males and females. Most midwives who completed the tool were females (97%; n=97) whereas males were (3%; n=3). Female health care workers constituted the majority, very much in keeping with the demographics of the nursing profession which is predominantly females in South Africa. This provided strong evidence that training female students on midwifery courses represent a wise investment of resources as they are more likely to become more active in the immediate postnatal care services than males. The study shows that both males and females are involved in the continuity of postnatal care with less participation by males.

Table 4.2: Distribution of midwives by gender (N=82)

Gender	Frequency (n)	Percentage
Males	**3**	**3%**
Females	**97**	**97%**
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

4.2.2.3 Distribution of Midwives by Age

Table 4.3 displays the age ranges of the respondents.

Table 4.3: Distribution of midwives by age

Age Groups	Frequency (n)	Percentage (%)
20-35	27	27%
36-45	22	22%
46-55	28	28%
56-65	23	23%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

Most the respondents (midwives) 28% (n=28) were within the age range of 46-55, 23% (n=23) were within the age range of 56-65; 22% (n=22) were within the age range of 36-45; and 27% (n=27) were within the age range of 20-35. Midwives between 20-35 years were more likely to provide postnatal care services compared to those above 35 years. This provides evidence that continuing education to the midwives above 35 years old is important in the postnatal care services as they are mostly active than young adults.

4.2.2.4 Distribution of Midwives by Qualification

Table 4.4 shows midwives who were significant for the researcher to collect data for the development of a model on continuity of postnatal care. The level of education and relevant qualification in midwifery is a prerequisite for effective midwifery practice.

Table 4.4: Distribution of midwives by qualification

Qualification	Years	Frequency (n)	Percentage
Bachelor's degree with midwifery	Before 1995	27	27%
Diploma/certificate with midwifery	1995-2000	22	22%
Bachelor's degree with midwifery	2005-2010	28	28%
Diploma/certificate with midwifery	2011 and above	23	23%
Total		**100**	**100%**
Source: Primary Analysis of Survey Data			

Table 4.4 also depicts the respondents' level of education and the years in which qualifications were obtained. While all respondents were licensed to practice midwifery in South Africa, 27% (n=27) had a bachelor's degree and 22% (n=22) had a diploma qualification in midwifery. In relation to years of qualification before 1995,

27% (n=27) obtain their qualification before 1995; 22% (n=22) between 1995-2000; 28% (n=28) between 2005-2010 and only 23% (n=23) from 2011 and above. Most of the midwives were not comfortable with the postnatal care services. Midwives with bachelor's degree before 1995 and those with diploma from 2011 and above were not participating more than the diploma midwives between 1995 and 2010. Those who obtained a bachelor's degree with midwifery felt that they did not have necessary and new knowledge regarding the continuity of postnatal care, while those who obtained the diploma certificate with midwifery from 2005 and above felt that there is too much for them to follow regarding the continuity of postnatal care.

4.2.2.5 Distribution of Midwives by Home Language

Table 4.5 depicts the respondents' home language: 30% (n=30) were Venda speaking; 60% (n=60) were Tsonga speaking; 7% (n=7) were Northern Sotho speaking and 3% (n=3) were of other languages, including Zulu.

Table 4.5: Distribution of midwives by home language

Home Language	Frequency (n)	Percentage (%)
Tshivenda	30	30%
Xitsonga	60	60%
Northern Sotho	7	7%
Others (Zulu)	3	3%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

The selected districts were chosen based on ethnicity. Mopani and Vhembe Districts are composed of Tsonga speaking people, so according to the percentages, the highest number of midwives whose home languages is Tsonga (60%; n=60). Data show that there were other home languages who rendered postnatal services at the

study sites. Two dominant districts were found to have Xitsonga speaking people in the study. Mopani District has both the Xitsonga and Northern Sotho and Vhembe District has both the Venda speaking and Xitsonga speaking people. Many of the respondents were Xitsonga speaking midwives (60%). The findings suggest that midwives from various districts could offer services to postnatal women immediately after discharge from the health facility. However, the way in which midwives from different ethnicities would act on issues related to continuity of postnatal care may differ due to influential or cultural factors within the district and the facility. Mopani Districts returned 42% (n=42) of the questionnaires; Sekhukhune returned 24% (n=24) and Vhembe returned 34% (n=34) as presented in Table 4.5.

4.2.2.6 Distribution of Midwives by Position in the Postnatal Care Unit

Table 4.6 depicts the position that was held by the respondents in the selected district health centres: 66% (n=66) were midwives; 10% (n=10) were area managers; 20% (n=20) were operational managers and 4% (n=4) were assistant managers.

Table 4.6: Distribution of midwives by position in the postnatal care unit

Position	Frequency (n)	Percentages (%)
Midwives	66	66%
Area Managers	10	10%
Operational Managers	20	20%
Assistant Managers	4	4%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

The highest number of midwives offering postnatal care were 66%. Data show that 66% of nurses were midwives and 24% midwives with higher position than midwives in the study areas. It was important to include this variable to determine the extent of

postnatal care experience. Again, the importance of offering immediate postnatal care may influence a midwife to deliver the service. This means that other midwives were preoccupied by some clerical duties in the unit and were hands-off on the practical part of delivering the service.

4.2.2.7 Distribution of Midwives by Years of Experience in Offering Postnatal Services

Table 4.7 depicts the years of experience of midwives in offering postnatal services.

Table 4.7: Distribution of midwives by years of experience in offering postnatal services

Years of Experience	Frequency (n)	Percentage (%)
2-3 years	2	2%
4-5 years	20	20%
6-7 years	25	25%
8 years	53	53%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

The following are the results of midwives regarding their experiences in the postnatal service: 53% (n=53) were midwives with 8 years of experience; 25% (n=25) with 6-7 years of experience; 20% (n=20) were midwives with 4-5 years of experience and 2% (n=2) were midwives between 2-3 years. Midwives were significant for the researcher to be able to collect data to develop the model for the continuity of postnatal care. The majority of midwives with 8 years of experience were comfortable with the offering of postnatal care, whereas 47% were midwives with less than 8 years experience. This indicated that the more the midwife is exposed to postnatal care, the more the likelihood of her delivering the service, thus promoting the quality of health of both the mother and the baby.

4.2.2.8 Distribution of Midwives by Total Working Hours in the Postnatal Care Unit

Table 4.8 depicts the total working hours of respondents in the postnatal care unit.

Table 4.8: Distribution of midwives by total working hours in the postnatal care unit

Total hours worked by midwives	Frequency (n)	Percentages (%)
8 hours	8	8%
12 hours	25	25%
24 hours	42	42%
Night duty only	25	25%
Total	**100**	**100%**
Source: Primary Analysis of Survey Data		

In the selected district health centres, it was found that 8% (n=8) of midwives worked for 8 hours per day; 25% (n=25) worked for 12 hours; 42% (n=42) worked for 24 hours and 25% (n=25) were working night duty only. Based on the figures above, most of the midwives were amongst those who worked for 24 hours. The findings depict that midwives who worked for 24 hours a day had enough time to perform all activities without any disturbances, with more attention to the baby and the postnatal woman.

4.2.3 Section B: Factors Facilitating Midwives in the Continuity of Postnatal Care to Postnatal Women

Table 4.9 summarises data on facilitators for midwives for involving primary caregivers on the continuity of postnatal care.

Table 4.9: Facilitators for midwives for involving primary caregivers on the continuity of postnatal care

Facilitating Factors	SA	A	D	SD
	n (%)	n (%)	n (%)	n (%)

Midwives have the necessary knowledge regarding the traditional postal natal care practices	7 (7)	14 (14)	58 (58)	21 (21)
Midwives displays teamwork with the primary caregivers always during the postnatal care services	3 (3)	15 (15)	58 (58)	24 (24)
Midwives arrive in time at the health centre for counselling on postnatal care practices	4 (4)	25 (25)	63 (63)	8 (8)
Midwives display good communication between the primary caregivers and the postnatal women always	5 (5)	24 (24)	56 (56)	15 (15)
Midwives have got enough time to support postnatal women and their primary caregivers' during the postnatal check-ups.	4 (4)	22 (22)	58 (58)	16 (16)
Midwives have got enough cubicles to accommodate both the primary care giver and postnatal woman for thorough examination during the postnatal check-up.	16 (16)	54 (54)	18 (18)	12 (12)
Midwives are trained on culturally congruent care reflected on the midwifery curriculum	9 (9)	23 (23)	51 (51)	17 (17)
Midwives can cater the postnatal services to reduce the long queue of postnatal women and primary caregivers	14 (14)	56 (56)	22 (22)	8 (8)
Midwives do not encounter any occupation stress during the rendering of a postnatal check up in the health Centre	16 (16)	59 (59)	20 (20)	5 (5)
Midwives can attend to postnatal women and primary caregiver while attending to the clerical job	10 (10)	26 (26)	53 (53)	11 (11)
SA: Strongly Agree; **A:** Agree; **D:** Disagree; **SD:** Strongly Disagree				

Facilitation refers to the act of making something easier for a process or activity to happen (Longman Dictionary of Contemporary English, 2011). When postnatal care is rendered effectively, it ensures that a midwife provides accurate written records, detailing all the activities as it forms an integral part of the medical and midwifery management of both the mother and the baby. This section consists of ten activities that were identified to assess midwives during the immediate postnatal period as illustrated in the above table. The activities were necessary knowledge regarding the traditional postnatal care practice, teamwork, time management, communication

skills, sufficient time, sufficient space, culturally training on midwifery practices, number of midwives, any occupational stress and attendance of both postnatal care and clerical job.

The factors facilitating the continuity of postnatal care by midwives were identified by the researcher, indicated by a tick or a cross if the respondent agreed or disagreed with the item on the Likert scale. Most respondents (58% disagreed and 21% strongly disagreed) disagreed with the statement “Midwives have the necessary knowledge regarding the traditional postal natal care practice”, while (7% strongly agreed and 14% agreed) few respondents agreed with the statement. This means that 79% of midwives were unable to provide the immediate postnatal care due to lack of new information related to the care of the woman and baby immediately after delivery. However, only 21% regarded themselves as having the necessary knowledge regarding traditional postnatal care practice. This implies that only few midwives believed they can provide education and counselling to primary caregivers regarding traditional postnatal care that are relevant in the continuity of postnatal care.

Teamwork was identified as the facilitator in the continuity of postnatal care. Training on culturally congruent care, 68% disagreed about the training on the care as reflected on the midwifery curriculum, whereas 32% of the midwives agreed on the training regarding the culturally congruent care. This implies that for those who disagreed on the training about culturally congruent care, the way primary caregivers and postnatal women are treated did not reflect dignity and respect as far as their cultures are concerned. Out of 100 respondents, only 26% of the midwives agreed that they had enough cubicles to accommodate both the primary caregivers and postnatal women during the continuity of care and 74% reflected that they had no cubicles to accommodate both the primary caregivers and the postnatal women. The

occupational stress was identified by 75% of the midwives and 25% did not agree with the statement. Out of 100 midwives, 64% disagreed with the statement: “Midwives can attend to postnatal women and primary caregivers while attending to the clerical job” and 36% agreed with the statement.

Overall, the factors facilitating the continuity of postnatal care have shown a downward trend, which necessitated further recommendations. After the implementation of the developed model for continuity of postnatal care, it is hoped that the provision of wider range of facilitators for continuity of postnatal care structures and processes such as necessary knowledge, teamwork, time management, communication skills, spacing in the infrastructure, culturally trained midwifery curriculum, sufficient staff, non-stressful job and dual role status in the workplace will increase the facilitation of continuity of postnatal care. The continuity of postnatal care that is rendered in an unhealthy working environment and without following proper protocols and procedures are more likely to result in complications, which can cause death to both mothers and babies seeking postnatal care services. Some of them might suffer from complications such as postpartum haemorrhage and puerperal psychosis and babies might present with unforeseen abnormalities. The ongoing poor management of continuity of postnatal care by midwives needs to be addressed and monitored effectively as a midwife is recognised worldwide as being the person who is alongside and supporting women giving birth and their families (Fraser & Cooper, 2009). Monitoring the continuity of postnatal care plays a key role in promoting the health and well-being of childbearing women and their families before conception, antenatally and postnatally, including family planning.

4.2.4 Section C: Factors That Can Act as Barriers to Midwives in the Continuity of Postnatal Care

Table 4.10 summarises factors that can act as barriers to midwives in the continuity

of postnatal care. None of the midwives from the study achieved 100% on identifying the barriers for continuity of postnatal care. Results showed that 73% of the midwives disagreed with the statement that midwives were not recognised professionally in terms of their status and only 27% of the midwives agreed that there is lack of professional recognition. This implies that most the midwives were not recognised when performing the continuity of postnatal care and only few of the midwives were recognised in the various facilities. The majority of the midwives (65%) reflected that there is societal recognition by primary caregivers. Out of 100 respondents, only 35% of the midwives disagreed. This indicated that 65% of the midwives can work with the society in a positive manner. The factors that act as barriers to midwives that depict agreement were that: “Midwives have got individual occupational stress that prevents them from including primary caregivers in the continuity of postnatal care”. Out of 100 respondents, 64% agreed with the statement and 36% disagreed.

Table 4.10: Factors that can act as barriers to midwives in the continuity of postnatal care

Factors Acting as Barriers	SA	A	D	SD
	n (%)	n (%)	n (%)	n (%)
There is a lack of professional recognition of midwifery that act as a barrier to midwives	5 (5)	22 (22)	54 (54)	19 (19)
Midwives are not recognised by primary caregivers within the society	9 (9)	56 (56)	20 (20)	15 (15)
Midwives have got individual occupational stress that prevents them from including primary caregivers in the continuity of postnatal care.	9 (9)	55 (55)	30 (30)	6 (6)
There is a line of demarcation between midwives and primary caregivers regarding the community of postnatal care at home	9 (9)	52 (52)	34 (34)	5 (5)
Midwives have got no time to give primary caregivers information regarding the continuity of postnatal care at home	11 (11)	58 (58)	25 (25)	6 (6)
Midwives are understaffed	11 (11)	15 (15)	59 (59)	15 (15)

Midwives are not receiving adequate in-service training regarding postnatal care	13 (13)	48 (48)	26 (26)	13 (13)
Midwives have got no transport to visit primary caregivers and postnatal woman at home	4 (4)	17 (17)	51 (51)	28 (28)
There is a language barrier between midwives and primary caregivers regarding the continuity of postnatal care at home	17 (17)	50 (50)	28 (28)	5 (5)
Midwives do not give the postnatal woman and primary caregivers the same attention as those women in antenatal and labor wards	13 (13)	60 (60)	21 (21)	6 (6)
SA: Strongly Agree; **A:** Agree; **D:** Disagree; **SD:** Strongly Disagree				

This means that most midwives have a lot of activities (duties) that are also a priority during the service delivery, while those who disagreed are only concentrating on specific work activities. Most midwives (61%) agreed that there is a line of demarcation between midwives and primary caregivers regarding the continuity of postnatal care at home, while 39% disagreed. The results showed that it is important that midwives work together with primary caregivers to ensure continuity of postnatal care. Many midwives (69%) indicated that there is no time to give information to primary caregivers on continuity of postnatal care, and 31% of the midwives disagreed with the statement. It means that the management of time is one of the barriers that can hinder midwives to offer information to primary caregivers for the continuity of the postnatal care.

The total of 74% midwives who disagreed with the shortage of staff and 26% showed that they were understaffed. For every primary caregiver visiting the postnatal services, the continuity of care should be provided whether the midwives are understaffed or not to promote quality health of both the postnatal woman and the baby. The midwife must also demonstrate her responsibilities in the management of a woman after delivery to avoid complications. Regarding the in-service training, the majority of the midwives agreed that they were not in-serviced

on the continuity of postnatal care. The results show that 61% do not have adequate in-service education, hence, 39% had enough in-service education. Most primary caregivers and postnatal women leave the health facilities without any information which poses risks to both the women and the babies. At discharge, primary caregivers and postnatal women should understand clearly what to expect during the postnatal recovery period and where to get care when the need arises. It is important that this information be given verbally or in writing.

Again, data showed that midwives have a responsibility to visit the postnatal women after discharge. Due to transport problems, 21% of the midwives indicated that they had no transport to visit postnatal women for continuity of care and 79% of the midwives disagreed with transport problems. To reduce the mortality and morbidity from postnatal complications, it is important that midwives determine whether the postnatal woman need continuity of postnatal care and address the postnatal care needs of those women who are at risk of postnatal complications. Complications frequently occur by the first day after delivery, therefore the postnatal women should be visited at their homes without delay. Out of the 100 respondents, 67% of the midwives experienced language barriers during their interaction with primary caregivers. Only 33% of midwives could interact with primary care givers, able to answer the questions that they were asked by the primary caregivers.

Most midwives were unable to answer the questions asked by primary caregivers and this suggested that primary caregivers lacked knowledge of midwives. Midwives reflected that they did not give postnatal women and primary caregivers the same attention as the women in antenatal and labour units. Out of 100 respondents, 73% of midwives believed that unequal attention was given to women under maternity services, while 27% disagreed with the statement.

However, the maternal mortality is greatest during the postnatal period which remains the most neglected stage of care. Therefore, maternal mortality can be reduced with improved postnatal care by skilled health care professionals (WHO, 2015). The midwives should be able to focus on all stages of the women from before conception until the postnatal period (SANC, 2015).

4.2.5 Section D: Effective Support Provided by Midwives in the Continuity of Postnatal Care

Table 4.11 shows the availability of midwives and the emotional support to ensure the continuity of postnatal care by primary caregivers to the postnatal women.

Table 4.11: Effective support provided by midwives in the continuity of postnatal care

Effective Support Provided by Midwives	SA	A	D	SD
	n (%)	n (%)	n (%)	n (%)
Primary caregivers are in decision-making regarding postnatal care and the management of infants	11 (11)	17 (17)	53 (53)	19 (19)
Primary caregivers are treated with respect and dignity during the postnatal care period at the health care facility	10 (10)	11 (11)	31 (31)	48 (48)
Counselling to primary caregivers is done in a cubicle designed only for primary caregivers	23 (23)	41 (41)	19 (19)	17 (17)
Primary caregivers are oriented, including familiarization with guidelines for continuity of postnatal care to reduce maternal death	12 (12)	18 (18)	27 (27)	43 (43)
Primary caregivers have immediate access to policies with protocols for continuity of postnatal care to reduce maternal death	14 (14)	19 (19)	45 (45)	22 (22)
Primary caregivers are given enough theoretical knowledge by midwives to help in rendering quality postnatal care while at home	11 (11)	22 (22)	45 (45)	22 (22)
Midwives do not participate in continuing professional education to update primary caregivers on technical competence to continuing postnatal care practices	19 (19)	48 (48)	19 (19)	14 (14)
Postnatal follow-up appointment commonly made before the primary caregivers and postnatal women are discharge from the health centre	8 (8)	16 (16)	48 (48)	28 (28)

Counselling is not considered an important aspect by midwives on the continuity of postnatal care by primary caregivers	24 (24)	51 (51)	20 (20)	5 (5)
Primary caregivers do not receive enough supervision from midwives for the continuity of postnatal care to reduce maternal death	17 (17)	22 (22)	46 (46)	15 (15)
SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree				

The responses of midwives in the effective support was that 72% of the midwives disagreed with the statement “Primary caregivers are in decision-making regarding the postnatal care and the management of infants”. Out of the 100 respondents, 28% of the midwives agreed that primary caregivers are involved with decision-making towards the mother and her baby. The continuity of postnatal care should meet the criteria of high standard and quality care as compared to other phases of preconception until delivery. According to the results, this shows that primary caregivers are not part during the decision-making of the postnatal women and babies regarding their management. This implies that the primary caregivers are not respected by midwives, hence, they are not involved during the decision-making steps.

To give a clearer picture item No. 2 was at 21% implying that primary caregivers are treated with dignity and respect during the immediate postnatal care while 79% disagreed with the statement. This shows that midwives do not ensure dignity and respect to primary caregivers. According to SANC (R.2488), it is stated that only the consent of the postnatal women is needed in case of emergency situations regarding the child. This implies that primary caregivers are not recognised. Item No. 3 shows that primary caregivers are offered counselling by midwives only in a cubicle designed for them. Out of 100 respondents, 64% agreed with counselling, while 26% did not agree. This shows that midwives impart partial information through group education and counselling on various childbirth concepts. The

individual information needs were not considered and the primary caregivers were denied their right to knowledge. Of the 100 respondents, 70% disagreed that primary caregivers are oriented with familiarisation to guidelines for continuity of care, while 30% agree with the statement. However, midwives in this study midwives did not follow stipulated guidelines in the management of postpartum women and primary caregivers are not even considered. This means that the midwives did not even monitor mothers and neonates during the first hour of delivery. Also 67% of the midwives disagreed that primary caregivers are given an access to policies with protocols for continuity of postnatal care and 33% agreed that primary caregivers are issued with protocols for continuity of postnatal care. However, midwives are aware of the need to offer primary caregivers with policies and protocols for continuity of care, however in actual practice they did not offer primary caregivers.

The data illustrated that during the effective support from midwives, 67% denied that they were unable to provide primary caregivers with the theory for continuity of care. It was then observed that only 23% of the midwives could offer the theory regarding the continuity of postnatal care. Based on the findings, primary caregivers should be provided with both theoretical and practical information that will assist in considering the health options while at home. The midwives, accounting to 67%, agreed that they do not participate in continuing professional education to updates primary caregivers with relevant information. However, 23% disagreed with the reflection that they do participate in continuing professional education. It was again observed that midwives are reluctant to give primary caregivers new information to clients and such an information is not transmitted to the intended target beneficiaries.

Postnatal follow-up appointments are commonly made before the primary caregivers and postnatal women are discharged, however, only 44% agreed with the statement, while 56% of the midwives disagreed with the statement. This implies that midwives

are aware of the need for follow up on discharge, hence, there are guidelines that are stipulated for the continuity of postnatal care.

Counselling during the postnatal period is very crucial to the primary caregivers for continuity of care. Out of the 100 respondents, 75% agreed that counselling is not an important aspect on the continuity of postnatal care by primary caregivers. The minority of the respondents disagreed with the statement, which implies that 25% of the midwives considered counselling as an important aspect to can offer the primary caregivers. It is very much important to offer primary caregivers the information of what to expect before and during the postnatal period so that they can deal with the problem. This means that with proper counselling, primary caregivers can detect unusual bleeding from the postnatal woman, engorged breasts, tenderness of the uterus on palpation as well as difficulties with infant feeding.

Primary caregivers do not receive enough supervision from midwives for the continuity of postnatal care to reduce maternal death. The statement was countered by 61% of the midwives, whereas 39% agreed with the statement. Most of the midwives agreed that supervision is an important element in the improvement of primary caregiver's performance because it facilitates the use of guidelines and service standards. It was observed that most midwives attained their qualifications more than five years ago. This means that the supervision from more experienced midwives can improve the quality of maternal and neonatal care. The adequate supervision also provides teamwork to colleagues; therefore, teamwork contributes to continuity of postnatal care in totality (Chimtembo *et al*., 2013)

4.3 Presentation of the Qualitative Approach

4.3.1 Introduction

In-depth one-to-one interviews were conducted to explore the knowledge of primary

caregivers who continued with postnatal care. The objectives were to: explore the knowledge of primary caregivers on providing the continuity of postnatal care; explore the perceptions of midwives on the interaction with primary caregivers during the provisioning of continuity of postnatal care. The in-depth one-to-one interviews were conducted at the three selected districts, namely, Mopani, Sekhukhune and Vhembe, with 10 facilities. Data collection took place from September 2019 to January 2020. Two questions were asked to probe answers from 18 primary caregivers (in this case, they were all women) through an in-depth-individual interview.

The study was directed by the following questions:

1. Can you describe your knowledge of providing postnatal care within 6 hours after discharge?

2. Can you share your perceptions of interacting with midwives during the immediate discharge period?

The interview session was conducted in Xitsonga, Northern -Sotho, Tshivenda and English, depending on the ethnicity of the group to promote the quality in the process of obtaining data from the participants. The responses were later translated into English from different home languages by language experts. Tesch's eight steps of open-coding were used to analyse qualitative data.

4.3.2 Demographic Profile of Primary Caregivers

In the qualitative research approach, out of a total of 18 participants (n=18), 12 were Xitsonga, 4 Tshivenda and 2 Northern Sotho ethnic groups (Table 4.12). Thus, there was diversity in terms of cultures. This ensured a greater representation of the

diverse cultural understanding of postnatal care. The participants were primary caregivers: All primary caregivers from the three selected district facilities were females. The presentation of biographical data is in a narrative form, the participant's age, home language, types of facilities visited, employment status, marital status, educational level and the districts within which health facilities were situated are presented.

As indicated, 100% of the primary caregivers were females to all ethnic groups as the continuity of care is done by only females. The age range of primary caregivers is from 30-68 years. Primary caregivers from all facilities ranging from 30-39 years totalled 38%; 40-49 years 33%; 50-59 years 22% and 60-69 years 28%. This means that most primary caregivers were of reproductive age. Out of 18 participants, 66.66% were Xitsonga speaking, 11.11% Northern Sotho, and 22.22% Tshivenda. This means that more than 50% of the participants were Tsonga speaking. The facilities visited were 10 health centres in the selected district of Limpopo Province, South Africa. Most of the participants were unemployed, at 55.55%; those who were employed equalled 33.33% and the self-employed only 11.11%. This shows that those who were not employed could monitor the continuity of postnatal care regularly. The marital status of primary caregivers was: widowed (16.16%); divorced (11.11%); married (33.33%) and single (38.8%).

The results show that those primary caregivers who were single are the ones who were married constituted the highest percentages in rendering postnatal care more than others. Those who have grade 12 were at 44.44%; tertiary level 22.22% and the illiterate were at 33.33%.

Table 4.12: Demographic profile of primary caregivers according to district (n=18)

Mopani District (A): Primary Caregivers (n=8)						
Participant	**Age in Years of Primary Caregiver**	**Name of Health Centre**	**Home Language**	**Employment Status**	**Educational Level**	**Marital Status**
1	53	Health centre A	Xitsonga	Unemployed	Grade 12	Married
2	45	Health centre A	Xitsonga	Unemployed	Grade12	Single
3	64	Health centre A	Xitsonga	Unemployed	Illiterate	Widowed
4	62	Health centre B	Xitsonga	Unemployed	Illiterate	Divorced
5	43	Health centre B	Xitsonga	Employed	Tertiary	Single
6	40	Health centre B	Xitsonga	Employed	Tertiary	Married
7	38	Health centre B	Xitsonga	Self-Employed	Grade 12	Single
8	50	Health centre C	Xitsonga	Unemployed	Illiterate	Married
Sekhukhune District (B): Primary Caregivers (n=2)						
Participant	**Age in Years of Primary Caregiver**	**Name of Health Centre**	**Home Language**	**Employment Status**	**Educational Level**	**Marital Status**
1	53	Health centre D	Northern Sotho	Employed	Grade 12	Married
2	47	Health centre D	Northern Sotho	Employed	Grade12	Single
Vhembe District (C): Primary Caregivers (n=8)						
Participant	**Age in Years of Primary Caregiver**	**Name of Health Centre**	**Home Language**	**Employment Status**	**Educational Level**	**Marital Status**
1	53	Health centre E	Xitsonga	Unemployed	Grade 12	Married
2	45	Health centre E	Xitsonga	Unemployed	Grade12	Single
3	64	Health centre E	Tshivenda	Unemployed	Illiterate	Widowed

4	62	Health centre F	Tshivenda	Unemployed	Illiterate	Divorced
5	43	Health centre F	Xitsonga	Employed	Tertiary	Single
6	35	Health centre F	Xitsonga	Employed	Tertiary	Married
7	38	Health centre G	Tshivenda	Self-Employed	Grade 12	Single
8	68	Health centre G	Tshivenda	Unemployed	Illiterate	Widowed

The data shows that most of the primary caregivers had grade 12, followed by the illiterate. Those who had tertiary educaton totalled 22.22% and were not always practically involved in the continuity of postnatal care.

4.3.3 Themes That Emerged from the Qualitative Data Analysis

The researcher conducted data analysis independently following procedures of both qualitative and quantitative approach in order to merge the results. However, the researcher used convergent analytic approach to merge the two data sets. This study found that in Phase 1, quotations from the knowledge of primary caregivers regarding the continuity of postnatal care were matched by quotations from the perceptions of midwives related to their interactions with primary caregivers during the continuity of postnatal care. As a result, quotations were repeated in the discussion of the findings.

This study found that the qualitative findings were related to quantitative findings to the extent that both fulfilled the research questions. In addition, a side-by side strategy was used to merge data analysis so that the reader could discern how qualitative and quantitative sources provide the evidence of each topic (Creswell & Plano Clark, 2011). In this study, the researcher merged two data sets of results in an interactive way to indicate the point of interface (Creswell & Plano Clark, 2011).

However, from the qualitative data analysis, three main themes emerged, namely, facilitators to continuity of postnatal care by primary caregivers, barriers to continuity of postnatal care by midwives and perceptions of primary caregivers regarding the interactions with midwives on the continuity of postnatal care. These three main themes expanded into seven themes and 29 sub-themes as presented in Table 4.13.

To authenticate the discussion of each theme, appropriate citations from the raw data are presented, and compared with findings in the literature and discussed. In addition, the quantitative research strand was included. The convergent method and thus triangulation were used to analyse the data, therefore the data were analysed side-by-side (parallel).

The main themes and sub-themes that emerged from the qualitative data were confirmed by the results from the statistical data, therefore, merging both qualitative and quantitative data, problems could be identified from different perspectives and from numerous standpoints and provided insight and created more complete view of the problem. Various narratives were provided by the participants. Excerpts from some of these narratives are presented herein to illustrate the findings. The side-by-side method served to enhance the development of a model presented in Chapter 5 (Creswell & Creswell, 2018).

4.3.4 Main Theme 1: Facilitators to Continuity of Postnatal Care by Primary Caregivers

The first main theme (Table 4.13) was the facilitating factors to primary caregivers regarding the continuity of postnatal care.

4.3.4.1 Theme 1.1: Traditional Knowledge of Primary Caregivers Regarding the Continuity of Postnatal Care

Primary caregivers are expected to have knowledge and be able to perform the physical examination of the mother and baby immediately after delivery. Midwives are regarded as having knowledge, experience and full responsibility to teach the community about the postnatal care services including physical examination of both

Table 4.13: Themes reflecting facilitators, barriers and perceptions of primary caregivers regarding the continuity of postnatal care

Main Theme		Theme		Sub-Theme	
1.	Facilitators to continuity of postnatal care by primary caregivers	1.1	Traditional knowledge of primary caregivers about the postnatal care	1.1.1	Perineal hygiene
				1.1.2	Early ambulation and exercise
				1.1.3	Uterine involution and lochia assessment
				1.1.4	Breast care and breastfeeding
				1.1.5	Maternal nutrition
				1.1.6	Rest-and-sleep
				1.1.7	Family planning
				1.1.8	Immunisation and postnatal follow up
				1.1.9	Neonatal care
		1.2	Performance of cultural practices during the continuity of postnatal care	1.2.1	Umbilical cord care
				1.2.2	Eye care of the newborn
				1.2.3	Infant feeding

Continued/ …

Table 4.13: Themes reflecting facilitators, barriers and perceptions of primary caregivers regarding the continuity of postnatal care (*continued*)

Main Theme		Theme		Sub-Theme	
				1.2.4	Strict control measures in the postnatal woman's room
				1.2.5	Introduction of the baby to the family
		1.3	Skills and competencies of primary caregivers in providing continuity of postnatal care	1.3.1	Prevention of infection
				1.3.2	Position changing
				1.3.3	Provision of emotional and psychological support
				1.3.4	Counselling on nutrition
				1.3.5	Counselling on hygiene
				1.3.6	Counselling on family planning
				1.3.7	Counselling on safer sex
2.	Barriers to continuity of postnatal care	2.1	Non-involvement of primary caregivers	2.1.1	Crowded public health facility, understaffed midwives, and long waiting periods

Continued/ …

Table 4.13: Themes reflecting facilitators, barriers and perceptions of primary caregivers regarding the continuity of postnatal care (*continued*)

Main Theme		Theme		Sub-Theme	
				2.1.2	No health education sessions and inadequate in-service training
				2.1.3	Language barrier between midwives and primary caregivers
3.	Perceptions of primary caregivers regarding the interactions with midwives on the continuity of postnatal care	3.1	Good midwives and postnatal women relationship	3.1.1	Involvement in decision-making skills and informative communication
				3.1.2	Respect for appointment before discharge and dignity
				3.1.3	Limited linking of traditional and Western postnatal health knowledge
				3.1.4	No consideration of rituals for postnatal women
				3.1.5	Poor communication with primary caregivers
		3.2	Perception on information dissemination	3.2.1	Methods of information dissemination

the mother and her baby and also seeking care before complications arise. There were various factors that need the attention of the primary caregivers such as the physiological observations of both the mother and the baby, the physical problems and complications in the puerperium, contraception and sexual health of the postnatal women. During data collection, primary caregivers were able to display the information that they have regarding the continuity of postnatal care.

4.3.4.1.1 Sub-Theme 1.1.1: Perineal Hygiene

Primary caregivers at all selected district health centres reported that the postnatal women are taken care of in with regard to their general well-being and assessments were made on perineal hygiene. The hygiene measures focused on urinary incontinence and urination, bowel functioning, perineal wounds, perineal pain, care of the episiotomy and wound management following the Caesarean mode of delivery. The primary caregivers had knowledge regarding the effect of trauma on the perineal area following delivery. They displayed proficiency in background information regarding the physiological process and normal pattern of healing of the wound (Steen, 2007). The pain from the perineum is a direct result of the assault on the nerve endings in the traumatised tissue and where the woman had undergone perineal trauma that has required suturing.

Participants reported that postnatal women were examined on the perineal area for laceration and any perineal tear. The postnatal women were advised to clean perineal area thoroughly area in order to reduce constant moisture and heat, thus preventing the spread of infection and promote healing. They were advised to bath the perineal area with warm and salty water to promote healing, thus preventing infection and also encouraged to change pads frequently. Perineal hygiene constituted the urination and urinary incontinence, bowel functioning and incisional pain. This was supported by several participants as shown in the following

quotations:

- **Participant 1 from Vhembe District:**

> *The postnatal women when she wakes up, I pour for her water to bath her body, so that she must be clean. She must change her clothes and remove dirty clothes. Even the baby we change her clothes and we clean the whole room where they sleep … because the room of the postnatal woman should be clean at all times … not having offensive smell. The environment should be well ventilated. We can put Dettol and we can even use... eeh!... That thing … eeh … pine gel. We clean with it on the floor to ensure that the room where there is a postnatal woman is clean. Everybody who enters the room must not feel the bad smell, because the bad smell, the child will breath the bad smell and had some breathing problems.*

- **Participant 4 from Mopani District:**

> *The mother is checked frequently if she is bleeding more than normal. The mother is checked from the pads and if bleeding does not stop, it shows that the mother can die, so she is sent to the hospital.*

- **Participant 2 from Sekhukhune District:**

> *The postnatal woman is supposed to lie on the abdomen, soo... so … the abdomen must not become too big, and about the episiotomy stitch, when bathing … pause (door opens) … when bathing, use Dettol and salt with little warm water, look for cloth to compress on the operation to prevent sepsis and gaping of sutures for operation.*

- **Participant 2 from Vhembe District:**

> *I give her water to bath stitches on the operation. The warm water is mixed with salts to promote comfort. During breastfeeding, I advised … eh... I advised the woman to sit down with legs straight to avoiding the stretching the perineal muscles and to ensure the proper healing of the perineal area.*

The literature indicates that primary caregivers had the necessary traditional knowledge regarding perineal hygiene. Perineal hygiene includes the perineal tear,

episiotomy and Caesarean section delivery. In support of the participants, only 40.2% of the midwives (Table 4.9) reflected that they do not offer necessary support to primary caregivers regarding the postnatal care practices as they are understaffed. According to Sellers (1994), perineal infection is the result of unhygienic condition of the perineum following trauma after delivery. The perineal trauma and the episiotomy also contribute to the decreased level of daily activities to the postnatal woman, hence the postnatal woman neglect caring for the baby (Fraser & Cooper, 2009; Karacam & Eroglu, 2003).

The discomfort caused by perineal lacerations, episiotomy and Caesarean section wounds resulted in insomnia that also disrupts the postnatal woman's ability to interact easily with the baby in the early weeks and thus interferse with breastfeeding (Pound & Unger, 2012). The unhygienic condition of the perineum leads to long-term discomfort during the sexual relations to such an extent that the postnatal woman may often require the use of analgesics (Sellers, 1994). Oedema and bruising of the perineal area also delay the healing process if proper hygiene is not followed. According to Sellers (1994), the infection from unhygienic perineum may predispose the woman to the risk of dehiscence due to a faulty healing technique. Most of the participants reported that the bad smell from the perineal area is a danger sign to the mothers, hence, the women were encouraged to have a sitz bath in order to relieve the swelling on the perineal area and to maintain cleanliness of the wound. The study was supported by the WHO (2013) with the indication that any perineal wound that appears hot, tender and inflamed, and accompanied by a pyrexia is highly suggestive of an infection. According to (WHO, 2013), an increased in body temperature requires a medical attention. This shows that the participants can prevent the spread of infection to the postnatal woman, thus promoting the well-being of both the mother and baby. The findings were confirmed by Fitzpatrick,

Krinczuk, Bhattacharya & Quigley (2019) in which postnatal women were said to experience less perineal discomfort through carrying out self-perineal care instructions.

The study conducted in South-East Asia confirmed that salty warm water is best to the postnatal woman as it brings the soothing effect on the perineum. This was supported by the guidelines (Queensland Clinical Guidelines, 2018), as it helps with the aspects of positioning and movements in postnatal women. It also assists with the pelvic floor muscles exercises and the fast healing of the perineum. Perineal hygiene was also maintained through frequent sanitary pads changing to reduce the risk of infection (Tiruneh, Shiferaw & Worku, 2019). In general, the woman should carry on necessary instructions regarding perineal care such as hand washing before and after pad changing, removal of a pad from front to back, application of a clean pad and wiping the area after each and every elimination (Firtzpatrick, 2019).

In another study done in South-East Nigeria, primary caregivers used hot water salt solution sitzbaths compression on the lower abdomen to help with drainage of lochia and perineal wound healing (Okeke, Ugwu, Ezenyaaku, Ikeako & Okezie, 2013). In South Africa, there is a need to ensure the provision of quality postnatal care because many deaths occur during the postnatal period due to bleeding and infections. According to WHO (2010), more than 500,000 women die each year due to the complications of pregnancy and childbirth, mostly during or after childbirth. Perineal hygiene is one of the critical aspects that need particular attention on hygiene to avoid puerperal sepsis. Therefore, in South Africa, there should be the additional involvement of primary caregivers to ensure quality maternal and child health care during the postnatal period and to prevent unnecessary deaths due to avoidable postnatal complications. The primary caregivers confirmed that they needed professional support from the midwives during the postnatal period.

Most of the midwives (75%) strongly disagreed with the adequate knowledge regarding the traditional postnatal care, hence, primary caregivers demonstrated their traditional knowledge regarding the care of the perineal region. Consistent with our findings, perineal hygiene is identified as the postnatal best practice in the facilitation of postnatal care in the selected districts of the Limpopo Province of South Africa. The researcher established that the traditional knowledge possessed by primary caregivers can aid with the healing of the perineal wounds to the woman. This highlights the need of Limpopo Province Department of Health to involve primary caregivers on the integration of information to prevent postnatal complications.

Based on midwifery practice, women should practice perineal care as instructed by registered midwives with reference to the SANC Scope of Practice (R.2598). According to the correct midwifery practice, women should put ice or cold pack on the sore area for 10 to 20 minutes at a time and put a thin cloth between the ice and the skin area to relieve pain. The woman is advised to sit in a few centimetres of warm water three times a day and after bowel movements. The warm water helps with management of pain and itching. After use of the toilet, the woman is encouraged to wash the vagina and the anus with warm water to keep the perineum clean in order to promote healing (Fraser & Cooper, 2009). Furthermore, the woman is advised to avoid unnecessary movements to circumvent irritation and gaping of the perineum.

4.3.4.1.2 Sub-Theme 1.1.2: Early Ambulation and Exercise

The interviews with the primary caregivers indicated the traditional knowledge that primary caregivers had regarding early ambulation and exercise. Early ambulation is a technique of post-operative care in which a patient gets out of bed and engages in light activities such as sitting, standing or walking as soon as possible after a

traumatic birth experience. Early ambulation is important because it promotes blood flow of oxygen throughout the body while maintaining the normal breathing functions. There are problems that can occur when there is no ambulation as patients who do not walk after a traumatic experience are more susceptible to urinary incontinence and infection. Those who can get up and go to the bathroom are less likely to experience incontinence and other postnatal complications.

Primary caregivers indicated that postnatal women including those who delivered through Caesarean section are engaged in early ambulation so that they regain the return of bowel functioning including flatulence and bowel sounds (Fraser & Cooper, 2009). Participants also indicated that most of the postnatal women are given instructions about bathing and holding techniques of the baby during bathing and positioning themselves when breastfeeding the baby as well as when sleeping. They reported that they prepare all the necessary items for bathing and clothing the baby, while watching all the steps done by the postnatal woman. The lives of postnatal women are at risks of complications. In South Africa, there is a need to ensure the provision of quality postnatal care, because many deaths occur during the postnatal period due to bed rest complications. The WHO (2010) calculated that more than 500,000 women die each year due to complications of pregnancy and childbirth, most during or immediately after childbirth. According to Palitza (2010), the number of children who are cared for by family members has risen dramatically as a result of complications of the mothers immediately after delivery. This reflected that the lives of many women are fraught with complications such as urinary tract infection, wound infection, deep venous thrombosis, postural hypotension and constipation as a result of lack of early ambulation and exercises (American College of Obstetricians & Gynaecologists, 2014). The following are some of the quotations from the participants:

❖ **Participants 5 from Vhembe District:**

> *Early in the morning I wake up and prepare warm water for the postnatal woman to bath her body as she is still weak to prepare bathing water herself. I prepare all the necessary items for bathing and supervise her during bathing. This is done so that she can regain her bodily movements, strengthening the body muscles that were affected or traumatised during normal delivery or operation.*

❖ **Participant 5 from Mopani District:**

> *At the clinic they taught ANC women to do some exercises only during bookings in order to ensure good muscle tone and to facilitate involution of the uterus … but after delivery they only check the baby after delivery and discharge them after six hours, and we are excluded …*

❖ **Participant 8 from Vhembe District:**

> *On arrival at home, I advise her not to do any household activities because she is still very weak and the food will smell of milk from the breast and we will not enjoy the food.*

In South Africa, there is no training of primary caregivers who are responsible for taking care of patients during the postnatal period. The primary caregivers are only recognised by community members or family members as people who have experienced postnatal care during their deliveries. Registered midwives regard themselves as the only people who can provide quality postnatal care to women after delivery, however, they are not involved with the care, hence the primary caregivers reflected that they are excluded from the discharge plan.

These quotations show that there is a need of involving the primary caregivers for continuity of care because the care is left upon their hands at home while the midwives are away from their homes. The findings showed that there are some of the primary caregivers who are not knowledgeable about early ambulation and exercise to the woman. This reveals that midwives should involve primary caregivers

at the health facility to decide on the correct measures of assisting the postnatal woman at home. There should be teamwork between midwives and primary caregivers in order to continue with postnatal care while at home.

Magarete (2014) reported that postnatal women who undergo a Caesarean section or traumatised perineum had more problems that can contribute to postnatal complications. Again, it was reported that the trauma to the perineum and the Caesarean section delivery creates problems that can compel the woman to have a longer stay in bed, whether at the delivery facility or at home following delivery. The major problems include postoperative pains, bladder and bowel problems and breastfeeding problems. The women who recover after Caesarean mode of delivery may limit their daily activities due to the stress and strain encountered during delivery. According to Mascarello, Horta & Silveira (2017), the postoperative difficulties may lead to immobility to the woman, resulting in major complications such as deep venous thrombosis, increased pain intensity, urinary tract infections and pressure ulcers. These problems show that there is a need for the primary caregivers to have the knowledge in order to help postnatal women at home.

The main reason for primary caregivers not assisting with bathing the baby and self-care activities was to help the postnatal women to resume exercises in order to commence household duties at home without difficulties. The study was supported by Paul, Narayan & Kaur (2019) who confirmed that early ambulation restores and improves the muscle tone so that women can perform daily life activities effectively. From the demographic data of the primary caregivers, it appears that the unemployed primary caregivers were more able to continue with postnatal care as they were permanently staying with the postnatal women, especially the first-time mothers. Secondly, those who were more than 50 years old had a better understanding and knowledge regarding the ambulation and exercises techniques.

The study found that both the primary caregivers and the midwives play a major role in providing continuity of care. However, there are differences in the provisioning of postnatal care between them. Midwives are guided by the Scope of Practice R.2598 which direct them to promote exercises with a view to healing and rehabilitation of a postnatal woman. Primary caregivers used their cultural knowledge that the woman should strengthen her physical body by bathing herself and the baby. Both midwives and primary caregivers could supervise and maintain the early ambulation and exercises to the postnatal women so that they can recover rapidly. This shows that midwives should involve primary caregivers at the health facility during the routine care of a woman so that they can continue with early ambulation and exercises while at home. This is supported by the SANC R.2488 No. 20, which indicates that the registered midwife should, where necessary, work in consultation with the family during the care of postnatal patients

Although primary caregivers are sometimes not involved in decision-making on the continuity of care by midwives, they are therefore themselves able to promote the physical activities for early recovery of the postnatal woman at home (Kalisch, Dabney & Lee, 2013; Mary, Afzal, Sehar & Gilani, 2018). The aim of early exercise and early ambulation is to allow blood flow, to restore muscle tone and blood supply to the reproductive organs. The exercises include light postnatal exercises and pelvic floor exercises (Ministry of Health Malaysia, 2011).

The statistical results demonstrate that 63.4% of the midwives have cubicles to perform physical examinations during check-up. This means that the midwives can also invite the primary caregivers so that they can observe the skills of performing postnatal exercises so that they continue while at home to promote adequate blood supply to the women. Primary caregivers, therefore, could establish early ambulation in the provisioning of early movement to accelerate early recovery and reduce the

incidence of postoperative pulmonary complications.

According to the correct midwifery practice, women are advised to have adequate rest immediately after birth. The woman is given the correct instructions on getting in and out of bed, especially if she had a Caesarean section delivery. The woman is advised to follow the correct posture when sitting and feeding herself and the baby to help supporting her back and to relax the shoulders. Women are advised to use adequate pillows to lift baby to the breast or bottle so that the mother's back is supported. The women are advised on pelvic floor exercises and pelvic floor care as well as pelvic floor exercise advises to reduce increased incidence of stress incontinence (Fraser & Cooper, 2009). The postnatal woman should resume daily activities slightly to avoid trauma to the body as the physical body is not yet recuperated.

4.3.4.1.3 Sub-Theme 1.1.3: Uterine Involution and Lochia Assessment

The study findings indicated that primary caregivers were able to check the uterine involution and lochia assessment to prevent postnatal haemorrhages from the delivered woman. These postnatal care activities are mostly done to observe and prevent postpartum haemorrhage during the first hour of the puerperium. During this period, midwives are expected to demonstrate to both the primary caregivers and the postnatal woman the observation of the height of fundus in relation to the umbilicus, the feeling of the well-contracted uterus and the amount of vaginal bleeding. However, primary caregivers are not involved during the immediate period of caring for both the mother and the baby. Primary caregivers instructed the postnatal women to apply a tight cloth around the waist below the umbilical region to relief the abdominal pains and to lie down always. In all the study settings, it was found that the midwives were understaffed, hence, they could not even attempt to involve the primary caregivers in the cubicles. Some of the midwives could not even

communicate with the primary caregivers as they were performing even clerical jobs. They worked as midwives and at the same time as clerks, hence, they have to record everything performed to the woman and her baby accurately. The following are the quotations from the participants:

- **Participant 3 from Vhembe District:**

> *I was left outside the cubicle and the midwives could not even talk to me. We were assembled in the waiting period before the start of the maternal and child health care services … and … and … before the routine they start with a general health topic that do not even involve the maternity cases. As I have learned previously from my first child, I went home and started assessing the woman on the bleeding from the vaginal area and the tenderness of the uterus. As a first-time mother, I encouraged her to apply a pressure around the umbilical region with a cloth around the waist to promote the contraction of the uterus and to lie on the abdomen to relieve abdominal pains as well as to ease the drainage of blood. I also instructed her to report any heavy bleeding from the vagina through pad checking and to verbalise if she was too dizzy to stand up or hold the baby.*

- **Participant 1 from Sekhukhune District:**

> *If its like that, let's say he was using the cloth to stop bleeding, she does not use pampers … pads, because sometimes they don't have enough … and is finished, so Im supposed to tell her saying:"If is the so and so weeks are passed and the bleeding is still there, lets go to the hospital to ask what we see." We must not just be with the woman until she loses more blood and the body becomes weak. eeeh!*

- **Participant 8 from Mopani District:**

> *Another thing is that the postnatal examinations are not done correctly because … so fast … eeh! The woman is asked to come back after three days for check-up. If they come, the midwives are delaying to start working … then they greet the woman and look at the card and say: "Come at six weeks for immunisations".*

A postnatal woman is expected to have normal bleeding after delivery, which

progresses from lochia rubra, serosa and alba. For cases in which lochia rubra continues for more than normal, the patient is advised to visit the nearest clinic or hospital for medical assistance before complications arise. Bleeding was not considered a complication traditionally, it was thought that the uterus is cleaning itself after the baby was born.

The quotations show that there is a need to update registered midwives through in-service training on postnatal care so that they are reminded periodically about the importance of checks. There is also a need to promote primary caregivers' participation and involvement in early detection of complications. It is confirmed by UNIPFA (2008) that educating the woman, relative or neighbour regarding the early detection and seeking medical assistance for complications such as postpartum haemorrhage that can be detected through uterine involution and lochia assessment. The findings in Nigeria show that postnatal women were sometimes unable to attend postnatal checks because of the delay and mismanagement of postnatal women by midwives (Akin-Otiko & Bhengu, 2012).

In addition, Piane (2008) added that in South Africa, women do not receive necessary attention during the postnatal period, while high rates of death occur immediately after delivery due to factors related to health care, such as unskilled health care providers. Registered midwives should monitor the women closely immediately after normal delivery and Caesarean section for early detection of signs of postpartum haemorrhage. The literature indicates that uterine involution is very much crucial to the health of the postnatal woman as it determines the return of the uterus to the non-pregnant state (Fraser & Cooper, 2009). According to WHO (2015), postnatal guidelines, women should have regular assessment of vaginal bleeding, uterine contraction and fundal height. The most important change that occurs in the uterus is involution. After delivery the uterus is about the size of a 20-

week pregnancy and by the end of the first week it is about 12 weeks in size. The uterus should decrease daily until the fundus is not palpable above the symphysis pubis. The decidua of the uterus dies due to ischaemia and the amount of blood is shed as lochia.

Though it is necessary for the postnatal woman to return to the normal level of health, primary caregivers indicated that they were not involved in the management of the puerperal stage of the postnatal woman. Secondly, they indicated that they use sanitary pads and if the supplies run out, they improvise using a material cloth. However, it was noted with great concern that the primary caregivers had a challenge with material resources and communication skills with the midwives, hence, they were not given attention during the immediate postpartum period, thus, they practiced their own understanding. This shows that primary caregivers had enough theoretical knowledge regarding the contraction of the uterus and the deviations from the normal state of the postnatal woman.

It was noted that an increased demand for services and a concomitant lack of infrastructure, the physical space and personnel to respond to these demands sometimes result in poor quality postnatal services. The environment in which postnatal care is given should be conducive to both the midwives and primary caregivers, however, there is lack of teamwork between midwives and primary caregivers and shortage of midwives to finish the postnatal care activities with dignity and respect.

According to the 2014 Zambia Demographic and Health Survey, the proportion of mothers seeking postnatal care from midwives was still very low as evidenced by the fact that only 51% did not receive care at all (Crecious *et al*., 2018). However, only 39% of the postnatal women received care within two days after delivery. Nine

percent of the women had check-up 3 to 41 days after delivery. Young mothers and mothers who gave birth to their first child are more likely to go for postnatal care within the first two days after giving birth compared with older mothers with higher order births.

In general, the traditional knowledge of caring for the uterine involution and lochia assessment by primary caregivers is of benefit to the postnatal women which may be one reason why maternal and neonatal deaths have declined. Literature shows that increased workloads by midwives impedes health care provision to postnatal women that worsens the maternal and foetal well-being. Challenges in the South African context such as the shortage of midwives or human resources contribute to the delay in seeking maternal and child health services. The shortage is related to the political issues where more midwives from our rural areas moved to greener pastures. This made more primary caregivers and postnatal women and their babies to fill the health facilities and, hence, the long waiting time to get help (Mhlanga, 2008). In the light of this, the continuity of care by primary caregivers is a necessity for improvement in maternal and child health and reduction in maternal morbidity and neonatal mortality especially in developing countries.

The findings revealed that primary caregivers should be included in the provisioning of continuity of care by midwives as they have the cultural theoretical knowledge regarding the uterine involution and lochia assessment.

As shown in Table 4.12, primary caregivers who offered continuing postnatal care are the illiterate (55% and unemployed (44.44%) compared to primary caregivers who are employed (22.22%) and in tertiary (11.11%) levels. The literature shows that the level of education and the employment status impedes the continuity of postnatal care. It means the employed and educated primary caregivers have less

time to care for postnatal woman due to work obligations. The inadequate use of guidelines and the overworking of midwives can cause the neglect of immediate postnatal care, thus, putting postnatal women at risk for complications.

However, from the study, the findings show that some women did not receive a full physical examination within the early postnatal period. This was seen from the participants' responses where primary caregivers were not involved during the immediate care and the communication was absent from midwives. The lack of communication from midwives compromises the care that women receive from primary caregivers, increasing the risks of developing complications which could have been identified by both the midwives and primary caregivers. According to Dlamini, Mahanya, Dlamini & Shongwe (2017), 60% of maternal deaths occurs during the postnatal period where there is a neglect of checking the uterine involution.

The researcher concluded that there are aspects that need to be addressed in order to improve continuity of postnatal care across the province including the primary caregivers based on the cultural traditional knowledge that they acquired. There is a need for increased traditional knowledge about uterine involution and how the primary caregivers can implement postnatal care practices to decrease the maternal complications leading to maternal deaths. The researcher established that there is a lack of involvement of primary caregivers with regard to the assessment of critical areas during the immediate postnatal care period. The critical areas include the symptoms and signs that are suggestive of potentially life-threatening physical conditions such as a sudden and profuse blood or persistent increased blood loss, faintness, dizziness or palpitations or tachycardia leading to postpartum haemorrhage. If the woman is not well to receive the postnatal information to use while at home, midwives should interact with primary caregivers to involve them in

order to assist the woman with care at home when both the mother and baby are faced with life-threatening conditions.

Postpartum haemorrhage is one of the stressful situations that can put the woman at risk of death. The midwife is often the first and maybe the only professional person who might be present when haemorrhage present. However, the primary caregiver is the one who will assist the woman to control blood loss and reduce the risk of maternal morbidity or even death. This highlights the need for Limpopo Province DoH to develop a model to enhance the continuity of postnatal care by primary caregivers at home.

4.3.4.1.4 Sub-Theme 1.1.4: Breastfeeding and Breast Care

The interviews with the primary caregivers indicated the knowledge that they have regarding breast care and breastfeeding, stating their cultural beliefs. They indicated that they encourage postnatal women to put their babies into the breast as breast milk is the only source of milk for the baby. They indicated that breast milk contains all the nutrients that promote the health of the baby without the risks of infections. The primary caregivers indicated that most of the postnatal women are exclusively breastfeeding their babies without the addition of some juices or water. However, some primary caregivers indicated that they also offer light soft porridge to comfort the crying babies. Some reported that they give the mother nourishment like hot tea and soft porridge to produce more milk for the baby. At times they stated that they are able to assess the feeding problems in a baby related to the breast. They indicated that the baby sometimes refuses to suck from the breast as an indication of an underlying problem. The following are some of the quotations from the participants:

- **Participant 2 from Sekhukhune District:**

This postnatal woman I can support her by making sure that in the morning when she wakes I give her water to bath, so that the baby can have enough breast milk. I prepare even soft porridge and tea for the woman to have sufficient breast milk, because if she doesn't eat home-made food, the breast milk will be insufficient and the baby won't be satisfied and start crying. To make sure that the baby is satisfied the mother must eat warm food. Hard food will make the mother to have an uncomfortable abdomen, because the abdomen is soft and the yesterday s food will be a problem in her stomach. The baby is breastfed for six months because the stomach is not well developed. The overfeeding of the baby with mixed food will disturb the baby to grow well.

- **Participant 1 from Sekhukhune District**

As a primary care giver, the postnatal woman is advised to breastfeed the baby, but if the baby kept on crying, the baby is given light soft porridge because the child might not be receiving enough breast milk, so we supplement the baby's milk with liquid soft porridge … just some spoons to keep the baby asleep.

- **Participant 2 from Vhembe district:**

A sign that it is there, if you carry the baby to breastfeed, the baby will deny to suckle from the breast and the head will be rigid and no bending backwards. The baby will cry continuously and bending backwards as the muscles will be rigid at the back of the baby. Such babies they bend their heads back wards when they cry due to that mark.

- **Participant 3 from Mopani District**

Ok... I thank you. It is simple but not simple, during the postnatal period I emphasize the cleaning of the umbilical cord, how to keep it clean and the importance of breastfeeding the child. The child should be breastfed exclusively, thus not mixing the breast milk with some formulas. The baby must be fed on breast milk only and no traditional muti. However, it is sometimes difficult to feed the baby with breast milk only because of the working conditions. To express milk and keep in a refrigerator is a challenge as some family members will not use anything from the refrigerator. That is why the baby are given also some milk products except breast milk.

❖ **Participant 6 from Mopani District**

> *I encourage the woman to put the baby on her breast frequently to enable the baby to remove the greenish stools that can make the baby to suffer from abdominal pains. If the stools are out, then the baby will not cry continuously. The baby must get breast milk for six months without eating and please … they must not mix … because the baby will react … breast is best and she express and leave in a fridge rather than giving formula.*

❖ **Participant 10 from Vhembe District**

> *I heard the sister telling the woman to feed the baby with breast milk only for six months without giving other things like soft porridge, Purity, Danone … but at home I prepare soft porridge for the woman and very light soft porridge for the new born to stop crying. At home I tell the mother to put the baby in one breast until empty and to turn to the next one for good feeding. When the baby is asleep, I advise her to express breast milk and put in a fridge, so that the baby can feed on it, especially when the mother return to school or to the work.*

These quotations show that there is a need for involving primary caregivers when giving health advice to women regarding emptying of milk and putting the baby to the breast for early breastfeeding. This might ensure quality and effective breastfeeding and the management of babies with feeding difficulties. Saloojee & Van Wyk (2015) suggested that primary caregivers should be considered by registered midwives because they are either the first choice or the last choice when the midwives fail to meet their cultural needs or when primary caregivers fail to meet the professional needs of midwives. The type of support might assist in initiation and maintenance of exclusive breastfeeding, which is an important strategy in the reduction of child mortality rates in developing countries (Ngunyulu, 2015).

Primary caregivers reflected different data regarding breastfeeding and breast care. Early feeding contributes to the success of breastfeeding, but the time of the first feed should depend on the needs of the baby. Some babies may demonstrate the

desire to feed almost as soon as they are born and others may show no interest. Positioning the mother and positioning the baby to the breast is very much important to mothers with episiotomy and Caesarean section wounds, thus encouraging the babies to breastfeeding. Babies born with difficulties may be unwilling to feed due to injuries sustained during delivery. It is obligatory for the primary caregivers to encourage, reassure and teach women who have not breastfed before the fundamentals of good attachment so that the feeding is pain free (Fraser & Cooper, 2009).

Table 4.7 shows that 81% of the midwives were rendering postnatal care with 64.6% having many years of experience. However, 74.4% of the midwives were unable to perform all the immediate postnatal activities. The study shows that they could not offer support to both postnatal women and primary caregivers during the postnatal checking, including breastfeeding support. The study findings show that only 43% of the midwives were able to offer postnatal care activities. Warren, Daly, Toure & Mongi (2007) indicated that there is an association between breastfeeding and breastfeeding difficulties. One in four deaths occurs during the first month of life as a result of undernutrition. This undernutrition takes place as a result of lack of support on breastfeeding by primary caregivers as reflected on the results. Again, it was reported that breastfeeding is a problem when the postnatal woman is faced with a perineal tear, episiotomy, difficult labour or a Caesarean section as it causes a discomfort and pain (Fraser & Cooper, 2009).

The majority of primary caregivers demonstrated a positive understanding on breastfeeding and breast care. They were all from the three ethnic backgrounds. From all the study sites, one primary caregiver showed a negative attitude about exclusive breastfeeding, hence, she reflected that the baby on breast milk should be supplemented with light soft porridge even before six months to stop the baby from

crying. The findings show that primary caregivers have no data regarding the importance of breast milk as they introduced some products rather than focusing on breast milk only.

The study conducted in Scotland showed a healthy baby with a healthy weight on an exclusively breastfed babies (Macdonald, Henderson, Faulkner, Evans & Hagan, 2010). The main reason why the participants were initiating breastfeeding was that it provides all nutrients to the baby with no infections. Adequate nutrition during infancy is essential to ensure the growth, health and development of babies to their full potential (WHO, 2009). Breastfeeding has been recognised globally to be beneficial for both mother and baby as breast milk is the best source of nutrition for an infant. Exclusive breastfeeding is defined as a practice whereby the infants receive only breast milk without mixing it with water, other liquids, tea, herbal preparations or food in the first six months of life, with the exception of vitamins, mineral supplements or medicines (Nkala & Msuya, 2011).

Those who did not understand exclusive breastfeeding indicated that it was difficult for them to keep milk in the refrigerator as they are working mothers. They also indicated that the expression of breast milk wasted their rest and sleeping period as they are supposed to prepare everything for the baby before going to work. Some primary caregivers indicated that they offer bottled infant formula milk as the mother cannot produce enough milk. From the study, it was found that some of the primary caregivers were not able to diagnose breast problems, hence, they resorted to formula milk. Breast problems might be a leaking breast, where the milk suddenly goes off, or cracked nipples as well as engorged breasts. The flat nipples or inverted nipples might be the problems with crying babies because they do not get sufficient milk from the mother's breasts. This shows that primary caregivers should be involved with health information regarding the mother and child health care.

In Nigeria, breastfeeding is recommended for the period of two years post-delivery (Adewuyi & Adefemi, 2016). It is done to all mothers, regardless of their HIV status, but it is low and declining. In South Africa, The Department of Health stated that: "The postnatal mother should continue breastfeeding the baby for two years or longer, because breast milk contains all the energy, vitamins and other nutrients in the correct amount needed by the baby. This means that the midwives are not the only source of information about breastfeeding and for breastfeeding to thrive, it needs support from families" (NDOH, 2018). In the Limpopo Province, the men and grandparents are involved in the promotion of breastfeeding over the local radios and the support has increased. In KZN, the initiative for breastfeeding has improved from 25% to 50% (Nieuwoudt, Ngandu, Manderson & Norris, 2019). The findings are confirmed by Motee & Jeewon (2014) as breastfeeding also promotes bonding between mother and baby; decreases the risks of breast, endometrial and ovarian cancer to the mother.

Consequently, the study results show that breastfeeding is a challenge as there are not enough midwives who can facilitate breastfeeding issues to primary caregivers due to lack of time, communication skills and spacing in the health facilities. The participants displayed some challenges regarding breastfeeding their babies, hence, they were unable to detect the feeding difficulties of the babies. According to Fraser & Cooper (2009), midwives should involve primary caregivers in order to ensure that the baby is adequately fed at the breast and that the woman develop necessary skills to feed the baby herself.

4.3.4.1.5 Sub-Theme 1.1.5: Maternal Nutrition

The study findings indicated that the mother's diet plays an important role during breastfeeding. If the woman has become overweight during pregnancy she should not subject her body to a severe diet in the puerperium, but in accordance with all

postpartum women. The woman should eat a proportion of proteins, carbohydrates and fat in the diet. The diet should also contain plenty of minerals, vitamins and roughage and the fluid intake should satisfy the mother's thirst (Fraser & Cooper, 2009). Furthermore, the flow of milk from the breasts is activated by a well-balanced diet taken by the mother. The participants demonstrated to have the necessary information regarding the maternal diet. The following are the participants' direct quotations:

- **Participant 2 from Sekhukhune District**

> *I prepare even soft porridge and tea for the woman to have sufficient breast milk, because if she doesn't eat home-made food, the breast milk will be insufficient and the baby won't be satisfied and start crying. To make sure that the baby is satisfied the mother must eat warm food. Hard food will make the mother to have an uncomfortable abdomen, because the abdomen is soft and the yesterday s food will be a problem in her stomach. The baby is breastfed for six months because the stomach is not well developed. The overfeeding of the baby with mixed food will disturb the baby to grow well.*

- **Participant 3 from Vhembe District**

> *The working mother is advised to express breast milk if she is a working mother... up to ten plastic bags or even 50 bags and keep it in a refrigerator. She can do this especially if she is staying far away from home due to the working environment. The mother should bath herself and the baby should not get soft porridge but only breast milk.*

- **Participant 1 from Mopani District**

> *The postnatal woman is given soft porridge early in the morning after bathing with warm water that assist with breast secretion. The mother is given liquids, fruits and soft diet such as mashed potatoes to avoid constipation. Hot tea and tablets are also given to help with milk production.*

- **Participant 3 from Mopani District**

> *As a primary caregiver, I give the postnatal woman fruits and vegetables with vitamins and encourage her to drink plenty of fluids. The diet includes soft porridge, potatoes, stump and liver.*

❖ **Participant 7 from Vhembe District**

> *For nutrition, I give her healthy food … with healthy food I mean soft porridge for milk production. Hot porridge is good for the woman also she must drink plenty of fluids to produce more milk.*

It is evident that the primary caregivers have adequate knowledge regarding the nutritional status of postnatal women. This shows that they understood the effect of warm and well-balanced diet for the women. The idea was supported by (Ngunyulu, 2015), who stated that the woman is encouraged to eat a well-balanced diet and increase fluid intake to improve the skin integrity, gastrointestinal activity and the absorption of iron and minerals, as well as to reduce the potential for constipation and the feelings of fatigue.

Table 4.9 depicts that only 35.4% of the midwives were able to offer counselling regarding nutrition at the agreed time, whereas 64.6% of the midwives disagreed that midwives did not arrive in time at the health facility in order to give primary caregivers information related to nutrition. This shows that primary caregivers used their own knowledge rather than the information from the midwives. The Department of Health, in support of the participants' responses, had a recommendation that direct midwives to teach all women during ANC, labour and post-delivery. Presently, many of the midwives do not offer maternal nutritional education to the primary caregivers during the immediate postnatal care, hence, they do not arrive on time to offer the postnatal counselling. Most of the primary caregivers improvised their own understanding on the expression of breast milk and the storage. This shows that primary caregivers understand the importance of feeding the baby with milk from the breasts, hence, they indicated the storage of expressed breast milk for a long

duration while away from home. Time conciuos is, therefore, important for midwives to render postnatal care services, bringing with it the immediate life-saving attention to infant nutritional care and preventing the unnecessary deterioration of both mother and child's condition when postnatal education and counselling is needed.

According to Bhavnani & Newburn (2010), poor communication and poor management of time by midwives had a negative impact on the part of postnatal women. Some of the midwives attributed this to shortage of midwives. Similar findings by Forster *et al*. (2008) indicated that postnatal women were given little attention to receive information regarding postnatal care. Effective time management is very much important to midwives to accommodate both postnatal women and primary caregivers during the prenatal educational sessions for better quality results of the postnatal care practices. This means that primary caregivers and pregnant women should be accommodated during the third trimester of pregnancy so as to equip them with postnatal information related to nutrition.

On the contrary, a Swedish study indicated that primary caregivers normally received adequate information during the third trimester of pregnancy regarding nutrition and this can be a lesson learnt for midwives in the Limpopo Province to help the primary caregivers to continue with nutritional care at home for both the mother and her baby (Hildingson & Sandin-Bojo, 2011). Women are advised on a healthy diet during pregnancy and breastfeeding in order to breastfeed their babies with enough milk (DoH, 2014). The midwives also provided the women with a booklet called *Mother, Child Health and Nutrition* that guides women on the proper diet selection and storage for reuse (DoH, 2014). The best nutrition for a new baby is exclusively breast milk as it contains all the nutrients necessary for the healthy growth of the baby. The baby should be exclusively breastfed until six months without introducing solid food. This will make the baby grow healthier with no

infectious diseases.

4.3.4.1.6 Sub-Theme 1.1.6: Rest and Sleep

Rest-and-sleep has been identified as the major driver for the primary caregivers to keep the mother and baby at the resting period. Although early ambulation is necessary for postnatal women, they must also be provided with adequate time to rest and sleep. However, some babies present with crying for 24 hours or else during the night when the mother wants to sleep. Thus, primary caregivers should always be available to help the woman with holding the baby so that the mother can have a duration to rest and to take a nap during the day. Immediately after delivery of the baby, the mother should be given enough time to rest while the midwives are taking care of the baby by drying and wrapping the baby, ensuring immediate breastfeeding and performing physical examination to the baby. Primary caregivers reported that women were given enough time to rest and sleep. They also indicated that postnatal women were not even allowed to prepare their own food, hence, everyday they were served with bathing water and later on provided with hot tea and soft porridge for production of milk.

The following are some of the quotations from the participants:

- **Participant 4 from Vhembe Districts:**

> *First thing in the morning I prepare warm food for breast milk production to the mother … mmmmh … hot soft porridge early in the morning. The woman is advised not to talk to anyone rather than the primary caregiver as is a taboo according to our culture. During bathing of the baby, I will also be checking the baby for physical abnormalities as well as checking the umbilical cord while demonstrating it to the postnatal women at rest.*

- **Participants4 from Mopani Districts:**

Awa, I thank you, it is very much important to give enough time for the postnatal mother to rest, ensuring that as a primary caregiver I check the infant's abdomen, hands and each and every body part to detect some abnormalities. On the maternal part, the mother will be assessed for tiredness as she need to be relieved from the tiredness, hence she will be neglecting the baby also.

❖ **Participant 3 from Mopani Districts:**

As a helper at home, I check the baby for umbilical cord sepsis and the eyes for discolouration … because the child might have jaundice … then the mother is encouraged to sit down with legs closer to each other to relax while breastfeeding the baby. The postnatal woman is given enough time to rest while the primary caregiver assists the mother with bathing the baby and checking abnormalities to the parts of the body.

❖ **Participant 5 from Mopani District:**

The mother is tired from the day of giving birth, then I prepare warm water to bath so that she can position and bond with the child because she is tired. I put the baby on the lap so that she relaxes and feed the baby. I told her to sleep when the baby also is asleep for her to rest.

❖ **Participant 2 from Sekhukhune district:**

I give her warm water to bath in the morning … and empties the bucket with dirty water outside the house and prepare breakfast for the mother while she will be resting with the baby.

At all study sites, participants reported the knowledge they have regarding rest and sleep. For the first six weeks the woman needs as much rest as she can. The resting period should be planned during the day so that she can also take care of the baby. The primary caregivers have knowledge to understand that the woman need to take a nap or lie down and get off her for at least 30 minutes each day. The woman should also be encouraged to sleep when the baby sleeps, even during the day.

It is evident that postnatal women remain tired for the period of six months after delivery, hence, it is very much important to give them enough time to rest. The

inability to recover or improve may be the results of tiredness from the process of delivery. Primary caregivers had knowledge and understanding that the woman needed enough time to rest because her body has not yet recovered. Relaxation is reported as the mechanism that help the woman to recover with ease. Maternal physical adjustments for the postnatal woman is very crucial as the woman was faced with fatigue immediately after labour and delivery. This shows that the woman needs to adjust herself to the non-pregnant state, hence, she needs a period of rest and sleep. The mothers who stay healthy postpartum are the ones who allow themselves to sleep as much as they feel necessary.

The findings from the study in Canada was confirmed by Creti, Libman, Rizzo, Fitchen, Bailes, Tran & Zelkowitz (2017) as the woman sleep for only six hours during the night and one hour during the day, despite the frequent nocturnal awakenings. It was confirmed that many women still experience minimal insomnia and non-refreshing sleep, depression and boredom due to pain and fatigue, and it is important to help her with caring for herself and the baby. Iranpour, Kheirabadi, Esmaillzadeh, Beni & Maracy (2016) reflected that a woman with poor sleep quality had a greater chance of depression than a woman with adequate sleep. Postpartum depression has serious consequences on the quality of life of the mother and her child. The findings were confirmed by Dorheim, Bondevik, Gran & Bjovatn (2009), as stated that the inadequate sleep also disrupts the relationship of both the mother and her baby, thus damaging the emotional, cognitive, motor and behavioural development of the growing baby.

This shows that primary caregivers had an understanding on the necessity of a woman to rest and sleep after delivery. Therefore, it is essential for the health services to promote continuity of care throughout the maternity care pathway and should therefore work collaboratively with primary caregivers. However, midwives

did not display teamwork at all times during the postnatal care services, hence, primary caregivers applied their own knowledge on the measures to keep her at rest by taking care of the mother and baby.

The statistical results in Table 4.9 show that there was no teamwork between the midwives and primary caregivers. The results show that 78.1% of midwives disagreed with the provisioning of teamwork, hence, primary caregivers indulged on their own understanding on the physiological changes of a postnatal woman after delivery at home. Midwives are expected to give a full report on the type of delivery, the condition of the woman and the newborn and how they should continue with the management at home. However, the findings revealed that there is currently no teamwork between registered midwives and primary caregivers. The study was confirmed by the statistical results, i.e., 64.6% of midwives displaying that midwives had poor communication between primary caregivers and postnatal woman, hence the communication was unsupportive. This made primary caregivers to use own understanding that the woman needs adequate time to rest. According to Williamson & McCutcheon (2004), there is an increasing awareness of psychosocial factors that need urgent attention to the health and well-being of the woman. Postnatal women need adequate time to rest to enable the primary caregiver to ensure early detection and management of physical, emotional and psychological factors that may impact the health and well-being during the postnatal period (Fraser & Cooper, 2009). During the first few weeks after delivery the woman's body need to recuperate and rest as she might have encountered problems from conception until delivery.

Psychiatric cases contribute to 25% of all maternal deaths (Fraser & Cooper, 2009). In every 1000 women, two women are admitted to a psychiatric hospital due to inadequate time to rest, hence, they are faced with suicidal attempts. The postnatal women are at risk of postnatal depression and anxiety. According to the NICE

Guidelines (2018), the women present with life-threatening mental health conditions that might be a danger to self, baby and others. The life threatening mental-health conditions might include issues such as severe depression, severe anxiety, the desire to hurt others or herself, hallucinations and delusions that might also cause deaths. Therefore, it is very much important to support the woman following a traumatic birth to avoid life-threatening mental health conditions. According to Pascal & Homer (2014), the postnatal period is a critical time of death, hence, women and primary caregivers should be given more formal educational sessions focusing on postnatal care practices.

4.3.4.1.7 Sub-Theme 1.1.7: Family Planning

Primary caregivers from all study sites reported that the women were not allowed to sleep with their husbands immediately after delivery. They were placed in a separate room and be with an elderly or a primary caregiver in the house. They did not allow each and every person to enter the room, except the primary caregiver. The primary caregivers provided family planning indirectly without reinforcement to the postnatal women. The restriction of husbands into the postnatal woman's room was to prevent unintended and closely spaced pregnancies, however, the concern was poorly addressed. The following are the quotations from the participants:

- **Participant 1 from Sekhukhune District:**

> *At times, the postnatal woman is sent to her parents' home following delivery for the period of three months so that the parents can take care of herself and the baby. According to our culture the first-time mother is sent home for continuity of care … then after three months a ceremonial party will be held when she comes back with the baby.*

- **Participant 1 from Mopani District:**

> *No one is allowed to enter into the room where there is a postnatal woman … (giggles) … because some are from their boyfriends or*

girlfriends... and … and … they are still hot … for speedy recovery and healing of the umbilical cord. The husband is not allowed to enter the house for the speedy healing of the umbilical cord.

❖ **Participant 6 from Vhembe District:**

Only the primary caregiver should work together with the postnatal woman. The husband is not even allowed to talk to the postnatal woman. He is refused even to touch the baby and to avoid sexual relations

❖ **Participant 5 from Vhembe District:**

Men are excluded from the woman s hut because men are dangerous. They do have girl friends and they are hot and this can kill the baby when they meet as husband and wife.

The interviews with the primary caregivers indicated that the majority of postnatal women were not allowed to meet with their husbands immediately after delivery and discharge from the health facility, stating their cultural beliefs. They indicated that postnatal women might engage in sexual relations with the husband that can delay the healing of the umbilical cord. They further indicated that they were not allowed to touch the baby or communicate with the mother soon after delivery. Some indicated that the husbands have girlfriends that can add to the killing the baby. Some primary caregivers indicated that some postnatal women were immediately referred to their biological parents so that they can be far away from their husbands to prevent them from mating, hence, disturbing the growth of the newborn. The distance created was a result of introducing family planning to the postnatal women.

Machiyana & Cleland (2014) reported that in Ghana there is an association between the provision of family planning services, religious, cultural, beliefs, morals and values in terms of care postnatal women seeking postnatal care services. The majority of primary caregivers were the oldest of them all from the three ethnic groups who displayed early separation of the postnatal woman and the husband for

better recuperation. The main reason why the primary caregivers separate the husband and wife was to make the baby grow healthy and strong and to continue with breastfeeding without some interruptions of growing. The primary caregivers indicated that the postnatal woman is encouraged to delay resumption of sexual relations until the baby is two years of age. The primary caregivers's intention was to increase postpartum family planning to prevent unintended and closely spaced pregnancies. Delayed resumption of sexual relations serves as the most reliable and suitable method of child spacing (Ngunyulu, 2015). The issue of family planning was poorly addressed by primary caregivers and nobody mentioned the use of contraceptives in the form of pills or injections. Quantitative data shows that the midwives (51.2%) who worked for 24 hours a day and 30.5% of midwives working for 12 hours had enough time to perform all activities without any disturbances, paying more attention to the mother and baby regarding counselling sessions. This shows that more hours are needed to do a quality work for the postnatal woman and her baby as there is a lot of information to transfer to primary caregivers.

Their religious and cultural believes play an important role in preventing early pregnancies to the postpartum woman. Family planning should be available and be provided to all postnatal women who have given birth at the delivering facility. Midwives must have positive attitudes towards the provision of family planning services because absence of family planning can lead to disturbances in the health statuses of both the mother and the baby. Little attention was given to the opportunities presented in the postpartum period for effective family planning. The traditional beliefs and practices delay the uptake of family planning. According to the study conducted in Nigeria, the resumption of coitus early in the postpartum period is harmful and is associated with maternal morbidities such as vaginal lacerations (Ekanem, John & Ekott, 2004). However, the type of contraception exposes the

mothers to dangers of unwanted pregnancy as pregnancy can occur even soon after delivery and on exclusive breastfeeding.

Midwives (74%) reported understaffing and lack of staff knowledge and skills on family planning provisioning, with the fact that they are not culturally trained on congruency of care and is not even reflected in their midwifery curriculum. The study conducted in Ghana indicated that the uptake of family planning was low due to the cultural issues and beliefs (Machiyama & Cleland, 2014). According to the Department of Health (NDoH, 2012), postnatal women are advised to use contraceptive methods immediately after delivery in order to have a chance to feed their children adequately. The mostly recommended contraceptives are the long-acting reversible contraception that includes injectable progestogen injectable contraceptives, intrauterine devices, intrauterine hormonal systems and subdermal contraceptives implants. This was recommended by NICE Guidelines (2018) as it has fewer side effects and there is no need for forgetfulness, hence, there is no risk of early pregnancy. However, women should receive adequate information on contraceptives to have their own choice. The injectable contraceptives are recommended to provide safe and quality postnatal care to the postnatal woman and the baby, thus, there is no chance of falling pregnant.

4.3.4.1.8 Sub-Theme 1.1.8: Immunisation and Postnatal Follow Up

The study findings indicated that primary caregivers were given information by midwives to bring the baby for six-week postnatal period. Informing primary caregivers about the types of immunisations and the time for the vaccine is a critical issue for both the mother and child. In all the three study sites, it was found that primary caregivers do not even know the names of vaccines. The only message that they displayed was to bring the baby for check-up. The knowledge that they possess was that babies are given some medications to prevent illnesses and some diseases

that are common to babies soon after delivery. A study conducted by Kee *et al*. (2015), showed that vaccines are administered to the babies to reduce the long-term diseases and death in adulthood. The goal of immunisation is to reduce the number of chronic carriers of viruses in the population, thus preventing infections. The following are the quotations from the participants:

- **Participant 3 from Vhembe District:**

> *Ok! … Firstly, I will tell you that the mother of this baby is no more and the baby was still immature after delivery. I was called from home to Johannesburg to collect the baby to continue with postnatal care. The nurse in Johannesburg told me to send the child to the nearest clinic to get some medications and to bring the child again at six weeks for check-up.*

- **Participant 2 from Mopani District:**

> *As a primary caregiver what I know is that the mother is sent to the clinic for HIV testing to avoid diseases and death. The visit by the husband is denied … (laughing) … to avoid sexual relations until the umbilical cord is cut off!*

- **Participant 8 from Vhembe District:**

> *Another thing is that the postnatal checking is not done properly because the midwife will tell the woman to enter the cubicle, take the card and tell her to come back for immunisation without touching any of one of them*

- **Participant 2 from Sekhukhune District:**

> *We give the child doepa to prevent illnesses and we burn it and the child will begin to sneeze. It shows that the ancestors welcomed the baby. Sometimes we give medication to the baby to prevent abdominal pains … I boil water and put herbal medicines in a glass … mix it and give the baby 3 spoons at equal intervals.*

Immunisation of the babies begins 6 hours after delivery and extends up to the period of six weeks. The Department of Health (NDoH, 2015) published a booklet

that displayed all the vaccines and dosages that are administered to the baby from delivery until 12 years. However, for continuity of care, the immunisation for the care end at six weeks period to monitor the growth of the baby effectively as death takes place during this critical period. The card has got all information regarding the child's growth and development and some curves that shows some deviations from normal growth (NDP 2030–DoH 2018). The booklet is issued at birth by the health services concerned irrespective of the place of birth.

At the moment from all study facilities, primary caregivers knew only of the medications that the midwives gave to the babies to prevent illnesses and diseases that are common to all newborn babies. Some also knew that the mother should be tested for HIV and nothing said about the immunisation schedule. Some primary caregivers reflected that they give the newborn babies herbal medicines to introduce them as new members in the family so that they remain calm during the night. They indicated that if the ancestors do not know them they tend to trouble them during the night.

The WHO and United Nations Children's Fund (UNICEF) recommended regular postnatal checking to start with immunisation to improve obstetric and newborn care (Gulmezoglu & Lawrie, 2015). The card contains valuable information such as immunisation vaccines, the area of injection and the duration to get another dose. The card can also assist with nutritional and perinatal problems that the mother and baby can be faced with (Coovadia & Loening, 1984). However, the primary caregivers in this study did not indicatesthe relevancy of the vaccines. This shows that they do not have clarity on the importance of vaccinations because midwives did not include them in decision-making roles for continuity of care at home. Primary caregivers continue with their cultural herbal medications while at home and do not consider the issue of vaccines, hence, they are not informed about the importance of

vaccines. Few participants mentioned about HIV drugs; HIV is generally known as the contributory factor to maternal and neonatal deaths if not tested. The majority of the participants concentrated much on the cultural and religious medical treatment.

Immunisation is a simple and effective way of protecting children from serious diseases. It not only helps protect individuals, it also protects the broader community by minimising the spread of the disease. The vaccines work by triggering the immune system to fight against certain diseases. According to Expanded Programme for Immunisation in South Africa (EPISA) the vaccines are given at birth until 12 years (DoH, 2014).

The study findings show that primary caregivers have no information regarding the issue of vaccines that are given to the babies. This made them to resort to their cultural herbal practices at home. The study is supported by Wiysonge *et al*. (2012), which stated that immunisation is not effectively done due to insufficient financial and human resources and insufficient knowledge of vaccines and immunisation by the health workers. The study in Nigeria conducted by Antai (2010), affirmed that the health worker shortages and the attitude of the community stakeholders and primary caregivers contributes to low uptake of vaccines. This shows that there is a need for increased staff and proper training and education of midwives about the importance of immunisations so that primary caregivers can use it for the babies to benefit, thereby reaching the MDGs goals. Currently, there is a lack of acceptance of each other between the midwives and primary caregivers, leading to ineffective performance as shown by sub-standard care of increase in maternal and child mortality (Antai, 2010). For postnatal check-up, midwives do not display necessary information to the primary caregivers, hence even the women were just told to bring the baby on an expected date. However, midwives are expected to check the general condition of the woman properly, including the vital signs, urine examination,

fundal height measurements, bleeding for amount and odour, perineum for healing progress, haemorrhoids, signs of thrombosis and breast problems. The midwives also estimate haemoglobin level, provide HIV counselling if it was omitted during ANC, provisioning of information on diet, signs of complications, nutrition and contraception and importance of immunisations and weight monitoring and assess the emotional status of the mother (WHO, 2015) Guidelines for Maternity Care in South Africa. The statistical findings confirmed that 69% of midwives agreed that they were unable to provide postnatal women with postnatal checking due to lack of time. This shows that the midwives are reluctant to do postnatal follow up as reflected by 70% of the midwives who agreed that they do have enough cubicles to accommodate primary caregivers.

The study in Nigeria supports that primary caregivers and woman are unable to attend to the postnatal checks because of the harshness of midwives (Onasoga, Afolayan, Aluko & Ingwu, 2018). The Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition is South Africa (DoH, 2012) shows that there is a need for midwives to ensure that the conditions for both the mother and baby are satisfactory and that the midwives should follow the guidelines and protocols regarding immunisation to display their commitment to the reduction of mortality and morbidity amongst women and children. According to NDP 2030 (DoH, 2018), babies should start with the vaccine doses at birth orally or injection depending on the type of vaccine until the age of 12 years. The doses protect the baby from various communicable disease that can harm the baby both psychologically and physically.

4.3.4.1.9 Sub-Theme 1.1.9: Neonatal Care

During the neonatal period, infants are at risks of jaundice, umbilical stump infection, conjunctivitis, respiratory distress syndrome, no passing of urine and stools and poor

attachment to the breast for early breastfeeding. Potential complications that can happen to the neonate during the early postnatal period are fever, repeated vomiting, swollen abdomen and discharging eyes. These complications arise due to poor attachment of the baby to the breasts as well as failure to take care of the baby immediately after delivery. Physical examination is regarded as an important element during the observation of a neonate following delivery. Most of the primary caregivers displayed necessary knowledge regarding the physical assessment of the baby. Some of them reported some abnormalities as detected during the bathing process. They indicated that when bathing the baby for the first time, they gave themselves enough time to assess the physical characteristics of the baby. Some infants were assessed whether they appeared well or unwell, some for the skin colour abnormalities as well as change in colour of the eyes. Some also reported the deviations in the mouth which was identified during feeding of the baby. According to NDP 2030 (DoH, 2018), the Road to Health Chart have got all necessary information that the primary caregivers need to know. Coovadia & Loening (1984) affirmed that the height, weight, head circumference, brain growth, facies, hair, posture, level of consciousness, head, neck, chest, heart, abdomen, central nervous system, the extremities, bones and joints as well as nose, ears and throat can be examined thoroughly through assessing the baby's growth. The following are the quotations from participants:

- **Participant 1 from Mopani District:**

> *During the initiation of breastfeeding, the baby was sucking with difficulties and the milk was not swallowed but coming out from the mouth. That is how I decided to send the child to the hospital for further management. The baby was operated inside the mouth and the midwives said that the tongue was not moving but attached into the mouth.*

- **Participant 3 from Vhembe District:**

I check the baby while bathing, looking at the skin colour and also the colour of the eyes. If the eyes are yellow in colour, I know that there is something wrong with the baby. I encourage the mother to breastfeed the baby because the yellow colour indicates that the baby is not getting enough milk from the breast.

❖ **Participant from 6 Mopani District**

I observe both the mother and the baby immediately when they come home. If the mother is bleeding at home, nothing is done and the mother is sent back to the hospital. The umbilical cord is observed for healing every day. The mother is given white spirit to clean it every morning. The child is assessed at the back of the head for red marks (rigoni). The medication from the chemist is applied at the area because the worm can kill the baby. Our church ZCC gives us the message to buy condense milk and six eggs … we boil it with five roses tea and drink and the child will not cry.

❖ **Participant 1 from Sekhukhune**

When the baby is put into the breast, I show the mother how to hold the baby during feeding. The baby has different cries like crying for hunger, for wet nappy or for pain. I instruct the woman to put the baby on the shoulder after breastfeeding to burp.

❖ **Participant 8 from Mopani District:**

I bath the baby and observe if the body is clean. I observe the skin for rash and sores because the baby reacts sometimes to the soaps that we use. I also check the folds and between the buttocks when changing napkins for cracks... then I apply Vaseline.

Primary caregivers reported about the care of the baby after discharge from the delivery facility. For most of the primary caregivers, physical examination plays an important aspect to the baby's health. During bathing, the primary caregivers paid special attention to the baby while observing some physical deviations from normal. They checked the colour of the eyes because yellow colour suggests a liver condition that can be treated by breast milk. The umbilical cord is observed for

healing as well as the signs of infections. The primary caregivers concentrated much on the cleanliness of the cord with the application of methylated spirit to keep it dry after every napkin changing.

They also checked the red marks at the back of the head for early treatment. When the baby suckles from the breast, they indicated that they also observe the babies with feeding problems. From the participants quotations, it was found that primary caregivers identified the baby with an abnormality of the tongue which was not moving. Primary caregivers identified that the baby had a feeding problem as the child had a flutter sucking (Sellers, 1994). The researcher affirmed that congenital disorders was misdiagnosed by midwives immediately after delivery due to erratic compliance by health care providers. This shows that the midwives did not perform a thorough physical examination to the baby after delivery, hence it was assessed by the primary caregiver at home. This shows that the primary caregivers have the ability to continue with postnatal care to aid with the identification of defects in young children. The study in Nigeria confirmed similar findings with the primary caregivers where the baby had the same problem as it was firstly identified by a family member (Awoyale, Onajole, Ogunnowo, Adeyemo, Wanyonyi & Butali, 2016).

The study conducted in Ghana also confirmed the abnormalities that were detected on the baby who was later assisted through operative procedures (Vessel, Starr & Rubin, 2012). In Ghana, it was found that 50% of the under-five mortality was attributed to deaths during the first 28 days after birth due to unidentified defects after delivery. Most of the deaths were caused by difficulty in breathing, uncontrolled fever and feeding problems. Primary caregivers also noticed some deviations from the skin. Skin colour is another determinant of a pathological condition in a baby. The primary caregivers noticed a change in the colour of the eyes. The yellow staining of the skin, mucous membranes and sclera is a sign of hyperbilirubin and is

the common clinical feature of jaundice (Sellers, 1995). The condition shows that the liver is not matured enough to produce sufficient amounts of the enzyme glucuronlytransferase in order to conjugate the bilirubin accumulating in the bloodstream from the breakdown of red blood cells. This shows that the primary caregivers noticed the changes on the skin and was able to detect that it is an abnormal sign in a baby. The findings by Olusanya, Slusher, Imosemi & Emokpae (2016) reflected that neonatal jaundice ranked next to preterm birth or low birth weight and asyphyxia for disability. The WHO (2014) confirmed that asphyxia is the death that might result from birth injury. The WHO Guideline (2015) indicated that midwives should observe the child during the postnatal checking to detect any deviations from the normal levels, and this shows that there is a lower level of assessing the newborn babies by midwives due to understaffing and heavy workload.

The statistical results confirmed that 71% of midwives did not have enough time to support postnatal women during the postnatal checks. This was supported by the statistical findings where 78.1% of midwives disagreed that they do not have teamwork during the provisioning of the postnatal services. However, 64.6% of the midwives have 8 years of experience in offering postnatal services while the midwives reflected lack of knowledge regarding the traditional postnatal care practice. The primary caregivers were able to detect changes in a newborn baby. This shows that there is a need to involve them in the continuity of postnatal care, hence, the primary caregivers were able to observe challenges in a baby with a flutter tongue by referring to the hospital for further management. The baby with jaundice was given more breast milk to overcome the liver condition.

The statistical findings in Table 4.9 also confirm that midwives (74%) did not have adequate time to support postnatal woman and the primary caregivers during the

postnatal check-up. The study showed that the midwives should have the theoretical knowledge to assist with the continuity of care at home, based on the results, 74.4% of the midwives do not have the traditional postnatal care practice knowledge.

4.3.4.2 Theme 1.2: Performance of Cultural Practices During the Continuity of Postnatal Care

Primary caregivers displayed the performance of cultural practices during the immediate postnatal period. The practices were performed for both the mother and the child in most of the Sub-Saharan countries with no complications to both mother and baby. The researcher ensured that the participants were doing cultural practices free from physical, psychological, emotional or spiritual harm. During the interview sessions, the primary caregivers were able to explain the cultural practices without fear of being stigmatised. The following are the harmless cultural practices that were done by the primary caregivers for continuity of care: umbilical cord care, care of the eyes of the newborn, episiotomy care, infant feeding, strict control measures in the postnatal woman's room and the introduction of the baby into the family.

4.3.4.2.1 Sub-Theme 1.2.1: Umbilical Cord Care

The maintenance of hygiene on an umbilical area emerged as a sub-theme in order to keep a healthy baby alive. To maintain cord care, primary caregivers indicated that they apply substances to the umbilical cord to promote healing and hasten separation of the cord by moistening or drying it out. During the application process, they provided optimal measures to relieve pain on the umbilical area. The following are the quotations from participants:

- **Participant 7 from Vhembe District:**

> *Eish, although there are no medications to clean the cord provided by nurses, we use a white spirit three times a day to keep the cord clean so that it can dry and fell off. Before I clean cord, I wash hands and clean the*

cord from the base of the stump and then I put the napkin … eeh... I sometimes... I sprinkle breast milk into the eyes and cord to hasten healing of the cord and to prevent eye problems as the breast milk can prevent bacteria through it.

❖ **Participant 6 from Mopani District:**

I prepare warm water to bath the baby and the mother bath herself separately. I use a small basin for the baby and the mother take a full wash. They do not bath with the same basin. The umbilical cord is always kept clean and dry until it heals.

❖ **Participant 1 from Sekhukhune District**

At 3 days period after birth I go with her for check up … then I prepare warm water for bathing the mother. The umbilical cord is kept clean always for faster healing … using white spirit or Dettol and even savlon. In the olden days chicken faeces and used motor oil was applied on the stump to keep flies away from the cord... but since we are nearer hospitals we no longer use it.

Prevention of cord infection is one of the harmless practices performed by primary caregivers at home during the continuity of care. The primary caregivers indicated that traditionally each woman and her baby are encouraged to bath with warm water while taking care of the umbilical cord. The mother is not allowed to bath using the same basin as a newborn baby, with the believe that the baby might develop unusual skin rashes if bathed in the mother's basin. The findings are supported by Ngunyulu (2015) in which infection control is strictly adhered to by using different basins for the mother and the baby. Primary caregivers indicated that they apply methylated spirits for cleaning the cord and sometimes they do not put anything to the umbilical cord. Similar findings by Afolaranimi, Hassan, Akinyemi, Sule, Malete, Choji & Bello (2012) methylated spirits is used for fast healing of the cord. Handwashing before touching the baby and after putting a napkin and cleaning the cord is strictly observed to maintain sterility and promote the healing of the cord. The

reasons for application are to hasten the separation of the cord and avoid sepsis of the umbilical region.

It is evident from the participants that primary caregivers were taking precautionary measures to prevent sepsis on the cord. Some were using methylated spirits to keep it free from infections and others wash their hands every time before handling the baby. The findings are supported by the study conducted in Sub-Saharan countries where they applied different substances to either moisten or dry the cord out, to prevent pain or infection or to keep wind (evil spirits) or cold air out of the infant (Coffey & Brown, 2017).

In Southern Zambia, they apply petroleum jelly if the cord cracks or bleeds. Charcoal was also used when the cord takes too much time to separate (Coffey & Brown, 2017). In Ethiopia, the frequency of ointment on the cord is done three times a day to promote healing whereas in Bangladesh, the substances are applied continuously until the cord got separated (Coffey & Brown, 2017). Herlihy, Shaikh, Mazimba, Gagne, Grogan, Mpamba, Sooli, Simwamvwa, Mabeta, Shankoti, Messersmith, Semrau & Hamer (2013) confirmed that the use of motor oil was of benefit when taking care of the cord at home as well as breast milk. These shows that the cultural practices, though not proven were effective in the healing of the cord.

The statistical findings in Table 4.9 show that 79% of the midwives had no knowledge regarding the traditional postnatal care practice, whereas only 21% agreed. However, the midwives did not display teamwork with the primary caregivers as evidenced by 82% of the midwives. Ngunyulu (2015) supported that group cohesiveness involving primary caregivers are the results of acceptance of each other in a team. In addition, Shah, Salim & Khan (2010) have reported that acceptance and training of family members in Pakistan assisted midwives to reduce

workload, whilst primary caregivers were able to maintain personal hygiene of the baby and recognise danger signs. Kruske & Barclay (2004) also supported the involvement of primary caregivers in the continuity of care because most of the deliveries (60%) of births worldwide happen outside the hospitals and clinics assisted by primary caregivers. This shows that primary caregivers and midwives should work together for cultural congruent care.

4.3.4.2.2 Sub-Theme 1.2.2: Eye Care of the Newborn

Eye care plays an important component during the immediate postnatal care. There are certain medications that are to be applied as the baby might be infected during the birth passage. The eyes of the child might remain swollen or have purulent discharges every day due to vaginal examinations during the second stage of labour. The eyes of the baby might be swollen due to infections from the hands or from the diseases that the woman might not be treated during the antenatal period. This shows that the baby's eyes need serious attention. At times the colour of the eyes might change into a yellowish colour as a sign of a pathological condition. The yellowish colour of the eyes indicates the need for breastfeeding as it can be corrected by breast milk. However, there are some medications that are applied by the midwives immediately after the delivery to prevent further infections. The following are the quotations from the participants:

- **Participant 1 from Vhembe District:**

> *Eish, although there are no medications to clean the cord provided by nurses, we use a white spirit three times a day to keep the cord clean so that it can dry and fell off. Sometimes I sprinkle breast milk into the eyes and cord to hasten healing of the cord and prevent eye problems as the breast milk can prevent bacteria through it.*

- **Participant 5 from Mopani:**

> *I observe the colour of the eyes and the whole skin areas observing the ears for growth, abnormal folds and some cracks in the skin area. I report it to the nurses at the clinic if the problem takes long time. I know that breast milk can correct the colour of the eyes if putting the baby several times on the breast.*

It is evident that the primary caregivers know the caring issues of the eyes of a newborn. The literature shows that breast milk was recommended by primary caregivers for treatment of the eyes. This was done to prevent some complications especially if the mother suffered from sexually transmitted infections. The primary caregivers also understand the issue of the colour of the eyes that assist them to detect any abnormalities of the internal organs of the digestive system. This shows that they also understand the importance of breastfeeding as the best method that can correct the colour of the eyes in a newborn baby. The findings indicated that they understand the measures to consider for hygiene of the eyes. However, it was found that the application of breast milk is contraindicated to the infectious eyes (Ukponmwam, Okolo, Kayoma & Ese-Onakerwhor, 2009). The findings reflect that the cultural application of breast milk is harzadous to the eyes of a newborn baby. In hospital environment the midwives use medications such as erythromycin ophthalmic ointment to prevent eye conditions (Fraser & Cooper, 2009.

Thus, primary caregivers had knowledge on the application of breast milk into the eyes of a newborn to prevent infections. The use of warm water every morning is an indication of preventing eye conditions as the mother of the child might be suffering from sexually transmitted diseases (Ngunyulu *et al.,* 2015). This shows that primary caregivers should be supported and be motivated on keeping the hygiene measures of the eyes of the newborn baby.

4.3.4.2.3 Sub-Theme 1.2.3: Infant Feeding

The interviews with the primary caregivers indicated the knowledge that they have regarding breastfeeding stating their cultural beliefs. They indicated that they encouraged postnatal women to put their babies into the breast as breast milk is the only source of milk for the baby. They indicated that breast milk contains all the nutrients that promote the health of the baby without the risks of infections. The primary caregivers indicated that most of the postnatal women were exclusively breastfeeding their babies without the addition of some juices or water.

However, some primary caregivers indicated that they also offered light soft porridge to comfort the crying babies. Some also reported that they only offer bottled infant formula milk since the mother has passed away and the baby survived. Some reported that they gave the mother nutritious diet for more milk production. At times, they stated that they were able to assess if the baby had a problem with suckling from the mother's breast. They indicated that the baby sometimes refused to suck from the breast as an indication of an underlying problem. The following are some of the quotations from the participants:

- **Participant 2 from Sekhukhune District:**

> *This postnatal woman I can support her by making sure that in the morning when she wakes I give her water to bath, so that the baby can have enough breast milk. I prepare even soft porridge and tea for the woman to have sufficient breast milk, because if she doesn't eat home-made food, the breast milk will be insufficient and the baby won't be satisfied and start crying. To make sure that the baby is satisfied the mother must eat warm food. Hard food will make the mother to have an uncomfortable abdomen, because the abdomen is still soft and the yesterday's food will be a problem in her stomach. The baby is breastfed for six months because the stomach organs are not fully developed. The overfeeding of the baby with mixed food will also disturb the baby to grow well.*

❖ **Participant 1 from Sekhukhune District**

As a primary caregiver, the postnatal woman is advised to breastfeed the baby, but if the baby kept on crying, the baby is given light soft porridge because the child might not receiving enough breast milk, so we supplement the baby's milk with liquid soft porridge … just some spoons to keep the baby asleep before six weeks period.

❖ **Participant 3 from Mopani District**

Ok... I thank you. It is simple but not simple, during the postnatal period I emphasize the cleaning of the umbilical cord, how to keep it clean and the importance of breastfeeding the child. The child should be breastfed exclusively, thus not mixing the breast milk with some formulas. The baby must be fed on breast milk only and no traditional muti. However, it is sometimes difficult to feed the baby with breast milk only because of the working conditions. To express milk and keep in a refrigerator is a challenge as some family members will not use anything from the refrigerator. That is why the baby are given also some milk products except breast milk.

❖ **Participant 8 from Vhembe District:**

The mother pass away and the nurses called me to fetch the baby as the baby was a premature. They encourage me to use bottle milk and they gave me medicine to give the child … you see (showing) … the child is growing.

❖ **Participant 6 from Mopani District:**

The child cries when the napkin is wet and when the baby is hungry … so I told the mother to continue with breastfeeding so that the baby will not cry because of hunger … she must not give soft porridge. Sometimes the baby's cries become the nipples are not hard and the mother is reluctant to put the baby on breast. She complained of pain around the nipple, then I advise her to wash and apply ointment to sooth the pain.

Table 4.7 shows that 81% of all the midwives rendering postnatal care whilst 53% of midwives have more 8 years of experience. However, 74.4% of the midwives were unable to perform all the immediate postnatal activities, including infant feeding.

Midwives were unable to initiate breastfeeding to the baby immediately after delivery if there were complications to both the mother or the baby. The study shows that they cannot offer support to both postnatal women and the primary caregivers during the postnatal checking including breastfeeding support. The study findings show that only 43% of the midwives were able to offer postnatal care activities including breastfeeding. However, Warren *et al*. (2007) indicated that there is an association in breastfeeding and breastfeeding difficulties.

One in four deaths occurs during the first month of life as a result of undernutrition. This undernutrition took place as a result of lack of support on breastfeeding by primary caregivers as reflected on the results. Again, it was reported that breastfeeding was a problem when the postnatal woman was faced with a perineal tear, episiotomy, difficult labour or a Caesarean section as it causes discomfort and pain (Fraser & Cooper, 2009). The majority of primary caregivers demonstrated a positive understanding on breastfeeding and breast care. They were all from the three ethnic backgrounds. From all the study sites, one primary caregiver showed a negative attitude about exclusive breastfeeding, hence, she reflected that the baby on breast milk should be supplemented with light soft porridge even before six weeks to stop the baby from crying. This shows that midwives have a responsibility to empower women regarding the importance of early feeding from the breast.

The main reason why the participants were initiating breastfeeding was that it provided all nutrients to the baby with no infections. Adequate nutrition during infancy is essential to ensure the growth, health and development of babies to their full potential (WHO, 2009). Breastfeeding has been recognised globally as the best source of nutrition for an infant. Therefore, exclusive breastfeeding is defined as a practice where the infants receive only breast milk without mixing it with some other preparations. This was confirmed by Nkala & Msuya (2011) that breastfeeding

should not be mixed with water, other liquids, tea, herbal preparations or food in the first six months of life, with the exception of vitamins, mineral supplements or medicines.

Those who did not understand exclusive breastfeeding indicated that it was difficult for them to keep milk in the refrigerator as they are the working mothers. They also indicated that the expression of breast milk wasted their rest and sleeping period as they are supposed to prepare everything for the baby before going to work. Some primary caregivers indicated that they offer bottled infant formula milk as the mother cannot produce enough milk. From the study, it was found that some of the primary caregivers were not able to diagnose the breasts problems such as sore nipples, hence they resorted to formula milk. The formula milk was also a problem to the poor families. However, some primary caregivers had a necessary knowledge regarding the management of painful breasts to continue with feeding the baby irrespective of breast challenges.

In Nigeria, breastfeeding was recommended for the period of two years post-delivery (Adewuyi, 2016). It was done to all mothers regardless of the HIV status but it is low and declining. In South Africa, The Department of Health stated that:

> *''The postnatal mother should continue breastfeeding the baby for two years or longer, because breast milk contains all the energy, vitamins and other nutrients in the correct amount needed by the baby''.*

This means that the midwives are not the only source of information about breastfeeding and for breastfeeding to thrive, it needs support from families (NDoH, 2018). In the Limpopo Province, the men and grandparents are involved in the promotion of breastfeeding over the local radios and the support has increased. In KZN, the initiative for breastfeeding has improved from 25% to 50% (Nieuwoudt,

2019).

Breastfeeding also promotes bonding between mother and baby; decreases the risks of breast cancer, endometrial and ovarian cancer to the mother (Motee & Jeewon, 2014). Consequently, the study results show that breastfeeding is a challenge as there is no enough midwives that can facilitate the breastfeeding issues to primary caregivers due to lack of time, communication skills and spacing in the health facilities. The participants displayed some challenges regarding breastfeeding their babies as there was not enough time to counsel them on breastfeeding issues. The statistical findings show that 65.9% of midwives were unable to support primary caregivers about the management of infants regarding breastfeeding, whilst only 25.6% of the midwives are able to do so.

4.3.4.2.4 Sub-Theme 1.2.4: Strict Control Measures in the Postnatal Woman's Room

The literature indicated the strict control measures that are performed in a postnatal woman's room. From the participants it seems that postnatal women are housebound for a number of days after the birth of the baby, restricted from performing household chores. The seclusion of postnatal women varies from one ethnic group to another with different reasons. Some indicate that the movement to and from the house will cause a delay in the healing of the umbilical cord whilst some indicated that some people can kill the baby due to the evil spirits that they might have. The primary care reflected the early routine that is done to both mother and baby, the restrictions of other people from entering the room and the diet that is prepared for the postnatal woman's room. However, the strict control measures in the postnatal woman's room differ from culture to culture, but they are not harmful to both the mother and the baby. The findings also reflected that a child with teeth on the upper jaw is not allowed into the house of both the mother and baby because the

baby can die. Some primary caregivers reflected that they examine the baby around the head, observing the red mark below the occiput. The red mark is due to the pressure that the foetal head encountered during birth. The primary caregiver associates the red mark with a worm 'rigoni' that need removal because it can kill the baby. However, these are the rituals that they practiced, but not harmful to both the mother and the baby. The following quotations are the from the participants:

- **Participant 8 from Vhembe District**

  When the woman and her baby arrive at home, I prepare warm food so as to produce enough milk and the baby can quench thirst. I give her hot porridge in the afternoon, but she must not talk to anyone at home except me.... because the cord will not heal fast. In our ZCC church we give the baby food after six months, and even if he is crying we do not give food, but … but only breast milk.

- **Participant 5 from Mopani District**

  I bath her baby early in the morning and she must communicate with her using eye-contact because it will delay cord healing. She does not cook because she is without strength. She remains seated in the house with the caregiver because some people are not healthy. ZCC church I give her FG- tea to stop bleeding.

- **Participant 4 from Mopani District**

  I do not bath the baby, but just wipe the baby to avoiding falling of the child as the baby is too small and can accidentally fall from hands. For the red mark on the back of the head I use condense milk and six eggs, they cook and the drink five roses. At times we shave the hair of the baby because the hair is not good … the new hair must grow to keep the baby healthy.

- **Participants 1 from Sekhukhune District**

  My knowledge is that we place a traditional old cloth as a banner at the entrance of the hut where there is a woman to show that there is new born now. In Sepedi we are also informing the ancestors so that they can know

the baby. I as a caretaker will leave with them until six weeks in the house and the cord will fall off … then a husband is not allowed inside (laughing).

The quotations from the participants show that women remain in the house and do nothing for the family because she is considered unclean. This is because she has recently given birth and her body is still not clean, especially the bleeding from the uterus. This shows that the woman is dirty and polluted after delivery, hence, she is not even allowed to prepare household chores (Kitila, Molla, Wedaynewu, Yadessa & Gellan, 2018). The study conducted by Sharma *et al*. (2016) showed that women are housebound for a number of days after birth and the length of seclusion varies by ethnic groups. This shows that everything is being prepared or done for her like bathing water and the preparation of food.

The postnatal women are considered to be in a weak state and the practice is mostly done in a first-time mother to avoid uterine prolapse, hence she has to continue with breastfeeding the baby. In Greece, birth customs include women and babies resting and being isolated for 40 days after birth. In Zaire and India, they are secluded in a hut for a certain duration. They remain in the house for a specific time until the cord separates. The duration of rest differs as some can rest in the room until the detachment of the umbilical cord while others can rest for 4 weeks while some can rest until six weeks. The studies conducted in Burma and Turkey had similar findings as in Zaire and India. They affirmed that postnatal women were more vulnerable to evil forces and the grave of a woman who have just given birth is open for 40 days (Sharma, van Teijlingen, Hundley *et al*., 2016). This means that they fear that the woman can die before 40 days.

The religious rituals of shaving the child's hair relates that the new born hair has evil spirits. This act of removing hair permit the growth of new and clean hair. Males, especially husbands are not allowed into the house because of the fear of interacting

and commencement of sexual relations. Some women are considered a dangerous to men, hence, they are not allowed to cook or prepare food for the duration of seclusion. The study conducted in USA shows that woman can start the household chores after six weeks when the uterus has returned to a non-pregnant size and no more bleeding (Sharma *et al*., 2016). Women of childbearing ages are also not allowed in the house because according to different cultures, they are still menstruating (unclean) and can delay the healing of the cord. Babies are restricted from soft porridge and they are given only breast milk exclusively. The statistical results in Table 4.9 show that 79% of midwives had no traditional postnatal knowledge regarding the strict control measures in the postnatal woman's room whereas 21% had a bit of traditional knowledge. This means that there is a need to educate primary caregivers for the safety of both the mother and baby before challenged with postpartum complications.

4.3.4.2.5 Sub-Theme 1.2.5: Introduction of the Baby to the Family

The findings from the participants showed the methods in which new babies were introduced into the family. Different methods were used as relating to the welcoming of the baby in the family. Some participants made mention of heating some traditional medicine and application to the baby skin while burning some oils as the invitation of the ancestors to can notice the presence of a new family member. As time goes on, participants mentioned that they also prepared a ceremony so that the mother and the baby can come outside the house to start with the family lifestyles with no restrictions. Some mentioned the use of a traditional cloth as a banner to make people aware about the new member in the family. The following are the quotations from the participants:

- **Participant 5 from Mopani District**

I apply traditional medicine on the umbilical cord … which was burnt on the small pieces of mud-made plate with a feather … then smearing oil from the pig and burn it inside the house so that the smoke can fill the house, while inhaled by both mother and her baby. After 3 months we prepare a ceremony for the baby to come outside the house to be seen by others.

❖ **Participant 1 from Sekhukhune District**

My knowledge is that we place a traditional old cloth as a banner at the entrance of the hut where there is a woman to show that there is new born now. In Sepedi we are also informing the ancestors so that they can know the baby. I as a caretaker will leave with them until six weeks in the house and the cord will fall off … then a husband is not allowed inside (laughing).

❖ **Participant 7 from Vhembe District**

I know that a child who was born with teeth on the upper jaw is not allowed to come inside the house of the new born baby, that will make the baby to be sick … and if the child enters the room of the postnatal woman the baby will die also. So that is why they are not allowed inside.

The participants' quotations revealed that the new baby was introduced differently according to cultures. In order for outsiders or other family members to see the child, they displayed a cloth material as a notification of a new member and nobody will enter into the house where there is a woman. To gain entrance, there are rituals to be followed. In Xitsonga culture, the husband is not allowed to sleep with the wife, they are separated. When the child is born and the father was not at home during the period of delivery, on coming back the elders have to prepare barks and leaves which are to be grinded and spread on the way to the house where the wife and the child are, and the husband will have to step on those leaves until he enters the house (Khosa, 2009).

In order for the husband to hold the baby, the wife will prepare a bowl with water and give the husband to wash the hands before holding the baby. Thereafter, the

husband will be allowed to see or hold the baby without restrictions (Khosa, 2009). Similar findings by Obioha & T'soeunyane (2012), affirmed that the elderly people are the backbones in the family and their presence gives a family a very good image This shows that the role of elderly women in childbirth and midwifery are still upheld and regarded in high esteem in African communities. Therefore, elderly people are the only ones who perform and instruct rituals in the family for protection against diseases. Based on the results, it is evident that primary caregivers were not supported by midwives, hence, 72% of midwives disagreed while only 28% agreed. Only 79% disagreed with the treatment of primary caregivers with respect and dignity, whereas 21% of the midwives agreed. This shows that primary caregivers should be treated with respect and dignity and allowed to be involved in decision-making so that they can get relevant information from midwives to help both the mother and the baby.

4.3.4.3 Theme 1.3: Skills and Competencies of Primary Caregivers in Providing Continuity of Postnatal Care

All postnatal women and their babies should be given the necessary support during the continuity of postnatal care. The primary caregivers should give clear and accurate information to the postnatal women in order to support them throughout the postnatal period. The support to both mother and baby includes the preventive measures against infection, position changing, emotional support and psychological support, counselling on nutrition, counselling on hygiene, counselling on family planning as well as counselling on safer sex. The primary caregivers from the three ethnic groups displayed competencies and skills regarding the provisioning of the continuity of care. Childbirth encompasses many physiological changes which influence the social and cultural norms, so the primary caregivers were able to display their specific knowledge regarding the care of both the mother and the baby during the postnatal period. Some of the competencies included the restrictions that

are governed by the family such as what a woman can eat, with many cultures distinctions between “hot’’ and ‘’cold’’ foods.

4.3.4.3.1 Sub-Theme 1.3.1: Prevention of Infection

In this study, the results revealed that most of the primary caregivers were able to practice their skills when performing the practices to both the mother and the baby. The socio-cultural practices around the postnatal period included maternal seclusion after delivery as a result of preventing infections to both, positioning of the baby on breast as well as when the mother is seated, the counselling skills on nutrition, hygiene, family planning and safer sex. The following are the quotations as reported by the participants:

- **Participant 1 from Vhembe District:**

> *The postnatal woman when she wakes up, I pour for her water to bath her body, so that she must be clean. She must change her clothes and remove dirty clothes. Even the baby we change her clothes and we clean the whole room where they sleep … because the room of the postnatal woman should be clean at all times … not having offensive smell. The environment should be well ventilated. We can put Dettol and we can even use... eeh!... That thing … eeh … pine gel. We clean with it on the floor to ensure that the room where there is a postnatal woman is clean. Everybody who enters the room must not feel the bad smell, because the bad smell, the child will breath the bad smell and had some breathing problems.*

- **Participant 2 from Sekhukhune District:**

> *The postnatal woman is supposed to lie on the abdomen, soo...so … the abdomen must not become too big, and about the episiotomy stitch, when bathing … pause (door opens) … when bathing, use Dettol and salt with little warm water, look for cloth to compress on the operation to prevent sepsis and gaping of sutures for operation.*

- **Participant 2 from Vhembe District:**

I give her water to bath stitches on the operation. The warm water is mixed with salts to promote comfort. During breastfeeding, I advised … eh... I advised the woman to sit down with legs straight to avoiding the stretching the perineal muscles and to ensure the proper healing of the episiotomy area.

❖ **Participant 5 from Mopani District**

I bath her baby early in the morning and she must communicate with her using eye-contact because it will delay cord healing. She do not cook because she is without strength. She remain seated in the house with the caregiver because some people are not healthy. ZCC church I give her FG- tea to stop bleeding.

Pueperal sepsis is one of the leading causes of maternal death. Most of the predisposing factors of the sepsis is preventable (Fikree *et al*., 2004). In order for the primary caregivers to prevent infection to both mother and child, they prepare the room specially for the mother and baby and there are also restrictive measures for other family members, including the husband, to enter. The primary caregivers responsible for the mother and the baby are the only people who gain entrance. The mother is counselled on the importance of hygiene to prevent infections. The woman is advised to keep the perineal area clean and to assess the pads for the amount of bleeding from the vagina. She is also educated about the dangers of the vaginal discharges, hence, she is considered unclean during the six-week period. She is encouraged to bath the perineal area with prepared warm salty water or to have sitz bath to promote the drainage of secretions and healing the lacerated perineum. The woman is also confined to her room and not allowed to engage in household duties like cleaning and cooking. According to Fraser & Cooper (2009), women are advised about the spread of infection as it can be acquired easily. The women are instructed to wash their hands before and after touching their baby during napkin changing, pads changing and breastfeeding the baby. The findings were confirmed by Ngunyulu (2015) where the postnatal women were put in a clean house and

encouraged to bath daily to prevent the spread of infections. They were also advised on breast care by placing cabbage leaves that helped with the secretion of milk, thus preventing infection to the breasts. Breast care in midwifery practice is an important skill that safeguards the health of the mother from infections as well as preventing abnormalities of the skin to the newborn babies. If the baby is not supplied with enough breast milk due to mastitis or any other breast problem, the baby will suffer from pathological jaundice as a result of insufficient breast milk.

4.3.4.3.2 Sub-Theme 1.3.2: Position Changing

Positioning plays an important role to both the mother and the baby. The mother should know how to hold the baby and the sitting position during breastfeeding. During the breastfeeding period, the woman is advised on the changing of positions as the baby might swallow air during feeding. The mothers are counselled on propping up in bed or sitting down with legs flatten to encourage the proper feeding from the mother's breast. The primary caregiver counsels the mother on the positioning of the baby on the breast. It is reflected that the infant is held in the crook of the arm on the same side of the breast with the weight of the baby being supported on the mother's forearm. During this period, the head of an infant should be allowed to extend beyond the bend of the elbow to allow the baby to suck efficiently from the breast. The mother can also put the baby on her shoulder and rub the back of the baby as the baby will bring up wind with a loud noise swallowed during feeding.

- **Participant 2 from Sekhukhune District:**

> *The postnatal woman is supposed to lie on the abdomen, soo...so … the abdomen must not become too big, and about the episiotomy stitch, when bathing … pause (door opens) … when bathing, use Dettol and salt with little warm water, look for cloth to compress on the operation to prevent sepsis and gaping of sutures for operation.*

❖ **Participant 2 from Vhembe District:**

> *I give her water to bath stitches on the operation. The warm water is mixed with salts to promote comfort. During breastfeeding, I advised … eh... I advised the woman to sit down with legs straight to avoiding the stretching the perineal muscles and to ensure the proper healing of the episiotomy area.*

❖ **Participant 2 from Mopani District:**

> *I counsel the … the mother on how to put the baby to the breast because the baby can swallow air and makes the abdomen to be big because she swallows air inside.*

❖ **Participant 5 from Mopani District**

> *I bath her baby early in the morning and she must communicate with her using eye-contact because it will delay cord healing. She does not cook because she is without strength. She remains seated in the house with the caregiver because some people are not healthy. ZCC church I give her FG- tea to stop bleeding.*

The discomfort caused by perineal lacerations, episiotomy and Caesarean section wounds results in insomnia that also disrupts the postnatal woman's ability to interact easily with the baby in the early weeks and thus interfere with breastfeeding (Pound & Unger, 2012). The study conducted in South-East Asia confirmed that salty warm water is best to the postnatal woman as it brings the soothing effect on the perineum. This was supported by the guidelines (Queensland Clinical Guidelines, 2018), as it helps with the aspects of positioning and movements in postnatal women.

Proper positioning also helps with the restoration of the reproductive organs to return to their normal positioning. The woman is advised to sit down and breastfeed the baby, thus, increasing the drainage of secretions and also assisting with the prevention of uterine prolapse. This means that the positioning of the baby to the

breast will also promote the bonding of the baby to the breast (Bamigboye & Hofmeyer, 2012). Perineal trauma and episiotomy also contribute to the decreased level of daily activities to the postnatal woman, hence, they neglect caring for the baby (Fraser & Cooper, 2009; Karacam & Eroglu, 2003).

4.3.4.3.3 Sub-Theme 1.3.3: Provision of Emotional and Psychological Support

Postnatal women are faced with a number of challenges during the postnatal care period. The psychological and physiological distress predispose a woman to psychiatric illnesses following childbirth. However, it is relevant to reflect the importance of the relationship that develops between the postnatal woman and the primary caregiver during their postpartum contact. The type of relationships is of greater depth where there has been an antenatal contact or a degree of continuity on both the woman and the primary caregiver. This was confirmed by Singh & Newburn (2000), who detected a change in the woman's behaviour that has not been noticed by the family. The behavioural changes may be elusive, hence, the primary caregiver should consider such changes as important. The following are the quotations from the participants:

- **Participant 2 from Mopani District**

> *I bath her baby early in the morning and she must communicate with her using eye-contact because it will delay cord healing. She does not cook because she is without strength. She remains seated in the house with the caregiver because some people are not healthy. ZCC church I give her FG- tea to stop bleeding.*

- **Participant 3 from Mopani District**

> *Ok... I thank you. It is simple but not simple, during the postnatal period I emphasize the cleaning of the umbilical cord, how to keep it clean and the importance of breastfeeding the child. The child should be breastfed exclusively, thus not mixing the breast milk with some formulas. The baby*

must be fed on breast milk only and no traditional muti. However, it is sometimes difficult to feed the baby with breast milk only because of the working conditions. To express milk and keep in a refrigerator is a challenge as some family members will not use anything from the refrigerator. That is why the baby are given also some milk products except breast milk.

- **Participant 5 from Mopani District**

I bath her baby early in the morning and she must communicate with her using eye-contact because it will delay cord healing. She does not cook because she is without strength. She remains seated in the house with the caregiver because some people are not healthy. ZCC church I give her FG- tea to stop bleeding.

- **Participants 1 from Sekhukhune District**

My knowledge is that we place a traditional old cloth as a banner at the entrance of the hut where there is a woman to show that there is new born now. In Sepedi we are also informing the ancestors so that they can know the baby. I as a caretaker will leave with them until six weeks in the house and the cord will fall off … then a husband is not allowed inside (laughing).

The primary caregivers displayed necessary information regarding the emotional and psychological support. The evidence is that the postnatal woman and her baby are kept in a separate house with a primary caregiver. This shows that the primary caregivers understand the stress that the postnatal woman has undergone that need counselling. The first-time mother might be faced with rejection at home following illegimate birth, so the woman might encounter mental challenges as there will be no supportive person in the family. The primary caregivers indicated that they remain inside the house where there is no entrance to other family members to give her freedom of expression while the primary caregiver is with the woman in the house.

The postnatal woman should also get enough time to rest and sleep as she was stressed during the delivery process. During the study, some primary caregivers

demonstrated an understanding of the breastfeeding issues such as encouraging the postnatal woman to exclusively breastfeed the baby for two years in order to promote the growth of the baby. For postnatal women who do not have support during pregnancy, the primary caregivers advised them on the visits to the health facility for immunisations and other screening procedures like HIV screening to avoid exposure to HIV.

The transition to parenthood is a vulnerable time for postnatal women's mental health. According to the study findings by Redshaw (2010), approximately 9-21% of postnatal women experience depression and anxiety during the postnatal period. Many of the women are at risk of inadequate social support and low-income and some have a poor relationship with their partners. In this study, primary caregivers indicated that they were able to support the postnatal women and their babies, hence, some presented with some feeding problems and the primary caregiver was able to support them by remaining with them in the house for six weeks and cooking and cleaning the house as well as taking care of the baby. This made the postnatal women to be fully socially supported, thus, building a high self-esteem (Leger & Letourneau, 2015).

4.3.4.3.4 Sub-Theme 1.3.4: Counselling on Nutrition

Nutrition plays an important role to both the mother and the baby during the postnatal period. During the interviews, primary caregivers indicated that they were able to prepare the special meals for both the mother and the baby. Postnatal women were provided with hot foods early in the morning after a warm bath and given hot tea for milk production. The mother was also encouraged to give the baby breast milk exclusively and to express some milk from the breast and store it in the refrigerator, more specially when she is a working mother. Women with breast problems were encouraged to put on the breasts cabbage leaves to prevent the

breast engorgement and promote drainage of the milk. The following quotations are from the primary caregivers:

- **Participant 2 from Sekhukhune District:**

  This postnatal woman I can support her by making sure that in the morning when she wakes I give her water to bath, so that the baby can have enough breast milk. I prepare even soft porridge and tea for the woman to have sufficient breast milk, because if she doesn't eat home-made food, the breast milk will be insufficient and the baby won't be satisfied and start crying. To make sure that the baby is satisfied the mother must eat warm food. Hard food will make the mother to have an uncomfortable abdomen, because the abdomen is soft and the yesterday s food will be a problem in her stomach. The baby is breastfed for six months because the stomach is not well developed. The overfeeding of the baby with mixed food will disturb the baby to grow well.

- **Participant 1 from Sekhukhune District**

  As a primary caregiver, the postnatal woman is advised to breastfeed the baby, but if the baby kept on crying, the baby is given light soft porridge because the child might not be receiving enough breast milk, so we supplement the baby's milk with liquid soft porridge … just some spoons to keep the baby asleep before six weeks period.

- **Participant 3 from Mopani District**

  Ok... I thank you. It is simple but not simple, during the postnatal period I emphasize the cleaning of the umbilical cord, how to keep it clean and the importance of breastfeeding the child. The child should be breastfed exclusively, thus not mixing the breast milk with some formulas. The baby must be fed on breast milk only and no traditional muti. However, it is sometimes difficult to feed the baby with breast milk only because of the working conditions. To express milk and keep in a refrigerator is a challenge as some family members will not use anything from the refrigerator. That is why the baby are given also some milk products except breast milk.

- **Participant 8 from Vhembe District**

We give the baby food after six months, and even if he is crying we do not give food, but … but only breast milk.

Table 4.7 shows that 81% of the midwives rendering postnatal care with 64.6% having more years of experience. However, 74.4% of the midwives were unable to perform all the immediate postnatal activities. The study showed that they cannot offer support to both postnatal women and the primary caregivers during the postnatal checking, including breastfeeding support. The study findings show that only 43% of the midwives were able to offer postnatal care activities. Warren *et al*. (2014) indicated that there is an association between breastfeeding and breastfeeding difficulties. One in four deaths occurs during the first month of life as a result of undernutrition. This undernutrition takes place as a result of lack of support on breastfeeding by primary caregivers as reflected on the results. Again, it was reported that breastfeeding is a problem when the postnatal woman is faced with a perineal tear, episiotomy, difficult labour or a Caesarean section as it causes a discomfort and pain (Fraser & Cooper, 2009). The majority of primary caregivers demonstrated a positive understanding on breastfeeding and breast care. They were all from the three ethnic backgrounds. From all the study sites, one primary caregiver showed a negative attitude about exclusive breastfeeding, hence, she reflected that the baby on breast milk should be supplemented with light soft porridge even before six weeks to stop the baby from crying.

The main reason why the participants were initiating breastfeeding was that it provides all nutrients to the baby with no infections. Adequate nutrition during infancy is essential to ensure the growth, health and development of babies to their full potential (WHO, 2009). Breastfeeding has been recognised globally to be beneficial for both mother and baby as breast milk is the best source of nutrition for an infant. Exclusive breastfeeding is defined as a practice whereby the infants

receive only breast milk without mixing it with water, other liquids, tea, herbal preparations or food in the first six months of life, with the exception of vitamins, mineral supplements or medicines (Nkala & Msuya, 2011).

Those who did not understand exclusive breastfeeding indicated that it was difficult for them to keep milk in the refrigerator as they were the working mothers. They also indicated that the expression of breast milk wasted their rest and sleeping period as they were supposed to prepare everything for the baby before going to work. Some primary caregivers indicated that they offered bottled infant formula milk as the mother cannot produce enough milk. From the study, it was found that some of the primary caregivers were not able to diagnose the breasts problems, hence they resorted to formula milk.

In Nigeria, breastfeeding is recommended for the period of two years post- delivery (Adewuyi & Adefemi, 2016). It is done to all mothers regardless of the HIV status, but it is low and declining. In South Africa, The Department of Health stated that:

> *''The postnatal mother should continue breastfeeding the baby for two years or longer, because breast milk contains all the energy, vitamins and other nutrients in the correct amount needed by the baby''.*

This means that the midwives are not the only source of information about breastfeeding and for breastfeeding to thrive, it needs support from families (NDOH, 2018). In the Limpopo Province, the men and grandparents are involved in promotion of breastfeeding over the local radios and the support has increased. In KZN, the initiative for breastfeeding has improved from 25% to 50% (Nieuwoudt, 2019).

Breastfeeding also promotes bonding between mother and baby; decreases the

risks of breast, endometrial and ovarian cancer to the mother (Motee & Jeewon, 2014). Consequently, the study results show that breastfeeding is a challenge as there is no enough midwives that can facilitate the breastfeeding issues to primary caregivers due to lack of time, communication skills and spacing in the health facilities. The participants displayed some challenges regarding breastfeeding their babies as there is not enough time to counsel them on breastfeeding issues.

4.3.4.3.5 Sub-Theme 1.3.5: Counselling on Hygiene

Primary caregivers at all selected district health centres reported that postnatal women are taken care of in terms of their general well-being and assessments were made regarding the perineal hygiene. The hygiene measures focused on the issue of urinary incontinence and urination, bowel functioning, perineal wound, perineal pain, care of the episiotomy and wound management following the Caesarean mode of delivery. The primary caregivers had knowledge regarding the effect of trauma on the perineal area following delivery. They displayed a background information regarding the physiological process and normal pattern of healing of the wound (Steen, 2007). The pain from the perineum is a direct result of the assault on the nerve endings in the traumatized tissue and where the woman had undergone perineal trauma that has required suturing.

Participants reported that postnatal women were examined on the perineal area for laceration and any perineal tear. The postnatal women were advised to clean perineal area thoroughly area in order to reduce constant moisture and heat, thus preventing the spread of infection and promotion of healing. They were advised to bath the perineal area with warm and salty water to promote healing, thus preventing infection and also encouraged to change pads frequently. The perineal hygiene constituted the urination and urinary incontinence, bowel functioning and incisional pain. This was supported by several participants as shown in the following:

❖ **Participant 1 from Vhembe District:**

The postnatal woman when she wakes up, I pour for her water to bath her body, so that she must be clean. She must change her clothes and remove dirty clothes. Even the baby we change her clothes and we clean the whole room where they sleep … because the room of the postnatal woman should be clean at all times … not having offensive smell. The environment should be well ventilated. We can put Dettol and we can even use... eeh!... That thing … eeh … pine gel. We clean with it on the floor to ensure that the room where there is a postnatal woman is clean. Everybody who enters the room must not feel the bad smell, because the bad smell, the child will breath the bad smell and had some breathing problems.

❖ **Participant 4 from Mopani District:**

The mother is checked frequently if she is bleeding more than normal. The mother is checked from the pads and if bleeding does not stop, it shows that the mother can die, so she is sent to the hospital.

❖ **Participant 2 from Sekhukhune District:**

The postnatal woman is supposed to lie on the abdomen, soo... so … the abdomen must not become too big, and about the episiotomy stitch, when bathing … pause (door opens) … when bathing, use Dettol and salt with little warm water, look for cloth to compress on the operation to prevent sepsis and gaping of sutures for operation.

❖ **Participant 2 from Vhembe District:**

I give her water to bath stitches on the operation. The warm water is mixed with salts to promote comfort. During breastfeeding, I advised … eh... I advised the woman to sit down with legs straight to avoiding the stretching the perineal muscles and to ensure the proper healing of the perineal area.

The literature indicated that primary caregivers had the necessary knowledge regarding hygiene. The perineal hygiene should include the perineal tear, episiotomy and the Caesarean section delivery. The breast care also was reflected by the primary caregivers to avoid leakage of the milk from the breasts. In support of the

participants, only 60% of the midwives reflected that they do not offer necessary support to primary caregivers regarding the postnatal care practices as they are understaffed. The primary caregivers were able to offer more support by preparing bathing water for both the postnatal woman and the baby to promote comfort and rest. According to Sellers (1994) perineal infection are the result of unhygienic condition of the perineum following trauma after delivery. The perineal trauma and the episiotomy also contribute to the decreased level of daily activities to the postnatal woman, hence, the postnatal woman neglect caring for the baby (Fraser & Cooper, 2009; Karacam & Eroglu, 2003). The discomfort caused by perineal lacerations, episiotomy and Caesarean section wounds resulted in insomnia that also disrupt the postnatal woman's ability to interact easily with the baby in the early weeks and, thus, interfered with breastfeeding (Pound & Unger, 2012). The unhygienic condition of the perineum lead to long term discomfort during the sexual relations to such an extent that the postnatal woman may often require the use of analgesics (Sellers, 1994). Oedema and bruising of the perineal area also delay the healing process if proper hygiene is not followed. According to Sellers (1994), the infection from unhygienic perineum may predispose the woman to the risk of dehiscence due to a faulty healing technique. Primary caregivers were able to encourage postnatal women to always keep themselves clean to avoid bad smell inside the house.

Most of the participants reported that the bad smell from the perineal area is a danger sign to the mothers, hence, the women were encouraged to have a sitz bath in order to relieve the swelling on the perineal area and to maintain cleanliness of the wound. Most of the midwives (75%) strongly disagreed with the adequate knowledge regarding the traditional postnatal care, hence, primary caregivers demonstrated knowledge regarding the care of the perineal region. The study was

supported by the WHO (2013) with the indication that any perineal wound that appears hot, tender and inflamed, and accompanied by a pyrexia is highly suggestive of an infection. According to (WHO, 2013), an increased in body temperature requires a medical attention. This shows that the participants can prevent the spread of infection to the postnatal woman, thus promoting the well-being of both the mother and baby. The findings are confirmed by Hedoyati *et al. (*2003) and Fitzparick (2007) in which postnatal women were said to experience less perineal discomfort through carrying out self-perineal care instructions.

The study conducted in South-East Asia confirmed that salty warm water is best to the postnatal woman as it brings the soothing effect on the perineum. This was supported by the guidelines (Queensland Clinical Guidelines, 2018), as it helps with the aspects of positioning and movements in postnatal women. It also assists with the pelvic floor muscles exercises and the fast healing of the perineum. Perineal hygiene was also maintained through frequent sanitary pads changing to reduce the risk of infection (Tiruneh *et al*., 2019). In general, the woman should carry on necessary instructions regarding perineal care such as hand washing before and after pad changing, removal of a pad from front to back, application of a clean pad and wiping the area after each and every elimination (Firtzpatrick, 2007). Another study done in South-East Nigeria, primary caregivers used hot water salt solution sitzbaths compression on the lower abdomen to help with drainage of lochia and perineal wound healing (Okeke *et al*., 2013). Consistent with our findings, perineal hygiene is identified as the postnatal best practice in the facilitation of postnatal care in the selected districts of the Limpopo Province of South Africa. The researcher established that the traditional knowledge possessed by primary caregivers can aid with the healing of the perineal wounds to the woman. This highlights the need of Limpopo Province Department of Health to involve primary caregivers on the

integration of information to prevent the postnatal complications, thus, developing a community-based model.

4.3.4.3.6 Sub-Theme 1.3.6: Counselling on Family Planning

Various traditional ways of family planning are used to space children, but in this study, primary caregivers disagreed with the use of contraceptives and encouraged postnatal women to continue with breastfeeding exclusively as a natural method to prevent early pregnancy. However, this type of family planning has not been successful as women can fall pregnant again. Therefore, postnatal women were forbidden to meet with their husbands until the six-week period when they hold a ceremony of welcoming the baby. Primary caregivers from all study sites reported that the postnatal women were not allowed to sleep with their husbands immediately after delivery. They are placed in a separate room and be with an elderly or a primary caregiver in the house. They do not allow each and every person to enter the room except the primary caregiver. The primary caregivers provided family planning indirectly without reinforcement to the postnatal women. The restriction of husbands into the postnatal woman s room was to prevent unintended and closely spaced pregnancies, however, the concern was poorly addressed. The following are the quotations from the participants:

- **Participant 1 from Sekhukhune District:**

> *At times, the postnatal woman is sent to her parents 'home following delivery for the period of three months so that the parents can take care of herself and the baby. According to our culture the first-time mother is sent home for continuity of care … then after three months a ceremonial party will be held when she comes back with the baby.*

- **Participant 1 from Mopani District:**

> *No one is allowed to enter into the room where there is a postnatal woman … (giggles) … because some are from their boyfriends or*

girlfriends... and … and … they are still hot … for speedy recovery and healing of the umbilical cord. The husband is not allowed to enter the house for the speedy healing of the umbilical cord.

❖ **Participant 1 from Vhembe District:**

Only the primary caregiver should work together with the postnatal woman. The husband is not even allowed to talk to the postnatal woman. He is refused even to touch the baby and to avoid sexual relations

The interviews with the primary caregivers indicated that the majority of postnatal women were not allowed to meet with their husbands immediately after delivery and discharge from the health facility, stating their cultural beliefs. They indicated that postnatal women might engage in sexual relations with the husband that can delay the healing of the umbilical cord. They further indicated that they are not allowed to touch the baby or communicate with the mother soon after delivery. Some primary caregivers indicated that some postnatal women were immediately referred to their biological parents so that they can be far away from their husbands to prevent them from mating, hence disturbing the growth of the newborn. The distance created was a result of introducing family planning to the postnatal women. Herlihy *et al*. (2013) reported that there is and association between the provision of family planning services, religious, cultural, beliefs, morals and values in terms of care postnatal women seeking postnatal care services. The majority of primary caregivers were the oldest of them all from the three ethnic groups who displayed early separation of the postnatal woman and the husband for better recuperation. The main reason why the primary caregivers separated the husband and wife was to make the baby grow healthy and strong and to continue with breastfeeding without some interruptions of growing.

The primary caregivers indicated that the postnatal woman is encouraged to delay resumption of sexual relations until the baby is two years of age. The primary

caregivers's intention was to increase postpartum family planning to prevent unintended and closely spaced pregnancies. Delayed resumption of sexual relations serves as the most reliable and suitable method of child spacing (Ngunyulu, 2015). The issue of family planning was poorly addressed by primary caregivers and nobody mentioned the use of contraceptives in the form of pills or injections. Quantitative data showed that the midwives (51.2%) who worked for 24 hours a day had enough time to perform all activities without any disturbances, paying more attention to the mother and baby regarding counselling sessions.

Their religious and cultural believes play an important role in preventing early pregnancies to the postpartum woman. Family planning should be available and provided to all postnatal women who have given birth at the delivering facility. Midwives must have positive attitudes towards the provision of family planning services because absence of family planning can lead to disturbances in the health statuses of both the mother and the baby. Little attention was given to the opportunities presented in the postpartum period for effective family planning. The traditional beliefs and practices delay the uptake of family planning. According to the study conducted in Nigeria, the resumption of coitus early in the postpartum period is harmful and is associated with maternal morbidities such as vaginal lacerations (Ekanem *et al*., 2004). However, the type of contraception exposes the mothers to dangers of unwanted pregnancy as pregnancy can occur even soon after delivery and on exclusive breastfeeding.

Midwives (74%) reported understaffing and lack of staff knowledge and skills on family planning provisioning, with the fact that they are not culturally trained on congruency of care and is not even reflected in their midwifery curriculum. The study conducted in Burkina Faso, the uptake of family planning was low due to the cultural issues and beliefs (Machiyama & Cleland, 2014). According to the Department of

Health, postnatal women are advised to use contraceptive methods immediately after delivery in order to have a chance to feed their children adequately (WHO, 2012). According to the midwifery practice, the best method of family planning is injectable contraceptives as the chances of frequent pregnancies are prevented (Fraser & Cooper, 2009).

4.3.4.3.7 Sub-Theme 1.3.7: Counselling on Safer Sex

Traditionally, having sex with a breastfeeding woman is forbidden, because sexual intercourse is dangerous to both the father and the baby. The postnatal woman is not allowed to have sex with the husband before menstruation. The following are the quotations from the participants:

- **Participant 1 from Mopani District:**

> *No one is allowed to enter into the room where there is a postnatal woman … (giggles) … because some are from their boyfriends or girlfriends... and … and … they are still hot … for speedy recovery and healing of the umbilical cord. The husband is not allowed to enter the house for the speedy healing of the umbilical cord.*

- **Participant 1 from Vhembe District:**

> *Only the primary caregiver should work together with the postnatal woman. The husband is not even allowed to talk to the postnatal woman. He is refused even to touch the baby and to avoid sexual relations*

The woman and her husband will resume their sexual relations when the menstrual cycle begins. Ngunyulu (2015) confirmed with the findings that in some of the South Africa communities, the postnatal woman will at times commence sexual intercourse with the help of a traditional healer who will give them the herbal medication to mix with soft porridge to prevent pregnancy. The study indicated that the discharges from the birth canal is traditionally considered highly infectious. The findings revealed that according to the beliefs, when the husband and wife resume their

sexual relations earlier, the man will become weak and suffer from a lot of diseases. Based on these, the primary caregivers separated the husband and the postnatal woman by staying with the woman for six weeks to avoid such illnesses. Similar findings by Obioha & T'soeunyane (2012) who stated that the Sotho people elect an elderly woman in the family to safeguard the protection of the postnatal woman from her husband against the early sexual intercourse. This is also confirmed in Olds *et al*. (2004) whereby the couples are denied sexual intercourse until the discontinuation of the flow of lochia and the healing of the perineal area suffered through birthing process.

4.3.5 Main Theme 2: Barriers to Continuity of Postnatal Care

This is the second perspective that comprises barriers that primary caregivers have when they try to access maternal and child health services. As a background for this perspective, it should be noted that there are higher rates of maternal and child deaths due to the busy wards with limited opportunity for interactions with primary caregivers. The limited consideration of primary caregivers on monitoring the physical recovery of mother and child is neglected, leading to the maternal and neonatal complications. Therefore, proper involvement of primary caregivers should be given enough time to assist with the effectiveness of postnatal care practices.

Every primary caregiver is expected to be treated with dignity and respect, irrespective of a language problem or lack of knowledge. However, primary caregivers reported that midwives who are rendering postnatal care services were oppressing them, which predisposes postnatal women to maternal and neonatal postpartum complications leading to psychological distress, especially if the postnatal woman does not have a support system from home during the process of postnatal discharge. Midwives rendering postnatal care services were reported to offer physical and psychological postnatal care. However, primary caregivers were

still experiencing neglect by midwives due to the crowded public health facility with understaffed midwives. These made the primary caregivers to wait for a long time before help.

This study revealed various narratives that the primary caregivers related about their experiences when seeking postnatal care services. The delay in assisting postnatal women and their babies led to primary caregivers seeking help from the traditional community members, thus leading to postnatal complications that might cause death. Due to lack of knowledge regarding the postnatal care package and the limited staffing of midwives, women reported that they were discharged earlier without counselling regarding the care of the mother and the baby. Primary caregivers were not aware that postnatal care is the key strategy to treat the underlying complications after delivery. Primary caregivers expected to be involved in decision-making and to be treated holistically with knowledgeable midwives at all times.

The discussion reflects how barriers expose primary caregivers to postnatal complications. Barriers related to continuity of postnatal care were identified and discussed. These includes the crowded public health facility, understaffed midwives and the long waiting period followed by inadequate in-service training and language barrier between midwives and primary caregivers. The WHO (2015) guidelines also reflected the discharge period of postnatal woman and her baby if there are no complications. Due to the health protocols, many women and their babies are at risk to postnatal complications as the facility is always crowded with patients and shortage of midwives.

4.3.5.1 Theme 2.1: Non-Involvement of Primary Caregivers

Primary caregivers are expected to know and practice their right to postnatal health

care practices. Midwives are regarded as having adequate knowledge, experience and a full responsibility to help and teach the postnatal women and primary caregivers regarding the maternal and child health care services and also about seeking care before postnatal complications arise. However, there are limited time considerations for midwives to do the monitoring and physical recovery of the postnatal women and babies. Based on these, women and primary caregivers' emotional needs are not met. The midwives were unable to assist the postnatal women and babies due to shortage of staff with minimal health care resources. However, these expose primary caregivers to engage in traditional health care practices, such as the use of herbal medications to the mother and the newborn when faced with postpartum complications. Primary caregivers resorted to traditional postnatal care, exposing the mother and the baby to the risk of postnatal complications and even death. During data collection, the primary caregivers complained about the busy wards with limited time as the main impact to accessing maternal and postnatal care services.

4.3.5.1.1 Sub-Theme 2.1.1: Crowded Public Health Facility, Understaffed Midwives, and Long Waiting Periods

Primary caregivers at study sites reported that the continuity of postnatal care services was not easily accessible to the postnatal women and the babies. It was reported that the service is available, but there is a problem of overcrowding by different patients seeking medical help. The challenge of overcrowding also poses the long waiting period to the primary caregivers and postnatal women. The challenge of waiting periods at the health facility is related to the shortage of staff. The findings indicate that the primary caregivers arrived at the health facility on time. One of the main challenges faced by primary caregivers for immediate postnatal care to postnatal women and babies is the overcrowding and long waiting period. This was supported by several participants, as shown in the following quotations:

❖ **Participant 7 from Vhembe District:**

> *From 07h00 until 10h00 we were still seated at the benches. They started to gives us health education on issues not related to maternity. There are no chairs … long queues standing there and there are no spaces to accommodate the postnatal woman and her baby.*

❖ **Participant 6 from Mopani District:**

> *There is not enough days with us, so if they can space the dates for postnatal women and primary caregivers or else two times in a week or decide the village that can come in a particular week or day.*

❖ **Participant 1 from Sekhukhune District:**

> *I had to travel early in the morning because if you do not catch the bus it is over with the postnatal check-up. At 10h00 I am not finished with nurses and the nurses are busy helping some patients who are delivering.*

The literature indicated that though the continuity of postnatal care is effective in developing countries, the overcrowded public health facilities leaves primary caregivers with no other choices than the traditional postnatal approach, thus placing a major issue on the South African health system and making the postnatal period as the major contributing factors to maternal and neonatal mortality in South Africa, including the Limpopo Province.

It was noted that the increased demand for postnatal services and a concomitant lack of infrastructure, physical space and personnel to respond to these demands sometimes result in poor quality postnatal care services. The study conducted by Beake *et al*. (2010) indicated that the crowded public health facility results in a limited consideration in the monitoring of the physical recovery of a postnatal woman as well as the emotional needs which are not met. The inadequate staffing levels also contributed to the failure of the midwives to communicate with both primary caregivers and postnatal woman regarding the continuity of care at home.

The midwives also do the minimal routine observations to the mother and baby due to shortage of space and the understaffing whereas the other patients are waiting for assistance from the same staff members (Bowers, Cheyne, Mould & Page, 2015). The study conducted in United Kingdom shows that inadequate staffing increases the workload of midwives.

This means that the midwives are unable to render good quality care to both postnatal women and the primary caregivers, hence, the midwives have an increased staff stress leading to poor quality of care. Beake *et al*., (2010) indicated that the issue of overcrowding leads to lack of parent education in the postnatal wards as well as the demonstration of practical aspects on neonatal care.

The failure to communicate with primary caregivers regarding the continuity of care also leads to primary caregivers resorting to the traditional postnatal care practices resulting in major complications. Due to overcrowding, the safe postnatal care is compromised and this increases the number of maternal and neonatal readmissions where the complications arise. Similar findings in England were detected due to the primary caregivers' choice not reflected (Bowers *et al*., 2015)

The statistical results in Table 4.10 reflect that 73% of midwives did not give the postnatal women and primary caregivers the same attention as those women in antenatal and labour wards due to understaffed. The study conducted by Cheyne *et al*. (2013) concurred with the findings that in the United Kingdom, the primary caregivers are not satisfied with the postnatal care as more attention is given to the antenatal and intrapartum stages in a satisfactory condition.

4.3.5.1.2 Sub-Theme 2.1.2: No Health Education Sessions and Inadequate In-Service Training

Participants deemed it necessary and important to have midwives perform regular

in-service training that would update them and introduce new guidelines for effective and quality midwifery care. This suggestion was made because some of the midwives were working with reference to the old guidelines without updated knowledge and skills, and this was a challenge to some of the midwives. In-service continuous professional development was seen as a vehicle for dissemination of evidence-based, new researched up-to-date knowledge. New knowledge was important in providing quality care that would reduce the occurrences of maternal and neonatal deaths in the Limpopo Province.

The interviews with the primary caregivers indicated the interactions with midwives were poor. They indicated that midwives did not involve them with the topics specific to the continuity of postnatal care. Primary caregivers indicated that most of the midwives reported that they do not have time to give primary caregivers information regarding the continuity of postnatal care. They reported that they were made to wait all day long, waiting for the midwives who are looking after so many patients while other midwives are saying that they have an individual occupational stress that prevents them from including primary caregivers in the continuity of postnatal care. The following are some of the quotations from the participants:

- **Participant 5 from Mopani District:**

> *The midwives are doing nothing except health educations and nothing else is done. We are delayed for nothing from morning until in the afternoon. They do not talk with us and they give an injection only to the baby and off we go home.*

- **Participant 3 from Vhembe District:**

> *I was just called as my daughter delivered a premature baby in Johannesburg and later rested in peace. The nurses told me to give medications that they gave to me on arrival and told me to send the child to the nearby clinic. They did not tell me everything about the care of a preterm baby.*

There is an association between health education and lack of communication on new knowledge regarding continuity of postnatal care. Again, it was reported that communication with patients contributes to the rendering of quality care to patients leading to health promotion. The majority of primary caregivers demonstrated negative attitudes on the continuity of postnatal care services. Most of them were Venda and/or Xitsonga speaking people. From the sites, the primary caregiver who was taking care of the preterm baby was the only one who showed a negative attitude towards midwives regarding the continuity of postnatal care.

The main reason why the participants were not offered in-service education was due to shortage of staff. This contributed to midwives not talking to primary caregivers at the health facilities. There was no frequent communication amongst themselves as midwives. There was no kindness and understanding of the circumstances which primary caregivers were facing regarding the lack of knowledge of continuity of postnatal care, especially with premature babies. The shortage of staff was the main factor contributing to inadequate education sessions to primary caregivers. The shortage of staff was linked to non-replacement of midwives who retired and those who went to higher positions and those who passed on as well as the poor working conditions (Malwela, 2018). In South Africa, training of midwifery is unfocused and forced upon those who have no interest in improving the maternal outcomes (Schoon & Motlolometsi, 2012). The National Committee for Confidential Enquiries (NCCEMD) has shown no improvement in health outcomes due to the shortage of midwives. The blames for poor maternal outcomes are due to the shortages of staff, lack of professionalism, staff attitudes resulting in poor management of patients.

The study found that midwives play a major role in the continuity of postnatal care. However, the quality of training in South Africa has no job-description, hence, there is no skilled midwife. It was reported that midwives attending ESMOE training

workshops still struggle with the management of obstetric emergencies (Schoon & Motlolometsi, 2012). The study conducted by Needleman, Buerhaus, Mattke, Stewart & Zelevinsky (2002) reflected that the early discharge of babies places greater demands on the continuity of care and the quality of care is thus compromised.

The statistical results in Table 4.10 display similar findings that 61% of the midwives reported the inadequate in-service training regarding the continuity of care. The findings are also supported by again 61% of midwives indicating the line of demarcation between midwives and primary caregivers regarding the continuity of postnatal care. This shows that due to inadequate in-service training to midwives, the midwives are still not in-serviced on including primary caregivers for the continuity of postnatal care, hence, the premature baby will be at risk of neonatal complications. This is a challenge because there were few midwives or nurses to work on the frontline and bring changes in the health facility (Watkins, Nagle, Kent & Hutchison, 2017).

4.3.5.1.3 Sub-Theme 2.1.3: Language Barrier Between Midwives and Primary Caregivers

Communication is the art of creating and sharing ideas, and involves getting information from one person to another and relayed while retaining the same in the content and context. This is a good vehicle in an organisation that promotes quality service provision (Lunenburg, 2010). In this study, communication means the sharing of information between midwives and primary caregivers in the provision of quality care to postnatal woman and the baby in the Limpopo Province. The skills of communication include listening, listening skill involved in open-mindedness by midwives and being able to pick up the non-verbal communication, the attitude and the state of another person's mind (Lunenburg, 2010)

Lack of communication due to language barriers increase the rates of stress and frustrations as experienced by both midwives and primary caregivers. The other skill of communication to exclude language barrier was to engage primary caregivers in the planning of postnatal care and encouraging primary caregivers to express their feelings and their way of thinking towards the continuity of postnatal care. The use of voice and sign languages would assist midwives to communicate with primary caregivers during counselling. The use of visual presentations is also important when you communicate with primary caregivers who are illiterate.

In this study, primary caregivers reported language barriers between themselves and midwives. The study sites comprised of three ethnic groups as reflected on the demographic characteristics. Many of the midwives were working in those health care settings who differs in languages with the primary caregivers. Most of the primary caregivers were illiterate and unemployed and the language is a barrier during the process of communication. This made it difficult for primary caregivers to listen carefully and share ideas with midwives. The following are the quotations from primary caregivers:

- **Participant 4 from Mopani District:**

> *It is not easy to correct midwives with traditional information; one nurse was not happy through her facial expressions as she didn't even smile when holding the baby for injection. The baby was grasped from my hands without any talking with me. I was not at ease, I was terrified.*

- **Participant 4 from Vhembe District:**

> *I think midwives are responsible to counsel us as primary caregivers, but... what I observed that day was so strange, she didn't greet me as if she was alone at the facility. I was scared about her communicating with her colleagues and not talking to me.*

- **Participant 2 from Sekhukhune**

> *Nurses are good … only if you listen to what they tell you and you do it. If you know them for long time you are friends.*

Communication is a fundamental tool for midwives based on information sharing, production, circulation and exchange of ideas in the hospital context. However, due to language problems between midwives and primary caregivers, the language barrier was a challenge. This was because most of the midwives regarded primary caregivers as illiterate and were not knowledgeable in midwifery content. In support of the participants, all human beings need respect and dignity during the communication process. Midwives should be able to accept the primary caregivers as they are, irrespective of their age, educational background and nationality. Midwives are competent in postnatal care practices to assist both the mother and baby to promote quality of life. The midwives are responsible to offer the counselling skills on critical issues related to postnatal problems.

Nair, Yoshida, Lambrechts, Boschi-Pinto, Bose, Mason & Mathai (2013) reported that there are so many issues related to primary caregivers failing to continue with postnatal care at home. This is related to the poor recognition by midwives. Primary caregivers are regarded as powerless and no control over the midwifery skills. A study done by Casey & Wallis (2011) indicated that good communication in patient care improves quality of care and prevents delay of information and also improves safety of the patient. According to Nair *et al*. (2013) the language barriers are a result of the environment in which postnatal care is taking place, the human resource, the organisational structure, regulations and standards of care. According to the Scope of Practice (R.2598), primary caregivers are not involved in the continuity of care, hence, they are neglected by midwives.

To support midwives in rendering the continuity of care, the SANC under the provision of Nursing Act No. 33 of 2005, put in place a model of midwife specialist

continuum of care that included expanded roles and competencies to improve the maternal and child health specially. The roles are to include the family members during the provisioning of postnatal care using the primary caregivers' language. The model was conceptualised to include advanced midwives, reproductive and neonatal health practitioners, who focused on the promotion of birth and the detection of complications in mother and child.

The statistical results in Table 4.10 reflect that 67% of the participants agreed that there is a language barrier between midwives and primary caregivers, whilst 33% disagreed with the statement. A study done in Kenya revealed that the language barrier made family members to use herbal medication due to misunderstanding with the midwives (Opwora, Laving, Nyabola & Olenja, 2011). The findings also corroborated the Italian and Chinese studies which revealed that the use of traditional herbs as remedies predisposed postnatal women to maternal and neonatal complications. All this happens due to language barriers between midwives and primary caregivers (Opwora *et al*., 2011).

In support of the above, a study in Malawi showed poor maternal outcomes due to resorting to cultural and customary practices, which the midwives would have counselled if the language was good for both midwives and primary caregivers. Primary caregivers resorted to the use of dangerous amounts of traditional herbs that led to maternal and neonatal deaths (Beltman, van der Akker, Bwirire *et al*., 2013) because they could not understand the counselling from midwives due to the language problems.

4.3.6 Main Theme 3: Perceptions of Primary Caregivers Regarding the Interactions with Midwives on the Continuity of Postnatal Care

Most participants could describe their perceptions related to the interactions with

midwives on the continuity of postnatal care. During the postnatal period, primary caregivers reflected a positive relationship with the midwives. Positive relationships provide a high quality of care when there is a trusting relationship between the primary caregivers and midwives. The primary caregivers were able to follow all the instructions given by midwives regarding the postnatal care. According to Waldenstrom *et al*. (2012), the positive relationship gives confidence to primary caregivers, hence, they know that they are considered as unique people, but not a crowd. The presence of a midwife makes them to establish the good communication skills, knowledge and understanding as these are the critical factors in interpersonal relationships. During the interview sessions, most of the primary caregivers reflected that midwives display the limitation in linkages of traditional and Western postnatal health knowledges. This shows that primary caregivers were given postnatal counselling in separate cubicles with enough theoretical information regarding the care of both the mother and baby. The findings show that primary caregivers were involved in decision-making skills, with respect and dignity and nothing was done without being involved on discharge.

4.3.6.1 Theme 3.1: Good Midwives and Postnatal Women Relationship

The following are the sub-themes that were displayed by primary caregivers as a means of support from midwives (see Table 4.13).

4.3.6.1.1 Sub-Theme 3.1.1: Involvement in Decision-Making Skills and Informative Communication

Knowledge of key decision makers and actors in maternal and newborn care is necessary to ensure best practices during the continuity of postnatal care. According to Mukunya (2019), the right people should be selected so that care can be targeted at the right people. Relatives and other close family members are involved in the immediate postnatal care as the postnatal woman is still exhausted following

delivery. Primary caregivers, especially grandmothers, are mostly involved in decision-making skills regarding the health outcomes of the newborn. They are involved in issues such as the initiation of breastfeeding, the care of the umbilical cord at home and the strict control measures of restricting people from entering the room of a woman and baby while at home.

During data collection, participants reflected that they were sometimes involved in decision-making skills and treated as human beings. The following are the quotations from primary caregivers.

- **Participant 5 from Vhembe District:**

> *I perceive nurses as good … really, they are good and gifted people from God because they have passion towards us as primary caregivers. After the birth of my grandson, they call me to show me how to cover the baby and make him comfortable. They did not shout at me, but the midwives were humbly, though I was fearful that they will not allow me inside.*

- **Participant 7 from Mopani District:**

> *They told me what I must do with the medications as I was given from Johannesburg where my daughter dies after delivery. They told me to send the baby for child health service at six weeks … and … and... if the child is cying I must not give food, but I must prepare the bottled infant formula milk and give him up to four months.*

- **Participant 8 from Mopani District:**

> *Ok! … I thank you.... it is simple but not simple. The midwives demonstrate to me how to clean the cord, how to breastfeed, and when to feed the baby. I was told that the child will have fever to indicate that there is infection … so … they advice that I must not immerse the baby into the basin, but to use wipes only.*

- **Participant 1 from Sekhukhune district:**

The nurse advised me to care for the postnatal women following the Caesarean section because if she works heavy jobs she will burst the operation and she must wait for five years before getting another child.

❖ **Participant 4 from Mopani District**

Ok! … I thank you.... it is simple but not simple. The midwives demonstrate to me how to clean the cord, how to breastfeed, and when to feed the baby. I was told that the child will have fever to indicate that there is infection … so … they advice that I must not immerse the baby into the basin, but to use wipes only.

The findings (Table 4.11) show that midwives have good relationships towards the primary caregivers. They regard them as saints from God as they are able to involve them in decision-making skills such as bathing, feeding and immunisations. Primary caregivers were equipped with necessary knowledge regarding the management of a child when there are some deviations from normal. To ensure that the baby must continue with milk products, the grandmother was also informed to feed the child with bottled infant formula milk and to ensure personal hygiene always. Primary caregivers were also advised on how to manage the umbilical cord and to manage the baby with fever. This shows that primary caregivers were involved in decision-making skills. In Uganda, Ethiopia and Nigeria, grandmothers are the targeted individuals involved with the caring aspect of the postnatal woman and her baby (Eganus, Hill, Manzi, Bee, Amare, Shamba, Odebiyi, Adejuyigbe, Omotara & Skordis-Worrall, 2015). The grandmothers are also involved in bathing the baby for the first time while mothers are involved in the initiation of breastfeeding for the first time. Males are not involved in postnatal care practices as it relates to females only. According to the African tradition (Ngunyulu, 2015), males are often not allowed to enter the woman's room for seclusion purposes. This shows that the midwives are able to give effective support to primary caregivers for the quality care of the mother and her baby.

The statistical results show that in all study sites, 28% of the midwives agreed with the statement of involvement in decision-making, whereas, 72% strongly disagreed. However, the results show that primary caregivers do not receive enough supervision from midwives, hence, 39% of the midwives agreed, whilst 61% disagreed.

4.3.6.1.2 Sub-Theme 3.1.2: Respect for Appointment Before Discharge and Dignity

Participants described the content that shows respect for appointment before discharge and dignity during the postnatal period. During the immediate postnatal period, not all primary caregivers were given respect at the health care facility. They indicated that they were able to get help from the midwives within a reasonable time. Some primary caregivers were also allowed to stay with postnatal woman and the baby as much as they wanted whilst others were kept outside due to overcrowding. The hospital environment was also clean. Counselling was provided in a cubicle that was designed for women and babies only. The women were counselled on maternal and infant feeding information relevant to both the woman and the primary caregivers to assist with milk production. This made the women to have confidence and trust in the continuity of the postnatal period. They were also provided with information from the policies in the maternity units that helped them with the continuation of postnatal care. They were also informed about the dates for follow-up to ensure that the mother and child were treated in a proficient manner to avoid the postpartum complications. Adequate supervision was received from midwives to ensure that the women were able to monitor themselves and their babies.

The following are the quotations from participants:

- **Participant 5 from Vhembe District:**

The nurse greeted me only and did not allow me to get inside the room where she was with the mother and baby. After that she give the mother her file and tell her that she must come for immunisation at six weeks.

❖ **Participant 4 from Mopani District:**

The nurses are always busy with all patients, but they call women on their side where they discharge them. As the ward was full, they tell us to go and wait outside because they want to check the mother and babies only.

❖ **Participant 2 from Sekhukhune District:**

The nurse called me to listen to the message when she discharges the mother and baby. She told me that the postnatal woman is supposed to lie on the abdomen, soo... so … the abdomen must not become too big, and about the episiotomy stitch, when bathing … pause (door opens) … when bathing, use Dettol and salt with little warm water, look for white cloth to compress on the operation to prevent sepsis and gaping of sutures because she was having an operation.

❖ **Participant 7 from Vhembe District:**

The nurse did not talk to me. She was whispering with the mother as I was left outside the door but next to the room where she was. I heard the baby crying … I thought it was an injection

The literature indicated that primary caregivers were not welcomed during the discharge process. Most of the primary caregivers were not even greeted when escorting the mother and baby. Some were even removed from the hospital premises due to overcrowding. This shows that the primary caregivers were not considered as important members of the family. Primary caregivers are helpful in the recovering process of a woman as well as assisting with the care of the baby. The discomfort caused by perineal lacerations, episiotomy and Caesarean section wounds often results in insomnia that can also disrupt the postnatal woman's ability to interact easily with the baby in the early weeks and thus interfere with breastfeeding (Pound & Unger, 2012). The pain will make the woman to neglect

even the baby, thus aggravating the maternal health problem. The unhygienic condition of the perineum leads to long-term discomfort during the sexual relations to such an extent that the postnatal woman may often require the use of analgesics (Sellers,1994).

Oedema and bruising of the perineal area also delay the healing process if proper hygiene is not followed. According to Sellers (1994), the infection from unhygienic perineum may predispose the woman to the risk of dehiscence due to a faulty healing technique. The quotations indicated that primary caregivers were disrespected by midwives, hence, the woman and her baby were at the hands of primary caregivers at home only.

The findings show that midwives did not care about the primary caregivers. Most of the midwives (79%) strongly disagreed with the adequate knowledge regarding the traditional postnatal care, hence, primary caregivers demonstrated traditional knowledge regarding the care of the perineal region using salty warm water which was not harmful to the woman. The midwives were able to offer counselling on perineal hygiene through pad checking and handwashing thereafter. The woman was also advised to assess the amount of lochia and the colour changes to measure the cleanliness of the perineum.

The study was supported by the WHO (2013) with the indication that any perineal wound that appears hot, tender and inflamed, and accompanied by a pyrexia is a highly suggestive of an infection. According to (WHO, 2013), an increased in body temperature requires immediate medical attention. This shows that the participants can prevent the spread of infection to the postnatal woman, thus promoting the well-being of both the mother and baby. The findings are confirmed by Hedoyati *et al.,* (2003), Fitzparick (2007) and Olds *et al*. (2004), in which postnatal women were said

to experience less perineal discomfort through carrying out self-perineal care instructions.

The study conducted in South-East Asia confirmed that salty warm water is beneficial to the postnatal woman as it has a soothing effect on the perineum. This was supported by the Queensland Clinical Guidelines (2018), as it helps with the aspects of positioning and movements in postnatal women. It also assists with the pelvic floor muscle exercises and the fast healing of the perineum. Perineal hygiene was also maintained through frequent sanitary pad changing to reduce the risk of infection (Tiruneh *et al*., 2015). In general, the woman should carry out the necessary instructions regarding perineal care such as handwashing before and after pad changing, removal of a pad from front to back, application of a clean pad and wiping the area after each and every elimination (Firtzpatrick, 2007). Another study was done in South-East Nigeria, wherein primary caregivers used hot water salt solution sitzbaths compression on the lower abdomen to help with drainage of lochia and perineal wound healing (Okeke *et al*., 2013).

Consistent with our findings, perineal hygiene is identified as the postnatal best practice in the facilitation of postnatal care in the selected districts of the Limpopo Province of South Africa. Perineal hygiene was done and supervised by the primary caregivers who stays with the postnatal woman and her baby. The researcher established that the theoretical knowledge possessed by primary caregivers can aid with the healing of the perineal wounds in the woman. This highlights the need of Limpopo Province Department of Health to involve primary caregivers in the integration of information to prevent the postnatal complications.

The statistical results show that there was disagreement with the effective support from the midwives, hence, most of the findings were not agreed upon by midwives.

Counselling was only done as reflected by 64% of midwives, whereas 36% of the midwives disagreed. This shows that there is a need for support throughout the study sites to improve the midwifery practices support to the primary caregivers to prevent the postpartum complications.

4.3.6.1.3 Sub-Theme 3.1.3: Limited Linking of Traditional and Western Postnatal Health Knowledge

Some primary caregivers demonstrated limited knowledge regarding the dangers of excessive bleeding immediately after delivery. They regarded it as a normal process for the cleansing of the uterus after expulsion of the baby. Bleeding was not considered a complication traditionally, hence, primary caregivers were unable to seek help from the hospital to save the live of the bleeding postnatal woman. They resorted to their own experiential knowledge to prevent further bleeding. The following are the quotations from the participants:

- **Participant 7 from Vhembe District:**

> *In case the woman bleed, we as ZCC members, we put FG coffee into the vaginal opening to lessen the bleeding and advised the woman to close the legs … after some few minutes, there will be less bleeding.*

- **Participant 5 from Mopani District:**

> *The woman is put in the house … but the husband is chased out until the mother recovers from her birthing process.... otherwise the cord will not heal. The mother is advised to put the baby on breasts for normal growth and the baby start on soft porridge at six weeks when crying continuously.*

- **Participant 2 from Sekhukhune District:**

> *I observe the child for some problems … like if the baby is having the stiffness of the neck, early in the morning we call the uncle to come and change the position of the neck using a wooden stick … to allow the baby to turn the neck without difficulties.*

The quotations show that primary caregivers had limited linking of traditional and Western postnatal care knowledge. For postpartum haemorrhage, they could not recognise any risk, hence, they put certain substances inside the birth canal with the believe that bleeding will stop. Postpartum haemorrhage is regarded as one of the major causes of maternal death (DoH, 2015). A postnatal woman is expected to have normal bleeding after delivery, from lochia rubra on day one to lochia alba on the subsequent days. For cases in which lochia rubra continues for more than normal periods, the patient is advised to visit the nearest clinic or hospital for medical assistance before the complications set in. The midwives are encouraged to make the primary caregivers aware of the dangers of heavy bleeding, because if there is no awareness about severe bleeding, the woman can die. Primary caregivers should refer the woman to the health facility for further management because if not treated early the woman can end in a haemorrhagic shock stage and die (Fraser & Cooper, 2009).

Findings from the UNI Parents and Families Association (UNIPFA, 2008) show that it is very important to educate primary caregivers regarding the early detection and seeking of medical assistance for complications such as postpartum bleeding as is the most critical element in a bleeding woman. The study findings in Nair *et al*. (2013) reflected that the shortage of staff and lack of educational services led to poor implementation of antenatal and sub-standard care in the postnatal guidelines. According to Tebid, Du Plessis, Beukes, van Niekerk & Jooste (2011), cultural differences can lead to a neglect of an obstetric emergency by the registered midwives, that can result in serious complications and even death.

The issue of family planning is not practised with primary caregivers, hence, they separate the woman from her husband for six weeks. The initiation of feeding with soft porridge begins at six weeks in a newborn if s/he starts crying continuously.

Primary caregivers associate the crying of the baby with either hunger or evil forces in the house, hence, they sometimes add light soft porridge to the food of the baby. This shows that the primary caregivers have inadequate knowledge about the baby's adaptation to extrauterine life following delivery. They focused on evil spirits rather than feeding the baby. However, it was indicated that premature weaning or not, breastfeeding at all are associated with health risks for mothers.

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health and development of children to their full potential (WHO, 2009). The WHO recommends that infants be breastfed exclusively for the first six months, followed by breastfeeding along with the complementary foods for up to two years of age or beyond (Ukponwmwam *et al*., 2009). However, findings from the study shows that primary caregivers started with premature weaning at an early stage, hence, they were not aware of the health risks. The study conducted in Taiwan shows that mothers with premature cessation of exclusive breastfeeding had lack of knowledge regarding the importance of exclusive breastfeeding (Chang *et al*., 2019). This shows that primary caregivers had some inconveniences with breastfeeding due to lack of transfer of theoretical knowledge from the midwives. The statistical results show that 40.2% of the midwives agreed that they provide primary caregivers with theoretical knowledge whereas 59.7% disagreed.

Primary caregivers could not even link the medical conditions of the baby with the traditional practice. It was reflected that the problem with the neck is treated with the male person who is a relative to the baby. The uncle in this matter will perform some rituals early in the morning to assist with the twisting of the neck of the baby. The stiffness of the neck may indicate an underlying medical problem in a baby. According to Fraser & Cooper (2009), the child might be suffering from muscle spasms in the arms, legs and neck and the child might be suffering from cerebral

palsy. This shows that from the participants' quotations, that there is a limited knowledge regarding the Western postnatal knowledge, hence, the application of the wooden stick by the uncle can harm the baby. The harmful traditional practices are largely carried out without the consent of the parents or the woman, therefore, exposing the baby to a risk of death or serious damage to the brain. In Turkey, primary caregivers were also carrying out certain traditional practices to the babies which adversely affected them (Ayaz, 2008). This means that the Turkish primary caregivers were not updated on the dangers of harmful practices to the baby. Therefore, it is important for midwives to gain an understanding of the potentially harmful customs and cultural beliefs to implement the health educational programmes rather than allowing primary caregivers to resort to those practices.

The statistical findings in Table 4.11 depict that 67% of the midwives agreed that they did not participate in continuing professional educational to updates primary caregivers on technical competence to continuing postnatal care practices, whilst 33% disagreed.

4.3.6.1.4 Sub-Theme 3.1.4: No Consideration of Rituals for Postnatal Women

Midwives had limited knowledge regarding the traditional postnatal care practices. Counselling about the care of both the mother and child was not considered as an important aspect. They were not even bothered to pay some attention about the women during ANC, labour and delivery, hence, they neglected the postnatal woman and considered managing the ANC and those in second stage of delivery. Primary caregivers are unable to detect the dangers of bleeding in a postnatal woman. They managed and stopped the bleeding through the use of their religious beliefs. To prevent subsequent pregnancies, primary caregivers considered separating the woman from her husband. They regarded the woman as unclean

during the 40-day period postpartum. The following are the quotations for the traditional practices by primary caregivers:

- **Participant 1 from Sekhukhune District:**

  I see only the hospital can manage the postnatal haemorrhage and is correct, because at home there is nothing that we can do with the woman who is bleeding. I recommend the hospital management because there are no rituals at hospitals.

- **Participant 5 from Mopani District:**

  I think we can have meetings with health professionals because with us family planning is not considered. We only isolate the woman from her husband to avoid early sexual intercourse that can damage the health of the baby.

- **Participant 6 from Vhembe District:**

  In a month the child will start crying. I prepare watery diet and give the baby through the bottle for bottled infant formula milk and you will see that the baby stops crying. This shows that she was crying because of hunger.

- **Participant 3 from Mopani District**

  The mother is not allowed to go to graveyard because the child can die. The early resumption of sexual relations is not allowed because the woman is still hot and can be pregnant... and the baby will not grow well.

- **Participant 8 from Vhembe District**

  We give FG tea to reduce bleeding in our church … ZCC. The woman stretches her legs in a traditional mat "xitheve" and the coffee is inserted into the vagina to stop bleeding.

The quotations from the participants showed that the woman remained in the house and did nothing for the family because she was considered to be unclean due to having recently given birth to the baby. This shows that the woman was considered to be dirty and polluted after delivery, hence, she was not even allowed to prepare

food and do household chores (Kitila *et al*., 2018). The study conducted by Sharma *et al*. (2016) showed that women were housebound for a number of days after birth and the length of seclusion varied by ethnic group. This shows that everything is being prepared or done for her like provision of bathing water and the preparation of food.

The study conducted in USA, showed that a woman can start the household chores after six weeks when the uterus has returned to a non-pregnant size and no more bleeding occurred (Sharma *et al*., 2016). Women of childbearing age were also not allowed in the house because according to different cultural beliefs and customs, they were still menstruating (unclean) and can delay the healing of the cord. Postnatal women are in a weak state and the practice is mostly done for first-time mothers to avoid uterine prolapse and the woman is encouraged to continue with breastfeeding.

In countries such as Greece, women and babies are isolated for 40 days after birth whilst in Zaire and India, they are secluded in a hut until the cord separates. The duration of rest differs as some can rest in the room until the detachment of the umbilical cord, others can rest for 4 weeks and some can rest until six weeks. The study conducted in Burma and Turkey indicated that it was believed that postnatal women were more vulnerable to evil forces, hence, it was predicted that the grave of a woman who has just given birth is open for 40 days (Sharma *et al*., 2016).

The statistical results in Table 4.11 show that 39% of midwives agreed with the statement that they did not give enough supervision to primary caregivers, hence, they did not consider the rituals of postnatal women, whilst 6% of midwives disagreed. This shows that the three ethnic groups were aware about the supervision of postnatal women after discharge, but they did not give primary

caregivers enough time to engage themselves on counselling about postnatal practices.

4.3.6.1.5 Sub-Theme 3.1.5: Poor Communication with Primary Caregivers

Communication is the art of creating and sharing ideas, and involves getting information from one person to the other and relayed while retaining the same in the content and context. This is a good vehicle in an organisation that promotes quality service provision (Lunenburg, 2010). In this study, communication means the sharing of information between midwives and primary caregivers in the provision of quality care to postnatal woman and the baby in the Limpopo Province.

The skills of communication include listening and listening skill involves open-mindedness by midwives and being able to pick up the non-verbal communication cues, the attitude and the state of another person's mind (Lunenburg, 2010). Lack of communication due to language barrier increased the rates of stress and frustrations as experienced by both midwives and primary caregivers. The other skill of communication to exclude the language barrier was to engage primary caregivers in the planning of postnatal care and encouraging primary caregivers to express their feelings and the way of thinking towards the continuity of postnatal care. The use of voice and sign languages would assist midwives to communicate with primary caregivers who could not understand each other's language during counselling. The use of visual presentations is also important when midwives communicate with primary caregivers who are illiterate.

In this study, primary caregivers reported language barriers between themselves and midwives. The study sites comprised of three ethnic groups as reflected in the demographic characteristics (Table 4.5). Many of the midwives were thus working in health care settings with different languages spoken by the primary caregivers. Most

of the primary caregivers were illiterate and unemployed and the language posed a barrier during communication. This made it difficult for primary caregivers to listen and share ideas with midwives. The following are the quotations from primary caregivers:

- **Participant 4 from Mopani District:**

> *It is not easy to correct midwives with traditional information; one nurse was not happy through her facial expressions as she didn't even smile when holding the baby for injection. The baby was grasped from my hands without talking with me. I was not at ease, I was terrified.*

- **Participant 6 from Vhembe District:**

> *I think midwives are responsible to counsel us as primary caregivers, but... what I observed that day was so strange, she didn't greet me as if she was alone at the facility. I was scared about her communicating with her colleagues and not talking to me.*

- **Participant 2 from Sekhukhune District:**

> *Nowadays I no longer have the confidence that I use to have previously because nurses are not recognising us … so that is why we hide every thing we are doing for the mothers and babies.*

Communication is a fundamental tool for midwives based on information sharing, production, circulation and exchange of ideas in the hospital context. However, due to language problems between midwives and primary caregivers, the language barrier was a challenge. This was because most of the midwives regarded primary caregivers as illiterate and not knowledgeable in midwifery subject matter. In support of the participants, all human beings need respect and dignity during the communication process. Midwives should be able to accept the primary caregivers as they are, irrespective of their age, educational background and nationality. Midwives are competent in postnatal care practices to assist both the mother and baby to promote quality of life. The midwives are responsible to offer the counselling

skills on critical issues related to postnatal problems.

Nair (2014) reported that there are so many issues related to primary caregivers failing to continue with postnatal care at home. This is related to the poor recognition by midwives. Primary caregivers are regarded as powerless and thus do not have control over the midwifery skills. A study done by Casey & Wallis (2011) indicated that good communication in patient care improves quality of care and prevents delay of information and also improves safety of the patient. According to Nair (2014), the language barriers are a result of the environment in which postnatal care is taking place, the human resources, the organisational structure, regulations and standards of care. According to the Scope of Practice (R.2598), primary caregivers are not involved in the continuity of care, hence, they are neglected by midwives.

To support midwives in rendering the continuity of care, the SANC under the provision of Nursing Act No. 33 of 2005, put in place a model of midwife specialist continuum of care that included expanded roles and competencies to specifically improve the maternal and child health. The roles are to include the family members during the provisioning of postnatal care using the primary caregivers' language. The model was promulgated to include advanced midwives, reproductive and neonatal health practitioners, who focused on the promotion of birth and the detection of complications in mother and child.

There should be provision of moral support to primary caregivers in the form of training and recognition to build up their confidence (Ngunyulu, 2015). The provision of postnatal care by knowledgeable primary caregivers might serve as a strategy in the reduction of maternal and infant mortality rates. This was supported by Awiti-Ujiji, Ekstrom, IIakko, Indalo, Lukwaro & Wawamalwa (2011). The findings were corroborated by Hodnet (2012), in the sense that the use of a trained, continuously

supported and adequately resourced primary caregiver had proven to be an effective strategy in saving the lives of mothers and their babies.

A study done in Kenya revealed that the language barrier made family members to use herbal medication due to misunderstandings with the midwives (Opwora *et al*., 2011). The findings also corroborated the Italian and Chinese studies which revealed that the use of traditional herbs as remedies predisposed women to maternal and neonatal complications. All this happens due to language barriers between midwives and primary caregivers.

In support of the above, a study in Malawi showed poor maternal outcomes due to resorting to cultural and customary practices, which the midwives would have counselled if the language was good for both midwives and primary caregivers. Primary caregivers resorted to the use of dangerous amounts of traditional herbs that led to maternal and neonatal deaths (Beltman *et al*., 2013) because they could not understand the counselling from midwives due to the language problems.

The statistical results in Table 4.10 reflect that 67% of the participants agreed that there is a language barrier between midwives and primary caregivers, whilst 33% disagreed with the statement.

4.3.6.2 Theme 3.2: Perception on Information Dissemination

Various methods are used to disseminate information to recipients. Some of the methods include the publication of programmes or policy briefings, the presentation at national conferences and meetings of professional associations as well as presenting programme results to the local community groups and other local stakeholders. Primary caregivers are valuable elements in the postnatal care practices for the mother and baby while at home. The midwives should work

together with the primary caregivers from before conception until after birth so that they can understand each other holistically. It is therefore very crucial to involve primary caregivers in the development of post-birth care plan to have a proper coordination and planning of care so that the postnatal women can receive quality care. This means that the midwives should support primary caregivers with adequate information regarding the care of both mother and baby at home. One sub-theme emanated from the qualitative data analysis:

4.3.6.2.1 Sub-Theme 3.2.1: Methods of Information Dissemination

The following are the quotations as reflected by participants:

- **Participant 4 from Vhembe District:**

> *I think … my worry is that … is that … the relationship of primary caregiver and the midwives can be good if they can give health education by using MomConnect Programmes. In this case, relationship is sometimes not good because we could not get every information in advance.*

- **Participant 3 from Mopani District**

> *Health education is good if the midwives can call all of us during health education … so that we can share information and use it.*

- **Participant 8 from Vhembe District:**

> *The relationship is good … but I think … Eh … the days are not enough for health information. I think if the midwives can involve the community people and... and we meet with them so that we can express the taboos and rituals effectively. I think the meetings will help us all.*

- **Participant 6 from Mopani**

> *Roadshows are good so that even the old women it can reach them. Time has changed and new strategies are coming to update us. We must get new information to link with the old one to avoid the dangers or complication because research projects are in process.*

❖ **Participant 1 from Sekhukhune**

> *Health education is good. I think he midwives should do a campaign to avoid shouting at the clinic … we need a campaign so that the nurses can update us as primary caregivers on new things.*

These quotations show that there is a need for support during the dissemination of information so as to enhance the good communication between registered midwives and primary caregivers for effective continuity of care. Communication in the form of support will ensure quality and effective dissemination of health information during the postnatal period and prevent confusion between the midwives and primary caregivers. According to Livingstone (2008), the concept 'support' may relate to comfort, encouragement, assistance and backing, with an example of the notion of tower of strength. In terms of the Nursing Act, 1978 (Act No. 50 of 1978) (R.2488), a registered midwife is defined as a person registered or enrolled as a nurse and a midwife, responsible for the provision of care to women during antenatal, labour, delivery and puerperium and postnatal periods. They are expected to provide comfort, encouragement and assistance, and to build up strength of the primary caregivers by conducting campaigns and roadshows during the postnatal period.

However, the findings of this study revealed a lack of support by midwives to primary caregivers during the provision of postnatal care. The findings from the participants displayed various methods in which information can be disseminated. Many of the participants reflected that health education should be directed at both the primary caregivers and the postnatal women form before conception until delivery of the baby. This shows that the health education sessions should be personalised so that the primary caregivers would be equipped to discuss pertinent topics with midwives, particularly the topics that are culturally related.

It is stated that postnatal women and primary caregivers should be involved in the

development of a post-birth care plan as recommended by the NICE Guidelines (Newburn & Bhavnani, 2010). The study conducted in UK indicated that many women reported poor coordination and planning of care that resulted in poor continuity of care. This shows that there was no dissemination of information to the primary caregivers. According to the Royal College of Midwives (2014), there was also a lack of information dissemination due to lack of resources and a lack of professional awareness of the NICE Guidelines (2018).

Findings in England reflected that there was no satisfaction on the method in which information was disseminated regarding the post-birth planning (Redshaw, 2010). The postnatal birth care planning is the best method of moving away from the didactic teaching to a dialogue which honours the woman and primary caregivers' needs within their contexts. This means that the package can also deal with issues related to the lifestyle of a woman and family so that harmful practices can be discouraged.

Similar findings by Zhang, Alkema, Chou, Hogan, Moller, Gemmil, Fat, Boerma, Temmerman, Mathers & Say (2016) indicated that in China the package contains maternal health educational needs that is extended beyond the expectant mothers to their primary caregivers. The options regarding post-delivery could be relayed to primary caregivers and the woman with the midwives during pregnancy and the woman's decisions recorded in a shared plan (Scottish Government, 2017).

This could also account for a personalised plan with unique individual circumstances that would be jointly reviewed throughout the journey of maternity. The option will establish a good relationship over the period of time with health care professionals. Communication of the Post-Basic Care Practices/Procedures (PBCP) with primary caregivers will ensure satisfaction of post-birth results and influence the biomedical,

psychological and social outcomes of maternal health.

The study revealed that participants did not receive support from the registered midwives regarding roadshows and campaigns to ensure continuity of postnatal care. They further reported that there was a lack of confidence on the expression of the taboos and rituals while working with postnatal woman at home. A study done in Kenya revealed that the language barrier made primary caregivers to use herbal medication due to lack of proper information from midwives (Onasoga *et al*., 2018).

The use of herbals posed some health risks to the woman. The findings from the Italian and Chinese studies affirmed that the use of traditional herbs as remedies predisposed postnatal women to maternal and neonatal complications. All this happens due to language barrier as they misunderstood each other during communication (Onasoga *et al*., 2018). In support of the above, a study in Malawi showed poor maternal outcomes due to language problem, hence, primary caregivers resorted to cultural and customary practices. They resorted to dangerous amounts of traditional herbs that complicated their health status (Beltman *et al*., 2013).

Therefore, it was found that midwives did not participate in continuing professional education to updates themselves on sensitive issues related to maternal and neonatal health outcomes. The statistical results in Table 4.11 display the findings that 67% of midwives agreed that they do not participate in continuing professional education to updates primary caregivers on technical competence to continuing postnatal care practices, whilst 33% of the midwives disagreed.

4.4 Integration of Qualitative and Quantitative Findings

Both the quantitative and qualitative results showed that there were inconsistencies

regarding the continuity of postnatal care between the midwives and primary caregivers in the selected districts of the Limpopo Province of South Africa, leading to increased maternal and neonatal deaths. Continuity of care is a very important issue for both midwives and primary caregivers because it contributes to the feeling of safety of the postnatal woman and her baby during the postnatal period. Continuity of care was used and applied differently within and across the three ethnic groups.

The postnatal guidelines (WHO, 2015) specified that discharge from the clinic or hospital is permissible six hours after delivery, provided there are no obstetric, surgical or medical conditions. However, this led to inadequate continuity of care by midwives and primary caregivers due to shortage of staff and the lack of knowledge regarding the traditional cultural practices by midwives.

Given the state of concerns in rural areas where continuity of postnatal care is practiced, there are some barriers within the home environment and the health care facilities in which continuity of postnatal care is taking place. There are inconsistencies regarding the care of both the mother and the baby following delivery in the three selected districts of Limpopo Province. Primary caregivers utilised different cultural practices for continuity of care that are harmful to the lives of both mothers and babies, depending on their previous skills and competencies.

However, midwives are unable to detect such practices because there is lack of communication due to shortage of trained human resources. The midwives are also not in-serviced to enable the safe continuity of care to take place. Important also, midwives do not give too much attention to the postnatal period, but much on the antenatal and intrapartum stage.

Some challenges included the overcrowding within the health care facilities where primary caregivers have to wait for a long period. This made the business of the day not fulfilled as the health education sessions are absent. Most of the primary caregivers are faced with a language barrier where the message is not clearly captured during communication with the midwives, and this made them to perform harmless traditional cultural practises at home.

Due to shortage of staff, primary caregivers were not even included during the discharge planning. This made the primary caregivers perceived that they are neglected, hence they are not treated with respect and dignity. There are no counselling sessions on discharge but the primary caregivers are available with postnatal woman.

Study findings indicated that the midwives had poor methods of disseminating information to primary caregivers and the community at large, hence primary caregivers were not comfortable when accessing the health facilities. This made primary caregivers to rely on the traditional skills that they acquired through their experience from their mothers or any female senior citizen in the community.

Therefore, the researcher has learned that there is no evidence of continuity of care that can safeguard the lives of both the mother and the baby.

Figure 4.1 displays the summary of findings according to the Donabedian framework.

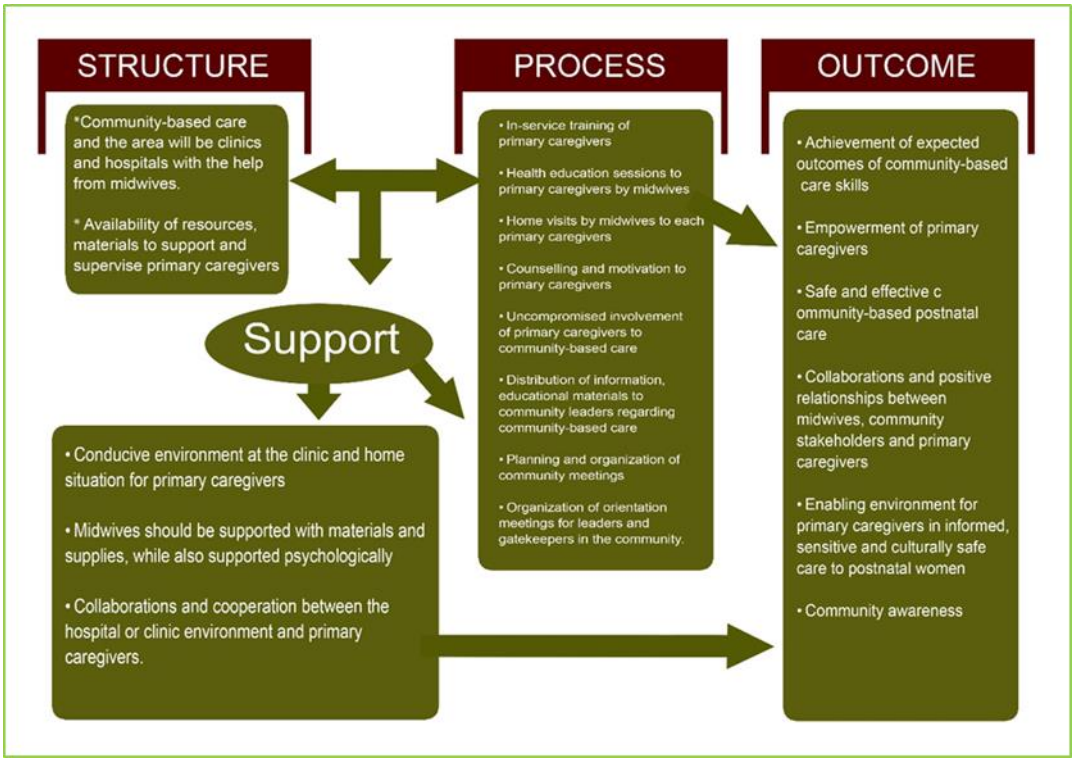

Figure 4.1: Summary of results from quantitative and qualitative approaches (self-developed)

4.5 Summary

This chapter presents the data analysis, interpretations and discussions of the findings. Data analysis began concurrently and were analysed independently. The researcher used convergent mixed methods to merge the two data sets. This study found that the qualitative findings are related to quantitative findings to the extent that both answered the research question. The next chapter will discuss the concept analysis in which the researcher clarifies and distinguishes the definitions of concepts.

CHAPTER 5

CONCEPT ANALYSIS

5.1 Introduction

Chapter 4 outlined the data analysis and discussion of the research results. This chapter discusses the Concept Analysis that Phase 3 utilized in this study. In this chapter, the researcher clarifies and distinguishes the definition of the concept 'Community-Based Postnatal Care' in order to share the meaning of this concept with the readers as well as with the participants. The researcher adopted the eight steps in the Walker & Avant method to clarify and distinguish the definition of the main concepts as follows: select a concept; determine the purpose of analysis; identify all the uses of the concept; determine the defining attributes; contrast the model case, contrast additional cases, identify antecedents and consequences; and define empirical references.

To achieve objective six, the data that emerged in Chapter 4 were used for concept analysis, after which the enhancement of community-based postnatal care emerged as a major concept. Concept analysis was conducted to provide a better understanding of the core concept 'Enhancement of community-based postnatal care'. The analysis provided researchers who are interested in studying community-based postnatal care with a clearer definition for use in the creation of operational definitions, as well as for model development and evaluation.

5.2 Concept Analysis Steps

Concept analysis refers to clarification and analysis of the lay concepts in the study and the way in which one's research is integrated into the body of existing theory and research (Mouton, 1996). Nuoponnen (2010) defined concept analysis as an integrated part of terminology work, because concept is considered as a central element in terminological theory. The concept analysis will be used to clarify meaning and promote understanding of the readers. In this study, the Walker & Avant (2005) method was used for concept analysis and the steps which are mentioned below, had been followed:

- Select a concept;
- Determine the aims or purpose of analysis;
- Identify uses, characteristics, or connotations of the concept;
- Determine defining attributes;
- Develop the model cases;
- Identify antecedents and consequences; and
- Define empirical referents.

5.2.1 Select a Concept

Development of a model starts with selecting a concept to be analysed. Concept selection should reflect the topic or area of greatest interest. During the process of interacting with the findings, it emerged that primary caregivers relied on health care professionals for a short duration, and later primary caregivers took over the process of caring for both mother and baby. During the process of interacting with the findings, it also emerged that primary caregivers had challenges when continuing

with provision of postnatal care at home. This was exacerbated by limited support from midwives, lack of recognition by midwives, cultural influences, and overcrowded health facilities. Hence, the focus of this study was to enhance the continuity of postnatal care by primary caregivers.

In this chapter, enhancement and community-based care were selected as core concepts because they were found to be the central ideas and all the other concepts were related to it. The selected concepts are key to the participants' life experience during the application of theory to the real world in postnatal care. The participants had different conceptualisations of practising postnatal caring as primary caregivers. Postnatal care skills were stipulated for midwives; however, primary caregivers were less skilled to continue with community-based postnatal care. Therefore, a model that enhances community-based postnatal care would assist primary caregivers to continue with community-based care as stipulated by the SANC. The midwives working in maternity health facilities would play a fundamental role in enhancing community-based care during the postnatal check-ups.

5.2.2 Determine the Aims or Purpose of Analysis

The principal aim of the present concept analysis was to provide a definition and clarify the meaning of 'Enhancement of Community-Based Postnatal Care' that contributes to understanding its use within the health care context and to provide an operational definition for future research in this context (Walker & Avant, 2014). The concept analysis was done to better understand how the term "Enhancement of Community-Based Postnatal Care", is perceived and used. Lexicon definitions were sought from various English and Medical dictionaries. As this is a three-word concept, the words 'enhancement', 'community-based', and 'postnatal care' were explored independently and their attributes are outlined in Figures 5.1–5.3.

5.2.3 Identify Uses, Characteristics, or Connotations of the Concept

The researchers used dictionaries, thesauruses, colleagues, and available literature to identify as many uses as practical. A literature review assisted the researcher to support and validate the ultimate choices of the defining attributes. The search is not limited to nursing and medical literature (Walker & Avant, 2005). Identifying the use of enhancement and community-based and postnatal care involved examining these concepts:

5.2.3.1 Definition of the Term 'Enhancement'

'Enhancement' as one of the selected concept terms, was taken to research object in nursing science which is very abstract, and its designation is often used also as normal word in general language without very clear-cut meaning. Different authors define 'enhancement' differently or the term may be used vaguely in nursing practice (Nuoponnen, 2010).

According to Clarke (2008), enhancement is defined as the process of promoting the capacity of individuals and communities to take control of their lives and improve their health status. In this case, the midwives are in the process of capacitating the primary caregivers to assist postnatal women at home.

The Oxford Advanced Learner's Dictionary (2010) indicates that 'enhancement' derives from the verb 'enhance', which refers to increasing or further improving the quality, value, status of somebody/something.

The Cambridge Advanced Learner's Dictionary (2011) defines enhancement as a change, or a process of change, that improves something or increases its value.

The Merriam Webster's Advanced Learner's Dictionary (2008) corroborated that the

concept 'enhance' was borrowed by English in the 13th century, when it literally meant to raise something higher and the definition is applicable to primary caregivers and midwives which refers to making greater or better.

In sociology, enhancement is defined as interventions that are designed to improve human form or functioning beyond what is necessary to sustain or restore good health (Juengst, 1997).

In nursing discipline, enhancement is the process of making something greater. It is the act of improving the condition of health that was deteriorating. In this case, the patient's condition is improved, thus primary caregivers will improve the health status of postnatal women by ensuring continuity of care at home.

Enhancement as a noun refers to change, or a process of change, that improves something or increases its value. Synonyms of enhance are enrich, intensify, add to, improve, strengthen, sharpen, aggravate, magnify, amplify, augment, inflate, ameliorate (Concise Oxford English Dictionary, 2007). Attributes of enhancement are arrayed in Figure 5.1.

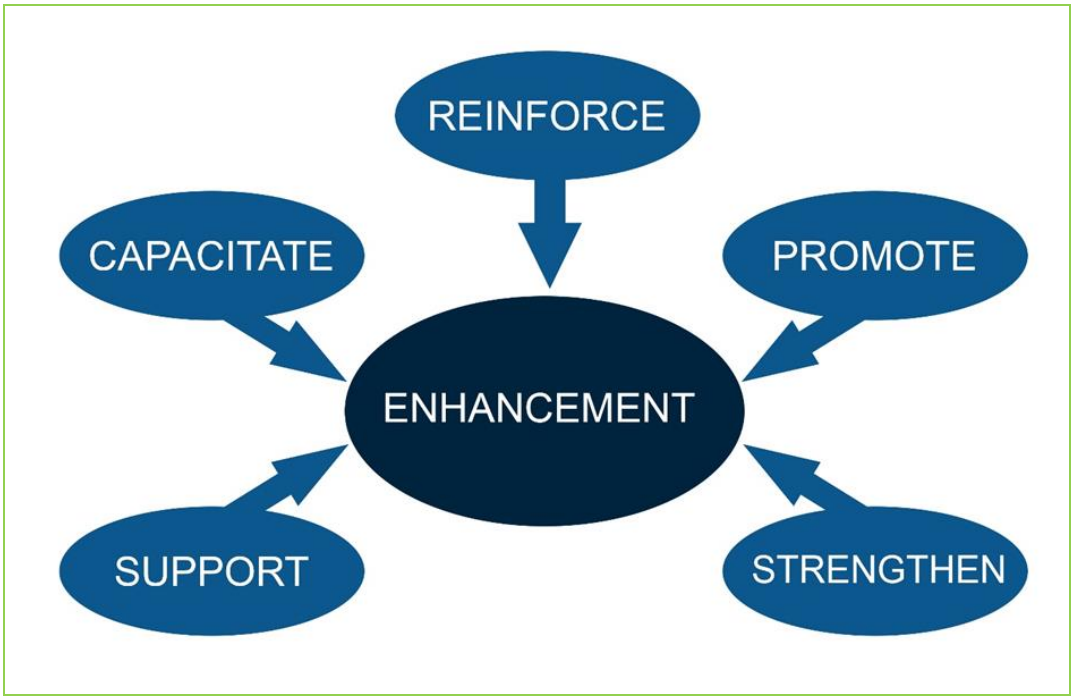

Figure 5.1: Attributes of the concept 'enhancement'

There are fundamental attributes of enhancement like promote, reinforce, strengthen, support and capacitate. The primary caregivers need all those attributes from midwives in the health facilities to achieve enhancement. The primary caregivers should be enhanced to access counselling information from midwives regarding the continuity of postnatal care while at home. An individual needs support from enhancers to drive process (enhancement). Hence, strengthening or support should be applied to sustain enhancement. Strengthening denotes that primary caregivers need constant support and supervision from midwives to achieve community-based postnatal care. Since the study is conceptualized within Donabedian Framework, the structure influences the process, thus leading to the desired outcome. This means that the adequate staffing of midwives will improve the education and counselling sessions to primary caregivers for quality and safe health of postnatal women and babies.

5.2.3.2 Definition of the Term 'Community-Based'

Mosby's Pocket Dictionary (2014) defines 'community-based' as an activity that is organised and taking place locally. The Oxford Advanced Learner's Dictionary (2015) defines 'community care' as the medical and other care for people who need help over a long period, which allows them to live at home rather than in a hospital. The Oxford Advanced Learner's Dictionary (2015) defines 'home-based' as the place where something usually operates from. The Longman Dictionary of Contemporary English (2011) defines 'home-based' as the place that someone returns to in order to rest, learn new things or exchange information. 'Home care' is defined as the care that takes place at home.

'Home-based care' is defined as any form of assistance provided to a sick person referred to as the patient directly in the home by family, friends and members of the local community, cooperating with the advice and support from the trained health workers. The Concise English Oxford Dictionary (2006) defines 'community-based care' as a philosophical approach in which communities have an active role and participate in highlighting and addressing the issues that matter to them. The Oxford Advanced Leaners' Dictionary (2015) defines 'community-based care' as an activity that is done for people who need help over a long period, which allows them to live at home rather than in a setting.

In this study, 'community-based care' and 'home-based care' are relevant to the selected concept as it involves midwives' experience in the community or home setting. The community setting enables the upscaling of primary caregivers on the provision of safe postnatal care practices. It is where the primary caregivers learn problem-solving, decision-making and divergent thinking skills necessary for dealing with the uncertainties of the continuity of postnatal care at home. The primary caregivers are faced with the life-threatening physical and mental health conditions

of the woman at home that must be reported or attended to immediately. The primary caregivers must be able to observe the deviations from normal puerperium such as the sudden and profuse blood loss or persistent, increased blood loss, faintness, dizziness, palpitations or tachycardia, fever, shivering, abdominal pains, headaches, leg pains, shortness of breath or chest pains. The primary caregivers should be able to observe and deal with deviations from normal mental status or health, such as severe depression, severe anxiety, the desire to hurt others, confused and disturbed thoughts.

The focus of postnatal caring has primarily been in the hospital setting, however, postnatal women are discharged within six hours after delivery if there are no complications. Therefore, postnatal women discharged home should be assisted by primary caregivers. In this study, the primary caregivers are expected to provide safe postnatal care practices while at home.

Postnatal caring of primary caregivers is context-dependent, thus positive environments could produce quality primary caregivers. However, the postnatal care of primary caregivers was not conducive for quality care due to barriers and lack of adequate facilitation by midwives at the health facilities. The primary caregivers needed a good structure and proper processes with the goal of practising safe and effective postnatal care. The attributes of community-based care are structures and processes that will yield positive outcomes.

According to the Donabedian Framework, the structuring of the midwives within the health care facility should have adequate clinical skills which are sensitive to the woman and newborn's needs that could be transferred to primary caregivers through health education sessions. For community-based postnatal services, the midwives should visit individual community leaders to engage their support. They must

organise orientation meetings for all opinion leaders and gatekeepers to access entrance. With community leaders, the midwives should plan and organise community meetings to educate community members about the postnatal care at home. In this study, midwives should carry out home visits to teach primary caregivers through the distribution of information, education and communication materials to all leaders and members of the community. Figure 5.2 illustrates the attributes for community-based care, namely, ownership, responsibility, resources, willingness of primary caregivers, unity of primary caregivers, confidence, empowerment, behavioural change and a sense of control.

Figure 5.2: Attributes of community-based care (self-developed)

5.2.3.3 Definition of the Term “Postnatal Care”

Postnatal care is the care that is given to the mother and the baby immediately after delivery (Sellers, 1995). The SANC (2014) defines postnatal care as the period that lasts six to eight weeks, beginning right after the birth of the baby. According to WHO (2014) guidelines, postnatal care is done to both the mother and her baby

immediately after the birth of the baby for at least 24 hours if the delivery was not complicated. Postnatal care is defined as the care that is provided to the mother immediately after the expulsion of the placenta and membranes and continues until six weeks after delivery of the baby (Fraser & Cooper, 2010). The provision of postnatal care depends on the place of birth, timing of discharge from the health facility, timing of postnatal contacts and home visits. Both the mother and her baby are assessed physically and evaluated for deviations from the normal findings.

Postpartum care involves getting proper rest, nutrition and vaginal care immediately after delivery. In this study, postnatal care refers to the ability of primary caregivers to take full responsibility to the lives of both mothers and babies as stipulated by SANC, evidenced by making the most difference to the health and life chances of mothers and newborns in the early stages of th epostnatal period. According to the SANC Scope of Practice of a Registered Midwife (R.2488, as amended), during the postnatal period, the registered midwife is expected to attend to the mother and child at least once a day and shall not discharge them from her care until the condition is satisfactory (WHO, 2013). Postnatal care includes the assessments and care provided to mothers and babies by the midwives and primary caregivers after birth until the period of six weeks.

The postnatal practices in the first six hours includes the following:

- Evaluating the mother for the danger signs of inadequate uterine contractions, fresh vaginal bleeding and unstable vital signs indicating shock, and
- Evaluating the newborn baby with inadequate breastfeeding problems, neonatal jaundice, fever, repeated vomiting, swollen abdomen or no stools after 24 hours, hypothermia, respiratory distress, bleeding from the

umbilical stump or other site and red swollen eyelids or pus discharging from the eyes.

During the first postnatal visit, the midwife is expected to counsel the mother and the primary caregiver about family planning, immunisation and breastfeeding options; make an appointment for the woman to come to the health facility or visit the woman to her home after three days, six days and six weeks to check if everything is normal and to make an additional appointment to visit the woman at home after two days if there are complications which have not resulted in referral such as low-birth weight, preterm or lowered body temperature.

However, primary caregivers failed to acquire the expected outcomes of postnatal care knowledge and skills due to limited support from midwives. The study findings indicate that primary caregivers’ performance of postnatal care was in accordance with substandard care; they failed to link the traditional and Western postnatal health knowledge. According to the Donabedian Framework (1966), the primary caregivers were faced with structural factors related to the continuity of postnatal care at home. These structural factors were defined as barriers or facilitators related to the social and organisational aspects of the health facilities as well as the home situation. The health care facilities were poorly equipped with shortage of midwives and had more clients within the health facility that needed their attention. The home situations have few or no family members that can continue with postnatal care at home. To ensure continuity of community-based care, the midwives were expected to follow community mobilisation to help primary caregivers to upscale their capacity on the provision of safe postnatal care practices.

The safe postnatal care practices include the following:

- Assessing the elimination pattern of both mother and baby,
- Attending to the mother and child for a day or at least five days following the birth of the baby,
- Instructing the mother in postnatal exercises and breastfeeding unless contra-contra-indicated,
- Instructing the postnatal woman to care for herself and the baby during the puerperium,
- Examining the perineal area of the postnatal woman if intact,
- Examining the postnatal woman’s legs for oedema and tenderness, and
- Checking the general appearance, weight gain, elimination, feeding, cord care and immunisation of the baby.

Midwives should take full responsibility in the planning, implementation, monitoring and evaluation of community activities to bring about adequate support from community members for community-based care during the postnatal period. The midwife’s role is to learn from the community the wisdom to educate and persuade community members to bring about the expected changes regarding the postnatal outcomes, hence, primary caregivers are responsible for the final decision regarding community mobilisation.

The following are the attributes that emerged for postnatal care, namely, knowledge, understanding, responsibility, skills and ability. In order for the primary caregiver to provide postnatal care at home, the primary caregiver should have knowledge and understanding about the postnatal care practices. The primary caregivers should demonstrate a skill on providing the care, thus displaying the ability to perform an

action. Later on, the primary caregivers should display their responsibility towards the postnatal care practices with no involvement of midwives. The self-developed Figure 5.3 illustrates the attributes of postnatal care:

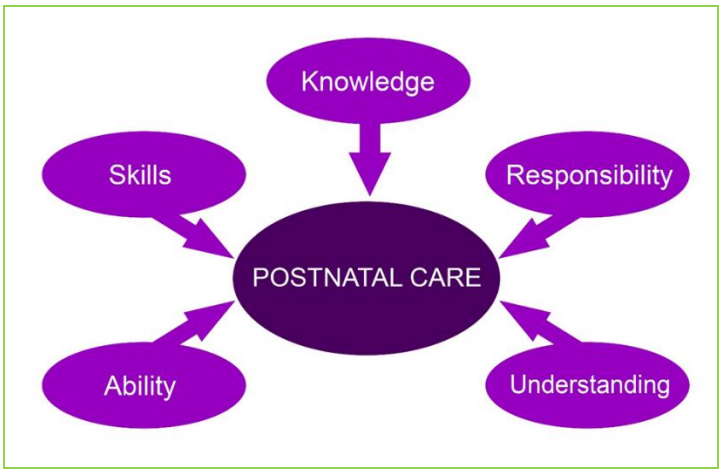

Figure 5.3: Attributes of postnatal care (self-developed)

5.2.3.4 Enhancement of Community-Based Postnatal Care

Enhancement should be discussed in the context of the Donabedian Framework (1966) which indicates the relationship between the structure, process and outcome, based on the idea that a good structure promotes good process and a good process, in turn, promotes a good outcome. In this study, both the organisational resources and professional resources are associated with the provision of quality care that will enhance safety of the postnatal woman and the baby.

As a provider of safe and quality health care, the midwives need a process that will drive them to meet the needs of the primary caregivers to continue with postnatal care at home. This means that midwives should display professional behaviours, skills and abilities to the primary caregivers regarding the enhancement of community-based care to postnatal women.

Midwives should have competency in the provision of care for women during the postpartum period. To achieve this competency, the midwife should provide comprehensive, high quality, culturally sensitive postpartum care for women. During the process of caring, the midwife should demonstrate knowledge and understanding of the following:

- Physical and emotional changes that occur following childbirth, including the normal process of involution,
- Physiology and process of lactation and common variations including engorgement, lack of milk supply and other breast problems,
- The importance of immediate or early breastfeeding for mother and child,
- Maternal nutrition, rest, activity and physiological needs such as bowel and bladder habits in the immediate postpartum period,
- Principles of parent-infant bonding and attachment,
- Indicators of subinvolution,
- Indicators of maternal breastfeeding problems or complications,
- Signs and symptoms of life-threatening conditions that may arise during the postpartum period,
- Signs and symptoms of selected complications in the postnatal period,
- Methods of family planning appropriate for use in the immediate postpartum period, and
- Community-based postpartum services available to the woman and her family and how they can be accessed.

The midwife should demonstrate the skills and abilities to care for the postnatal woman by doing the following actions and transfer this to primary care givers:

- Assess for uterine involution and healing of lacerations and repairs,
- Initiate and support uninterrupted breastfeeding,
- Teach mothers how to express breast milk and how to handle and store expressed breast milk,
- Educate mothers on care of self and infant after childbirth, including the signs and symptoms of impending complications and community-based resources,
- Educate a woman and her family on sexuality and family planning following childbirth,
- Provide appropriate and timely first-line treatment for any complications detected during the postpartum examination such as anaemia and refer for further management, and
- Provide emergency treatment of late post-partum haemorrhage and refer (ICM, 2010).

For the newborn, the midwife should demonstrate the skills and abilities to care for the postnatal woman by doing the following actions:

- Provide the immediate care to the newborn, including cord clamping and cutting, drying, clearing airways and ensuring that breathing is established,
- Promote and maintain normal newborn body temperature through covering,

environmental control and promotion of skin to skin contact,

- Begin emergency measures for respiratory distress, hypothermia and hypoglycaemia,
- Provide routine care of the newborn, and
- Educate parents about danger signs in the newborn and when to bring infant for care (ICM, 2010).

5.2.3.5 Connotations of the Concept 'Enhancement of Community-Based Postnatal Care' that Emerged from the Literature

There are concepts that have similar meanings to the concept being analysed and may be mistaken for the concept itself. Defining related concepts will help clarify exactly what the concept being analysed is and is not. Making the distinction between the related concept and concept under analysis will minimise any further confusion between the terms (Walker & Avant, 2005). The search for the meanings will be in the dictionaries and will not be limited to nursing and medical literature. In this study, the concepts enhancement of community-based postnatal and home-based postnatal and community-postnatal care have the same connotations and are sometimes used interchangeably in the literature.

Analysis of the literature presented the following connotations ascribed to enhancement of community-based postnatal competence and community-based postnatal knowledge in postnatal care practices. In a community-based postnatal care, primary caregivers should bring about an action in the community to make a change that will contribute to the positive environment. Midwives should mobilise the primary caregivers through cumulative process of communication, education and organisation within the community to build strong leadership as well as the implementation capacity to solve the health problems that might arise during the

postnatal period. Although it has proven difficult to differentiate the three concepts of community-based, home-based and community-postnatal care, it was pointed out how to distinguish them, which helps one to understand their connotations

The Oxford Advanced Learner's Dictionary (2015) defines community-care as the medical and other care for people who need help over a long period, which allows them to live at home rather than in a hospital. The Longman Dictionary of Contemporary English (2011) defines home-based as the place that someone returns to rest, to learn new things or exchange information.

For community-based postnatal care, there should be community participation as the midwives are only placed in the health facilities to care for postnatal women. This means that midwives should engage the community to participate in community-based care. To ensure community participation, midwives should initially explore the community wisdom, educate and persuade community members to bring about the necessary changes to improve postnatal outcomes. The final word and the final decision regarding community-based postnatal care will belong to the community. This means that the involvement and the active participation of primary caregivers towards community-based care will contribute to the sense of ownership and responsibility by community members. The active participation will also help in the sustaining of the initiatives, activities and programmes that will be developed by community members.

5.2.4 Determine the Defining Attributes

5.2.4.1 Overview

According to Walker & Avant (2005) and Chinn & Kramer (2008), determining the defining attributes has been at the 'heart of concept analysis'. The purpose of this section is to identify those characteristics without which enhancement of community-

based postnatal care would not occur. The critical or defining attributes of the concept exists when the analyst has identified all the different usages on examining the different concepts, taking notes on the characteristics that appear repeatedly. Examining the definition of enhancement of community-based postnatal care as given above, its essential attributes are: Ability to perform the expected outcomes of community-based postnatal skills, the reduction of maternal and neonatal complications during the community-based caring, the ability to provide safe and effective community-based postnatal care, successful establishment of positive relationships and collaborations between midwives and community members and the creation of an enabling environment with culturally sensitive care.

Enhancement of community-based postnatal care of primary caregivers is reliant on community mobilisation and community participation with a supportive environment. Positive relationships between midwives and community stakeholders are imperative in the enhancement of community-based postnatal care. The community stakeholders form a support system which would allow primary caregivers' involvement in community-based postnatal care practice. Enhancement of community-based postnatal care will be assessed in its optimal sense for the purposes of the formation of critical attributes, development of the model, the determination of antecedents and consequences and the definition of empirical referents. These defining attributes for the enhancement of community-based postnatal care will be discussed separately below, considering the research findings.

5.2.4.2 Achievement of Expected Outcomes of Community-Based Care Skills

The achievement of the expected outcomes of community-based care skills depends on the professional behaviours of midwives. Basically, midwives are expected to behave professionally for effective community-based care.

The following are the expected behaviours of a midwife:

- To behave in a courteous, non-judgemental, non-discriminatory, and culturally appropriate manner with all clients,
- To be respectful of individuals and of their culture and customs, regardless of status, ethnic origin or religious belief,
- To maintain the confidentiality of all information shared by women; communicates essential information between and among health providers or family members only with explicit permission from the women and compelling need,
- To work in partnership with women and their families,
- To work collaboratively with other health workers to improve the delivery of services to women and families,
- To engage in health education discussions with and for women and their families,
- To use appropriate communication and listening skills across all domains of competency, and
- To take a leadership role in the practice arena based on professional believes and values (ICM, 2010).

This defining attribute manifests in the client-nurse relationship. This means that midwives and primary caregivers should demonstrate qualities for advancement of relationships. Qualities needed in all relationships are non-judgemental communication skills and information sharing between midwives and primary

caregivers. There should be community mobilisation which are planned and carried out; these are be evaluated by community members, organisations or groups to solve community health problems. Through community mobilisation, a cumulative process of communication, education and organisation will help in building leadership and the implementation capacity of primary caregivers to solve the community postnatal care problems.

The continuity of community-based care of primary caregivers is context-dependent to produce independent primary caregivers in a positive and supportive environment. The environment needs to be non-threatening to the primary caregivers, free from prejudice and discriminations, hence primary caregivers are not officially trained.

These critical attributes provide a more comprehensive view of what is required for the community-based postnatal care. The focus of these attributes is on the positive aspect of enhancement of community-based postnatal care of primary caregivers during the continuity of postnatal care. The existence of these attributes would reinforce the enhancement of community-based postnatal care by primary caregivers for safe and congruent postnatal care.

5.2.5 Develop the Model Case

Developing model and additional cases is valuable in clarifying abstract concepts such as those encountered in nursing (Xyrichis & Ream, 2008). The different kinds of models are model case, borderline, related, contrary, invented and illegitimate case. However, only two cases will be presented in this chapter to illustrate and clarify what enhancement of community-based postnatal care is and is not.

5.2.5.1 Context

A model case is an example of the use of the concept that demonstrates all the

defining attributes of the concept. The model case should be a pure case of the concept, a paradigmatic example, or a pure exemplar (Walker & Avant, 2005). Generally, it is presumed that the author should be able to construct a model case which allows him/her to state 'If this is not X, then nothing is'. In this context, the interviews with the primary caregivers served as real-life cases because they indicated what primary caregivers' needs were regarding enhancement of community-based postnatal care during the continuity of postnatal care at home and this included all the attributes of the key concept (Walker & Avant, 2005). In the ensuing paragraphs, examples of model cases as derived from the findings are presented.

5.2.5.2 Example of a Model Case

Midwives are involved with the immediate postnatal caring in the first 24 hours to evaluate the mother and baby for the danger signs. Primary caregivers were available at the health facility for follow-up after immediate postnatal care. Primary caregivers were fully involved with health education sessions and counselling during the first postnatal visit. Midwives were understaffed, but still could consider primary caregivers' presence during the immediate postnatal caring. Primary caregivers were only at the health facility before discharge to collect mothers to continue with care at home. Childbirth classes were only given to women and primary caregivers from the antenatal period until the third trimester during the antenatal visits. During the health education sessions, the primary caregivers were almost always available. At the community setting they were expected to carry on with the continuity of postnatal care. Midwives gave health education sessions to women and primary caregivers without consideration of their internal biases. The concept of cultural safety was only introduced during the discharge period. Postnatal women and primary caregivers were given information on important physiological changes that

occur during the puerperium as midwives were focusing on what can be expected in a normal postnatal woman.

Primary caregivers could not understand all the normal changes which were experienced after childbirth, however, they were committed to mothering the postnatal women with special consideration to cultural issues. The primary caregivers were not scared to perform community-based postnatal care procedures like the instillation of herbal medication for fast healing of perineal lacerations and umbilical cords. Primary caregivers could share their postnatal care experiences and frustrations with the health care staff at the health facilities.

Counselling sessions were given by midwives beginning with the unknown to the known regarding care at home. Primary caregivers were not fully involved, but expected to continue with postnatal care while at home. At the end of the counselling sessions to both women and primary caregivers in the cubicle, the primary caregivers were mobilised throughout the community to communicate the community-based messages to the local villages for safety postnatal care. Primary caregivers were mobilised to perform the community-based care based on the health education and counselling received during the process of mobilising the community.

5.2.5.3 Discussion of a Model Case

The above-mentioned model case was ideal and has all the characteristics of the critical attributes of community-based postnatal care. This defining attribute manifests in the client-nurse relationship. This means that midwives and primary caregivers demonstrated all qualities for advancement of relationships. Qualities needed in all relationships were non-judgemental communication skills and information sharing between midwives and primary caregivers. Community

mobilisation was also planned and carried out, evaluated by community members, community organisations and other traditional leaders to solve community health problems. Through community mobilisation, a cumulative process of communication, education and organisation helped both midwives and primary caregivers in building leadership role, unity, confidence and a sense of control towards community-based care; thus, displaying ownership and willingness to take charge on continuity of postnatal care utilising the community-based care. Both midwives and primary caregivers displayed a change in behaviour in the form of showing responsibility towards the safe and postnatal quality life to women and babies.

The primary caregivers could accompany postnatal women to the health facilities for support during the discharge period. There was adequate communication between the primary caregivers and midwives, but due to shortage of midwives, postnatal consideration was focused to postnatal women and newborn babies. Positive relationships were evidenced in the midwife-primary caregiver relationship, effective communication and collaboration between midwives and primary caregivers. The environment was so supportive as there was a cultural awareness and sensitivity in the community through active participation of primary caregivers. The primary caregivers had knowledge and understanding regarding the postnatal care practices. The midwives were able to demonstrate the necessary skills to primary caregivers and that led to the ability of primary caregivers to perform the skills and being held responsible while doing it at the community area.

5.2.5.4 Contrary Case

Contrary case is defined as the use of the concept that does not demonstrate all of the defining attributes of the concepts (Walker & Avant, 2005). The contrary case do not have essential characteristics of the concept (Rossouw, 2003). The below is an example of a contrary case.

5.2.5.5 Example of a Contrary Case

At health centre B, four midwives were allocated to postnatal units to attend to postnatal women and primary caregivers. The ward was overcrowded with primary caregivers and postnatal women. Primary caregivers visited the health centre for health education and counselling regarding continuity of care. The appointment for health education and counselling was agreed two weeks back, but nobody cared about it. When the primary caregivers arrived at the health facility, the midwives were not aware of primary caregivers' visits, although the programme for the visitation was there in the health facility. In most instances the primary caregivers were scared to ask questions regarding the continuity of care at home, however, nobody was supporting their visit. The primary caregivers were not involved during the postnatal care services. Hence, they opted to stay outside the health facility and were chatting to people outside. Midwives were not seen at the community setting to visit the primary caregivers. The primary caregivers were shouted at and ignored for the wrongdoings that happened to postnatal women and babies at home. No meetings were held between the health facility and the communities. The gatekeepers were available, but there was no community mobilisation that took place. When midwives arrived at the community settings they did not care about the continuity of care done by primary caregivers, instead they proceeded with home visits without education and counselling to primary caregivers.

5.2.5.6 Discussion of a Contrary Case

The contrary case does not comprise any of the critical attributes of enhancement of community-based postnatal care: this scenario is not an example of the enhancement of community-based postnatal care. Since the contrary case is very like the real-life experience of primary caregivers during the community-based postnatal care, it is no wonder that they do not demonstrate the required skills of

postnatal care at home.

The attributes that indicate that the contrary case is missing many of the defining concepts of the model are outlined below:

- Community-based care was difficult to the real world as there was lack of community participation and mobilisation,
- There was poor relationships and lack of collaboration between midwives and primary caregivers evidenced by midwives ignoring primary caregivers continuity of postnatal care at home, and
- The environment of continuity of postnatal care was not supportive, hence, primary caregivers were not even given a sense of unity for community participation.

5.2.6 Identify Antecedents and Consequences

5.2.6.1 Antecedents

Antecedents are defined as events or incidents that must happen prior to the occurrence of the concept (Walker & Avant, 2005). Antecedents include personal and organizational factors that influence how the concept is enacted. Examination of the antecedents and consequences of the enhancement allows further refinement of the critical attributes, thus facilitating the formulation of the criteria for enhancement. Antecedents of the concept “Enhancement of Community-Based Postnatal Care” as determined from this analysis are:

- The ability to visit individual community leaders and traditional healers to engage their support,

- Organisation of orientation meetings for all opinion leaders and gate-keepers in the community,
- Planning and organisation of community meetings to educate community members about postnatal care,
- Provisioning of health education sessions as midwives to the community members,
- Carrying out home visits to teach parents and primary caregivers about postnatal care,
- The commitment and enthusiasm of primary caregivers to practise community-based postnatal skills without being scared or perceiving that the continuity of postnatal care is for midwives,
- The provisioning of counselling and motivation to primary caregivers prior to community-based exposure to allay anxiety when performing postnatal care procedures which are highly intimate,
- The uncompromised involvement of primary caregivers in community-based postnatal care to build their confidence,
- The distribution of information, education and communication materials to community leaders and community members regarding postnatal care practice, and
- The availability of resources which includes equipment, materials and adequate midwives to support and supervise primary caregivers.

These are the necessary conditions that must be satisfied before the enhancement of community-based care can be accomplished during the continuity of postnatal

care.

5.2.6.2 Consequences

Consequences are events that occur because of the concept (Walker & Avant, 2005). Some of the consequences of the enhancement of community-based postnatal care are highlighted as the critical attributes of the concept. Positive examples include some evidence of the impact on primary caregivers postnatal learning leading to improved postnatal care skills and positive relationship during the community-based care.

Consequences are as follows:

- Achievement of expected outcomes of community-based care skills,
- Reduction of maternal and neonatal complications,
- Ability to provide safe and effective community-based postnatal care,
- Existence of positive relationships and collaborations between the hospital midwives, community stakeholders and primary caregivers, and
- Creation of an enabling environment that increases primary caregivers' competency in providing informed, sensitive and culturally-safe care to postnatal women.

If enhancement of community-based postnatal care occurs, achievement of the expected outcomes of postnatal care skills would automatically occur and primary caregivers would participate with enthusiasm during the community-based postnatal care practise.

5.2.7 Define Empirical Referents

The final step in a concept analysis is to identify empirical referents for the defining attributes (Walker & Avant, 2005). Empirical referents are instances which, by their existence, demonstrate the occurrence of the concept, and can be very useful in measuring the concept and validating its existence. Empirical referents were defined by Chinn & Kramer (2008) and Walker & Avant (2005) as classes or categories of actual existing phenomena demonstrate the occurrence of the concept itself. Furthermore, the empirical referents are the elements that are observable. In this study, the empirical referents have been identified from the perceptions and experiences of primary caregivers regarding community-based postnatal care.

The empirical referents of the enhancement to community-based care in this study would be measured through:

- Quality community-based care skills,
- Provision of safe and effective community-based postnatal care,
- Existence of positive relationships and collaborative team amongst hospital midwives, community stakeholders and primary caregivers,
- Availability of an enabling environment, and
- Reduced maternal and neonatal complications.

Each of these referents will be integrated within the SANC legislation and Donabedian Framework and measured by the formulated guidelines. The construction of referents operationalises the concept of interest. Walker & Avant (2005) stated that referents, once identified, are extremely useful in instrument development because they are clearly linked to the theoretical base of concept, thus,

contributing to both the content and construction of the instrument and they will provide clear observable phenomena of the concept.

5.3 Summary

Chapter 5 discussed the concept analysis. The steps for concepts analysis were described in accordance with the premise of Walker & Avant (2005). The steps discussed were: the selection of a concept; aims of analysis; identification of uses, characteristics or connotations of the concepts; determining defining attributes; developing the model cases; identifying antecedents and consequences as well as defining the empirical referents. Chapter 6 focuses on the development of the model.

CHAPTER 6

MODEL DEVELOPMENT

6.1 Introduction

The previous chapter outlined the concept analysis. The concept analysis led to the development of a model that will enhance the continuity of care. During this phase the continuity of postnatal care provision was done through the community-based approach as the care was based at the community level. Model development and description was based on the research findings in Chapter 4 and on the concept analysis in Chapter 5.

6.2 Model Development Process

The development of the model which is community-based for the continuity of postnatal care provision contained the following components, namely, goals, concepts, definitions, relationships, structure and assumptions as outlined in Chinn & Jacobs (1987).

6.2.1 Goals

George (2010) defined goal as the desired outcome the health provider wishes to achieve. The main aim of developing the community-based postnatal care model is to enhance the continuity on implementation of postnatal care skills by primary caregivers. The developed model will be implemented by maternal health care services of the health institutions in the Limpopo Province of South Africa.

In this study, the expected outcomes of the model that is developed are:

- To strengthen the capacity of primary caregivers. This will be through the training programme on the provision of safe postnatal care practices,
- The action plans of the model will be used to mentor primary caregivers on the improvement of postnatal health in the rural communities,
- To offer free postnatal care services by primary caregivers that will contribute to safe and quality care to woman and babies within the community, and
- To screen complicated cases at the community levels before referral to the health care institutions with the assistance from home-based carers, thereby reducing maternal and neonatal deaths.

6.2.2 Concepts

The main concept in this study was “Enhancement of Community-Based Postnatal Care”, and the concept will be applied as such. From the analysis of the data, it emerged that primary caregivers had a knowledge deficit on continuing with postnatal practices. Hence, the enhancement of community-based postnatal care was identified as a major theme. The process of concept analysis was conducted to identify the characteristics of the concept “Enhancement of Community-Based Postnatal Care” which was done under ‘‘Concept Analysis Steps’’ elaborated in Chapter 5.

6.2.3 Definitions

The definitions of the concept “Enhancement of Community-Based Postnatal Care’’ was explored in detail in the steps for concept analysis in Chapter 5.

6.2.4 Relationships

Relationships will be achieved by designing of relational statements by means of analysing and synthesising the existing definition. According to Walker & Avant (2005), synthesis is the process and strategy that provides a mechanism for creating something new from the data that is already available. From the existing definition, the researcher analysed and synthesised a definition of the concept “Enhancement of Community-Based Postnatal Care” within the context of this study. The process of analysis and synthesis as described by Walker & Avant (2005) was adapted for this study. The researcher developed statements that proposed specific relationships among the concepts being studied. The relationship between the primary caregivers and the midwives begins where the primary caregivers existed as a beginner in postnatal caring skills, then through demonstrations the primary caregivers become competent through the workshops or in-service training conducted by midwives for safe postnatal care skills. Knowledge for use in statement synthesis may be acquired through interviews and integrative literature reviews. Figure 6.1 provides an overview of the statements that are related to the core concept “Enhancement of Community-Based Postnatal Care” by examining the link between antecedents, defining attributes and consequences.

6.3 Structure of the Conceptual Model

Once synthesis has been completed, the conceptual model of enhancement of community-based postnatal care by primary caregivers was developed utilising the Dickoff, James & Wiedenbach (1968) framework.

ANTECEDENTS
❄ Increased sensitization on PNC during ANC ❄ Information dissemination mechanism through meetings with traditional leaders ❄ Evidence-based public education campaigns by midwives

- Strategies to motivate PNC attendance through home visits by midwives
- Encouraging a supportive environment to primary caregivers before exposure to community-based postnatal care
- Strengthening community involvement
- Availability of resources

DEFINING ATTRIBUTES

- Behaviour in a courteous, non-judgmental, non-discriminatory manner
- Being respectful to individuals regarding culture and customs
- Maintaining confidentiality
- Working in partnership with women and families
- Engagement in health education discussions with women and families
- Using appropriate communication and listening skills
- Taking a leadership role in the practice

CONSEQUENCES

- Achievement of expected outcomes of community-based postnatal care skills
- Reduction of maternal and neonatal complications
- Ability to provide safe and effective community-based postnatal care
- Existence of positive relationships and collaborations between the hospital midwives, community-midwives and primary caregivers
- Creation of an enabling environment that increase primary caregiver's competency in providing informed, sensitive and culturally- safe care to postnatal woman and babies.
- Safe postnatal practices
- Reduced maternal complications
- Enhanced environment for community-based care

Figure 6.1: Synthesis of relational statements (self-developed).

The list of areas covered are agent, recipient, procedure, context dynamics and terminus/goal. The utilisation of the Dickoff, James & Wiedenbach (1968) survey list in a conceptual model, was adapted as discussed below.

6.3.1 Agent

An agent is a person (or any other thing) who contributes towards realization of the goal (Dickoff *et al*., 1968). George (2010) connoted that an agent is a propelling force that moves his/her practice towards its goal. According to the Scope of Practice of a Registered Midwife (R.2598), the registered midwife should entail the scientifically based acts or procedures which apply to the practice of midwifery and which relate to the mother and child in the course of pregnancy, labour and the puerperium period. The midwife should do the following:

- Diagnose the health needs and the facilitation of the attainment of optimal physical and mental health of the mother and child by the prescribing, provisioning and executing of a midwifery regimen, or where necessary, referral to a registered person or by obtaining the assistance of a registered person,
- The execution of a programme of treatment or medication prescribed by a registered person,
- The prevention of disease relating to pregnancy, labour and the puerperium and the promotion of health and family planning by teaching and counselling individuals, families and groups of persons by implementation of family planning skills and by monitoring the health status of the mother and child,
- The monitoring of the progress of pregnancy, labour and puerperium, the vital signs, the reaction of the mother and child to disease conditions, trauma, stress, anxiety, medication and treatment,
- The prevention of complications relating to pregnancy, labour and the

puerperium,

- The administration of medicine to the mother and child,
- The prescribing, promotion or maintenance of hygiene, physical comfort and reassurance of the mother and child,
- The promotion of postnatal exercises, rest and sleep to both mother and child,
- The facilitation of body mechanics and the prevention of bodily deformities in the execution of the midwifery regimen to the mother and baby,
- The supervision over and maintenance of a supply of oxygen to the mother and child,
- The supervision over and maintenance of fluid, electrolyte and acid-base balance of the mother and child,
- The facilitation of the healing of wounds, the protection of the skin and the maintenance of sensory functions in the mother and child,
- The facilitation of the maintenance of bodily regulatory mechanisms and functions in the mother and child,
- The facilitation, maintenance and improvement of the nutritional status of the mother and child,
- The promotion of breastfeeding to the mother,
- The supervision over and maintenance of elimination by the mother and child,
- The facilitation of communication by and with the mother and father or family in the execution of the midwifery regimen,

- The establishment and maintenance of an environment in which the physical and mental health of mother and child is promoted,
- The preparation for and assistance with operative, diagnostic and therapeutic acts for the mother and child,
- The coordination of the health care regimens provided for the mother and child by other categories of health personnel, and
- The provision of effective advocacy to enable the mother and child to obtain the health care they need.

Thus, the midwife should take full responsibility in the planning, implementation, monitoring and evaluating community activities to bring about adequate support to primary caregivers for the continuity of community-based postnatal care.

The following self-developed Figure 6.2 demonstrates the agents' role in the context of community-based care.

Figure 6.2: Agents

Midwives working in the maternity health care services registered with the SANC as midwives with understanding, knowledge, skills and abilities can add value, quality and improvement on the rendering of postnatal care by primary caregivers. The midwives can teach primary caregivers to:

- Assess the elimination pattern of both the mother and baby after delivery,
- Attend to the mother and child for a day or at least five days following the birth of the baby,
- Instruct the mother in postnatal exercises and breastfeeding unless contra-contra-indicated,
- Instruct the postnatal woman to care for herself and the baby during the puerperium,
- Examine the perineal area of the postnatal woman if intact,
- Examine the postnatal woman's legs for oedema and tenderness,
- Check the general appearance, weight gain, elimination, feeding, cord care and immunisation of the baby,
- Evaluate the mother for the danger signs of inadequate uterine contractions, fresh vaginal bleeding and unstable vital signs indicating shock, and
- Evaluate the newborn baby with inadequate breastfeeding problems, neonatal jaundice, fever, repeated vomiting, swollen abdomen or no stools after 24 hours, hypothermia, respiratory distress, bleeding from the umbilical stump or other site and red swollen eyelids or pus discharging from the eyes.

According to Scope of Practice (R.2598, as amended) the agent has the basic responsibilities which apply to the practice of midwifery and which relate to the mother and child in the course of pregnancy, labour and the puerperium. The responsibilities are:

- Assisting primary caregivers with referral system to a registered person if there are complications,
- Assisting primary caregivers with the use of treatment as ordered by the registered person,
- Educating the primary caregivers on the promotion of health and family planning by teaching and counselling individuals, families and groups, by implementation of family planning skills and by monitoring the health status of the mother and child,
- Monitoring of the progress of puerperium by primary caregivers regarding the reaction of the mother and child to disease conditions, trauma, stress, anxiety, medication and treatment,
- The administration of medicine to the mother or child by primary caregivers during the postnatal period,
- The promotion or maintenance of hygiene, physical comfort and reassurance of the mother and child by primary caregivers,
- The promotion of postnatal exercise, rest and sleep to postnatal woman by primary caregivers,
- The facilitation of body mechanics and the prevention of bodily deformities by primary caregivers during the postnatal period,

- The supervision over and maintenance of a supply of oxygen to the mother and child by primary caregivers,
- The supervision over and maintenance of fluid, electrolyte and acid base balance of the mother and child by primary caregivers,
- The facilitation of the healing of wounds, the protection of the skin and the maintenance of sensory functions in the mother and child by primary caregivers,
- The facilitation of the maintenance of bodily regulatory mechanisms and functions in the mother and the child by primary caregivers,
- The facilitation, maintenance and, where necessary, the improvement of the nutritional status of the mother and child by primary caregivers,
- The promotion of breastfeeding by primary caregivers,
- The supervision over and maintenance of elimination by the mother and child by primary caregivers,
- The facilitation of communication by and with the mother and father or family done by primary caregivers,
- The establishment and maintenance by primary caregiver of a therapeutic environment in which the physical and mental health of the mother and child is promoted,
- The assistance by primary caregivers regarding the coordination of the health care regimens that is provided for the mother and child by other categories of health personnel, and

- The provision of effective advocacy by primary caregivers to enable the mother and child to obtain the health care they need.

The midwives act as a support system in the provisioning of postnatal care as primary caregivers experienced barriers during the continuity of postnatal care. This needs to show that the midwives teach primary caregivers on evaluating the postnatal mother in the first six hours until six weeks for the danger signs as well as the preventive measures before referral to the health facility.

The midwives support primary caregivers on the following health education regarding:

- The physical and emotional changes that occur following childbirth, including the normal process of involution,
- The physiology and process of lactation and common variations, including engorgement and lack of milk supply,
- The importance of immediate exclusive breastfeeding for mother and child,
- Maternal nutrition, rest, activity and physiological needs such as bladder and bowel habits in the immediate postpartum period,
- Principles of parent-infant bonding and attachment,
- Indicators of involution such as persistent uterine bleeding and infection,
- Indicators of maternal breastfeeding problems or complications,
- Signs and symptoms of life-threatening conditions that may arise during the postpartum period such as persistent vaginal bleeding, embolism, postpartum eclampsia and eclampsia, severe mental depression,

- Signs and symptoms of selected complications in the postnatal period such as persistent anaemia, haematoma, depression, thrombophlebitis, incontinence of urine and faeces, urinary retention or obstetric fistula, and
- Methods of family planning appropriate for use in the immediate postpartum periods (ICM, 2010).

The midwives should also teach primary caregivers on skills for evaluating the health of the baby. Such skills include:

- The provision of immediate care to the newborn, including cord clamping and drying at home,
- The promotion and maintenance of normal newborn temperature through covering, environmental control and promotion of skin-to-skin contact,
- The giving of appropriate care including kangaroo mother care to the low birth weight babies,
- Positioning of the baby on the mother's breast to initiate exclusive breastfeeding and avoid neonatal jaundice, and
- Educate primary caregivers on danger signs in a newborn such as fever, repeated vomiting, swollen abdomen or no stools after 24 hours and when to bring infant for care (ICM, 2010).

Then the primary caregivers will be expected to continue with postnatal care at the community. The postnatal activities to include are:

- The daily examination of the newborn infant to determine whether the infant is thriving or not, and whether any abnormal conditions have arisen,

- The general care and hygiene of the infant, including bathing and washing, care of the cord, changing of clothing and prevention of infection,
- The supervision of feeding and nutrition of the infant,
- The observation of the passing of urine and stools and the hydration of the infant, and
- Assessment of behavioural and emotional problems to the woman for appropriate care.

6.3.2 Recipients

Recipients are persons who receive actions from agents and this activity contributes to a certain goal (Dickoff *et al*., 1968). George (2010) referred to recipient as the "one who is vulnerable, is dependent on others for help and at risk of losing individuality, dignity and autonomy".

In this study, the recipients were the primary caregivers who took care of postnatal woman following delivery from the health facility. They should be able to demonstrate their abilities and skills on the following aspects:

- Daily examination of the newborn infant to determine whether the infant is thriving or not, and whether any abnormal conditions have arisen,
- The general care and hygiene of the infant, including bathing and washing, care of the cord, changing of clothing and prevention of infection,
- The supervision of feeding and nutrition of the infant,
- The observation of the passing of urine and stools and the hydration of the infant, and

- Assessment of behavioural and emotional problems of the woman for appropriate care.

Recipients in the context of this study are indicated in the self-developed Figure 6.3 below:

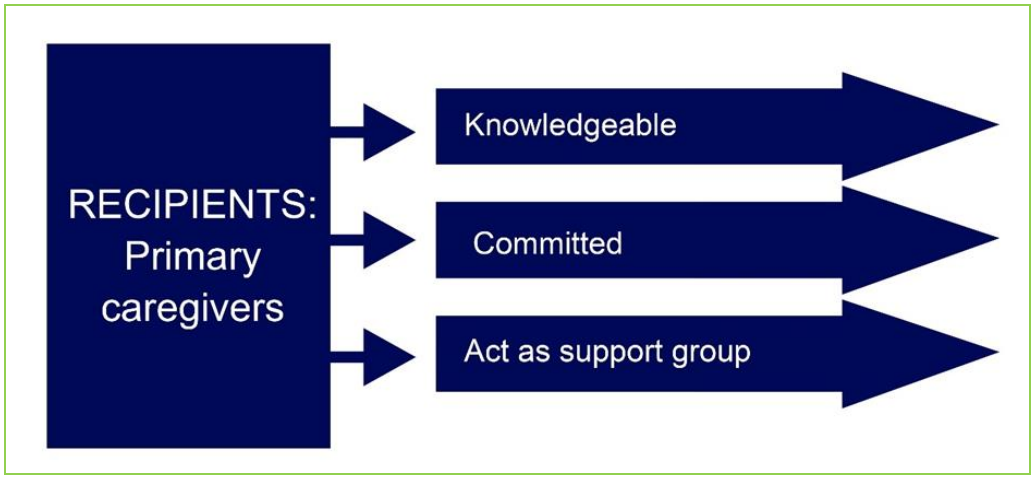

Figure 6.3: Recipients

Primary caregivers should be willing and committed to postnatal care. Primary caregivers should be able to take a leadership role in the practice arena based on community-based care. They must be able to facilitate the following activities in helping the woman and her baby at home:

- Assessing the elimination pattern of both mother and baby and detection of the abnormalities for further management by midwives at the health facilities,
- Attending to the mother and child for a day or at least five days following the birth of the baby by bathing, cord care, eye care, exclusive breastfeeding the baby and perineal and wound care to the mother,
- Engaging the mother in postnatal exercises and breastfeeding unless contra-

contra-indicated,

- Supervising and encouraging the woman to eat a well-balanced diet for recovery and breast milk production for the baby,
- Examination of the perineal area of the postnatal woman if intact and introducing hygiene measures,
- Examination of the postnatal woman's legs for oedema and tenderness and ensure adequate rest by preparing everything to the mother and baby,
- Checking the general appearance of the baby's skin colour, weight gain, elimination pattern, feeding problems or difficulties, cord care and the emotional support of the woman following delivery and its complications, and
- Identification of the emotional and personality changes on a postnatal woman.

Primary caregivers should then alone take an active part in the identification of problems and needs of woman and her baby and plan, implement, monitor and evaluate all the postnatal activities to solve the identified problems in the absence of midwives.

6.3.3 Context

Dickoff *et al*., (1968) referred to context as a framework, and indicated that to view an activity from the aspect of the framework is to view the activity from the aspect of the matrix of that activity or total context of the activity. Community-based postnatal care occurs within the legal and professional boundaries. The SANC, National Department of Health, Maternal Child and Woman's Health, the Provincial Nursing Service, the hospitals, health centres and clinics are the context in which

community-based postnatal care can take place. The context of enhancement of community-based postnatal care where the primary caregivers are continuing with provision of postnatal care is illustrated in Figure 6.4 below:

Figure 6.4: Context of community-based care

6.3.4 Dynamics

These are the findings that revealed that there was a gap on the provisioning of postnatal care by primary caregivers. Dynamics are the power sources to the activity that could be rectified or things functioning as part of the framework in realising the goal (Dickoff *et al*., 1968). Dynamics were elicited from the storylines shared by the participants as forming the source of energy which is illustrated in Figure 6.5 below:

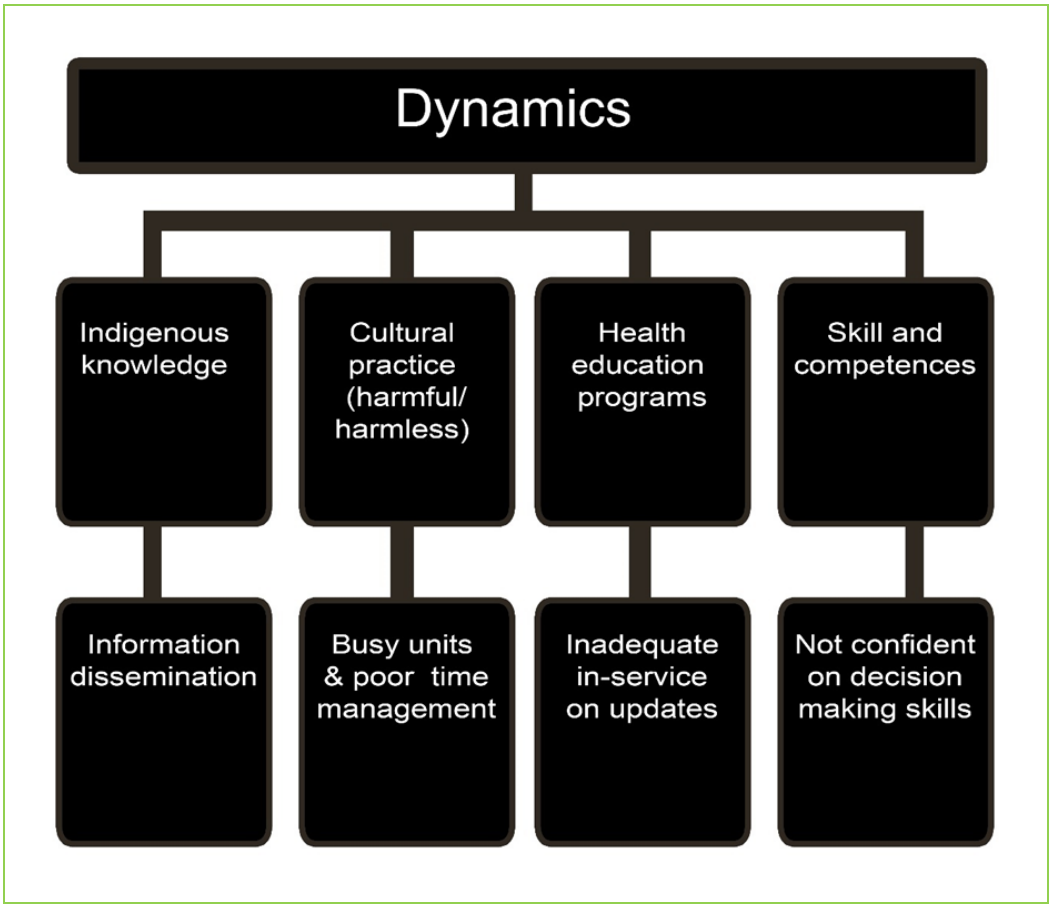

Figure 6.5: Dynamics

Participants indicated facilitators and barriers while continuing with postnatal care at home. The following are the dynamics as presented by participants as reflected in Figure 6.5.

- Postnatal indigenous knowledge: Primary caregivers were aware of the most critical postnatal care issues that made them to avoid unintended consequences,
- Harmful or harmless cultural practices as performed by primary caregivers during the postnatal period,
- Health education programmes during postnatal care period had a positive

impact on the attitudes of primary caregivers,

- Skills and competences of primary caregivers of providing rest and exercises to the postnatal woman, thus improving the recovery period,
- Inadequate dissemination of information by midwives to primary caregivers for continuity of care resulted in ineffective identification of challenges while at home,
- Busy units and poor time management by midwives at the health facility leading to non-involvement of primary caregivers towards the attainment of the transitional postnatal skills,
- Inadequate in-service education to primary caregivers by midwives leading to poor updates on postnatal care, and
- Poor confidence in decision-making skills by primary caregivers during the discharge period.

All these dynamics have an impact on the continuity of postnatal care by primary caregivers at home.

6.3.5 Procedure

Procedure is the view of activity from the vantage of the principle, rule, routine or protocol governing the activities. It is designed to emphasize the path, steps, and pattern according to which the activity is performed (Dickoff *et al*.,1968). Procedures that should be followed for enhancing continuity of community-based postnatal care are summarised in Table 6.1.

Table 6.1: Procedures for enhancing continuity of community-based postnatal care

Procedures	
Donabedian's structure-process-outcome quality of care model	**Execution of:** ❄ Scope of practice of midwives (R.2598 as amended) ❄ Guidelines for Maternity Care in South Africa ❄ Protocols for midwives during postnatal care

The Donabedian Framework components of model included structure, process and outcome. The discussion will be situated in the context of the Donabedian Framework that postulated that there is a relationship between the structure, process and outcomes, based on the idea that a good structure promotes a good process and a good process, in turn, promotes a good outcome (Ameh *et al*., 2017).

According to the Avedis (1966), Donabedian's Structure Process Outcome (SPO) framework, the quality of community-based postnatal care can be enhanced as a triad of structure, process and outcomes constructs. This means that there are relationships between SPO constructs since a good structure should promote good process and a good process thus promotes a good outcome.

❖ Structure

Structure is defined as the professional and organisational resources associated with the provision of care (Ameh *et al*., 2017). In this study, structural factors consist of the infrastructure, demographics, technology, education, and facilities. The infrastructural factors include safe roads, buildings and power supplies that should be made available to midwives so that they would be able to coordinate the community-based programme with primary caregivers without barriers. In order for midwives to coordinate the continuity of care at home, the safety on roads and safe buildings should be made accessible to the community in order for midwives to travel safely to the community to supervise the midwives through health education

and counselling.

This means that the midwives will have agreements with the participating communities together with the endorsement of primary caregivers who will render community-based care. The buildings in which the health education and counselling sessions will be done by midwives should be safe with proper lighting to enable primary caregivers to continue with postnatal care for the safety of the mother and child. There should be enough power supplies so that primary caregivers would be able to communicate with midwives if complications took place during community-based care.

Demographics entails the statistical data relating to populations and the particular groups within it. In this study, the demographical data include the age, race, ethnicity, gender, marital status, education and employment statuses. This means that the midwives should be in possession of the required midwifery qualifications in order to facilitate community-based postnatal care. The continuity of care should be done by primary caregivers of all genders as even husbands can assist their wives during the postnatal period. All races of midwives, including their cultural backgrounds, are expected to facilitate community-based care in a culturally-sensitive context.

Technological factors include the use of mobile phones whereby primary caregivers and community stakeholders will consult the midwives for maternal and newborn care. This will promote the uptake of health services by primary caregivers, thus primary caregivers will display confidence with maternal and newborn care practices. The one-way mobile phone messaging will strengthen postnatal care in the community.

With regard to educational factors, the introduction of community-based postnatal services in rural communities with low literacy levels could help primary caregivers to reach out to many mothers and newborns, thus improving community-based care.

Facilities also contribute to the enhancement of community-based postnatal care through community mobilisation. The births at home followed by a period of seclusion delays woman from seeking formal health care. Sick babies often die within few hours as a result of a delay in the recognition of complications and the delay in receiving appropriate care.

The health facilities can delegate tasks to community health workers who will also work together with primary caregivers for referral if required. Home visits by midwives from the health facilities will facilitate primary caregivers' ability to identify specific risk factors in women and newborn, thus saving both the mother and baby's lives.

The structure in which community-based postnatal care is provided should be accessible, acceptable and legitimate within the community. This means that the midwives should be accommodated at the outset by the community to participate in the rendering of postnatal care with no difficulties. The health care context should also be culturally congruent regarding the way the health care is delivered. This means that midwives also should be approachable in order to produce efficacious results when engaging with primary caregivers. The primary caregivers should be informed about resources such as referral details, medicines and suitable equipment that will be suitable for quality health care. This means that community-based postnatal care should be provided in a home-based context that is harmless to both the mother and the baby.

Resources that would be effective to the healing of episiotomy wounds and perineal lacerations includes the use of warm salty water and the use of methylated spirits to the fast healing of the umbilical cord. The health education sessions provided by midwives should ensure steady efficiency. This means that the primary caregivers will provide postnatal care in their respective homes without any undue travelling, thus reducing the travelling expenditure of the women and their babies in case postnatal women are faced with complications.

❖ **Process**

Process refers to the things done to and for the patient (Ameh *et al*., 2017). This is a set of interrelated activities that leads to the achievement of the goal of community-based care. The process includes the diagnosis, treatment, appropriateness, process of care and the resource requirements for midwives to involve primary caregivers when providing postnatal care. During the diagnosis of postnatal complications, midwives should be available at the community to assist primary caregivers with the identification of danger signs during the postnatal period in both the mother and the baby. Treatment includes midwives provisioning of education and counselling to primary caregivers related to the dangers of harmful traditional practices as well as the skills and competencies of primary caregivers to ensure community-based care.

The process of care includes the following issues such as the offering of free of charge health care service training by midwives to the primary caregivers, orientation of the primary caregivers on community-based care, the home visits by midwives as well as a follow up and the offering of a constructive feedback to primary caregivers at the community level for safe postnatal skills.

The appropriateness of the care will be ensured by avoidance of harmful practices

such as the application of dungs, powder or oil to umbilical cord as well as the establishment of breastfeeding within the first hour.

The resources that will be required during the community-based care are the knowledgeable primary caregivers, the monitoring charts of community-based carers and the registration books for postnatal women's identification and the referral form for primary caregivers. The trained primary caregivers will be a focal people to assist postnatal woman and babies with postnatal care at the community level.

Midwives should mobilise the community by engaging the home-based carers during pregnancy and the postnatal periods in order to work collaboratively with primary caregivers at home. The home-based carers will be able to assist primary caregivers with the referral systems to the health facilities when complications took place. Midwives should ensure a sense of unity with the community members in order for primary caregivers to demonstrate an increasing confidence on the postnatal care skills, thus developing their potential.

❖ **Outcome**

An outcome is the final product or the end result of the process. Based on the outcomes of the model, the end results of the structure and the process will be displayed by maternal satisfaction with community-based care. The outcomes of community-based care by primary caregivers will be displayed by reduced mortality and morbidity rates to both women and babies. The primary caregivers will also gain reduced costs of travelling to the health facilities as most of the postnatal care practices will be done at the community-level. Quality of life to the postnatal women and their babies will be improved as evidenced by improved nutrition, improved wound care, improved exclusive breastfeeding, and reduced burden to health care. The self-developed Figure 6.6 illustrates the framework described above.

6.3.6 Terminus/Purpose

What is the end of the activity? To treat activity from the aspect of terminus is to view activity from the perspective of the end or accomplishment of activity (Dickoff *et al*., 1968). The terminus is the desired outcome the agent wishes to attain through the procedures, or the result or goal to be attained by the agent's action. The terminus for this study is the outcome that the agent wishes to attain through the application of procedures as indicated in Figure 6.7 below:

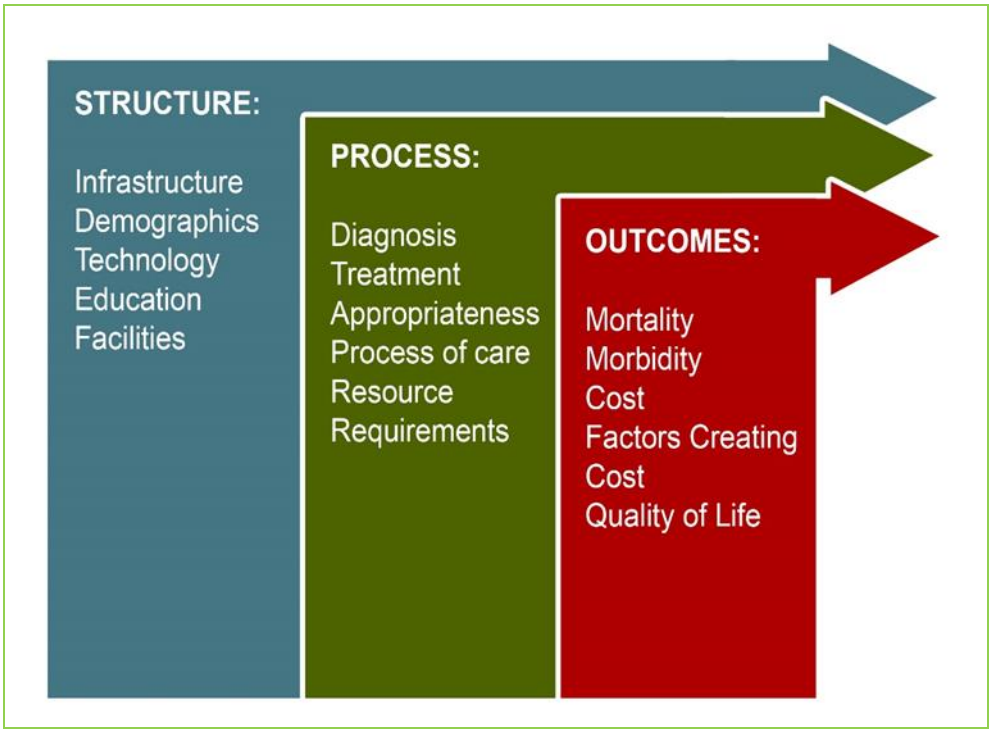

Figure 6.6: The Conceptual Framework (Donabedian Framework) of enhancement of community-based postnatal care (self- developed)

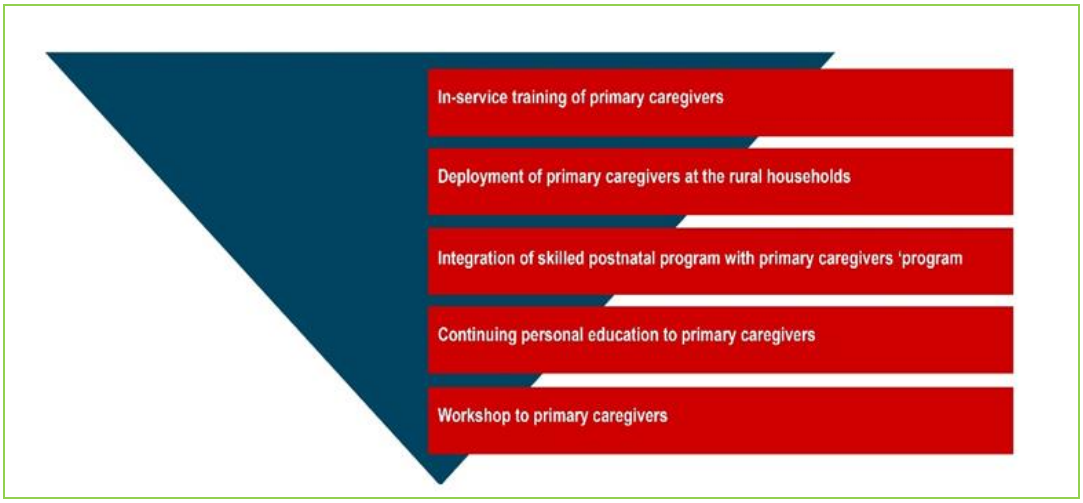

Figure 6.7: The terminus in community-based care (self-developed)

In this study, the terminus will be to capacitate primary caregivers who can comply with the attainment of community-based care, improved quality of postnatal care, coordinate the community-based care, practising community-based care and bringing about community-mobilisation as the primary caregivers will be able to demonstrate a sense of unity among community members. In this study, terminus includes the in-service training of primary caregivers by midwives, the deployment of primary caregivers to the rural households, the integration of skilled postnatal programmes with the primary caregivers' program, the continuing personal development of primary caregivers as well as the running of one or two workshops to primary caregivers. The terminus is linked in the self-developed Figure 6.8.

6.4 Process of the Model

The model depicts that through the procedure of facilitating the effective structural, process and outcome factors in community-based care practice, integrated within the SANC legislation and Donabedian Framework, the enhancement of community-based postnatal care by primary caregivers would be achieved. In the model, the arrows indicate this relationship.

To enhance the process to facilitate the implementation of community-based and to continue with postnatal care to prevent complications, the following three processes will be included, namely:

- Limited knowledge and skills on the continuity of postnatal care at home,
- Enhancing knowledge and skills to continue with community-based care,
- Competent primary caregivers rendering care to prevent morbidity and mortality.

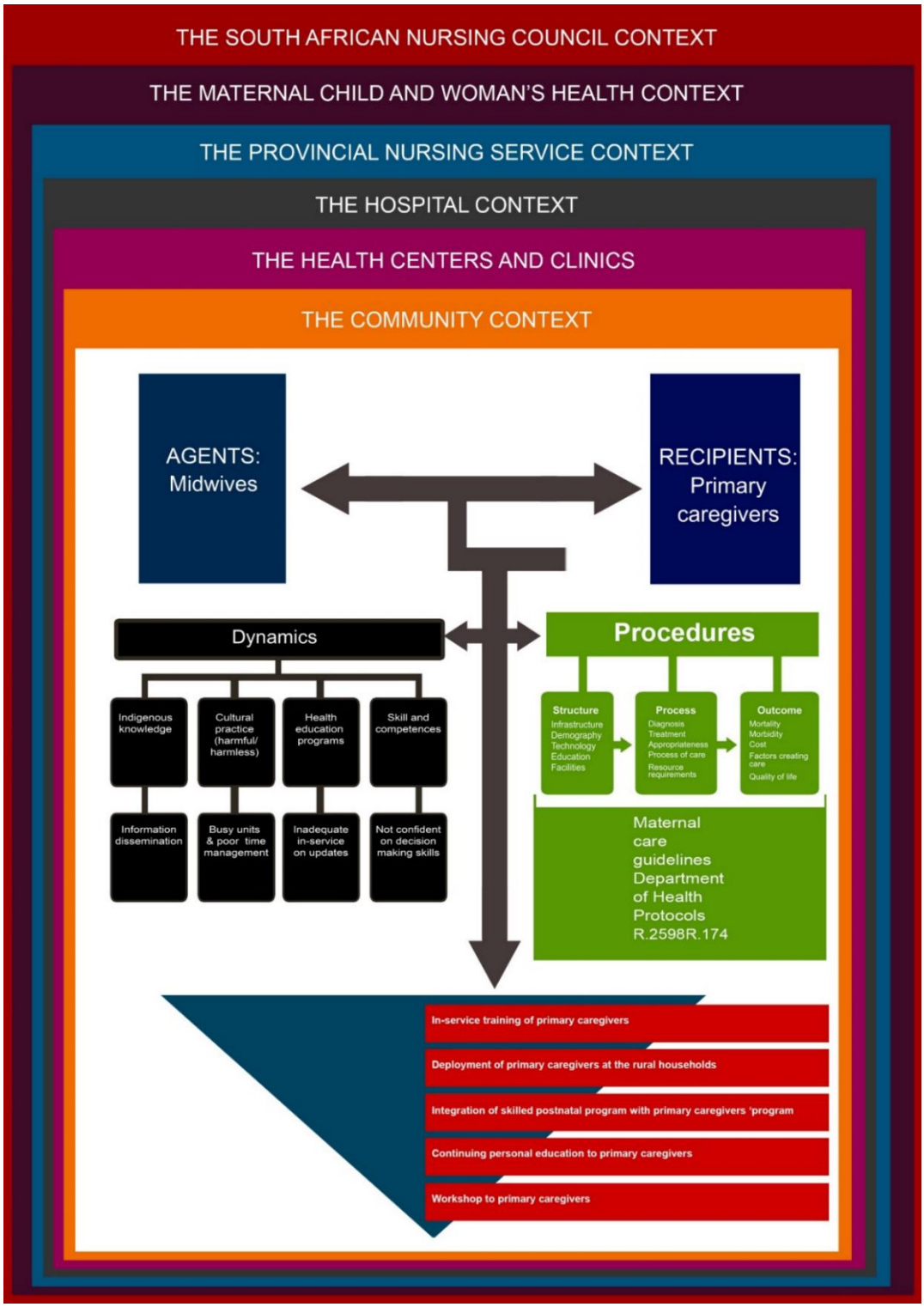

Figure 6.8: Conceptual model

6.4.1 Level 1: Limited Knowledge and Skills on Continuing with Postnatal Care After Discharge

The discussions of the empirical findings of Chapter 4 revealed that the primary caregivers were not sure about the continuity of postnatal care at home, hence, there was evidence that they still performed harmful practices while at home. Primary caregivers had no confidence on the use of Western postnatal caring skills. This was related to lack of support by midwives as they were challenged with shortage of midwives at the facility. The primary caregivers were not involved during the health education sessions as a result of shortage of midwives. This made the primary caregivers to have the limited knowledge and skills on the continuity of care while at home.

6.4.2 Level 2: Enhancing Knowledge and Skills to Continue With Community-Based Postnatal Care

Provision of community-based care in midwifery is an integral part for the primary caregivers to help both the mother and the baby while at home (Table 6.2). The goals for the enhancement of knowledge and skills are:

- To increase the awareness of warning signal from the mother and neonate,
- For early diagnosis and prevention of complications for both, and
- For early referral for appropriate intervention at the appropriate level.

The enhancement of knowledge can be done through workshops, the use of radio broadcast slots, offering of pamphlets to primary caregivers so that they can get proper knowledge and skills on postnatal care issues as well as the use of technology such as *WhatsApp* and *Mom-Connect*.

Table 6.2: Enhancement of community-based care to both mother and baby

Immediately after discharge to within 24 hours **To the mother**	
Potential risks anticipated	
1st 24 hours	Excessive uterine bleeding Signs of anaemia Perineal tear/ episiotomy (for bleeding) Signs of headache with visual disturbances or nausea and vomiting, seizures Redistribution of blood (increased cardiac output) may result in elevated blood pressure Ankle oedema Bowels and constipation problem Urinary problem Afterpains Breast problems Backache
To the baby	
1st 24 hours	Sucking reflexes (feeding) General wellbeing: breathing pattern, mucus membrane colour, bowel opening, passed urine Any bleeding from umbilical cord Body temperature (prevent hypothermia) Hypoglycaemia Infections (eyes, umbilical cord) Jaundice Abnormalities e.g. spina bifida, imperforate anus, cleft lip or palate, abrasions of the skin, excoriations, skin rashes, fractures, haemorrhage due trauma Hypothermia Lack of spontaneous movement and responsiveness

	Pallor of the skin Hyperthermia

	Abnormal lying position
After 24 hours to 2 weeks after delivery	
To the mother	
Potential risks anticipated	
After 24 hours to 2 weeks	**Infectious complications** Breast related complications (hot red, painful, cracked nipples, breast engorgement, breast abscess) Chest pain, difficulty in breathing, Postpartum endometriosis and salpingitis (High fever, abdominal and/or pelvic pain, abnormal lochia/ foul-smelling or purulent vaginal discharge) – Uterus enlarged, soft, painful when mobilized) Perineal tear/ episiotomy (for infection), pain Signs of headache with visual disturbances or nausea and vomiting, seizures Redness and inflammation of lower limbs Postpartum blues – emotional instability
To the baby	
After 24 hours to 2 weeks	Eyes, skin, umbilical cord Observe the feeding and teach the mother to improve the technique of breast feeding. Hypoglycaemia Infections (eyes, umbilical cord) Jaundice Assessment on baby body weight (thriving)
After 2 to 6 weeks	
To the mother	
Potential risks anticipated	
2 weeks to 6 weeks	Sexuality issues Postnatal exercises Postpartum depression Contraception
To the baby	
	Baby nutrition

Immunisation

The primary caregivers should be taught basic skills of postnatal care and this must include the following activities:

- Education of primary caregivers about continuity of postnatal care to detect and prevent the occurrence of potential risks,
- Orientation of primary caregivers regarding community-based care,
- Follow-up about the community-based care,
- Feedback from primary caregivers regarding how to ensure continuity of care,
- Home visits by community workers or home-based carers to the primary caregivers at the community, and
- Allocation of home-based carers to supervise primary caregivers on the continuity of care

The activities to enhance community-based continuity of postnatal care were developed in the Table 6.3.

The primary caregivers as beginners were not able to recognise the postnatal complications after delivery.

Table 6:3: Activities for community-based care

Activity 1		
To create awareness on normal physical and psychological changes that occur to the mother and neonate within the <u>first 24 hours;</u> for early detection and referral		
Goal	**Potential problems and risks to evaluate in a postpartum woman**	**Continuity of care activities**
❄ To create awareness on normal physical and psychological changes that occur to the mother and neonate within the first 24 hours for early detection and referral. ❄ To create awareness on normal physical and psychological changes that occur to the mother and neonate within the first 24 hours for early detection and referral.	**To the mother**	
	Within the first 24 hours	
	• Excessive uterine bleeding	• Normal lochia has some characteristics strong but not offensive. • Palpate the uterus and rub up the abdomen • Note if the uterus is hard, relaxed or flabby • Check the uterus if is tender on touch • Check uterus if is bulky • Check the amount of vaginal bleeding • Observe the bloody discharges from the vagina • Observe lochia for colour, consistency and amount • Observe the persistent or heavy lochia for more than 10 days and refer for further management
	• Signs of anaemia	• Check the colour of the mucous membrane of the skin • Ask the woman if she has blurred vision and dizziness
	• Perineal tear and bleeding from episiotomy	• Check the degree of perineal tear or episiotomy wound • Observe the amount of bleeding from the episiotomy wound • Instruct the mother to change pads frequently

❄ To create awareness on normal physical and psychological changes that occur to the mother and neonate within the first 24 hours for early detection and referral. ❄ To create awareness on normal physical and psychological changes that occur to the neonate within the first 24 hours for early detection and referral. ❄ To manage the normal physical changes that occur beyond 24 hours after delivery, to assist, counsel and provide, advice and to screen for and detect problems that threaten the		• Instruct the mother to observe pads before applying the new pad • Encourage the mother to do perineal hygiene frequently more specially after toileting • If signs of gaping, refer to the health facility
	• Signs of headache with visual disturbances or vomiting	• Observe the woman for pain and vomiting • Ask the woman if she is not feeling dizzy or blurred vision • Assist the woman with holding the baby • Put the woman in a comfortable lying position • If vomiting and headache persist, refer to the health facility for further management
	• Seizures, fits or convulsions	• Check the woman for abnormal body movements while sitting or lying • Assess for the signs of loss of consciousness • Observe the parts that are affected during seizures • Put the woman at bedrest and refer if the seizures persist
	• Increased cardiac output	• Ask the woman if she feels any tiredness • Put the woman at rest in a comfortable lying position • If the breathing is fast and woman is breathing very fast, refer her for further assessment
	• Swelling of hands and feet, especially the face	• Observe the parts that are swollen • Check the severity of oedema by pressing the area affected • Assess the colour of the skin, hotness and coldness of the skin for
	• Severe pain in the upper part of the abdomen	• Help the woman with baby care • Assist her with lying position
	• Fast or difficulty breathing	• Put her in a comfortable position • Assist with baby care

health of the mother ❄ To manage the normal physical changes that occur beyond 24 hours to two weeks after delivery, to assist, counsel and provide, advice and to screen for and detect problems that threaten the health of the baby ❄ To manage the normal psychological changes that occur in the first two weeks after delivery, to assist, counsel and provide, advice and to screen for and detect problems that threaten the health of the mother ❄ To manage the normal psychological changes that	• Shortness of breath or chest pain	• Place her in a comfortable position • Help her with baby care activities
	• Fever and too weak to get out of bed	• Let the woman shower sitting down • Observe the movement of the woman to verify the weaknesses of the leg • Encourage the woman to start with light activities • Let the woman remain in bed with no activity except a short walk to use the toilet • If the problem persists, refer her to the health facility
	• Calf pain	• Encourage the woman to move slowly and smooth • Discourage her from unnecessary movements • Teach the woman to change positions frequently • Let the woman stop activities if pain occurs • If there is a change in colour, refer her to the hospital
	• Swelling of the affected leg	• Check the leg for oedema • Check the elasticity of the area around the swelling • Encourage the woman to elevate the leg on a pillow • If oedema persist, refer her to the health facility
	• Change in limb colour	• Observe the changes on the affected limb • Touch the affected limb for sensation • If no sensation, refer the woman to the health facility
	• Tenderness of the area affected	• Touch the affected area with the palm of your hand • Feel for the warmth and sensation • Inform the woman to avoid unnecessary movements

occur between two to six weeks after delivery to assist, counsel and provide, advice and to screen for and detect problems that threaten the health of the baby.		• Refer her to the health facility for further management
	• Swollen, red or tender breasts or nipples	• Palpate the breast and feel for the warmth of it • If there is pain on touch, suspect breast infection • Check if the breasts are secreting milk • Check if the baby is sucking from the breast • Check the breasts for cracked nipples, engorgement or pain • Encourage the woman to breastfeed unless if pus is coming from the breast • Refer the woman to the health facility if problems persist for help
	• Increased pain or infection in the perineum	• Inspect the wound margins for changes in colour • Observe the wound for signs of infection such as swelling
	• smelly vaginal discharges	• Observe the amount of discharges from the perineal area
	• Infection around the wound (redness, swelling, pain or pus in wound site	• Observe the changes on the infected perineum • Advise the woman to bath daily • Encourage her to use saline bath at least after every pad changing • If there is no change on the aforementioned problems, refer her to the health facility for further management
	• Problems urinating (urinary retention, urinary incontinence	• Assess for the frequency, urgency and burning pain on micturition • Encourage the woman to drink
	For the baby within the first 24 hours	
	Potential problems and risks to evaluate in a	**Continuity of care activities**

	neonate	
	• Sucking reflexes	• Assess the feeding difficulties such as cleft palate or blocked nostrils • Refer the baby to the health facility if presenting with vomiting after breastfeeding
	• General well-being: breathing pattern, mucous membrane colour, bowel opening, passed urine	• Check if the baby is breathing well • Assess the colour of the mucous membrane • Check if the baby has passed stools or urine • Change the napkin frequently and observe the colour of stools • Refer the baby to the health facility if the no stools or urine passed since birth
	• Any bleeding from umbilical cord	• Clean the umbilical cord thoroughly with warm water and apply spirit • Observe the bleeding from the umbilical cord • If bleeding severe, refer the baby to the health facility
	• Hypothermia	• keep the baby warm but not overheated • put a hat on the baby's head if cold • make sure the room is warm always when undressing the baby
	• Hypoglycaemia	• Check the baby's weight • Assess the baby for overfeeding • If baby gaining too much weight, refer to the health facility
	• Infections of the eyes and umbilical cord	• Do not apply anything to the baby's eyes and the umbilical cord • Clean the eyes with warm water • Clean the umbilical cord after every napkin change with clean hands • If infection continues, refer the baby to the health facility

	• Jaundice	• Check the colour of the eyes daily • Encourage breastfeeding to the baby frequently • Check also the colour of the skin • If the skin remains yellow, refer the baby to the health facility for further management
	24 hours to 2 weeks	
	To the mother	
	Potential problems and risks to evaluate	**Continuity of care activities**
	• Infectious complications: breast related complications such as hot, red, painful, cracked nipples, breast engorgement, breast abscess	• Encourage the mother to start with cluster feeding • Supervise the mother on correct positioning of the baby to the breast • Encourage the mother to take hot showers and massage her breasts gently • Advise her to apply iced cabbage leaves and ice packs to the breasts to reduce engorgement • Advise the woman to apply ointment to the breasts to reduce cracks on nipples • Encourage the mother to continue breastfeeding unless pus is coming through the nipple. • If problems persist, refer the woman to the health facility for further management
	• Chest pain and difficulty in breathing	• Assess the breathing patterns • Put the woman in a comfortable position with extra pillows • Ask the woman about the presence of chest pains • Refer the woman to the health facility if problem persist.
	• Postpartum endometriosis and salpingitis (high fever, abdominal pain or	• Assess the degree and severity of abdominal and pelvic pains • Advise the woman to check the amount of vaginal discharges, colour and consistency

	pelvic pain, abnormal lochia, foul smelling or purulent vaginal discharges	• Encourage the woman to continue with cluster feeding to the baby • Offer her warm soft diet daily and hot fluids to drink • Advise her to do perineal hygiene with warm water frequently • Teach her the removal of the pad when soaked with blood • If the problem persists, refer her to the health facility for further management
	• Enlarged uterus, soft, painful when mobilised	• Encourage the woman to apply a tight material on the lower part of the abdomen • Advise her to check the presence of clots through the vagina • If bleeding with clots continues, refer her to the health facility
	• Perineal tear, episiotomy, pain related to infection	• Advise the woman to bath the perineum with warm salty water • Encourage to do warm compression on the perineal wound to • Advise her to do pad checking and washing of hands after changing the pad. • If the woman presents with signs of infection, refer her to the health facility for further management
	• Signs of headache with visual disturbances or nausea and vomiting, seizures	• Put the woman at rest in a comfortable position • Assist her with baby care activities • Encourage her to drink more fluids • If visual disturbances persist, refer her to the health facility for further management
	• Redness and inflammation of lower limbs	• Observe the oedema of the lower extremities • Encourage her to elevate her legs while sitting and avoid standing for a long time • Reduce salt in her diet • If the problem persists, refer the woman to the health facility for further management
	• Postpartum blues leading to emotional instability	• Put the baby on the breast immediately after delivery to promote bonding • Provide a loving supporting during the immediate care activities

		• Assist the woman with health information on changes after delivery of the baby • Observe the changes in behaviour, if still the same, refer the woman to the health facility for further management
	After 24 hours to 2 weeks	
	To the baby	
	Potential problems and risks to evaluate in a baby	**Continuity of care activities**
	• Eyes, skin, umbilical cord	• Observe for any changes on the colour of the eyes, umbilical cord and the skin • Clean the eyes daily with clean warm water • Use separate cloths to wash or clean the eyes, skin and umbilical cord • If problems persist, refer the baby to the health care facility
	• Difficulty in feeding	• Assess the baby's mouth for the difficulties in feeding • Check the problems causing difficulties in feeding • If vomiting does not stop, refer the baby for further assessment
	• Hypoglycaemia	• Check the baby's weight • Check the hydration status • Observe the feeding problems • Check the breathing pattern of the baby • Check the crying pattern and observe for convulsions of the baby. • Assess if the baby can grasp the mother s breast • Refer if the problems persist.

	• Jaundice	• Encourage exclusive breast milk from the mother's breasts • Assess the colour of the skin and the eyes • Check the sleeping pattern as babies with jaundice sleeps a lot • Check the colour and consistency of stools • Refer if there is no improvement
	• Assessment on baby body weight (thriving)	• Assess the skin colour • Check the muscle tone • Observe if the baby is losing weight or not gaining enough weight • Observe if baby is showing no signs of interest around him • Check if no eye contact made when held • Check for the presence of diarrhoea or vomiting • Assess the poor sucking reflex
	To the mother: During 2 weeks to 6 weeks	
	Potential problems and risks to evaluate in a mother	**Continuity of care activities**
	• Sexuality issues	• Advise the woman about the issues of family planning • Encourage the mother to continue with exclusive breastfeeding • Help the woman and her partner to abstain from sexual relations for the health of the mother and her baby. • Discourage early sexual relations as healing has not yet taken place
	• Postnatal exercises	• Encourage the woman to start with slight activities until physically fit • Discourage her from lifting heavy objects

		• Encourage her to wake up earlier and do household duties for herself and the baby
	• Postpartum depression	• Talk to the woman about the problems that she encountered • Assist her with daily activities • Demonstrate emotional understanding, counselling and support to the woman • Refer her for counselling if depression worsens
	• Contraception	• Encourage the mother to go for family planning services • Advise her to select the best method of family planning at the health facility • Advise her to continue with exclusive breastfeeding.
	To the baby: 2 weeks to 6 weeks	
	Potential problems and risks to evaluate in a baby	**Continuity of care activities**
	• Baby nutrition	• Encourage the mother to continue with exclusive breastfeeding • Advise the woman to use exclusive formula if the woman had some threatening conditions to the baby • Discourage the mother to feed the child with solid food, and encourage to begin with soft porridge after six weeks • Check the baby for the sucking reflexes • Position the baby to the mother's breast • Attach the baby's mouth to the breast • Encourage feeding at least 8 to 12 times in 24 hours • Check the napkin if wet or soiled with stools • Encourage the mother to do frequent napkin checking and observe the colour of urine and stools • Advise the mother to wash hands before and after feeding the baby.

		• If baby not feeding well, refer to the health facility for further management
	• Immunisation	• Encourage the woman to take the child to the clinic until the last doses of immunisation scheme. • Check the scars for he doses at birth. • Support the woman to continue with child health services.

For continuity of care to take place at home, the primary caregivers were developed through the community training programmes on the provision of safe postnatal care practices at the community level. Primary caregivers will be mentored on the improvement of postnatal health in their communities with the help of home-based carers in the community until they become knowledgeable. This will be done through the establishment of in-service training, deployment of primary caregivers at the rural household, the integration of skilled postnatal programmes with primary caregivers' programme, the continuing educational program to primary caregivers as well as the workshops that can be done for primary caregivers. Through the establishment of the above-mentioned programmes, the primary caregivers will be able to offer free-of-charge health care services to promote healthy behaviours and be able to screen complicated services at the community levels.

Continuity of postnatal care is very important as it helps in recognising any deviation from the expected recovery after birth. To enhance the continuity of community-based care at home, the primary caregivers will focus on the following:

- Activities to be done during the different periods of postnatal care, including the immediate period after discharge to 24 hours, after 24 hours to 2 weeks and 2 weeks to 6 weeks,
- Potential risks anticipated to mother and neonate, and
- Community-based actionable plans to mitigate the postnatal complications in a mother and the neonate.

Community-based postnatal care can be achieved through the linkages between midwives and community members to collaborate the continuity of postnatal care. Through the engagement of primary caregivers by health facilities, the primary

caregivers will offer insights into the childbirth traditions and highlight on the areas of concern. The primary caregivers will be the only group with confidential insight into the needs of women and their fears. The collaboration between the health facility and primary caregivers will clarify together what constitutes harmful, harmless or helpful practices, examining the resources that could be shared such as leaflets, posters, condoms or disposable gloves.

This will enable the sharing of knowledge, discussion of points where they differ, respecting other's right to express their views, but each bringing out the statements to support their opinion. Through community mobilisation, the primary caregivers will be able to disseminate correct information without conflicting ideas. The primary caregivers are therefore responsible in improving the postnatal care service at the community level through identification of danger signs and reducing the adverse outcomes for both the mother and the baby. Based on that, the midwives should engage themselves with primary caregivers and establish partnerships with the community members so that primary caregivers can help in taking care of postnatal woman at the community before referrals to the health facility.

However, there is a need for community mobilisation to help in solving the community health problems, especially problems that might arise during the postnatal problems. This means that primary caregivers have a role to play in advocating for postnatal woman and baby, giving health advice before referring the woman and her baby to the health facility. The midwife should involve the community members to participate in community-based postnatal care so that the community can develop a sense of unity among its members and be empowered to exercise their skills and talents in executing the continuity of postnatal care at the community. Through the empowerment of primary caregivers with community-based care, the primary caregivers would be able to prevent morbidity and mortality rate,

hence, they had competent skills. The following level indicates the competency level of the primary caregivers.

6.4.3 Level 3: Competent Primary Caregivers Who Would Render Care to Prevent Morbidity and Mortality

The primary caregivers are expected to attain community-based care skills as the primary outcome of community-based care when dealing with postnatal care at home. Effective community-based postnatal care of primary caregivers would be attained through in-service training to primary caregivers so that they can be competent enough with postnatal care. There should be an integration of skilled postnatal programme with the primary caregivers, continuing educational program and workshops to primary caregivers to such an extent that they remain competent and be able to deal with postnatal complications before referral to the health facility.

6.5 Assumptions

Assumptions are statements or views that are widely accepted and central components of a theory or a model (Chinn & Kramer, 2008). The assumptions of the model were based on the findings of the study and utilisation of the SANC legislations (R.2598) and the Donabedian Framework (1966). The midwives are regulated by SANC legislation to provide postnatal care practice through health education and counselling to primary caregivers. The Donabedian framework indicates that a good structure lead to the best practice which brings out better quality. The activities by midwives includes:

- Counselling the postnatal woman and primary caregivers on the elimination pattern of both mother and baby after delivery,
- Encouraging the primary caregivers in assisting the mother and baby for a day or at least five days following the birth of the baby regarding daily routine,

- Advising the primary caregivers on counselling the mother on the importance of postnatal exercises and breastfeeding unless contra-contra-indicated,
- Advising the primary caregivers on counselling the postnatal woman on personal hygiene and baby care during the puerperium period,
- Instructing the primary caregivers on assessment of the perineal hygiene to the postnatal woman,
- Encouraging the primary caregivers on assessment of the postnatal woman's legs for oedema and tenderness,
- Assisting the primary caregivers on the general assessment regarding the appearance of both mother and baby, weight, elimination pattern, feeding difficulties, cord care, breastfeeding problems, family planning and immunisation schedule of the baby, and
- Health education, screening and counselling to the primary caregivers regarding the psychological changes in a postnatal woman.

6.6 Summary

Chapter 6 discussed the operationalisation of the model. The actions to operationalise the model were described in accordance with the elements of the practice model as described by Dickoff et al. (1968). The elements of the practice model discussed were: the context, agents, recipients, dynamics, procedure and outcome (Dickoff, et al., 1968). Chapter 7 focuses on evaluation, justification, limitations, conclusions and recommendations.

CHAPTER 7

VALIDATION OF THE MODEL

7.1 Introduction

The previous chapter outlined the development of the model using the six areas as described by Dickoff *et al*. (1968): the description of the model and its structures as well as how the model is going to be operationalized. This chapter focusses on the validation process of the developed model. The aim was to check how applicable the developed model will be in the community settings of the selected districts of the Limpopo Province. This chapter discusses the model evaluation to achieve the objectives of the study that were outlined in Chapter 1. Justification of the study is also discussed in order to outline how primary caregivers contributes to community-based postnatal care.

7.2 Objectives of this Chapter

The objective of this chapter was to:

- Validate the model against its rationale and purpose as outlined in Chapter 1, and
- Outline the contribution of the primary caregivers in community-based postnatal care.

7.3 Validation of the Developed Model

Validation refers to an act of evaluating the appropriateness in accordance with what is known about the system of the model and sufficient results that can serve as a basis for decision-making (Vemer, Ramos, Van Voorn & Feenstra, 2016) as cited in Mabunda (2018). According to Chinn & Kramer, (2015), validation is the scientific process which is undertaken by the researcher to verify the soundness, accuracy or legitimacy of the developed model. In this study, validation was conducted to determine how useable the developed model will be in enhancing community-based postnatal care by primary caregivers in reducing the negatives identified while reinforcing the positive found in the study results.

Validation of the model was done by visiting the district maternal health care managers and the registered midwives from the selected health facilities in the Mopani and Vhembe districts. The researcher provided the copies of the developed model one week before visiting to the participants so that they may have time to go through the developed model. A checklist was developed in order for the participants to indicate their responses by ticking and on the provided space to give their inputs on how the developed model could be improved.

7.3.1 The Purpose of Validation

The purpose of validation was to verify the applicability of the developed model in addressing the identified challenges from the results of the study in enhancing the community-based postnatal care by primary caregivers in an attempt to reduce the maternal and neonatal mortality rate.

7.3.2 Methodology for Validation

Validation is defined as building the system in a right way. The objectives of validation are to ensure that the systems are defined by its behaviour and

specifications. According to Houben, Lenie & Vanhoof (1999), validation ensures that the system is free from errors introduced by developers during the implementation step. In this study, validation was undertaken to check the applicability of the developed model. The researcher used the quantitative research design which was a descriptive, non-experimental and cross-sectional to validate the developed model. The researcher used the design in order to manage the collected data in a short period of time at the same time. In addition, the design was done in order to generalise the findings as there was enough representation of the participants. A survey was conducted to check whether the identified challenges in community-based postnatal care could be addressed by the developed model thus leading to reduction of the maternal and neonatal mortality rate.

7.3.2.1 Population

The population for the validation of the model included all registered midwives, operational managers and district maternal health care managers who participated in the study and who are placed in the maternal health care facilities in the three selected districts of the Limpopo Province.

7.3.2.2 Sampling of Health Facilities

The three health districts, Mopani, Sekhukhune and Vhembe, were sampled for the purpose of validation of the developed model as they were included during the main study. Non-probability purposive sampling method was used to sample the three districts as the participants already contributed to the main study. In Mopani District, the health facilities sampled to participate in the validation of the developed model were Giyani Health Centre and Dzumeri Health Centre. In Sekhukhune District, the health facilities sampled to participate in the validation of the developed model were Burgersfort Health Centre and Nchabeleng Health Centre. In Vhembe District the health facilities sampled to participate in the validation of the developed model were

Bungeni Health Centre and Makhado Health Centre.

7.3.2.3 Sampling of Participants

The researcher used the non-experimental, intervention validation design as this is commonly used in nursing research (Grove, Gray & Burns, 2015). Respondents were chosen from a group of registered midwives from the selected districts of the Limpopo Province for validation of the developed model. Registered midwives, advanced midwives and operational managers were selected. Various authors found that selecting midwifery-based health professionals to validate the model in practice promoting health related goals, was referred to be practice-based evidence in health care literature, as reflected in Mabunda (2018).

Non-probability, purposive sampling was used to select respondents. One district maternal health care manager was selected per district bringing the number to three (3). One operational manager per health centre was selected, making the total of six (6). Three registered midwives per health care facility were selected using the convenience method of sampling, especially those who were on duty the day the researcher went for data collection at the facility, making the total of 12. The total number of respondents selected for the validation process was twenty-one (21). In one health care facility, two registered midwives were not present on the day the researcher visited the facility. Therefore, the total number of respondents were nineteen (19).

7.3.2.4 Data Collection

The developed model referred to as “A model to enhance the community-based postnatal care by primary caregivers’’ with actionable plans was presented to Maternal, Child and Women’s Health (MCHW) members and validated based on its structures, representation of simplicity, exactitude, suitability and applicability. The

researcher developed a validation instrument in the form of a checklist. A model structure and its guidelines to implement the applicability of the action plans were handed to the respondents to refer to while the researcher was presenting. The researcher clarified to the respondents where necessary and allowed the respondents to sign the consent form. Questionnaires comprised two sections, demographic data and data distribution. The researcher advised the respondents to complete the questionnaire without discussing with each other, 19 questionnaires were completed and brought back immediately.

Data were collected at different dates per health care facility. The researcher made appointments with each health care facility for the purpose of data collection. The developed model with action plan was sent to the facilities two weeks before the visit for data collection so that the respondents could go through and interrogate it. The identified and selected facilities were visited between the 1st December 2020 and the 30th December 2020 for data collection. The district maternal and child health care managers were visited at their offices at an agreed time.

The researcher introduced herself and allowed respondents to introduce themselves. The researcher explained the purpose of the validation and gave a summary of the conducted study, its results and the developed model. Respondents were also given time to ask questions for clarity. Consent forms were distributed to the respondents to sign in agreeing to take part in the validation process. The researcher distributed checklist to the respondents for completion (Annexure L). After each response on the checklist, there was a space provided for the respondent to give inputs and ideas about the developed model. The respondents were given 20 minutes to complete the checklists and the checklists were thereafter collected by the researcher. The researcher made closing remarks and allowed the manager to make closing remarks as well as to thank the respondents.

7.3.2.5 Data Analysis

Data were analysed using descriptive statistics to describe and summarise collected data. The inputs and comments from the participants were included in the data analysis for validation of the model developed. The results of the data analysis for validation of the developed model are presented in Table 7.1.

7.4 Presentation of Validation Results

Tables were used for presentation of the validation data analysis results. The respondents were affirmative about the developed model being in line with their clinical practice and clinical environment and were positive that it would enhance the continuity of postnatal care by primary caregivers which would eventually lead to the reduction of the maternal and neonatal mortality rate. Table 7.1 presents the biographical analysis of the respondents during the validation process. Nineteen (19) respondents took part in the validation process of the developed model.

Table 7.1: Biographical presentation of respondents for validation (n=19)

1.1	**How old are you?**	**Frequency**	**Percentage**
	20–29 years	1	5.26%
	30–39 years	4	21.05%
	40-49 years	7	36.84%
	50-59 Years	6	31.57%
	60 and above	1	5.26%
	Total	**19**	**100%**
1.2	**What gender are you?**	**Frequency**	**Percentage**
	Male	3	15.78%
	Female	16	84.21%
	Total	**19**	**100%**
1.3	**What race are you?**	**Frequency**	**Percentage**

	African	19	100%
	Coloured	0	0
	White	0	0
	Indian	0	0
	Total	**19**	**100%**
1.4	**What ethnic group do you belong?**	**Frequency**	**Percentage**
	Tsonga	11	57.89%
	Venda	6	31.57%
	Pedi	2	10.52%
	Other (Specify)	0	0
	Total	**19**	**100%**
1.5	**What ranks are you holding?**	**Frequency**	**Percentage**
	District MCHM	3	15.78%
	Operational Manager	3	15.78%
	Registered Midwife	13	68.42%
	Total	**19**	**100%**
1.6	**Years in this rank?**	**Frequency**	**Percentage**
	Less than 2 years	1	5.26%
	2 years	2	10.52%
	3 years	1	5.26%
	4 years	3	15.78%
	5 years and above	12	63.15%
	Total	**19**	**100%**
1.7	**What is your highest qualification?**	**Frequency**	**Percentage**
	Diploma in Nursing/Midwifery	10	52.63%
	Advanced Diploma in Midwifery	0	0
	Basic degree/BCur	7	36.84%
	Honours degree	2	10.52%
	Masters degree	0	0
	PhD	0	0

Total	**19**	**100%**

The respondents belonged to various age groups, including 60 years and above, which means that the people on duty include also the aged as well as the energetic. The group with more representation were aged between 40 and 49 years who had service with the functioning of the Department of Health and were able to contribute meaningfully in the validation of the developed model. All genders were represented in the health facilities selected although the nursing profession is almost dominated by females. Of the respondents, 15.78% were males and 84.21% were females. Almost all the respondents were African (100%) and this was helpful because they were all familiar with the practices, traditions, values and the belief systems of the postnatal woman and the primary caregivers as they lived amongst them. This made the respondents to be able to evaluate the developed model appropriately. All the ethnic groups in the Limpopo Province were represented with Pedi-speaking (10.52%), Tsonga-speaking (57.89%), Venda-speaking (31.57%) and no other ethnic groups like Zulu and Xhosa. The respondents were all familiar with the different values, norms and traditions related to puerperium and as South Africans they understood the guidelines with regard to postnatal care of the women and the babies to safeguard their lives. All ranks were represented though the majority of the respondents were the registered midwives (68.42%) who were at the forefront of caring for postnatal woman immediately after delivery. The operational managers made 15.78% of the respondents whilst the district managers had 15.78% of the respondents. However, the evaluation of the model was done at all levels.

The years of experience ranged from 2 years with 10.52%, 3 years was 5.26%, 4 years was 15.78% whilst the 5 years of experience and above were at 63.15%, hence, they were used to the continuity of postnatal care at the health facility. All the

respondents had qualifications required to practice as midwives with the highest being the ones with Honours degree (10,52%), hence, they were directly involved in implementing the postnatal guidelines to safeguard the lives of both the mother and her baby. They were able to evaluate the applicability and the appropriateness of the developed model. The respondents with Advanced Diploma in Midwifery were not represented and those with a basic degree were 36.84%, and none of the respondents had a Masters or PhD degree. This shows that there was a dire need for continuing education by midwives in order to evaluate the developed models related to maternity.

Table 7.2 shows responses of model validation. Of the 19 respondents in the study, 68.42% were professional midwives, no advanced midwives and 15.78% were operational managers who agreed that the model was clear and commented that the model and guidelines were presented. All 19 respondents agreed that the model was clear on the explanation/ process on how primary caregivers should be promoted in community-based postnatal care. All 19 respondents agreed that the action plans presented sufficient dynamics or underlying forces that affect the process of community-based postnatal care.

Table 7.2: Validation results

QUESTION	Yes		No		Comments
	F	%	F	%	
2.1 Indicate with ticking "Yes" or "No" to the following questions about the suitability, feasibility and acceptability of the developed action plans.					
Is the action plans acceptable to be implemented?	19	100%	-	-	Well presented
Do you think the developed action plans is suitable to effectively enhance the community-based care by primary caregivers?	19	100%	-	-	Well presented

Do you think the developed action plans is suitable for implementation to effectively enhance the community-based postnatal care by primary caregivers?	19	100%	-	-	Well presented
Does the model provide a clear understanding of how the action plans are going to be implemented?	19	100%	-	-	Well explained and presented
2.2 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the agent					
Can the developed actions positively influence the availability of midwives?	14	73.68%	5	26.31%	Only if the human resource can increase more midwives for effective community-based care.
Can the developed actions facilitate in the improvement of the number of midwives being in-serviced for community-based postnatal care	19	100%	-	-	Well presented
Does the action plans guide clear explanation/process on how midwives should be involved in community-based postnatal care	19	100%	-	-	Well presented
Can the developed action plans facilitate the improvement on the competency of midwives?	19	100%	-	-	Only if skill audit can be included as a need for staff development
Can the developed action plans enhance training of midwives on community-based postnatal care?	19	100%	-	-	Well presented
Can the developed action plans facilitate the improvement of knowledge on management of complications during the community-based postnatal care by primary caregivers?	19	100%	-	-	With the guided activities of primary caregivers
Can the developed action plans enhance the positive attitudes of midwives when attending to postnatal women	19	100%	-	-	Through teamwork
Can the developed action plans enhance better	19	100%	-	-	Well

understanding of community-based postnatal care by midwives?					presented
Can the developed action plans enhance the implementation of health education to primary caregivers on obstetric emergencies by the registered midwives during ANC?	19	100%	-	-	Primary caregivers do not accompany the pregnant women during ANC
2.3 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the recipient					
Can the developed action plans enhance the increasing primary caregivers' beliefs in medical care and reduce their beliefs in traditional medicine?	19	100%	-	-	As relevant information will be given and harmful beliefs discarded
Can the developed action plans enhance earlier recognition of postnatal complications by primary caregivers?	19	100%	-	-	The activities on the model will guide them clearly
Can the developed action plans enhance the compliance to community-based postnatal care by primary caregivers?	19	100%	-	-	Primary caregivers possessed ownership of the model
2.4 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the means.					
Can the developed action plans enhance the strengthening of community participation by stakeholders?	19	100%	-	-	Well presented
Can the developed action plans enhance the utilization of community-based postnatal care by primary caregivers?	19	100%	-	-	Well presented
Can the developed action plans enhance teamwork between midwives and primary caregivers?	19	100%	-	-	Well-presented
Can the developed action plans improve communication between midwives and primary caregivers during the community-based care?	19	100%	-	-	Well-presented
Can the developed action plans reduce the postnatal complications to the mother and the baby?	19	100%	-	-	Well presented

Can the developed action plans enhance the improvement of the health care infrastructures?	19	100%	-	-	With the motivation by the community
2.5 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the framework.					
Can the developed action plans enhance a better coordination of services between the community and the health care facilities	19	100%	-	-	Well presented
Can the developed action plans when implemented facilitate the reduction of maternal and neonatal deaths?	19	100%	-	-	Well presented
Can the developed action plans enhance the reinforcement of community participation by primary caregivers during the community-based care?	19	100%	-	-	Well presented
Can the developed action plans enhance ownership of community-based care by primary caregivers?	19	100%	-	-	The action plans encouraged community participation
Can the developed action plans enhance the building and extension of tarred roads to the health care facilities and communities?	19	100%	-	-	The constructions of roads will depend on the complaints raised by the community.
Can the developed action plans enhance participative action by more primary caregivers within the community?	19	100%	-	-	Well presented
2.6 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the goal					
Can the developed action plans enhance the effective implementation of recommendations for community-based postnatal care?	19	100%	-	-	Well presented
Can adherence to the action plans lead to the reduction of maternal and neonatal mortality rate?	19	100%	-	-	Well-presented

Does the action plans present sufficient dynamics/ underlying forces that affect the process of community-based postnatal care by primary caregivers?	19	100%	-	-	Well presented
Is there anything that you can add or remove	19	100%	-	-	If traditional leaders and faith healers can be the leaders on community-based care.
Is the process in the model consistent to the extent that it can be practically applied?	19	100%	-	-	Well-presented
Does the action plans clearly describe primary caregivers' role in community-based postnatal care?	19	100%	-	-	Well-presented on activities
Does the action plans display the need for in-service training?	19	100%	-	-	Well-presented
Are the action plans simple to understand?	19	100%	-	-	Well presented
Does the action plans address the importance of primary caregivers in community-based postnatal care?	19	100%	-	-	Well presented
Are the action plans accessible?	19	100%	-	-	
Do you think the action plans are important?	19	100%	-	-	There will be a reduction in maternal and neonatal deaths
Does the action plans address the extent to which primary caregivers contribute to the improvement on the provision of community-based postnatal care and treatment?	19	100%	-	-	Well-presented
2.7 Please provide your comments, inputs and additions on how the action plans can be improved.					
Most of the respondents reflected the following: • Teamwork is necessary between midwives and the stakeholders to effect a change in community-based care • Awareness campaigns should be done through social media for community mobilization on the developed action plans • The developmental plans within the community should be fast tracked to ensure that					

infrastructures are considered for smooth running of the developed action plans

- Involvement of traditional healers and faith healers as the leaders in community-based care.

Home-based care staff to be on the forefront as they mostly work within the villages.

7.5 Discussion of the Validation Results

Table 7.1 shows responses of model validation. Of the 19 respondents in the study, 68.42% were professional midwives and 15.78% were operational managers who agreed that the model was clear and commented that the model and guidelines were presented. All 19 respondents agreed that the model was clear on the explanation/process on how primary caregivers should be promoted in community-based postnatal care. All 19 respondents also agreed that the model presented sufficient dynamics or underlying forces that affect the process of community-based postnatal care.

7.5.1 Suitability, Feasibility and Acceptability of the Developed Action Plans

The results from validation checklists indicated that all the respondents agreed that if the model could be implemented, the developed action plans may be suitable, feasible and acceptable for implementation by both primary caregivers and the health care providers. The respondents made inputs about the developed action plan which were also merged in the final model.

The inputs which were brought forward by the respondents included the following:

- Teamwork is necessary between registered midwives and primary caregivers,
- Awareness campaigns for primary caregivers need to be done through social media,
- Mastering of community-based postnatal care in managing the woman and

baby needs to be monitored,

- Infrastructures must be maintained,
- The stakeholders within the community need to be approached for teamwork,
- Primary caregivers' responsibilities need to be emphasized,
- Community participation by stakeholders should be strengthened,
- Ownership by primary caregivers on community-based care should be strengthened, and
- Primary caregivers' involvement in midwifery practice skills should be monitored by midwives or home-based carers.

7.5.2 The Agent

The validation results indicated that 19 of the respondents agreed that the action plans could positively influence the availability of registered midwives if it can be implemented, thus the shortage of staff will be addressed making it possible for the community-based postnatal care to be effectively implemented. Respondents also indicated that the action plans provided a clear understanding of how the model is going to be implemented by primary caregivers during the community-based postnatal care. The majority of respondents indicated in the results that the action plans guide clear explanation or process on how the midwives should be involved in community-based postnatal care. The respondents also indicated that the action plans developed can also facilitate the improvement on the competency of midwives. The developed action plans can also enhance the training of midwives on community-based care as there will be community participation by stakeholders, strengthening the establishment of the programme developed. The action plans

developed can also improve the knowledge of midwives on management of complications during the community-based care. They also emphasized that the action plans will be of help as the midwives' attitudes will be improved and there will be no neglect of primary caregivers when at the health facilities.

The action plans will also improve the understanding of community-based care as there are clear guidelines that should be done in a culturally congruent care by both midwives and primary caregivers. Respondents also acknowledged that the action plans can enhance the implementation of health education by registered midwives to primary caregivers towards obstetric emergencies. will be accepted by community members.

7.5.3 The Recipient

Most of the respondents indicated that the action plans could increase the primary caregivers believe in medical care and decrease their believe system in herbal traditional medicines as they will be guided by activities developed within the action plans. They also reflected that the action plans can also enhance the earlier recognition of postnatal complications as they will be able to follow the protocols given by midwives during the in-service training. The action plans can enhance the compliance to community-based postnatal care activities by primary caregivers as they will have the ownership of the activities in the community. The respondents also supported that community participation will be strengthened as the primary caregivers will be the owners of the postnatal care activities.

7.5.4 The Means

Most of the respondents indicated that the action plans could enhance community participation by the stakeholders as it will reduce costs by travelling to health care facilities more specially when there is a challenge with transport. The respondents

also stated that the developed action plans could promote teamwork between midwives and primary caregivers through collaboration with community-based care activities. Communication could be increased as the primary caregivers will be at ease when reporting any abnormality to the home-based carers who will assist with referral letters for help by midwives. The action plans could also reduce the postnatal complications to the mother and the baby as they will be guided by the model about the activities to be performed from day I up to six weeks period. The respondents indicated that the infrastructures within the health care facilities will improve teamwork between midwives and primary caregivers due to enough space for health education sessions regarding postnatal care practices, thus reducing stress due to overload and overcrowding. They even suggested that the awareness campaigns could be conducted through mass media such as radio broadcasts and even in-service training of primary caregivers regarding the continuity of postnatal care at home.

7.5.5 The Framework

The results of the validation of the developed action plans, as far as the framework is concerned, also showed the majority of the respondents reflecting that the developed model could enhance a better coordination of services between the health care facilities and the community, reduce the ambulance response time and help primary caregivers honour the follow-up appointments of women and babies to the health care facilities as outlined on the activities for continuity of care by primary caregivers. The same percentage of participants agreed that the developed action plans could enhance the building of tarred roads connecting communities to health facilities and enhance the recruitment of more primary caregivers to communities than to health care facilities to curb the work overload.

The study conducted by Ferrer, Boelle, Salomon, Miliani, Herteau, Astagneau &

Temime (2014), as cited in Mothapo (2018), indicated the need to hire more midwives to the health care facilities to curb the overload that was experienced. Most of the respondents indicated that the developed action plans could do away with the appointment of more midwives by how active they are politically and could enhance the addition or recruitment of primary caregivers, traditional healers and faith healers to remind women on postnatal appointment until six weeks period.

Almost all the respondents indicated that the developed action plans could enhance reinforcement of the 24-hour community-based services at the community level, the sustainability of the free community-based postnatal services and better coordination of community projects by the health care facilities. Milicevic *et al*. (2017) supported that the community-based 24-hour free postnatal services can enhance the ownership of community-based care by primary caregivers as the maternal and neonatal lives would be sustained. The developed action plans could also reduce postnatal complications as it would be rendered locally by primary caregivers with full potentials. Most of the respondents indicated that the action plans could improve the health care infrastructures as there will be enough cubicles for examinations of mothers and babies with complications with enough privacy. Most of the respondents indicated that the developed action plans could enhance participative action by more primary caregivers within the community as the health facilities will be utilised only for complicated cases.

7.5.6 The Goal

All the respondents indicated that the developed action plans could lead to the reduction of maternal and neonatal mortality rate. Most of the respondents agreed that the developed action plans could enhance the implementation of the community-based postnatal care. The adherence to the developed action plans could also lead to the reduction of maternal and neonatal rates. The action plans

have presented sufficient dynamics or underlying forces that could affect the process of community-based postnatal care by primary caregivers. Respondents indicated that there is nothing to add or remove as the process of the action plans is consistent to the extent that it can be practically applied in communities by primary caregivers.

The respondents further indicated that the action plans describe clearly the role of primary caregivers in community-based postnatal care as reflected on the activities in differing periods of both the mother and the baby. The action plans displayed the need for in-service training as reflected on the terminus. The action plans are also simple to understand as there are arrows displaying the relationships among agents, recipients, procedures, the goals of the model, the dynamics and terminus about the developed model. The action plans also displayed the importance of primary caregivers in community-based postnatal care as they are always next to the woman and her baby with no demarcation. The action plans are accessible as they will be used by primary caregivers at the community context. Thus, the action plans addressed the extent to which primary caregivers contribute to the improvement on the provision of community-based postnatal care and treatment.

7.5.7 Response of Model Validation

However, all 100% respondents disagreed to add or remove anything presented. In addition, all 100% respondents agreed that the process in the model is consistent to the extent that it can be practically applied. All 100% respondents agreed that the action plans clearly describe primary caregivers' role in community-based postnatal care. Of the 100% respondents, all respondents agreed that the action plans displayed the need for in-service training. Hence, they commented that the action plans and guidelines were well presented and there is a need for in-service training.

Based on the findings, 100% of the respondents agreed that the action plans were simple to understand. All the respondents (100%) agreed that the action plans addressed the importance of primary caregivers in community-based postnatal care; 100% of the respondents also agreed that the action plans are accessible. Additionally, 100% of the respondents considered the action plans to be very important. Furthermore, 100% of the respondents agreed that the action plans address the extent to which primary caregivers contributes to the improvement on the provision of community-based postnatal care.

It can thus be concluded that all midwives contracted on the model developed and guidelines proposed to implement the model. The maternal and child health care managers, midwives and operational managers' response revealed that they reached consensus that a model to enhance community-based postnatal care should be implemented in community settings by primary caregivers. The study findings were supported by Chinn & Kramer (2014) who revealed that midwives' perceptions have an impact on the sharing of new meanings as well as the possibilities for managing the new situations with fellow colleagues. This means that the study assumptions indicate that the new action plans that have been developed may provide experience with possible movements that can be used to involve primary caregivers in community-based postnatal care in future (Chinn & Kramer, 2014), as cited in Mabunda (2018).

7.5.8 Justification of the Original Contribution of the Study to the Body of Knowledge

This is an original study that contributed to the body of knowledge, hence, the provision of community-based postnatal care will also improve. The following provides evidence that this study is an original contribution to the body of knowledge, therefore, the extent to which empirically participants or respondents'

perceptions about community-based postnatal care by primary caregivers were described and explored. The developed actions will contribute to the reduction of morbidity and mortality during the postnatal period, hence primary caregivers will be able to identify the potential problems and to assess the health risks in both the postpartum woman and the baby within 24 hours, 24 hours to 2 weeks and between 2 weeks and six weeks.

The primary caregivers will also create an awareness on normal physical and psychological changes that occur to both the mother and the baby with the specified time and be able to continue with postnatal care skills. This study described and explored knowledge of primary caregivers regarding the continuity of postnatal care at home. In-depth individual interview from primary caregivers was analysed using Tesch's open-coding system (Creswell & Creswell, 2018), whereas facilitators and barriers of midwives regarding the implementation of continuity of postnatal care were analysed using SPSS version 25.

To add on that, community-based action plans are believed to enhance interaction between midwives and primary caregivers, immediate care of postnatal women and babies after discharge from the health facility, reduction of maternal and neonatal complications at home and the reduced number of maternal and neonatal deaths. The study results were presented in perinatal meetings and refined. The action plans were developed and described, directed by the results from concept analysis. The theoretical definition of 'Community-Based Postnatal Care for Primary Caregivers' is unique and pivotal in the health care unit and family context. The researcher has adopted the methods of Dickoff *et al.* (1968) to develop a model to enhance the continuity of postnatal care by primary caregivers in health care facilities of the selected districts of the Limpopo Province.

7.6 Conclusion

This chapter discusses validation of the model by responses to questions that describe critical reflection of the process for development of a model. Justification of the original contribution of the study to the body of knowledge was discussed. Chapter 8 will focus on conclusion, limitations, and recommendations of the study.

CHAPTER 8

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

8.1 Introduction

The previous chapter discusses model validation against its rationale, purpose and objectives as outlined in Chapter 1 and the justification of the original contribution of the study to the body of knowledge towards community-based postnatal care by primary caregivers. Data for validation was collected from the MCHWs, operational managers and registered midwives in the Mopani, Sekhukhune and Vhembe districts of the Limpopo Province. A total of 19 respondents were recruited for validation of the developed model. The results of the collected data indicated limited gaps about the developed model. There were responds on the checklists. This chapter focuses on conclusion, limitations and recommendations of the study.

8.2 Purpose of the Study

The purpose of the study was to develop a model to enhance community-based postnatal care by primary caregivers at the health facilities of the selected districts of the Limpopo Province, South Africa.

8.3 Summary

8.3.1 Study Objectives

The study was conducted being guided by a mixed methods objective which were:

8.3.1.1 Phase 1a: Qualitative Research Objectives

- Explore the experiences of primary caregivers on providing postnatal care practices at home, and
- Describe the perceptions of primary caregivers on the interactions with midwives regarding the provision of postnatal care practices.

8.3.1.2 Phase 1b: Quantitative Research Objectives

- Facilitators for midwives in involving primary caregivers on postnatal care in the selected districts of Limpopo Province,
- Barriers for midwives in involving primary caregivers on postnatal care in the selected districts of Limpopo Province, and
- Assessment for support provided by midwives in the implementation of education counselling of postnatal care in the Limpopo Province of South Africa.

8.3.1.3 Phase 2

- Develop a model to enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province, and
- Validate the developed model to enhance community-based postnatal care by primary caregivers in the selected districts of Limpopo Province.

In this study, an in-depth interview was used to collect data from primary caregivers to gather detailed information under Phase 1a and the check list was used to collect data from midwives in the health care facilities. The study findings indicated that the midwives had poor methods of disseminating information to primary caregivers and the community at large. Primary caregivers were uncomfortable to access the

services at the health care facilities due to the midwives' challenging working environment. This made the primary caregivers to rely on traditional skills in which they utilised the traditional practices that they acquired from old ladies within the communities. Therefore, the researcher has learned that there was no evidence of continuity of care as many of the lives of woman and babies were lost during that stage of postnatal period, as many lives were lost through the use harmful traditional practices without any advice from the trained midwives.

Primary caregivers had their own skills and competencies of dealing with the woman and her baby during the postnatal stage as a result of the fact that within the health facilities, primary caregivers were ignored by midwives due to workload and understaffed working conditions. However, primary caregivers perceived the ignorance as part of lack of a relationship. This made the primary caregivers to display a limited linking of traditional and Western postnatal health knowledge due to poor dissemination of relevant information to primary caregivers by midwives. The qualitative results were discussed and supported by the quantitative results, though some of the themes did not have quantitative support. The Donabedian Framework was also integrated into the discussions.

8.3.1.4 Phase 2a: Model Development

- Develop a model to enhance the continuity of postnatal care by primary caregivers at the health care facilities of the three selected districts of Limpopo Province, South Africa, and

- Validate the developed model

The validation of the developed model to enhance the community-based postnatal care by primary caregivers in the health facilities of the three selected districts of

Limpopo Province was done at Mopani, Sekhukhune and Vhembe districts. The health care facilities from each district were also used during the main study and selected. Nineteen (19) respondents who comprised of three (3) MCHWs, six (6) operational managers and ten (10) registered midwives were selected. The respondents were given checklists to go through for a week before the researcher made an appointment to collect the validated checklists. The results of the validation indicated that the respondents agreed with the researcher that the developed model was acceptable, feasible, suitable and applicable for community-based postnatal care services. The results also indicated that if the developed model could be implemented as recommended, it can enhance the community-based postnatal care by primary caregivers at home, thus contributing to the reduction of maternal and neonatal mortality rate at the health facilities of the three selected districts of Limpopo Province, South Africa.

8.4 Recommendations

8.4.1 Recommendations for Registered Midwives

- Collaborate with the community stakeholders to engage primary caregivers on in-service training programmes regarding the community-based postnatal care services,

- Create awareness platforms to inform all primary caregivers about the community-based postnatal care,

- Suggest that the community-based postnatal care should add content on obstetric emergencies regarding the postnatal complications that might be encountered by primary caregivers at the community so that they may be able to deal with them and to report early at the health facilities when faced with those complications,

- Registered midwives should conduct in-service training to primary caregivers to orientate them on issues related to community-based postnatal care,
- Registered midwives should demonstrate cultural competence when collaborating with primary caregivers regarding the community-based care in a manner that is culturally appropriate for primary caregivers together with the postnatal woman and their babies,
- Registered midwives should display communication skills to both the community stakeholders and primary caregivers to such an extent that problems are identified and appropriate intervention is planned,
- Registered midwives should ensure that information is received from the community and primary caregivers and recorded to plan the appropriate intervention regarding community-based care,
- Registered midwives should ensure that the community-based care delivered by primary caregivers should improve the community-based care of the society,
- Registered midwives should facilitate the relationship between the primary caregivers and the community stakeholders in order to achieve the goal of community-based postnatal care,
- Registered midwives should ensure that there is sufficient mutual relationship between the community and primary caregivers to promote the continuous participation in community involvement,
- Registered midwives should inform primary caregivers about the Scope of Practice of Registered Midwives and policies regarding the care of both the woman and the baby after delivery, and

- Registered midwives should have the personal strength and vision to innovate and to bring out new ways to promote sufficiency and effectiveness of community-based postnatal care to primary caregivers.

8.4.2 Recommendations for Primary Caregivers

- Primary caregivers should demonstrate positive attitudes towards both the registered midwives and postnatal women within the community regarding community-based care,

- Primary caregivers should possess clear instructions regarding the significance and the expectations that are related to community-based postnatal care,

- Primary caregivers should be clear on their role regarding community-based postnatal care within the community settings, and

- Primary caregivers should participate actively by expressing their feelings regarding community-based care so that appropriate intervention could be planned.

8.4.3 Recommendations for Operational Managers

Operational mangers should be:

- Advised to work together with chiefs and ward counsellors to educate primary caregivers on safe practices with regard to maternal and child health issues and change primary caregivers 'beliefs and reliance on traditional medicine and spiritual healers,

- Encouraged to monitor the registered midwives under their supervision to ensure that recommendations for the community-based postnatal care are implemented during the postnatal period,

- Urged to ensure that staff under their supervision are trained on community-based care and monitors their competence,
- Advised to include and conduct in-service training programmes to primary caregivers to ensure that primary caregivers implement community-based care services at the rural households,
- Motivated to help registered midwives to integrate skilled postnatal programme with primary caregivers' program for effective community-based care,
- Encouraged to implement the deployment of primary caregivers at the rural households, and
- Enthused to advised registered midwives to include workshops for primary caregivers as well as continuing personal education to primary caregivers.

8.4.4 Recommendations for District MCHW Managers

District MCHW managers should:

- Conduct unscheduled visit to health care facilities for audits so that registered midwives are found integrating skilled postnatal program with primary caregivers' programme,
- Schedule regular support visits to health care facilities and communities so that they prepare what they would like to be assisted with,
- Keep open communication between themselves and the health facilities and communities so that staff and primary caregivers feel supported,
- Ensure that debriefing services are available to staff when needed,

- Motivate for additional registered midwives at the health facilities according to the workload at the health care facilities,
- Integrate departmental policies in such a way that operational managers and registered midwives will have to implement effective in-service training programmes to primary caregivers for community-based care,
- Ensure that health care facilities have enough drugs and medicine as required for integrative community-based care,
- Motivate for the purchase of additional ambulances and to dedicate some ambulances for community-based postnatal care,
- Motivate for upgrading of tarred roads for the primary caregivers staying far from the health care facilities with bad roads infrastructures, and
- Ensure that health care facilities have equipment and supplies for the effective integration of skilled postnatal program with primary caregivers for community-based care.

8.4.5 Recommendations for the Provincial Department of Health

The Provincial Department of Health should:

- Budget for the training of registered midwives available and identifying qualifying candidates with interests in midwifery for training,
- Train more registered midwives for both basic and advanced midwifery to address shortage of human resources,
- Approve that enrolled nurses can train as registered midwives who can integrate the skilled postnatal program with the primary caregivers'

program,

- Advertise, hire and place operational managers in permanent posts so that they may be empowered to take decisions and be accountable for the community-based postnatal programmes,
- Provide incentives for operational managers on acting posts to motivate them to be committed to their work,
- Purchase more ambulances for the maternity services to reduce the response time at the community, and
- Emphasize the utilisation of maternity guidelines in the training of midwives and the integration of skilled postnatal program with primary caregivers' programme.

8.4.6 Recommendations for the National Department of Health

The National Department of Health should:

- Make an addition of reminder for appointment for appointment for follow up of primary caregivers on community-based postnatal care services,
- Make budget available for purchasing of simulation equipment for regular in-service training of primary caregivers by registered midwives for the competency of primary caregivers,
- Provide computers to all health care facilities and upload recommendations and maternity guidelines electronically to be readily accessible to midwives for integration with skilled primary caregivers' program, and
- Introduce electronic record keeping system for communities so that primary

caregivers' information can be readily available and sent to other health care facilities for improved community-based care.

A copy of the study will be provided to the provincial office of Department of Health for them to communicate it to the NDoH, district managers, operational managers and registered midwives at the health care facilities so that all community stakeholders can be made aware of the developed model.

8.4.7 Recommendations for Further Research

This study was conducted to identify interventions by registered midwives in facilitating the implementation of community-based postnatal care by primary caregivers; to explore challenges faced by registered midwives in the implementation of continuity of postnatal care at the health facilities and to develop a model to enhance community-based postnatal care by primary caregivers.

Further research needs to be conducted on:

- Primary caregivers' knowledge on their responsibilities during the community-based postnatal care,
- Primary caregivers' behaviour as a contributory factor to maternal and neonatal deaths, and
- Perceptions of primary caregivers on postnatal women and newborn babies' (neonatal) safety during the community-based care.

8.5 Limitations of the Study

The study included all primary caregivers from the three selected districts of the Limpopo Province, except Capricorn and Waterberg districts. The study also included registered midwives from the health care facilities of the three selected

Mopani, Sekhukhune and Vhembe districts of the Limpopo Province, South Africa. The recommendations will be forwarded to the provincial office as well as the national office.

8.6 Conclusions

The main purpose of this study was to develop a model to enhance continuity of postnatal care by primary caregivers in the health care facilities of the selected districts of Limpopo Province. The whole process was made possible by using the convergent parallel mixed methods wherein the researcher applied both the quantitative and qualitative approaches simultaneously. The data were analysed separately and merged at the end of the analysis. The results revealed dynamics which were then used to develop a model with the aid of the Donabedian Framework. The developed model was tested for applicability using the six questions by Chinn & Kramer (2008). The results revealed traditional knowledge being used on the continuity of postnatal care by primary caregivers in the health care facilities of the selected districts of Limpopo Province due to shortage of staff, the performance of cultural practices, skills and competencies of primary caregivers, non-involvement of primary caregivers by midwives, and the limited linking of traditional and Western postnatal health knowledge. The summary of the chapters within this thesis was highlighted. This chapter also outlined the limitations and the recommendations based on the research results.

REFERENCES

Aaserud, T.G., Tveiten, S., Gjerlaug, A.K. Home Visits by Midwives in the Early Postnatal Period. Opphavsrett Sykepleien.no/Forskening.10.4220/sykepleierif. 2016. 59215.

Adams, Y.J. & Smith, B.A. Integrative Review of Factors that Affect the Use of Postpartum Care Services in Developing Countries. *Journal of Obstetrics, Gynaecologist and Neonatal Nursing*. 47 (3); 2018:371-384.

Adewuyi, E.O., Adefemi, K. 2016. Breastfeeding in Nigeria. A Systematic Review. *International Journal of Community Medicine and Public Health*. 2016 Feb. 3(2) 385-396. DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20160421.

Afolaranami, T.O., Hassan, Z. I., Akinyemi, O.O., Sule, S.S., Malete, M.U., Choji, C.P. & Bello, D.A. Cord Care Practices: A Perspective of Contemporary African Setting. *Front. Public Health* 6:10.doi:10.3389/fpubh.2018.00010

Akin-Otiko, B.O. Bhengu, B.R. Client Education Experiences and Expectations of Women at the First Level of Maternal and Child Care in Kaduna State, Nigeria. *Midwifery*, 28, (6); 2012: 893-899. Science Direct Elsevier.

Ameh, S., Gomez-Olive, F.X., Kahn, K., Tollman, M.S. & Klipstein-Grobusch, K. Relationships between structure, process and outcome to assess quality of integrated chronic disease management in a rural South African setting: applying a structural equation model. *BMC Health Service Research*. 2017. DOI 10.1186/s12913-017-2177-4

American College of Obstetricians and Gynaecologists. Executive Summary: Neonatal Encephalopathy and Neurologic Outcome. *Obstet.Gynecol*. 2014:123: 896-901.

Antai, D. 2010. Migration and Child Immunisation in Nigeria: Individual and Community Level Contexts. BMC Public Health, 10(116) 2010. https:///doi.org/10.1186/1471-2458-10-116.

Averis, A. & Pearson. 2003. Filling the Gaps Identifying Nursing Research Priorities Through the Analysis of Completed Systematic Reviews. https://doi.org/10.1046/j.1479=6988.

Awoyale, T., Onajole, A.T. Ogunnowo, B.E., Adeyemo, W.L., Wanyonyi, K.L. & Butali, A. Quality of Life of Family Caregivers of Children with Orofacial Clefts in Nigeria: *A Mixed Method Study*. 2015. Wiley Online Library. https://doi.org/10.111/odi.12379. 2015. John Willey & Sons.

Awit-Ujiji, O., Ekstrom, A.M. Ilako, F., Indalo, D., Lukhwaro, A., Wamalwa, D. & Rubenson, B. 2011. Keeping Healthy in the Basket: How Motherhood interrupted HIV Treatment in Recently Delivered Women in Kenya*. African Journal of AIDS Research*. 10(2): 157-163. South Africa.

Ayaz, S. & Efe, S.Y. Potentially Harmful Traditional Practices During Pregnancy and Postpartum. 2008. *The European Journal of Contraception and Reproductive Health Care*. 13 (3). https://doi.org/10.1080/13625180802049427.

Azher, S., Professional Niche Differentiation: Understanding Dai (Traditional Midwife) Survival in Rural Rajasthan. 2017.24 (1): 132-150. DOI: https://doi.org/10.16995/ane.240

Azher, H.Q. The PostpartumTradition of Sawa Mahina in Rural Punjab. Pakistan. *Journal of Ethnology and Folkoristics* 11(1): 127-150. Doi: 10.1515/jef-2017-0008.

Babbie, E. & Mouton, J. 2010. The Practice of Social Research. Cape Town: Oxford University Press.

Ball, H.L. Bed Sharing on the Postnatal Ward: Breastfeeding and Infant Sleep Safety. 2006. *Practices and Child Health*. 11(2006): 43A-46A. https://doi.org/10.1093/psych/11supp.A.43A.

Bailey, S. 2010. Postnatal Care: Exploring the Views of First-Time Mothers. Community Practitioner, 83, 26-29.

Balbierz, A., Deren, S.B., Wang, J.J. & Howell, E.A. Maternal Depressive Symptoms and Parenting Practices 3-Months Postpartum. *Maternal Child Health Journal* (2015) 19:1212-1219. DOI: 10.1007/s10995-014-1625-6

Bamigboye, A.A & Hofmeyr, G.J. 2012. Caesarian Scetion Wound Infiltration with Local Anaesthetic for Post-Operative Pain Relief-Any Benefit. *South African Medical Journal.* 100(5), 313-319.https://doi.org/10.7196/SAMJ.3716.

Banchani, E. & Tenkorang. 2014. Implementation challenges of Maternal Health Care in Ghana: The Case of Health Care Providers in the Tamale Metropolis. *BMC Health Services Research,* 14 (7) 2014.

Baxter, J. 2017. Listening to Women After Birth: Their Perceptions of Postnatal Support and the Potential Value of Having a Postnatal Debriefing Session with a Midwife. Unpublished Doctoral Thesis. City: University of London.

Beake, S., Page, L. & McCourt C. 2001. Report on the Follow-up Evaluation of One-to-One Midwifery. London: Thames Valley University.

Beake, S., McCourt, C. & Bick, D. 2005. Women's views of Hospital and Community-Based Postnatal Care: The Good, Bad and the Indifferent. *Health and Medicine*.

Beake, S., Rose, V., Bick, D., Weavers, A & Wray, J. 2010. A Qualitative Study of the Experiences and Expectations of Women Receiving In-Patient Postnatal Care in One English Maternity Unit. *BMC Pregnancy and Childbirth,* 10, 70. http://dx.doi.org/10.1186/1471-2393-10-70.

Beltman, J.J. Van den Akker, T. Bwirire, D., Korevaar, A., Chidakwani, R., Van Lonkhuijzen, L. & van Roosmalen, J. Local Health Workers Perceptions of Sub-Standard Care in the Management of Obstetric Haemorrhage in Rural Malawi. *BMC. Pregnancy and Childbirth.* 13 (39) 2013. https://doi.org/10.1186/1471-2393-13-39.

Bhavnani, V. & Newburn, M. Left to Your Own Devices: The Postnatal Care Experiences of 1260 First-Time Mothers. *National Childbirth Trust*, 2010.

Birdie, G.S., Kemper, K.J., Rothman, R. & Gardiner, P. Use of Complementary and Alternative Medicine During Pregnancy and the Postpartum Period: An Analysis of the National Health Interview Survey. *Journal of Women's Health.* 23 (10); 2014. DOI: 10.1089/jwh.2013.4568

Boderick, M.E. 2011. The Role of the Patient Liaison Nurse in the Ambulatory Care Context of a Middle Eastern Teaching Hospital: *A Practice Model*. (PhD Thesis University of the Witwatersrand).

Bondas-Salonen, T.J. 1998. New Mothers' Experiences of Postpartum Care-A Phenomenlogical Follow—Up Study. *Journal of Clinical Nursing*, 7,165-174, http://dx.doi.org/10.111/j.1365-2702.1998.00138.x

Botma, Y., Greef, F.M., Mulaudzi, F.M. & Wright, S.C.D. 2010. Research in Health Sciences. Heinemann, Cape Town.

Bowers, J., Cheyne, H., Mould, G & Page, M. Continuity of Care in Community Midwife. Health Care Management Science. 2015.18:195-204. DOI: 10.1007/s10729-014-9285-2.

Brereton, O., Kitchenham, B. A., Budgen, D., Turner, M. & Khalil, M. Lessons from Applying the Systematic Literature Review Process within the Software Engineering Domain. *Journal of Systems and Software*. 84 (4); 2007: 571-583.

Brink, H., Van Rensburg, G. & Van der Walt, C. 2018. *Fundamentals of Research Methodology for Health Care Professionals.* 4th edition. Cape Town: Juta.

Brink, H., Van Der Walt, C. & Van Rensburg, G. 2014. *Fundamentals of Research Methodology for Health Care Professionals*. 4th edition. Cape Town: Juta.

Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M. & Pill, R. Using Meta Ethnography to Synthesise Qualitative Research: A Worked Example. *Journal of Health Service Research Policy*. 2002. Oct; 7(4): 209-215. Doi.10.1258/135581902320432732. PMID: 12425780.

Brown S., Small R., Faber B., Krastev A. & Davis P. 2005. Early Postnatal Discharge from Hospital for Healthy Mothers and Term Infants (Cochrane review): In: The Cochrane Library (Issue 3). John Wiley and Sons: Chichester.

Braimoh, J. & Davies, L. When "Breast'' is no Longer "Best": Postpartum Constructions of Infant Feeding in the Hospital. Social Science and Medicine. 123; 2014: 82-89.

Bryant, A.S., Haas, J.S., McElrath, T.F. & McCornick, M.C. Predictors of Compliance with the Postpartum Visit Among Women Living in Healthy Start Project Areas. 2006. *Journal of Maternal Child Health*.

Bryant, R.B. 2011. Editorial. How can Nursing and Midwifery Help Close Gap in Indigenous Health Indicators? Content Management. Pty. Ltd. Contemporary Nurse. 2011. 37 (1): 8-9.

Bryrant, A., Blake-Lamb, T., Hatoum, I & Kotelchuck, M. Women's Use of Health Care in the First 2 Years Postpartum: Occurrence and Correlates. *Maternal Child Health Journal* (2016) 20: s81-s91.DOI.10.1007/s10995-016-2168-9

Burns, N. & Grove, S.K. 2009. The Practice of Nursing Research. Appraisal, Synthesis and Generation of Evidence. 6th edition. Elsevier: Saunders.

Burns, N. & Grove, S.K. 2011. Understanding Nursing Research Building an Evidence-Based Practice. 5th Ed. Elsevier Saunders, Maryland Heights, MO.

Burns, N. & Grove, S.K. & Gray, J. 2011. Understanding Nursing Research. Building an Evidence-Based Practice. 5th Ed. Elsevier Saunders, Maryland Heights, MO.

Casey, A. & Wallis, A. Effective Communication: Principle of Nursing Practice E. Nurs Stand.2011 April 13-19; 25(32): 35-37.doi.10.7748/ns2011.04.25.32.35.c8450.PMID: 21563538.

Centre for Reviews and Dissemination. 2009. Systematic Reviews: CRD's Guidance for Undertaking Reviews in Health Care: York: University of York.

Centre for Evidence-Based Conservation. 2009. Guidelines for Systematic Review in Conservation and Environmental Management. Available at: http://www.cebc.bangor.ac.uk/Documents/Reviewguidelinesversion3.0. FINAL pdf Accessed 14 May 2014.

Clark, M.J. 2008. Community Health Nursing. Advocacy for Population Health. California: Prentice Hall- Pearson

Clarke, J. What is a Systematic Review? Evidence-Based Nursing. 2011: 14-64.

Chang, P.C., Li, S.F., Yang, H.Y. *et al*. Factors Associated with Cessation of Exclusive Breastfeeding at 1 and 2 Months Postpartum in Taiwan. *Int. Breastfeed Journal*. 14, 18(2019). https://doi.org/10.1186/s13006-019-0213-1

Chien, L., Tai, C.J., Huang, C.H. & Sheu, S.J. Adherence to 'Doing -The-Mouth' Practices is Associated with Fewer Physical and Depressive Symptoms Among Postpartum Women In Taiwan. 2006. *Research in Nursing and Health*. http://doi.org/10.1002/nur.20154.

Chimtembo, L. K., Maluwa, A., Chimwaza, A., Chirwa, E. & Pindani, M. 2013. Assessment of quality of postnatal care services offered to mothers in Dedza district, Malawi. *Open Journal of Nursing*, 3 (343-350).

Chinn, P.L. & Jacobs, M.K. 1987. Theory and Nursing.: A Systematic Approach. 2nd ed. The CV. Mosby Company, Washington DC

Chinn, P.L. & Kramer, M.K. 1999. Theory and Nursing Integrated Knowledge Development.

Chinn, P.L. & Kramer, M.K. 2008. Emancipatory Knowledge Development. *PL Chinn & MK Kramer, Integrated Theory and Knowledge Development in Nursing, pp.76-101*.

Chinn, P.L. & Kramer, M.K., 2011. Integrated Knowledge Development in Nursing. 7th ed. Elsevier-Mosby, St. Louis, MO.

Chinn, P.L. & Kramer, M.K. 2014. Knowledge Development in Nursing -E-Book: Theory Process: Elsevier Health Sciences.

Chinn, P.L. & Kramer, K. 2015. Knowledge Development in Nursing. 9th edition. Mosby: Elsevier.

Cochet, L., Pattison, R.C. & Mac Donald, A.P. 2003. Severe Acute Maternal Morbidity and Maternal Death Audit- A Rapid Diagnostic Tool for Evaluating Maternal Care. South African Medical Journal.

The Cochrane Collaboration. Cochrane Reviewers' Handbook. Version 4.2.1. 2003

Coffey, P.S. & Brown, S.C. Umbilical Cord Care Practices in Low- and Middle-Income Countries: A Systematic Review. *BMC: Pregnancy and Childbirth*. 17(68) 2017. https://doi.org/10/1186/s12884.017.12.

Coffey, P. & Brown, S.C. Umbilical Cord Care Practices in Low- and Middle-Income Countries: A Systematic Review. *BMC Pregnancy and Childbirth*. 2017. 17(68) Doi. 10.1186/s12884-017-1250-7

Concise English Oxford Dictionary. 2006

Correa, M.S. Feliciano, K.V., Pedrosa, E.N. & Souza, A.I.2014. Wome's Perception Concerning Health Care in the Post-Partum Period: A Meta-Synthesis. *Open Journal of Obstetrics and Gynecology,* 2014, 4, 416-426. http://dx.doi.org/10.4236/ ojog.2014.47062.

Coovadia, H.M. & Loening, W.E.K. 1984. Paediatrics and Child Health: A Handbook for Health Professionals in the Third World. ISBN-13: 978-0195703283, ISBN-10:0195703286.

Crecious, M.M., Lonia, M., Patricia, K.M. & Margaret, M. 2018. Postnatal Care within Six Hours Following Delivery at Two Selected General Hospitals of Zambia- Mothers' Experiences. *Open Journal of Nursing*, 8, 355-371. https://doi.org/10.4236/ ojn.2018.86029.

Creswell, J.W. & Pano Clark, V.L. 2011. Designing and Conducting Mixed Methods Research.

Creswell, J.W. 2013. Research Design, Qualitative, Quantitative and Mixed Methods: Approaches. 3rd ed. Sage, Thousand Oaks, CA.

Creswell, J.W. 2014. Research design, qualitative, quantitative and mixed methods approaches, 4th edition. Tous and Oaks. CA: Sage.

Creswell, J.W. 2015. A concise introduction to mixed methods research. University of Nebraska-Lincoln.

Creswell, J.D. & Creswell, J.W. 2018: Steps in Conducting a Scholarly Mixed Methods Study. Disciplined –Based Education. Research Group. Speaker Series. Paper 48. University of Nebraska-Lincoln.

Creti, L.M Libman, E., Rizzo, D., Fitchen, C.S., Bailes, S., Tran, D. & Zelkowitz, P. Sleep in a

Postpartum: Characteristics of First-Time Healthy Mothers. 2017. https: //doi.org/10.1155/2017/8520358.

Critical Appraisal Skills Programme. 2006. Evidence-based Health Care, Oxford: Public Health Resource Unit Accessed 5 March 2015. http://www.phru.nhs.uklcasplcritical appraisal tools. htm Accessed 5 March 2015.

Department of Health, 2008-2010. National perinatal mortality and morbidity committee triennium report. Pretoria. Republic of South Africa.

Department of Health. 2011-2013. Sixth report on confidential enquiries into maternal deaths in South Africa: Fact sheet.

Department of Health. 2012. Maternity Case Record. Pretoria: Republic of South Africa.

Department of Health. 2014. Guidelines for maternity care in South Africa. A manual for clinics, community health centres and district hospitals. 3rd edition. Pretoria. Republic of South Africa.

Department of Health. 2014. Saving Mothers: Annual report and detailed analysis of maternal deaths due to non-pregnancy related infections.

Department of Health. 2018. Road to Health. NDP, 2030.

De Vos, A.S., Strydom, H., Fouche & Delport, C. L.S. 2005. Research at grassroots. For the Social sciences and human service professionals. 2nd Edition. Pretoria: Van Schaik.

De Vos, A.S., Strydom, H., Fouche & Delport, C. L.S. 2011. Research at grassroots. For the Social sciences and human service professionals. 3rd Edition. Pretoria: Van Schaik.

De Vos, A.S., Strydom, H., Fouche & Delport, C. L.S. 2013. Research at grassroots. For the Social sciences and human service professionals. 4th Edition. Pretoria: Van Schaik.

De Vos, A.S., Strydom, H., Fouche & Delport, C. L.S. 2011. Research at grassroots. For the Social sciences and human service professionals. 4th Edition. Pretoria: Van Schaik.

Dhaher, E., Mikolajezyk, R., Maxwell, A. & Kramer, A. 2008. Factors associated with lack of potential care among Palestine women: A cross sectional study of three clinics in the West Bank. *BMC Pregnancy and Children*, 8, 26.

Dickoff, J., James, P. & Wiedenbach, E. 1968. Theory in a practice discipline. Practice Oriented Theory, 17(5): 415-435.

Dippenaar, J. & da Serre, D. 2012. Sellers Midwifery. 2nd edition. Juta.

Dlamini, L.P., Mahanya, S., Dlamini, S.D. & Shongwe, M. Prevalence and Factors Associated with Postpartum Depression at a Primary Health Care Facility in Eswatini. *South African Journal of Psychiatry.* http://dx.doi.org/10.4102/sajpsychiatry.v2510.1404.

Donabedian A. Evaluating the Quality of Medical Care. 1966. Milbank Q. 2005;83(4): 691-729.DOI: 10.111/j.1468-0009.2005.00397XPMID:16279964; PMCID: PMC2690293.

Dorheim, S.K., Bondevik, G.T., Gran, M.E. & Bjorvatn. 2009. Sleep and Depression in Postpartum Woman: A Population Based Study. Sleep Research Society. 32 (7).

Dorrington, R., Bradshaw, D., Laubscher, R. & Nannan, N. 2012. Rapid Mortality Surveillance Report. 2016. Cape Town: South African Medical Research Council. ISBN:978-1-928340-30-0

Dorrington RE and Bradshaw D. 2015. Acknowledging uncertainty about maternal mortality ratio estimates. *Bulletin of the World Health Organization* Online First Perspectives Article ID: BLT.15.155036. Available http://www.who.int/bulletin/online_first/ BLT.15.155036.pdf Accessed February 2018

Dzomeku, V.M. 2016. Development of a patient centred in-service training programme for midwives to increase client satisfaction with child-birth care in Kumasi, Ghana.

Edoardo, A. & Alan, P. 2014. The Systematic Review: An Overview. Synthesizing Research Evidence to Inform Nursing Practice. The Joanna Briggs Institute.

Eger, M., Davy-Smith, G. & Altman, D.G. Rationale, Potentials, Promise of Systematic Reviews. In: Egger M, *et al*., Systematic Reviews in Health Care: Meta-Analysis in Context. 2nd ed. London: BMJ Publishing Group; 2001. P. 3-19.

Ekanem, A.D., John, M.E. & Ekott, M.E. Postpartum Practices Among Women in Calabar, Nigeria. 2004. https://doi.org/10.1177/004947550403400214.

Esena, R.K. & Sappor, M.M. Factors Associated with the Utilization of Skilled Delivery Services in the Ga East Municipality of Ghana Part 2: Barriers to Skilled Delivery. 2013. International Journal of Scientific and Technology Research. 2(2); 2013.

Eysenbach, G., Tuische, J. & Diepga, T.L. 2001. Evaluation of the Usefulness of Internet Searches to Identify Unpublished Clinical Trials for Systematic Reviews. National Library of Medicine. Jul-Sep.2001; 26(3)203-218. Doi: 10:1080/14639230110075459.

Fadel, S., Ram, U., Morris, S.K., Begum, R., Shet, A., Jotkar, R. & Jha, P. Facility Delivery, Postnatal Care and Neonatal Deaths in India: Nationally-Representative Case-Control Studies. PLoS ONE 10(10): e0140448.doi: 10.1371/journal.pone.0140448.

Fawcuss, S. & Moodley, J. 2013. Postpartum Haemorrhage Associated with Caesarian Section Hysterectomy. *Best Practice and Research Clinical Obstetrics & Gynaecology.* 27(2): 2013, 233-249.

Fawcuss, S., Pattison, R.C., Moodley, J., Moran, N.F., Schoon, M.G., Mhlanga, R.E, Baloyi, S., Bekker, E. & Gebhart, G.S. 2016. Maternal Deaths from Bleeding Associated with Caesarean Delivery. A National Emergency. *South African Medical Journal.*

Fernwick, J., Butt, J., Dhaliwal, S., Hauck, Y. & Schmied, V. 2010. Western Australian Women's Perceptions of the Style and Quality of Midwifery Postnatl Care in Hospitals and at Home. Women and Birth, 23, 10-21. https://doi.org/1016/j.wombi.2009.06.001.

Ferrera, J., Boellelo, P.Y., Salomona, S., Millianic, K., Herteauc, F., Astagneauc, P. & TemimeaaLaboratore, L. 2014. Management of Nurse Shortage and its Impact on Pathogen Dissemination in the Intesive Care Unit. Epidemics, 9 (2014): 62-69.

Fikree, F.F., Ali, T., Furocher, J.M. & Rahbar, M.H. Health Service Utilization for Perceived Postpartum Morbidity Among Poor Women Living in Karachi. Social Science.

Fitzpatrick, K.E. Kurinczuk, J.J., Bhattacharya, S. & Quigb, M.A. Planned Mode of Delivery After Caesarian Section and Short Term Maternal and Perinatal Outcomes: A Population-Based Record Linkage Cohort Study in Scotland. PLoS. Med. 2019 Sept. 24; 16(9).

Forster, D.A., McLachlan, H.L., Davey, M.A., Biro, M.A., Farrell, T., Gold, L., Flood, M., Shafiel, T. & Waldenstrom, U. Continuity of Care by a Primary midwife (Caseload Midwifery) Increases women's Satisfaction with Antenatal, Intrapartum and Postpartum Care: Results from the COSMOS Randomised Controlled Trial. *BMC Pregnancy and Childbirth.* 2016; 16(28). DOI 10.1186/s12884016-0798-y.

Fraser, D., Cooper, M. & Nolte, A. 2006. Myles text- book for midwives: African edition. Churchill Living- stone, Edinburgh.

Fraser, D., Cooper, M. & Nolte, A. 2009. Myles text- book for midwives: African edition. Churchill Living- stone, Edinburgh.

Fraser, D.M., Cooper, M.A. & Nolte, A. G W. 2010. Myles Textbook for midwives. 2nd edition. Churchhill Livingstone: Elsevier.

Frei, I.A. & Mander, R. 2011. The Relationship Between First-Time Mothers and Care Providers in the Early Postnatal Phase: An Ethnographic Study in a Swiss Postnatal Unit. Midwifery, 27, 716-722. http://dx.doi.org/org/10.1016/j.midw.2009.11.04.

Gao, L., Xie, W., Yang, X. & ChiChan, S.W. Effects of an Interpersonal-Psychotherapy-Oriented Postnatal Programme for Chines First-Time Mothers: A Randomised Controlled Trial. International Journal of Nursing Studies. 52(1); 2015: 22-29.

Gatsinzi, S & Maharaj, P. Women's Experiences of Maternal and Child Health and Family Planning Services in KwaZulu-Natal. Curationis, June 2008.

George, J.B., 2010. Nursing Theories. The Base for Professional Nursing Practice. 6th ed. Pearson Education. India.

Grove, S.K., Gray, J.R. & Burns, N. 2015. Understanding Nursing Research: Building an Evidence-based Practice. Elsevier.

Gray, J., Grove, S.K. & Sutherland, S. (2017). The Practice of Nursing Research: Appraisal, Synthesis and Generation of Evidence. 8th edition. Mosby: Elsevier.

Gulmezoglu, A.M & Lawrie, T.A. 2015. Impact of Training on Emergency Resuscitation Skills: Impact on Millenium Development Goals (MDGs) 4 and 5. *Best Practices & Research Clinical Obstetrics and Gynaecology* 29(2015): 1119-1125.

Henning, E., Van Rensberg, W. & Smit, B. 2004. Finding your way in Qualitative Research. 1st edition. South Africa Pretoria: Van Schaik.

Herlihy, J.M., Shaikh, A., Mazimba, A., Gagne, N., Grogan, C., Mpamba, C., Sooli, B., Simamvwa, G., Mabeta, C., Shankoti, P., Messersmith, L., Semrau, K. & Hamer, D.H. Local Perceptions, Cultural Beliefs and Practices that Shape Umbilical Cord Care: A Qualitative Study in Southern Province, Zambia. PLoS One. 2013, Nov 7;8(11): e79191.

Higgins, M.F., Monte, C., Foley, M. & O'Herlihy, C., Real Increasing Incidence of Hysterectomy for Placenta Accreta Following Previous Caesarian Section. European *Journal of Obstetrics & Gynaecology and Reproductive Biology*. 171 (1) 2013: 54-56. https://doi.org/10.1016/j.ejogrb.2013.08.030.

Hildingson, I.M. & Sandin-Bojo, A.-K. 20111. What is could indeed be better-Swedish women's perceptions of early postnatal care. Midwifery, 27(5), 737-744.doi: 10.1016/j.midw.2010.04.007.

Hilgingsson, I. 2007. New Parents' Experiences of Postnatal Care in Sweden. Women and Birth, 20,105-113. https://doi.org/10.1002/14651858.CD003766.pub2

Hornby, A.S. Oxford Advanced Learner's Dictionary of Current English.2015. 9th ed. Oxford: University Press.

Houben, G., Lence, K. & vanhoof, K. 1999. A Knowledge-Based SWOT-Analysis System as an Instrument Forstrategic Planning in Small and Medium Sized Enterprises. Decision Support Systems, 26, 125-135.

International Confederation of Midwives. 2010. Essential Competencies for Basic Midwifery Practice. The Hague, The Netherlands: ICM. Doi: 10.1016/j.midw2011.03.005.

Islam, M.T., Islam, N., Christophi, C & Yoshumura, Y. Effects of a community –based intervention package on postnatal care seeking behaviour in rural Bangladesh: A cluster-randomized controlled trial. *Proceedings in Obstetrics and Gynaecology*, 2015; 5 (3):1.

Iranpour, S., Kheirabadi, G.R., Esmaillzadeh, A., Beni, M.H. & Maracy, M.R. Association Between Sleep Quality and Postpartum Depression. *Journal of Research in Medical Sciences.* 2016; 21:110.

Iyengar, K., Yedav, R. & Swapnaleen, S. 2012. Consequences of Maternal Complications in Women's Lives in the First Postpartum Year: A Prospective Cohort Study. *Journal of Health, Population & Nutrition*.2012. Jun. 30(2) 226-240.ISSN1606-0997/

Juengst, E.T. 1997. "Can Enhancement be Distinguished from Prevention in Genetic Medicine"? *Journal of Medicine and Philosophy*, 22 (2): 125-142.

Kalisch, B.J., Dabney, B.W. & Lee, S. 2013. Safety of Mobilizing Hospitalised Adults: Review of the Literature. *Journal of Nursing Care Quality*, 28 (2), 162-168.

Karacam, Z. & Eroglu, K. 2003. Effects of Episiotomy on Bonding and Mother's Health. Leading Global Nursing Research. https://doi.org.10.1046/j.1365-2648.2003.02727.x.

Karen, H., Jenniffer, H., Prata, N., Wate, P.Z. Belton, S & Homer, C. Scaling up Misoprostol to Prevent Postpartum Haemorrhage at Home Births in Mozambique. A Case Study Applying the Expand Net/ WHO Framework. 2019. *Global Health Sciences and Practice*. 2019, 7(1) 66-86. https://doi.org/10.9745/GHSP-D-18-00475.

Khalaf, F.F. Ali, T., Furocher, J.M. & Rahbar, M.H. Health Service Utilization for Perceived Postpartum Morbidity Among Poor Women Living in Karachi. *Social Science & Medicine*. 59: 681-694.

Khosa, M.A. 2009. Symbolism in Xitsonga Cultural Ritual Ceremonies. University of Limpopo, South Africa.

Kitchenham, B. 2004. Procedures for Performing Systematic Review. Avaialable at: http://www.idi.ntnu/no/empsc/papers/kitchenham_2004.pdfAccessed 19 January

2013.

Kitchenham, B., Mendes, E., Travassos, G.H. 2007. A Systematic Review of Cross-vs. Within-Company Cost Estimation Studies, IEEE Trans on SE, 33(5): 316-329.

Kitchenham, B., Brereton, P.O., Budgen, D., Turner, M., Bailey, J. & Linkman, S. Systematic Literature Reviews in Software Engineering-A Systematic Literature Review, *Inf Softw Technol*, 51(1): 7-15, 2009.

Kitila, S.B., Molla, W., Wedaynewu, T., Yadessa, T & Gellan, M. Folk Practice During Childbirth and Reasons for the Practice in Ethopia: A Systematic Review. 2018. *Department of Gynaecology & Obstetrics*. Jimma University Institute of Health. Addis Ababa, Ethiopia.

Kleppel, L., Suplee, P.D., Stuebe, A.M. & Bingham, D. National Initiatives to Improve Systems for Postpartum Care. *Maternal Child Health Journal* (2016) 20: s66-s70. DOI:10..1007/s10995-016-2171-1.

Knafl, K.A. & Rodgers, B.L. 1993. Concept Development in Nursing Foundations, Techniques and Methods.

Koblinsky, M. Community-Based Postpartum Care: An Urgent Unmet Need. 2005. USAID. Catalyst Consortium.

Koblinsky, M. Community-Based Postpartum Care: An Urgent Unmet Need. 2013. USAID. Catalyst Consortium.

Koblinsky, M., Chowdhurry, M.E., Moran, A.C. & Ronsmas, C. 2012. Maternal Morbidity and Disability and Their Consequences: Neglected Agenda in Maternal Health. Journal of Health Population and Nutrition. 30(2): 124-130.DOI.10.3329/JHPN, 30(1). 11294. PubMed.

Krosnick, J.A. 2002. The Causes of No-Opinion Responses to Attitude Measures in Surveys: They are Rarely What They Appear to Be. In Survey Nonresponse. New York: Wiley, 88-100.

Kruske, L. & Barclay, L. 2004. Samoan Midwives stories: Joining social and professional midwives in new models of birth. Pp 119-149.

Kruske, S., Kildea, S., Jenkinson, B., Pilcher, J, Robin, S. Rolfe, M, Kornelsen, J. & Barclay, B. 2016. Primary Maternity Units in a Rural and Remote Australia. Results of a National Survey. Midwifery 40 (2016); 1-9.

Kruske, S., Kildea, S. & Barclay, L. 2006. Cultural Safety and Maternity Care for Aboriginal and Torres Straight Islander Australians. Women and Birth. Volume 19; 73-77-Elsevier

Lebese, R.T., 2009. A Model to Promote Dialogue About Sexual Health Between Teenager and Preants/Teachers in Vhembe District of Limpopo Province, South Africa (Doctoral Dissertation).

Leger, J. & Letourneau, N. New Mothers and Postpartum Depression: A Narrative Review of Peer Support Intervention Studies. Health and Social Care in the Society. 2015 Jul: 23(4): 337-348. Doi;10.1111/hsc.12125.

Lewin, S., Dick, J., Pond, P., Zwarenstein, M., Aja, G., van Wyk, B.E., Capblanch, X.B. & Patrick, M. 2005. Lay Health Workers in Primary and Community Health Care. Cochrane Library.

Liberati, A., Altman, D.G. Tetziaff, J., Mulrow, C., Gotzsche, P.C., Ioannidis, J.P.A., Clarke, M., Devereaux, P.J., Kleijnen, J. & Moher, D. The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies that Evaluate Healthcare Interventions: Explanation and Elaboration. *BMJ 2009*. DOI: https://doi.org/10.1136/bmj.b2700

Lincoln, Y. & Guba, E. 1985. Naturalistic inquiry. Sage Publication. London.

Lobiondo-Wood, G. & Haber, J. 2014. Nursing Research: Text and Study Package. 8th ed. London: Elsevier.

Longman. 2011. Dictionary of Contemporary English for advanced learners. New edition. Pearson. Longman

MacArthur, C., Winter, H.R., Bick, D.E., Knowles, H., Lilford, R.J., Henderson, C., Lancashire, R.J., Braunholtz, D.A. & Gee, H. 2002. Effects of Redesigned Community Postnatal Care on Individual Women's Health Four Months After Birth: A Cluster Randomised Controlled Trial. *The Lancet* 359 (9304): 378-85.

MacDonald, S.J., Henderson, J.J., Faulkner, S. Evans, S.F. & Haga, R. Effect of An Extended Midwifery Postnatal Support Programme on the Duration of Breastfeeding: A Randomised Controlled Trial. Midwifery, 2010, 26(1), 88-100.

MacGill, M. 2019. Conducting A Systematic Review, BMJ.

Machiyama, K. & Cleland, J. 2014. Unmet Need for Family Planning in Ghana: The Shifting Contributions of Lack of Access and Attitudinal Resistance. Stud Farm Plann. 2014.

2014 June; 45(2): 202-226. Doi: 10.111/j.1728-4465.2014.00385.x.PMID: 24931076..

Magayane, Konye, Matovelo & Dewey. Traditional Birth Attendants in the Sengerema District North-West of Tanzania: Whom they Serve and why their Delivery Practices Matter. *Austin Journal of Public Health and Epidemiology*. 2016

Maimbolwa, M., Ranjo-Anderson, A.B., Ng'andu, N., Sikazwe, N. & Diwan, V. 1977. Routine Care of Women Expeiencing Normal Deliveries in Zambian Maternity Wards. *Journal of Midwifery*, 13; 125-131.

Mandal, A. Nurses' knowledge regarding maternal mortality and post-birth care not adequate finds study. *The American Journal of Maternal/ Child Nursing*

Mannava, P., Durrant, K., Fisher, J., Chersich, M. & Luchters, S. 2015. Attitudes and behaviours of maternal health care providers in interactions with clients: a systematic review. Globalization and Health. (2015): 11-36. DOI 10.1186/S/12992-015-0117-9.

Masala-Chokwe, M.E. & Ramukumba, T.S. 2017. The Lived Experiences and Social Support Needs of First-Time Mothers at Health Care Facilities in the City of Tshwane, South Africa. Curationis 40(1) Pretoria 2017.http://doi.org/10.4102/curationis.v411.1680.

Maree, J.G. 2016. First Steps in Research. 2nd ed. Pretoria: Van Schaik Publishers.

Margarete, L. 2014. Mild, Moderate and Severe Pain in Patients Recovering from Major Abdominal Surgery. *Pain Manag Nurs*. 2014 Jun; 15(2): e1-12.

Mary, Z., Afzal, M., Sehar, S. & Gilani, S.A. 2018. Improving Nurses Knowledge and Attitude Regarding Early Mobilization of Post-Operative Patients. *Journal of Health, Medicine and Nursing*. ISSN 2422-8419, 51, 88-100.

Martin, A., Horowitz, C., Balbierz, A & Howell, E. Views of Women and Clinicians on Postpartum Preparation and Recovery. *Maternal Child Health Journal*. 2014. April. 18(3):707-713. Doi: 10.1007/s10995-013-1297-7.

Masala-Chokwe, M.E.T. & Ramukumba, T.S. 2017. The Lived Experiences and Social Support Needs of First-Time Mothers at Health Care Facilities in the City of Tshwane, South Africa. Curationis. 40(1). Pretoria.

Mascarello, K.C, Horta, B.L. & Silveira M.F. 2017. Maternal Complications and Caesarian Section Without Indication: Systematic Review and Meta- Analysis. Rev Saude Publica

Matisavich, A. & Santos, M. 2009 Inequalities in maternal postnatal visits among public and

private patients. *BMC Public Health*, 9, 335.

McLachlan, H., Forsetr, D., Yelland, J., Rayner, J. & Lumley, J. 2007. Is the Organization and Structure of Hospital Postnatal Care a Barrier to Quality Care? Findings from a State-Wide Review in Victoria, Australia. *Midwifery*, 24; 358-370. https://doi.org/10.1016/j.midw.2006.10.006.

Mhlanga, R.E. 2008. Maternal Newborn and Child Health, 30 Years On: Primary Health Care: Programme Areas. Nelson R Mandela School of Medicine, University of Kwazulu-Natal.

Millicevic, M.S., Vasic, M., Edwards, M., Sanchez, C. & Fellows, J. Strengthening the Public Health Workeforce: An Estimation of the Long-Term Requirements for Public Health Specialists in Serbia. Health Policy. 122 (6); 2018: 674-680.

Miller, Y.D., Dane, A.C. & Thompson, R.A. Call for Better Care: The Impact of Postnatal Contact Services on Women's Parenting Confidence and Experiences of Postpartum Care in Queensland, Australia. *BMC Health Services Research* (2014) 14:635. DOI.10.1186/s12913-014-0635-9.

Ministry of Health Malaysia. Traditional and Complementary Medicine Programme in Malaysia. 2011. (Accessed on 17 March 2015).

Mirzakhani, K., Khadivzadeh, T., Faridhosseini, F. & Ebadi, A. Pregnant Women's Experiences of the Condition Affecting Marital Well-being in High-Risk Pregnancy: A Qualitative Study. IJCBNM.2020; 8(4):345-357. DOI: 10.30476/ijcbnm.2020.85666.1285.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. & The PRISMA Group. 2009. Preferred Reporting Items for Systematic Reviews and Meta-Analysis. The PRISMA Statement. *British Medical Journal*. 339; 332-336.

Mosby's Pocket Dictionary. 2014.

Mothapo, K.E. 2019. Enhancing Effective Implementation of Recommendations for the Saving Mothers Report in Maternity Units of Limpopo Province, South Africa.

Motee, A., Jeewon, R. Importance of Exclusive Breastfeeding and Complementary Feeding Among Infants. Curr *Res Nutr Food Sci*, 2014. 2(2). Doi: http://dx.doi.org/ 10.12944/CRNFSJ.2.2.02.

Mouton, J. 1996. Understanding Social Research. Pretoria: Van Schaik.

Moyer, C.A., Gyeke, P.D. & Adamu, R.M. Facility-Based Delivery and Maternal and Early Neonatal Mortality in Sub-Saharan Africa; A Regional Review of the Literature. *African Journal of Reproductive Health*. 17 (3); 2013

Mrisho, M., Obrist, B., Schellenberg, J.A., Haws, R.A., Mushi, A.K., Mshid, H., Tanner, M. & Schellenberg, D. 2009. The Use of Antenatal and Postnatal Care: Perspectives and Experiences of Women and Health Care Providers in Rural Southern Tanzania. *Biomedical Central Pregnancy and Childbirth*, 9(10). Available at http://www.biomedic

Mulaudzi, F.M. & Ngunyulu, R.N.2009. Indigenous Practices regarding Postnatal Care at Sikhunyani Village in the Limpopo Province of South Africa.

Munabi-Babigumira, S., Glenton, C., Lewin, S., Fretheim, A. & Nabudere, H. Factors that Influence the Provisionof Intrapartum and Postnatal Care by Skilled Birth Attendants in Low- and Middle-Income Countries: A Qualitative Evidence Synthesis (Review). Cochrane Database of Systematic Reviews. 2017, issue 11. Art. No: CD11558.DOI: 10.1002/14651858.CD011558.pubz.

Naidoo, T.D., Moodley, J. & Esterhuizen, T.E. Incidence of Postpartum and Incontinence Among Indians and Black Africans in a Resource -Constrained Country. International Journal of Gynaecology & Obstetrics. 118(2); 2012: 156-160.

Nair, M., Yoshida, S., Lambrechts, T., Boschi-Pinto, C., Bose, K., Mason, E.M. & Mathai, M. Facilitators and Barriers to Quality of Care in Maternal Newborn and Child Health: A Global Situational Analysis Through Metareview. BMJ Open 2014; 4: e004749. Doi: 10.1136/bmjopen-2013-004749.

National Committee for Confidential Enquiry into Maternal Deaths. Saving Mothers 2011-2013. Sixth Report on the Confidential Enquiries into Maternal Deaths in South Africa. 2014. [Internet]. [cited 7 February 2016]. URL: http://www.kznhealth.gov.za/mchw/Maternal/ Saving-Mothers-2011-2013-short-report.pdf.

National Institute for Health and Care Excellence (NICE) Guidelines. 2018. Postnatal care (QS37). (https://www.nice.org.uk/terms-andconditions# notice-of-rights). 16 July 2013.

Needleman, J., Buerhaus, P., Mattke, S., Stewart, M. & Zelevinsky, K. Nurse Staffing Levels and the Quality of Care in Hospitals. 2002. Doi.10.1056/NFIMSa 012247.

Nemutandani, S.M., Hendricks, S.J. & Mulaudzi, M.F.2016. Perceptions and Experiences of Allopathic Health Practitioners on Collaboration with Traditional Health Practitioners

in Post-Apartheid South Africa. *African Journal of Primary Health Care & Family Medicine.* https://dx.doi.org/10.4102/phcfm.v812.1007.

Nieuwoudt, S.J. Ngandu, C.B., Manderson, L. & Norris, S.A. 2019. Exclusive Breastfeeding Policy, Practice and Practices in South Africa. 1980 to 2018. A Mixed Methods Systematic Review.

Neumann, W.L. 2003. Social Research Methods. Qualitative and Quantitative Approaches. 5th edition. Boston New York. San Francisco.

Ngunyulu, R.N. & Mulaudzi, F.M. 2009. Indigenous practices regarding postnatal care at Sikhunyani village in the Limpopo Province of South Africa. *Journal of Nursing and Midwifery*, 11 (1): 48-64.

Ngunyulu, R.N., Mulaudzi, F.M. & Peu, M.D. 2015. Comparison between indigenous and western postnatal care practices in Mopani District, Limpopo Province, South Africa.

Ngunyulu, R.N., Mulaudzi, F.M. & Peu, M.D. 2016. Perceptions of Midwives Regarding the Role of Traditional Birth Attendants During Postnatal Care in South Africa. *African Journal of Nursing and Midwifery*, 18 (1) 2016: 47-60.

Nkala T.E & Msuya, S.E. Prevalence and Prediction of Exclusive Breastfeeding Among Women in Kigoma Region, Western Tanzania: A Community-Based Cross-Sectional Study. 2011. *International Breastfeeding*. Springer.

Noblit, G.W. & Hare, R.D. Meta-Ethnography: Synthesizing Qualitative Studies, Sage Publications, 1988

Ntuli, S.M., Mogale, M., Hyera, F.M. & Naidoo, S. 2017. An Investigation of Maternal Mortality at a Tertiary Hospital of the Limpopo Province of South Africa. Southern *African Journal of Infectious Diseases*. 32(2);73-76, DOI: 10.1080/23120053.2017.1293902.

Nuopponen, A. 2010. Methods of Concept Analysis- Towards Systematic Concept Analysis (part 2 of 3). LSP Journal-Language for Special Purposes, Professional, Communication, Knowledge Management and Cognition 1 (2).

Obioha, E.E. & T'soeunyane, P.G. 2012. The Role of the Elderly in Sotho Family Systems and Society of Lesotho, Southern Africa. The Anthropologist. 14(3); 251-260. Doi: 10.1080/09720073.2012.11891246.

Obineli, A.S. Depression Among Women: Symptoms, Causes, Intervention and Preventive Strategies by Guidance Counsellors. *Mgbakoigba Journal of African Studies,* 8(1): June, 2019.

Oh, E.G. 2016. Synthesising Qualitative Evidence for Evidence-Based. Asian Nursing Research. Science Direct.

Okafor, I.I., Igwu, E.O. & Obi, S.N. Disrespect and Abuse During Facility-Based Childbirth in a Low- Income Country. *Gynaecology and Obstetrics*. 2014. https://doi.org/10.1016/j.ijgo.2014.08.015

Okeke, T.C., Ugwu, E.O., Ezenyaaku, C.C.T., Ikeako, L.C. & Okezie, O.A. Postpartum Practices of Parturient Women in Enugu, South-East Nigeria. *Annals of Medical and Health Sciences Research*. 3 (1); 2013.

Olds, S.B., London, M.L., Ladewig, P.W. & Davidson, M.R. 2004. Maternal New=Born Nursing and Women's Health. 7th edition. Pearson: Prentice Hall.

Olusanya, B.O., Slusher, T.M, Imosemi, D.O. & Emokpae, A. A. 2017. Maternal Detection of Neonatal Jaundice During Birth Hospitalization Using a Novel Two-Colour Icterometer. *Collection of Infectious Disease Epidemiology*. https://doi.org/10.1371/journal pone.0183882.

Onasoga, O.A., Afolayan, J.A., Aluko, J. & Ingwu, J.A. Factors Influencing Midwives' Attitudes Towards Women in Labour in Selected Hospitals in Niger Delta Region of Nigeria. *Tropical Journal of Health Sciences*. 25(4); 2018.

Opwora, A., Laving, A.M.R, Nyabola, L.O. & Olenja, J.M. Who Is to Blame? Perspectives of Caregivers on Barriers to Accessing Healthcare for the Under-Five in Butere District, Western Kenya. BMC Public Health. 2011. 11: 271.

Oxford Advanced Learner's Dictionary, 2015. International Student's Edition. 9th edition. Oxford: University Press.

Oxford Advanced Learner's Dictionary. 2015. 9th ed. Oxford: Clarendon Press.

Padgett, D.K., 2017. Qualitative Methods in Social Work Research. 3rd edition. Los Angeles: SAGE Publications.

Page, L., Beake, S., Wal, A., McCourt, C. & Hewison, J. 2001. Clinical Outcomes of One-to-One Midwifery Practice. *British Journal of Midwifery*. 9(11); 700-706.

Page, L., Beake, S., Wal, A., McCourt, C. & Hewison, J. 2013. Clinical Outcomes of One-to-One Midwifery Practice. *British Journal of Midwifery*. 9 (11).

Palitza, K. 2010. What is Left Unsaid? Reporting the South African HIV Epidemic. Aukland Park.

Patricia, K.M., Concepta, K.N., Victoria, M.K. & Emmanuel, M. Evaluation of Quality of Antenatal Care Services in Selected Health Care Centres of Mumbwa and Lusaka Districts of Zambia: Pregnant Women's Perspectives. International Journal of Nursing and Midwifery.

Pascal, M. & Homer, C.S.E. Models of Postnatal Care for Low-Income Countries. A Review of the Literature. *International Journal of Childbirth*, 6 (2); 104-132.

Patton, M.Q. 2002. Two Decades of Development in Qualitative Inquiry: A Personal, Experiential Perspective Qualitative Social Work. 1(3): 261-283. Doi.10.1177/ 14733250020001003636.

Pattison, R.C. 2005. Basic Antenatal Care Handbook. National Department of Health. South Africa.

Pattison, R., Fawcuss, S. & Moodley, J. 2013. Tenth Interim Report on Confidential Enquiries into Maternal Deaths in South Africa. Pretoria: National Department of Health.

Paul, R., Narayan, P.J.P. & Kaur, H. 2019. Effectiveness of Early Ambulation on Post-operative Recovery Among the Women with Caesarian Section. *International Journal of Trend in Scientific Research and Development*. 3(3), 851-855.

Pearson, A. & Averis, A. 2003. Filling the Gaps: Identifying Nursing Research Priorities Through the Analysis of Completed Systematic Reviews. JBI Reports. 1(3): 49-126. Doi: 10.1046/j.1479-6988.2003.00003.x.

Piane, G. & Sfer, A. 2008. Drinking Behaviours, Expectancies and Perceived Social Norms Among Diverse College Women. *Journal of Alcohol and Drug Education*. 52 (1): 67-79.

Podkolinski J. (1998) Women's Experience of Postnatal Support: In: Clement S. (Ed.). *Psychological Perspectives on Pregnancy and Childbirth*. Churchill Livingstone: Edinburgh.

Polgar, S. & Thomas, S.A. 2000. Introduction to Research in the Health Sciences. 4th ed. Edinburgh: Churchill Livingstone.

Polit, D.F & Beck, C.T. 2008. Generating and assessing evidence for nursing practice. 8th edition. Philadelphia: Lippincot Williams & Wilkins, Wolters Kluwer.

Polit, D.F, Beck, C.T. & Hungler, B.P.2009. Essentials of Nursing Research, Methods, Appraisals and Utilization. 5th ed. Philadelphia: Lippincott.

Polit, D.F. & Beck, C.T. 2011. Nursing Research: Generating and Assessing Evidence for Nursing Practice. 9th ed. Philadelphia: Lippincott William and Wilkins.

Polit, D.F. & Beck, C.T.2012. Nursing Research, Generating and Assessing Evidence for Nursing Practice. 9th ed. Wolters, Kluwer. New York.

Polit, D.F. & Beck, C.T. 2017. Nursing Research.: Generating and Assessing Evidence for Nursing Practice. 10th ed. Philadelphia: Lippincott Williams & Wilkins.

Pope, C.J., Mazmanian, D., Bedard, M. & Sharma, V. Breastfeeding and Postpartum Depression: Assessing the Influence of Breastfeeding Intention and Other Risk Factors. *Journal of Affective Disorders*. 200, 2016: 45-50.

Postnatal care. Neonatal Institute for Health and Care Excellence. 2013.

Psaila, K., Kruske, S., Fowler, C., Homer, C., Schmied, V. 2014. Smoothing Out the Transition for Care between Maternity and Child and Family Health Services: Perspectives of Child and Family Health, Nurses and Midwives. *BMC. Pregnancy and Childbirth*. 14 (151) 2014.

Pound, C.M. & Unger, S.L. 2012. Canadian Paediatric Society, Nutrition and Gastroenterology Committee, Hospital Paediatrics Section, The Baby-Friendly Initiative: Protecting, Promoting and Supporting Breastfeeding. Paediatrics & Child Health. 17(6): 2012: 317-321.

Queensland Health: Obesity (Statewide Maternity and Neonatal Clinical Guidelines). Thhp://www.healthqld.gov.au/qcg/documents/g obesity.pdf.

Rayner, J.A., McLachlan, H.L., Peters, L., Forster, D.A. Care Provider's Views and Experiences of Postnatal Care in Private Hospitals in Victoria, Australia. Midwifery. 29 (6); 2013: 622-627.

Redshaw, M. 2010. Institutional Processes and Individual Responses: Women's Experiences of Care in Relation to Caesarian Birth. Birth Issues in Perinatal Care. 37 (2), 150-159.https://doi.org/10/10.1111/j.1523-536x.2010.00395x

Rodgers, B. L. & Knalf, K.A. 2000. Concept Development in Nursing. 2nd edition, Philadelphia: Saunders.

Rossouw, D. 2003. Intellectual Tools. Skills for the human sciences. 2nd edition. Van Schaik.

Royal College of Obstetricians and Gynaecologists, 2014. Information for You. United Kingdom.

Saloojee, F. & van Wyk, C. 2015. The Experiences of Primary Caregivers Whose Children / Grandchildren Were Exposed to Paternal Incest. South African Professional Society on the Abuse of Children: 2015. ISSN 1562-1383. Child Abuse Research: *A South African Journal.*

Schmied, V., Everitt, L. 1996. Postnatal Care: Poor Cousing or Priority Area? In Barclay, L., Jones., ed, Midwifery: Trends and Practice in Australia. Melbourne Churchill Livingstone.

Schoon, M.G. & Motlolometsi, M.W.A.2012. Poor Maternal Outcomes: A Factor of Poor Professional Systems Design: 2012. *South African Medical Journal*. Volume 102(10) Pretoria.

Scottish Government, 2017. The Best Start: A Five Year Forward Plan for Maternity and Neonatal Care in Scotland: Review of Maternity and Neonatal Services in Scotland.

Seebregts, C., Barron, P., Tanna, G., Benjamin, P. & Fogwill, T. 2016. *MomConnect*: an exemplar implementation of the Health Normative Standards Framework in South Africa. SAHR.

Sellers, P.M. 2012. Seller's Midwifery. Juta. Cape Town.

Shah, Z., Salim, M. & Khan, M. 2010. Training Institutions for Community Midwives in Pakistan: An Initial Assessment.

Sharma, S., van Teijlingen, E., Hundley, V. *et al*. Dirty and 40 Days in the Wilderness: Eliciting Childbirth and Postnatal Cultural Practices and Beliefs in Nepal. BMC Pregnancy Childbirth, 16, 147 (2016). https://doi.org/10.1186/s12884-016-0938-4

Singh, J. 2013. Critical Appraisal Skills Programme. CASP Appraisal Tools. Journal of Pharmacology and Pharmacotherapeutics. 4(1):76. Doi:10.4103/0976-500x.107697.

Singh, S. & Darroch, J.2000. Adolescent Pregnancy and Childbearing: Levels and Trends in Developed Countries. *Family Planning Perspectives*, 32(1) 2000: 14-23. Guttmacher Institute. https://doi.org/10.2307/2648144.

Sitrin, D., Guenther, T., Murray, J., Pilgrim, N., Rubayet, S., Ligowe, R., Pun, B., Malla, H. & Moran, A. Reaching Mothers and Babies with Early Postnatal Home Visits. The Implementation Realities of Achieving High Coverage in Large Scale-Programmes. PLoS ONE 8(7): e68930.doi: 10.1371/journal.pone.0068930.

Soares, A.V.N & Silva, I.A. 2003. Mothers' Representation Concering the Rooming –In: From the Abandonment to the Acceptance. Revista da Escola de Enfermagem da USP, 37,

72-80. http://dx.doi.org/10.1590/S0080-62342003000200009.

South African National Department of Health. 2015. Guidelines for Maternity care. A manual of clinics, community health centres and district hospitals. 4th edition. Pretoria: Government Printer.

South African National Department of Health. *MomConnect*. One Year of Operation: A Case Study. August 2014-August 2015. Pretoria: National Department of Health; 2015. P. 1-16. [Internet]. [Cited 6 April 2016] URL: http://www.healthenabled.org/resources/*MomConnect*-case study.pdf.

South African Nursing Council. 2005. Nursing Act No.33 of 2005. Pretoria: Government Printer.

South African Nursing Council). Regulations Relating to the conditions under which Registered Midwives and Enrolled Midwives may Carry on Their Profession. R.2488, 26 October 1990. Republic of South Africa. Pretoria

State of Queensland Health. 2016. Maternity and Neonatal Clinical Guideline. Preterm Labour and Birth. Brisbane. Australia.

State of the World's Midwifery: Fact Sheet. The State of the World's Midwifery. 2014.

Steen, M., Marchant, M. 2007. Ice Packs and Cooling Gel Pads Versus No Localised Treatment for Relieve of Perineal Pain. A Randomised Controlled Trial. Evidence-Based Midwifery, 5(1) 2007.

Stuebe, A. The Risks of not Breastfeeding for Mothers and Infants. *Reviews in Obstetrics and Gynaecology*: 2009, 2(4): 222

Tambakad, S.B. & Samitra, L.A. Effectiveness of Planned Teaching Programme (PTP) on Knowledge Regarding Prevention of Neonatal Hypothermia Among Postnatal Mothers. *Asian Journal Nursing Education and Research* 5(1): Jan-March 2015. www.anvpublication.org.

Tebid, R., Du Plessis, D., Beukes, S., Van Niekerk, V. & Jooste, K. Implications for Nurse Managers Arising from Immigrant Women's Experiences of Midwifery Care in a Hospital. *Journal of Nursing Management*. https://doi.org/10.1111/j.1365-2834.2011.01310.x.

Ten Ham-Baloyi, W.H. 2012. Using Benefit Levers to Develop an Operational Plan for Spread of Best Practices in Health Systems. Potchefstroom Campus, North West University: South Africa

Ten Ham-Baloyi, W. & Jordan, P. Systematic Review as a Research Method in Post-Graduate Nursing Education. Health Gesondheid 21 (2016), 120-128.

The South African Concise Oxford English Dictionary. 2006. Edited by the Dictionary Unit for South African English, Oxford University Press, South Africa.

The South African Concise Oxford English Dictionary. 2006. Edited by the Dictionary Unit for South African English, Oxford University Press, South Africa.

The Cambridge Advanced Learners Dictionary. 2011.Oxford. University Press

The Merriam Webster's Advanced Learner's Dictionary. 2008. Oxford: University Press. Southern Africa (Pty) Ltd.

The State of the World's Midwifery. 2014. A Universal Pathway. A Woman's Right to Health. USA: United Nations Population Fund.

Thompson, R., Kruske, S., Barclay, L., Linden, K., Gao, Y. & Kildea. Potential Predictors of Nipple Trauma from an In-Home Breastfeeding Programme: A Cross-Sectional Study. *Women and Birth*. 29 (4); 2016: 336-344.

Thorpe, P.G. Gilboa, S.M. Diaz, S.H., Lind, J., Cragan, J.D., Briggs, G., Kweder, S., Friedman, J.M., Mitchell, A.A. & Honein, M.A. Medications in the First Trimester of Pregnancy: Most Common Exposures and Critical Gaps in Understanding Fetal Risk. Pharmacoepidemiol. Drug Safety. 2013. 22 (9): 1013-8. Doi:10.1002/pds.3495. Epub 2013 Jul.29.

Timilsina, S. & Dhakal, R. Knowledge on Postnatal Care Among Postnatal Mothers. 2015. *Journal of Medicine and Pharmacy*.

Tiruneh, G.T., Shiferaw, C.B. & Worku. 2019. Effectiveness and Cost-effectiveness of Home-based Postpartum Care on Neonatal Mortality and Exclusive Breastfeeding Practice in -Low -and- Middle- Income Countries: A Systematic Review and Meta-Analysis. *BMC. Pregnancy and Childbirth*. 19(507).

Tong, A., Palmer, S., Craig, J.C. & Strippoli, G.F. A Guide to Reading and Using a Systematic Reviews of Qualitative Research. Nephrol Dial Transplant, 2016. Jun, 31(6): 897-903. doi:10.1093/ndt/gfu354.Epub2014. Nov.20.Review.

Ukponmwan, C.U., Okolo, O.T., Kayoma, D.H. & Ese-Onakerwhor, J. Complications of Breast Milk Application to the Infected Eye. Nigerian Journal of Ophthalmology, 2009; 17(1): 32-35

UNICEF, WHO, UNIFPA: Guidelines to Monitoring the Availability and Use of Obstetric Services. 1997. New York: United Nations Population Fund.

United Nations Population Fund (UNFPA). Maternal Mortality Update: A Focus on Emergency Obstetric Care. New York: UNFPA.

United Nations Population Fund. 2009. State of Midwifery Training Service and Practice in Uganda: Assessment Report. Kampala: UIFPA.

United Nations Children's Fund (UNICEF). 2013. Tracking Progress in Maternal and Child Survival, Case Study Report for Fiji. 2013. Available at www.unicef.org/pacificislands. Accessed 04.03.2018.

Van Esterick. P. 1992. What is the Cultural Significance of the Postpartum Period? In Brady M and Winikoff, B. Rethinking Postpartum Health Care. New York: The Population Council. Pp 2-4.

Verbiest, S.B. 2008. The Postpartum Visit: An overlooked opportunity for prevention.

Verbiest, S. McClain, E., Stuebe, A. & Menard, M.K. Postpartum Health Services Requested by Mothers with Newborns Receiving Intensive Care. Maternal Child Health Journal (2016) 20: s125-s131. DOI: 10.1007/s10995-016-2045-6.

Vermer, P., Ramos, I.C., van Voorn, G.A., AI, M.J. & Feenstra, T.L. 2016 AdViSHE: A Validation Assessment Tool of Health- Economic Models for Decision Makers and Model Users. Pharmacoeconomics 34 (4): 349-3618u .

Vessel, E.A., Starr, G.G & Rubin, N. 2012. The Brain on Art: Intense Aesthetic Experience Activities: The Default Mode Network. Front. Hum. Neurosc. 6.66.doi:10.3389/fnhum.2012.00066.

Villegas, L., McKay, K., Dennis, C. & Ross, L.E. Postpartum Depression Among Rural Women from Developed and Developing Countries: A Systematic Review. *The Journal of Rural Health*. https://doi.org/10.1111/j.1748-0361.2010.00339.x.

Waldenstrom, U., Brown, S., McLachlan, H., Forster, D., Brennecke, S. Does Team Midwife Care Increase Satisfaction with Antenatal, Intrapartum and Postpartum Care? A Randomised Controlled Trial. Birth. 2000. 27: 156-167. 10.1046/j.1523-536x.2000.00156.x.

Walker, L.O. & Avant, K.S. 1995. Strategies for Theory Construction in Nursing. 3rd ed. Appleton & Lange, Norwalk, Cape Town.

Walker, L.O. & Avant, K.S. 2005: Strategies for Theory Construction in Nursing. 4th edition. Pearson Prentice Hall; Upper Saddle River, NJ.

Walker, L.O. & Avant, K.S. 2008: Strategies for Theory Construction in Nursing. 4th edition. CT: Appleton & Lange Norwalk.

Walker, L.O. & Avant, K.G. 2010: Strategies for Theory Construction in Nursing. 4th edition. Upper Saddle River: Prentice-Hall.

Walker, L.O. & Avant, K.S. 2013: Strategies for Theory Construction in Nursing: Pearson New International Edition. New York: Pearson.

Walker, L.O. & Avant, K.S. 2013: Strategies for Theory Construction in Nursing: Pearson New International Edition. New York: Pearson.

Warren, C., Daly, P., Toure, L., Mongi, P. 2007. Opportunities for Africa's Newborns.

Watkins, V., Nagle, C., Kent, B. & Hutchison, A. Labouring Together: Collaborative Alliances in Maternity Care in Victoria, Australia-Protocol of a Mixed Methods Study. BMJ Open 2017; 7: e014262.doi:10.1136/bmjopen-2016-014262.

Whapples, E. Do Women who have Encountered Vaginal Childbirth Experience Long-Term Incontinence or Perineal Pain? *British Journal of Midwifery*. October 2016. 22(10).

Whitaker, K., Young-Hyman, D., Vernon, M & Wilcox S. Maternal Stress Predicts Postpartum Weight Retention. *Maternal Child Health Journal* (2014) 18: 2209-2217.

Wilcox, A., Levi, E.E. & Garrett, J.M. Predictors of Non- Attendance to the Postpartum Follow-up Visit. *Maternal Child Health Journal*. 2016. 20s22-s27. Doi. 1007/s10995-016-2184-9.

Wildscut, A. & Mgqolozana, T. 2009. Nurses.

Williamson, V., McCutcheon, H. 2004. Postnatal Depression: A Review of Current Literature. Australian Midwifery.

Wiysonge, C.S., Ngcobo, N.J., Jeena, P.M., Madhi, S.A., Schoub, B.D., Hawkridge, A., Shey, M.S. & Hussey, G.D. Advances in Childhood Immunisation in South Africa: Where to Now? Programme Managers' Views and Evidence from Systematic Views. BMC. Public Health, 2012. 12: 578.

World Health Organization & UNICEF. 2009. Baby-Friendly Hospital Initiative: Revised, Updated and Expanded for Integrated Care. Section 1, Background and

Implementation. http://app.who.int/iris/bitstream/10665/43593/1/9789241594967-eng.pdf

World Health Organization. 2010. Who Technical consultation on Postpartum and Postnatal Care: Department of Making Pregnancy Safer. WHO, Geneva: Switzerland.

World Health Organization. 2010. Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills. World Health Organization. Geneva.

World Health Organization. 2013. WHO recommendations on postnatal care of the mother and newborn. Geneva: World Health Organization.

World Health Organization. 2014. Fact sheet: the state of the world midwifery.

World Health Organization. 2015. Postnatal care for Mothers and Newborns. Highlights from the World Health Organization 2013 Guidelines.

Xyrichis, A. & Ream, E. Teamwork.: A Concept Analysis. 2008. *Journal of Advanced Nursing.* 61(2); 232-241. Doi: 10.1111/j.1365-2648.2007.04496.x.

Yelland, J.J., Krostev, A. & Brown, S. 2009. Enhancing Early Postnatal Care: Findings form a Major Reform of Maternity Care in Three Australian Hospitals. *Midwifery* 25(4); 392-402. Doi: 10.1016/j.midv.2007.01.004.

Zhang, S., Alkema, L., Chou, D., Hogan, D., Moller, A.B., Gemmil, A., Fat, D.M., Boerma, T., Temmerman, M., Mathers, C & Say, L. Global, Regional and National Levels and Trends in Maternal Mortality Between 1990 and 2015, with Scenario- Based Projections to 2030: A Systematic Analysis by the UN Maternal Mortality Estimation Inter-Agency Group. Lancet 2016: 387; 462-474.

ANNEXURE A

ETHICS CLEARANCE CERTIFICATE FROM THE UNIVERSITY OF VENDA RESEARCH COMMITTEE (UVREC) TO CONDUCT THE STUDY

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms KJ Shirindza

Student No:
14014821

PROJECT TITLE: **A model to enhance continuity of postnatal care by primary caregivers in Limpopo Province, South Africa.**

PROJECT NO: **SHS/19/PDC/07/2904**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof MS Maputle	University of Venda	Promoter
Mrs T Malwela	University of Venda	Co - Promoter
Ms KJ Shirindza	University of Venda	Investigator – Student

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: April 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
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2019 -05- 10
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OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC

TO : MR/MS K.J SHIRINDZA

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: **K.J Shirindza (14014821)**

Topic: "A Model to enhance continuity of Postnatal Care by Primary Caregivers in Limpopo Province, South Africa."

Promoter	UNIVEN	Prof. Maputle
Co-promoter	UNIVEN	T. Malwela

UHDC approved Thesis proposal

PROF J.E CRAFFORD
DEPUTY VICE-CHANCELLOR: ACADEMIC

ANNEXURE B

REQUEST TO LIMPOPO PROVINCE DEPARTMENT OF HEALTH TO CONDUCT THE STUDY

P.O. Box 2224
Elim Hospital
0960
2019 April 08

The Director General
Department of Health
Polokwane
0700

RE: REQUEST FOR PERMISSION TO CONDUCT A STUDY

Sir / Madam

I, Katekani Joyce Shirindza, am presently doing a PhD degree at the University of Venda. I am presently engaged in a research study entitled: "A model to enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province, South Africa.'' I intend to conduct this study at the health care facilities of Limpopo Province in different districts. The study is conducted under the promotion of Prof M.S. Maputle and Dr. T. Malwela. The study has been approved by the Ethics Committee of the School of Health Sciences, University of Venda. The purpose of the study is to develop a model to enhance the continuity of postnatal care by primary caregivers in the Limpopo Province of South Africa. Ethical considerations will be adhered to.

Hoping that the request will be taken into consideration.

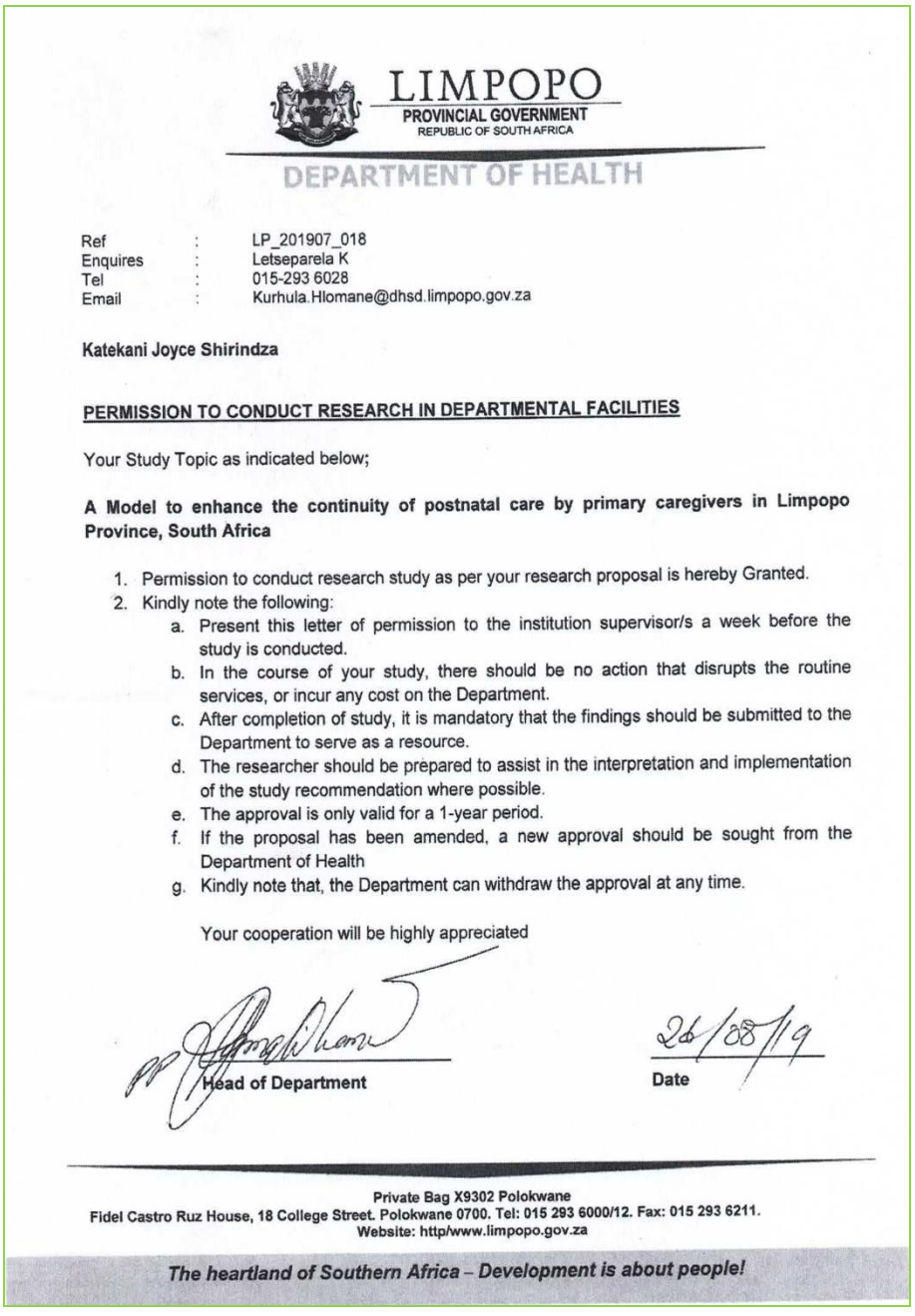
Yours Faithfully

Katekani Joyce Shirindza (Ms)

Signature of the researcher: …… **Date:** ……

ANNEXURE C

APPROVAL LETTER FROM LIMPOPO PROVINCE DEPARTMENT OF HEALTH TO CONDUCT RESEARCH



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HEALTH

Ref : LP_201907_018
Enquires : Letseparela K
Tel : 015-293 6028
Email : Kurhula.Hlomane@dhsd.limpopo.gov.za

Katekani Joyce Shirindza

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

A Model to enhance the continuity of postnatal care by primary caregivers in Limpopo Province, South Africa

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

Your cooperation will be highly appreciated

Head of Department **Date** 26/08/19

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

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ANNEXURE D

APPLICATION LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH AT MOPANI, VHEMBE AND SEKHUKHUNE DISTRICTS

P.O. Box 2224
Elim Hospital
0960

01 September 2020

The District Executive Manager

Re: Application for permission to conduct research

Dear Sir/ Madam

I, the researcher, am currently pursuing a Doctor of Philosophy (PhD) degree at the University of Venda. I am hereby applying for permission to conduct a study at the health care facilities of the selected districts of Limpopo Province.

The title of the study is “A model to enhance the continuity of postnatal care in the health care facilities of the selected districts of Limpopo Province, South Africa. Participants will be primary caregivers and midwives who are working at the health care facilities of the Limpopo Province.

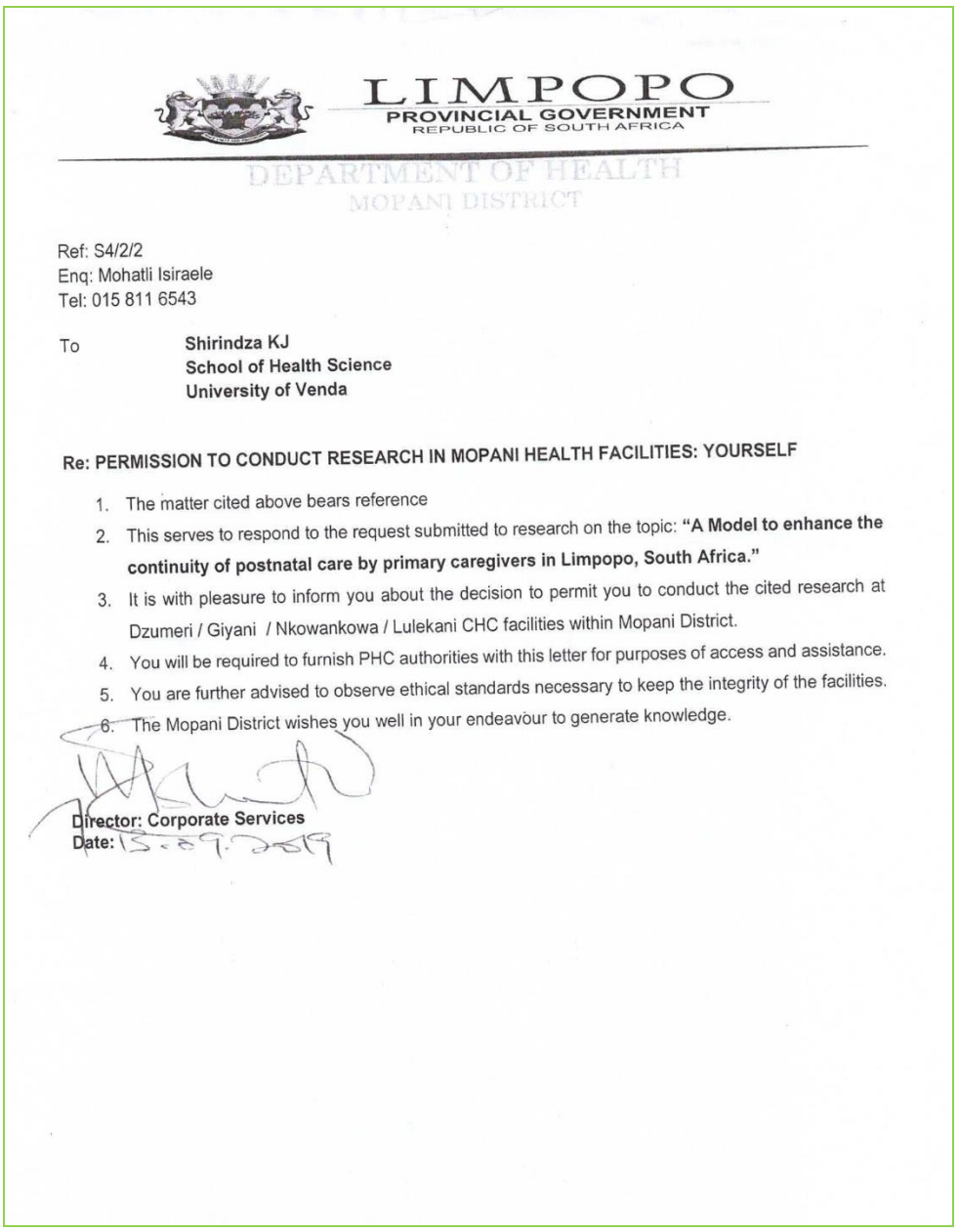
I look forward to your positive response in this regard.

Yours Faithfully

K.J. Shirindza (Ms)
Contact number: 0837621658

ANNEXURE E

APPROVAL LETTER FROM MOPANI DISTRICT TO CONDUCT RESEARCH



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
MOPANI DISTRICT

Ref: S4/2/2
Enq: Mohatli Isiraele
Tel: 015 811 6543

To **Shirindza KJ**
School of Health Science
University of Venda

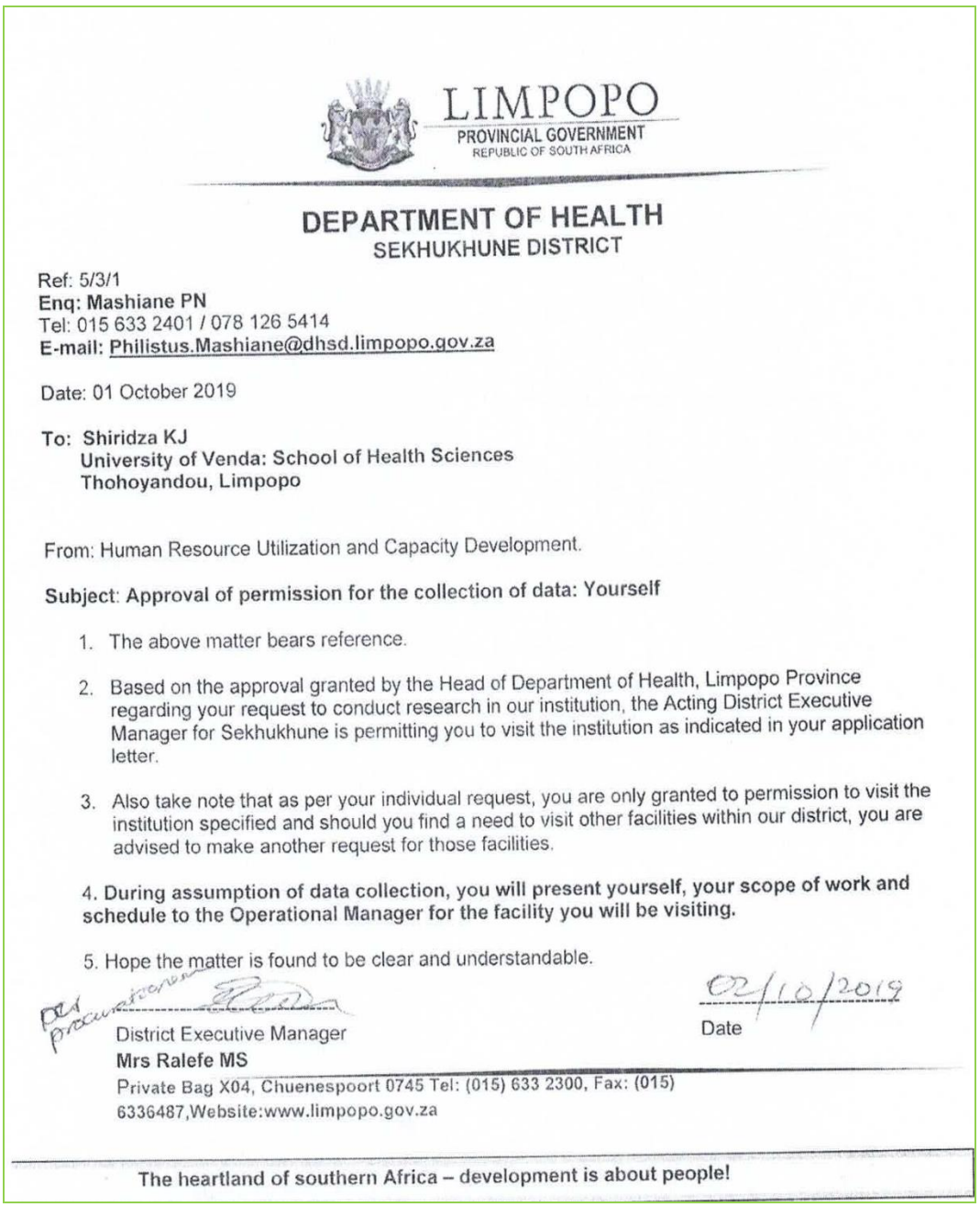
Re: PERMISSION TO CONDUCT RESEARCH IN MOPANI HEALTH FACILITIES: YOURSELF

1. The matter cited above bears reference
2. This serves to respond to the request submitted to research on the topic: **"A Model to enhance the continuity of postnatal care by primary caregivers in Limpopo, South Africa."**
3. It is with pleasure to inform you about the decision to permit you to conduct the cited research at Dzumeri / Giyani / Nkowankowa / Lulekani CHC facilities within Mopani District.
4. You will be required to furnish PHC authorities with this letter for purposes of access and assistance.
5. You are further advised to observe ethical standards necessary to keep the integrity of the facilities.
6. The Mopani District wishes you well in your endeavour to generate knowledge.

Director: Corporate Services
Date: 15.09.2015

ANNEXURE F

APPROVAL LETTER FROM SEKHUKHUNE DISTRICT TO CONDUCT RESEARCH



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
SEKHUKHUNE DISTRICT

Ref: 5/3/1
Enq: Mashiane PN
Tel: 015 633 2401 / 078 126 5414
E-mail: Philistus.Mashiane@dhsd.limpopo.gov.za

Date: 01 October 2019

To: Shiridza KJ
University of Venda: School of Health Sciences
Thohoyandou, Limpopo

From: Human Resource Utilization and Capacity Development.

Subject: Approval of permission for the collection of data: Yourself

1. The above matter bears reference.
2. Based on the approval granted by the Head of Department of Health, Limpopo Province regarding your request to conduct research in our institution, the Acting District Executive Manager for Sekhukhune is permitting you to visit the institution as indicated in your application letter.
3. Also take note that as per your individual request, you are only granted to permission to visit the institution specified and should you find a need to visit other facilities within our district, you are advised to make another request for those facilities.
4. **During assumption of data collection, you will present yourself, your scope of work and schedule to the Operational Manager for the facility you will be visiting.**
5. Hope the matter is found to be clear and understandable.

District Executive Manager
Mrs Ralefe MS
Private Bag X04, Chuenespoort 0745 Tel: (015) 633 2300, Fax: (015) 6336487,Website:www.limpopo.gov.za

02/10/2019
Date

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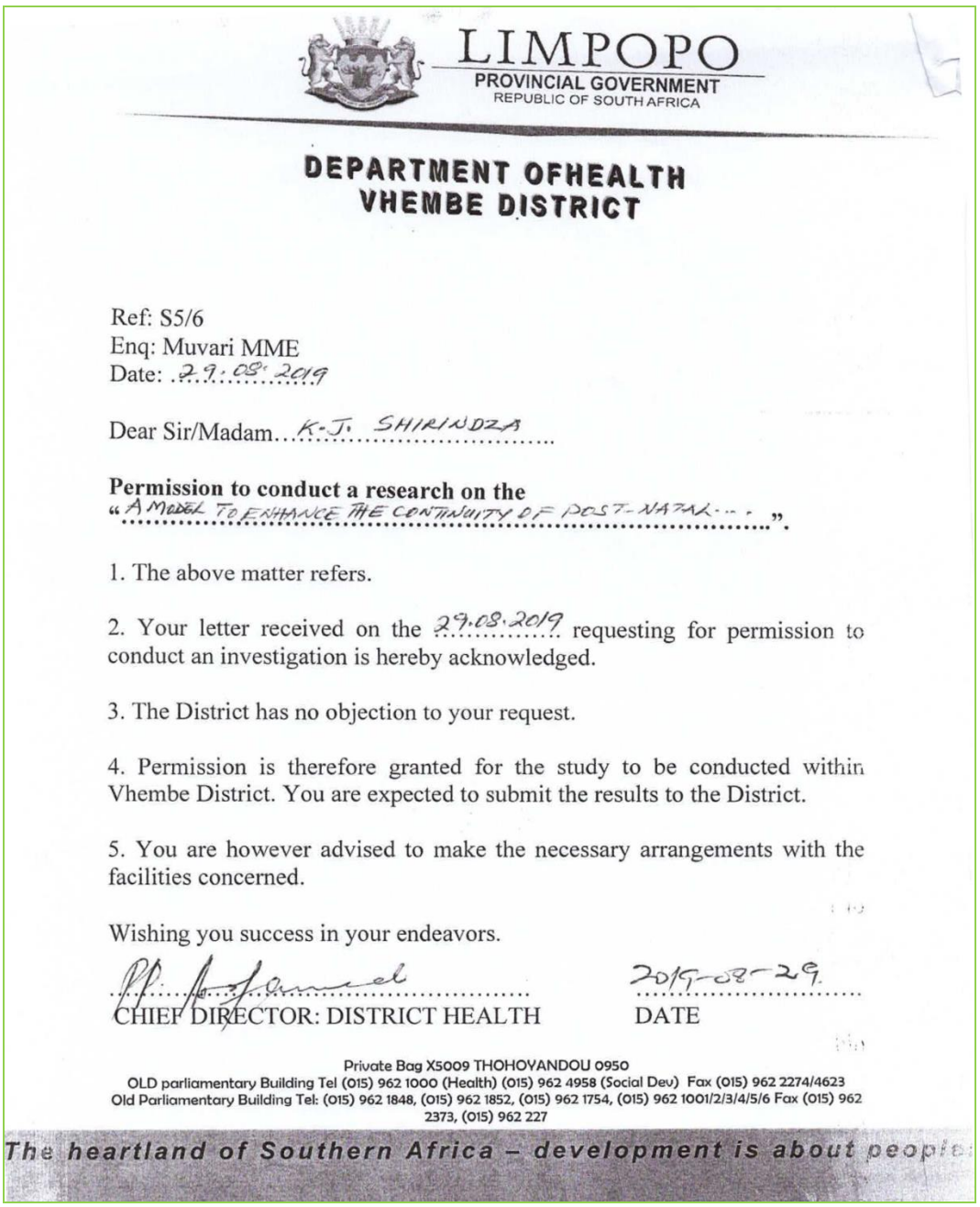
ANNEXURE G

APPROVAL LETTER FROM VHEMBE DISTRICT TO CONDUCT RESEARCH



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OFHEALTH
VHEMBE DISTRICT

Ref: S5/6
Enq: Muvari MME
Date: 29/08/2019

Dear Sir/Madam... K-J. SHIRINDZA

Permission to conduct a research on the
"A MODEL TO ENHANCE THE CONTINUITY OF POST-NATAL...".

1. The above matter refers.

2. Your letter received on the 29.08.2019 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 2019-08-29

Private Bag X5009 THOHOYANDOU 0950
OLD parliamentary Building Tel (015) 962 1000 (Health) (015) 962 4958 (Social Dev) Fax (015) 962 2274/4623
Old Parliamentary Building Tel: (015) 962 1848, (015) 962 1852, (015) 962 1754, (015) 962 1001/2/3/4/5/6 Fax (015) 962 2373, (015) 962 227

The heartland of Southern Africa – development is about people

ANNEXURE H

APPLICATION LETTER TO PARTICIPANTS REQUESTING PERMISSION TO CONDUCT RESEARCH AT MOPANI, SEKHUKHUNE AND VHEMBE DISTRICTS

LETTER OF INFORMATION

Title of the Research Study: A model to enhance the continuity of postnatal care by primary caregivers at the health care facilities of the selected districts of Limpopo Province, South Africa.

Principal Investigator/Researcher: Katekani Joyce Shirindza PhD student

Co-Investigators/Supervisors: Prof M.S. Maputle

Dr T. Malwela

Brief Introduction and Purpose of the Study

I hereby invite you to participate in my research study. The purpose of the research is to develop a model that will enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province, South Africa.

Outline of the Procedures

The researcher will keep a record of your participation, as well as recordings of the interviews, together with the transcriptions of those recordings. Your name will not appear on the recording or transcriptions, and that information will not be linked to you.

Risks or Discomforts to the Participant

There are no risks involved in sharing your story. You will be required to meet with me once for a voice-recorded interview lasting approximately 45 minutes. There will be no harm to the participants as there will be no infliction or administration of any form of treatment to the participants.

Benefits

Although the study will not benefit you directly, the information obtained may help those who have challenges regarding the continuity of postnatal care to hear how you and other successful primary caregivers were able to.

Reasons Why the Participant May Be Withdrawn from the Study

Your participation in this study is totally voluntary and you are under no obligation to participate. You can withdraw at any time without repercussion or penalty, even in the middle of an interview.

Remuneration

There will be no payment to receive after your full participation to the study, but the data will assist other primary caregivers with the improvement of the health of women and their babies during the continuity of postnatal care.

Costs of the Study

There are no costs involved during your participation in the study. There will be no travelling expenses as the researcher will visit your area for the collection of data.

Confidentiality

All the data will be stored in a secure place and no one, except the research team, will have access to it. In addition, your identity will not be revealed when the study is reported or published.

Research-Related Injury

There are no risks involved in sharing your story. You will be required to meet with me once for a voice-recorded interview lasting for 45 minutes.

Persons to Contact in the Event of Any Problems or Queries

Please contact the researcher, Ms Katekani Joyce Shirindza at 083 762 1658, or my supervisors, Professor M.S. Maputle at 084 602 2063; Dr T. Malwela at 078 911 5972, or the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director for Research and Innovation, Prof G.E. Ekosse on 015 962 8313 or georgeslvo.ekosse@univen.ac.za.

ANNEXURE I

CONSENT FORM

Statement of Agreement to Participate in the Research Study:

1. I hereby confirm that I have been informed by the researcher Katekani Joyce Shirindza, about the nature, conduct, benefits and risks of this study-Research Ethics Clearance Number: SHS/19/PDC/07/2904.
2. I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
3. 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.
4. In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
5. I may, at any stage, without prejudice, withdraw my consent and participation in the study.
6. I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
7. 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, Katekani Joyce Shirindza, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Reseracher …… Date …….. Time …….

Signature ……..

Full Name of Witness (If applicable) …… Date …….. Time …….

Signature ……..

Full Name of Legal Guardian (If applicable) ……. Date …….. Time …….

Signature ……..

ANNEXURE J

INTERVIEW TRANSCRIPT FROM PRIMARY CAREGIVERS

Interview transcript from primary caregivers: Translated from Sepedi to English on knowledge of primary caregivers related to the continuity of postnatal care.

Key: Researcher=R, Participant=P

R: Good morning

P: Good morning

R: Please tell me about the knowledge of continuity of care by you as a primary caregiver.

P: Before I…I do something at home, maybe sweeping or anything, I go and check the baby that napkin is not wet. If it is wet, I change the napkin and take warm water and wipe the buttocks before I put another clean napkin. I also check the mother how she hold the baby when breastfeeding, Children of nowadays cannot hold the baby correctly when breastfeeding, you can find her closed the nostrils of the baby then they suffocate. So I tell her to hold and breastfeed, then I observe how she hold the baby. Our tradition we know that when the child is born, we must cook a watery soft porridge. Breastfeeding does not come first, the woman must be given soft porridge to assist with milk production.

R: You said the baby should be positioned well to the breast, so how do you take care of the mother?

P: The mother is supposed to lie on the abdomen, soo…so…the abdomen must not be too big, and about the episiotomy stitch, when bathing…*pause* (*door knocking*) when bathing, use Dettol and salt with warm water, look for a cloth to compress on the operation to prevent sepsis and gaping of sutures on the operation.

R: Inside the woman's room, how do you access control into the area where the mother and the baby are being placed?

P: *(Giggling and pause*) … at home, if we are having a small baby, we do not allow people from outside to enter. We place a pole with a red cloth as a flag to demonstrate that there is a

postnatal woman, which means people must not enter the house without authorization from the elders in the family.

R: Why is there a restriction to enter the room of the postnatal woman and the baby?

P: The people are regarded as unclean…and is a believe that a person from outside can make both the mother and baby to be sick, presenting with abdominal discomfort and some sorts of difficulty in breathing.

R: Are the discomforts caused by entrance into the room?

P: These are the beliefs…beliefs of African Black people. They said that if someone enter by mistake into the room, that baby might become sick, hence it is claimed that it is because of the woman who entered into the house without approval from the elders in the family.

R: Do I understand you well when you say that the baby might become sick?

P: Yes, in African tradition the person brings the sickness and uncleanliness at home. If we do have a newborn, even with us we are not allowed *(pointing finger at herself),* The postnatal woman also is not allowed to drink the water sharing with everyone in the house, but she needs to drink water that is kept in a bucket or any container for her only.

R: Ok, these are beliefs?

P: Yes…African beliefs *(nodding the head).*

R: So, what are your perceptions regarding the interaction of midwives with primary caregivers for continuity of postnatal care?

P: Myself, those news told me about togetherness with the midwife at the hospital as they practice their own, and primary caregivers do their own at home, so nurses can assist mothers correctly. Myself I can see that in hospital, what the midwives are doing is correct, because when the baby is born there is no such thing that the person from outside may not enter, they teach how to care for the baby, and there is no such thing that if you hold the baby they become sick.

R: What are the best practices at the hospital?

P: At the hospital, the baby must not eat, but only breastfeeding for a period of six months. Breastfeeding is the only strategy that must be introduced to primary caregivers by midwives to avoid a lot of childhood illnesses as breast milk is safe.

R: Thank you very much for your time and sharing this knowledge with me. If there is a need I might contact you again. I hope it is okay with you.

P: Yes. I also thank you.

ANNEXURE K

QUESTIONNAIRE

Please complete the questionnaire as honest as possible. Mark your options with an X in the appropriate box.

Using the Likert scale, state the extent to which you agree with the statements given on 4 points scale given.

Section A: Demographic data:

1. **Date questionnaire is completed (dd/mm/yy……/……./…….**
2. **What is your gender?**

Male	Female

3. **What is your age?**

20-35	36-45	46-55	56-65

4. **What is the highest level of education?**

Masters	Bachelors	Diploma	Certificate

5. **When did you attain the above Midwifery/ Nursing Education?**

Before 1995	1995-2000	2005-2010	2011 and above-

6. **What is your home language?**

Tshivhenda	Xitsonga	Northern Sotho	Others

7. What is your position in the unit?

Midwife	Area Manager	Operational Manager	Assistant Manager

8. What are your years of experience in offering postnatal services

2-3 years	4-5 years	6-7 years	8 years and above

9. What is the name of the district where you are offering postnatal services currently?

Mopani District	Sekhukhune District	Vhembe District	N/A

10. What are the total working hours in the postnatal care unit?

8 hours per day	12 hours	24 hours	Night duty only

Using the Likert scale, state the extent to which you agree with the statements given on 4 points scale given. Then mark your option with an X.

Section B: Factors that can facilitate the midwives to involve primary caregivers in the continuity of postnatal care to postnatal women.

	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
	4	**3**	**2**	**1**
1. Midwives have the necessary knowledge regarding the traditional postnatal care practice.				
2. Midwives displayed teamwork with the primary caregivers at all times during the postnatal care services.				
3. Primary caregivers arrive in time at the health centre for counselling on postnatal care practices.'				
4. Primary caregivers display good communication between the health care setting and the midwives at all times.				
5. Midwives have got enough time to support postnatal women and their primary caregivers' during the postnatal check-up.				

6. Midwives have enough cubicles to accommodate both the primary caregiver and postnatal woman for thorough examination during postnatal check-ups.				
7. Midwives are trained on culturally congruent care reflected on the midwifery curriculum.				
8. The institution has enough midwives that can cater the service to reduce the long queue of postnatal women and primary caregivers.				
9. Midwives do not encounter any occupational stress during the rendering of a postnatal check up in the health centre.				
10. Midwives are able to attend to postnatal woman and primary caregiver while attending to the clerical job.				

SECTION C: Factors that can act as a barrier to midwives for involving primary caregivers in the continuity of postnatal care to postnatal women.

Barriers for involving primary caregivers in the continuity of postnatal care to postnatal women.	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
	4	**3**	**2**	**1**
1. There is a lack of professional recognition of midwifery that act as a barrier to midwives				
2. Midwives are not recognised by primary caregivers within the society				
3. Midwives have got individual occupational stress that prevents them from including primary caregivers in the continuity of postnatal care.				
4. There is a line of demarcation between midwives and primary caregivers regarding the continuity of postnatal care at home				
5. Midwives have got no time to give primary caregivers regarding the continuity of postnatal care at home				
6. Midwives are understaffed,				
7. Midwives are not receiving adequate in-service training regarding postnatal care				
8. Midwives have got no transport to visit primary caregivers and postnatal woman at				

home				
9. There is a language barrier between midwives and primary caregivers regarding the continuity of postnatal care at home.				
10. Midwives do not give the postnatal woman and primary caregivers the same attention as those women in antenatal and labour wards.				

SECTION D: Effective support from midwives that can help primary caregivers to continue with postnatal care practices to reduce maternal death.

Postnatal care practices education and counselling	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
	4	3	2	1
1. Primary caregivers are involved in decision-making concerning their care and that of their infants.				
2. Primary caregivers are treated with respect and dignity during the postnatal care period at home.				
3. Counselling to primary caregivers is done in a cubicle designated only for primary caregivers.				
4. Primary caregivers are orientated including familiarization with guidelines for continuity of postnatal care practices to reduce maternal death.				
5. Primary caregivers have immediate access to policies with protocols for continuity of postnatal care practices to reduce maternal death.				
6. Primary caregivers are given enough theoretical knowledge by midwives to help in rendering quality postnatal care practices at home.				
7. Midwives do not participate in continuing professional education to updates primary caregivers on technical competence to continuing postnatal care practices.				
8. Postnatal follow-up appointments are commonly made before the primary caregivers and postnatal women are				

discharged from the health centre				
9. Counselling is not considered an important aspect on the continuity of postnatal care practices by primary caregivers				
10. Primary caregivers do not receive enough supervision from midwives for the continuity of postnatal care practices to reduce maternal care.				

ANNEXURE L

VALIDATION INSTRUMENT

QUESTION	Yes		No		Comments
2.1 Indicate with ticking "Yes" or "No" to the following questions about the suitability, feasibility and acceptability of the developed model.					
Is the developed action plans acceptable to be implemented?	F	%	F	%	
Do you think the developed action plans is suitable to effectively enhance the community-based care by primary caregivers?					
Do you think the developed action plans is suitable for implementation to effectively enhance the community-based postnatal care by primary caregivers?					
Does the action plans provide a clear understanding of how the model is going to be implemented?					
2.2 Indicate by ticking a "Yes" or "No" to the following questions on the developed model about the agent					
Can the developed actions positively influence the availability of midwives?					
Can the developed actions facilitate in the improvement of the number of midwives being in-serviced for community-based postnatal care					
Does the action plans guide clear explanation/process on how midwives should be involved in community-based postnatal care					
Can the developed action plans facilitate the improvement on the					

competency of midwives?					
Can the developed action plans enhance training of midwives on community-based postnatal care?					
Can the developed action plans facilitate the improvement of knowledge on management of complications during the community-based postnatal care by primary caregivers?					
Can the developed action plans enhance the positive attitudes of midwives when attending to postnatal women					
Can the developed action plans enhance better understanding of community-based postnatal care by midwives?					
Can the developed action plans enhance the implementation of health education to primary caregivers on obstetric emergencies by the registered midwives during ANC?					
2.3 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the recipient					
Can the developed action plans enhance the increasing primary caregivers' beliefs in medical care and reduce their beliefs in traditional medicine?					
Can the developed action plans enhance earlier recognition of postnatal complications by primary caregivers?					
Can the developed action plans enhance the compliance to community-based postnatal care by primary caregivers?					
2.4 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the means.					
Can the developed action plans enhance the strengthening of community participation by stakeholders?					

Can the developed action plans enhance the utilization of community-based postnatal care by primary caregivers?					
Can the developed action plans enhance teamwork between midwives and primary caregivers?					
Can the developed action plans improve communication between midwives and primary caregivers during the community-based care?					
Can the developed action plans reduce the postnatal complications to the mother and the baby?					
Can the developed action plans enhance the improvement of the health care infrastructures?					
2.5 Indicate by ticking a "Yes" or "No" to the following questions on the developed model about the framework.					
Can the developed action plans enhance a better coordination of services between the community and the health care facilities					
Can the developed action plans when implemented facilitate the reduction of maternal and neonatal deaths?					
Can the developed action plans enhance the reinforcement of community participation by primary caregivers during the community-based care?					
Can the developed action plans enhance ownership of community-based care by primary caregivers?					
Can the developed action plans enhance the building and extension of tarred roads to the health care facilities and communities?					
Can the developed action plans enhance participative action by more primary caregivers within the community?					
2.6 Indicate by ticking a "Yes" or "No" to the following questions on the developed action plans about the goal					

Can the developed action plans enhance the effective implementation of recommendations for community-based postnatal care?					
Can adherence to the action plans lead to the reduction of maternal and neonatal mortality rate?					
Does the model present sufficient dynamics/ underlying forces that affect the process of community-based postnatal care by primary caregivers?					
Is there anything that you can add or remove					
Is the process in the model consistent to the extent that it can be practically applied?					
Does the model clearly describe primary caregivers' role in community-based postnatal care?					
Does the model display the need for in-service training?					
Is the model simple to understand?					
Does the model address the importance of primary caregivers in community-based postnatal care?					
Is the model accessible?					
Do you think this model is important?					
Does the model address the extent to which primary caregivers contribute to the improvement on the provision of community-based postnatal care and treatment?					
2.7 Please provide your comments, inputs and additions on how the model can be improved					
…….. ……..…… ……..…… ……..					

ANNEXURE M

CO-CODER'S REPORT

For: Shirindza K.J. 14014821

Date: 2019.02.03

Study: A model to enhance the continuity of postnatal care by primary caregivers in the selected districts of Limpopo Province, South Africa.

Independent Coding By: Kativhu Simbarache

Method: 8 Steps of Tesch's inductive, descriptive open-coding technique (Creswell, 2018) was used by following the steps below:

- *Step 1-Reading through the data*

The researcher got a sense of the whole by reading all the verbatim transcriptions carefully. This gave ideas about the data segments and how they look like. The meaning emerged during reading were written down and ideas as they come to mind. The researcher carefully and repeatedly read the transcripts of all the participants and understood them.

An uninterrupted period of time to digest and thought about the data in totality was created. The researcher engaged in data analysis and wrote notes and impressions as they come to mind.

- *Step 2-Reduction of the collected data*

The researcher scaled down the data collected to codes based on the existence or frequency of concepts used in the verbatim transcriptions. The researcher then listed all topics that emerged during scaling down. The researcher grouped similar topics together, and those that did not have association were clustered separately. Notes were written on margins and the researcher started recording thoughts about the data on the margins of the paper where the verbatim transcripts appear.

- *Step 3- Asking questions about the meaning of the collected data*

The researcher read through the transcriptions again and analyse them. This time the researcher asked herself questions about the transcriptions of the interview, based on the codes which existed from the frequency of the concepts. The questions were "Which words describe it?'' "What is this about?'' and "What is the underlying meaning?"

- *Step 4- Abbreviation of topics to codes*

The researcher started to abbreviate the topics that has emerged as codes. These codes needed to be written next to the appropriate segments of the transcription. Differentiation of the codes by including all meaningful instances of a specific code's data were done. All these codes were written on the margins of the paper against the data they represent with a different pen colour as to one in Step 3.

- *Step 5-Development of themes and sub-themes*

The researcher developed themes and sub-themes from the coded data and associated texts and reduced the total list by grouping topics that relate to one another to create meaning of the themes and sub-themes.

- *Step 6- Compare the codes, topics and themes for duplication*

The researcher in this step rework from the beginning to check the work for duplication and to refined codes, topics and themes where necessary. Using the list of all codes she checked for duplication. The researcher grouped similar codes and recoded others where necessary so that they fit in the description.

- *Step 7-Initial grouping of all themes and sub-themes*

The data belonging to each theme were assembled in one column and preliminary analysis was performed, which was followed by the meeting between the researcher and co-coder to reach consensus on themes and sub-themes that each one has come up with independently.

- *Step 8- Recoding if necessary*

A necessity to recode emerged as some of the themes reached independently were merged.

Main themes, themes and sub-themes reflecting the facilitators, barriers and perceptions of primary caregivers regarding the continuity of postnatal care.		
1. Facilitators to continuity of postnatal care by primary caregivers	1.1 Traditional knowledge of primary caregivers about the postnatal care	1.1.1 Perineal hygiene 1.1.2 Early ambulation 1.1.3 Uterine involution 1.1.4 Breasts care and breastfeeding 1.1.5 Maternal nutrition 1.1.6 Rest and sleep 1.1.7 Family planning 1.1.8 Immunisation 1.1.9 Neonatal care
	1.2 Performance of cultural practices during the postnatal care	1.2.1 Umbilical cord care 1.2.2 Eye care of the newborn 1.2.3 Infant feeding 1.2.4 Strict control measures in the postnatal woman's room 1.2.5 Introduction of the baby into the family
	1.3 Skills and competencies of primary caregivers of continuity of postnatal care	1.3.1 Prevention of infection 1.3.2 Position changing 1.3.3 Provision of emotional and psychological support 1.3.4 Counselling on nutrition 1.3.5 Counselling on hygiene 1.3.6 Counselling on family

		planning 1.3.7 Counselling on safer sex
2. Barriers to continuity of postnatal care	2.1 Non-involvement of primary caregivers	2.1.1 Crowded public health facility, understaffed midwives, with long waiting period 2.1.2 No health education sessions (inadequate in-service training) 2.1.3 Language barrier between midwives and primary caregivers
3. Perceptions of primary caregivers regarding the interactions with midwives on the continuity of postnatal care	3.1 Good midwives and postnatal women relationship	3.1.1 Involvement in decision-making skills 3.1.2 Respect and dignity 3.1.3 Informative communication 3.1.4 Respect for appointment before discharge
	3.2 Limited linking of traditional and western postnatal health knowledge	3.2.1 No consideration of rituals for postnatal women 3.2.2 Poor communication with primary caregivers
	3.3 Perception on information dissemination	3.3.1 Methods of information dissemination

Saturation of data were achieved related to the major themes and all themes and sub-themes which is confirmed through identification of more verbatim quotes/ excerpts from the transcription provided used in the data analysis and also three main themes, seven themes and more sub-themes that has emerged.

ANNEXURE N

CO-CORDERS CERTIFICATE

Dr Kativhu S (PhD, Rural Development) kativhus@gmail.com

Qualitative Data Analysis

This serves to confirm that Kativhu Simbarashe has co-coded the following qualitative data: 18 interviews for the study:

STUDY: A model to enhance the continuity of postnatal care by primary caregivers at the selected districts of Limpopo Province, South Africa.

I declare that the candidate and I have reached consensus on the major themes and sub/ categories as reflected in the findings during a consensus discussion.

Kativhu Simbarashe (PhD) kativhus@gmail.com

ANNEXURE O

LANGUAGE EDITING AND TYPESETTING CERTIFICATE

Prof Donavon C. Hiss

Cell: 072 200 1086 | E-mail: hissdc@gmail.com

20 April 2021

To Whom It May Concern

This serves to confirm that I have edited the language, spelling, grammar and style of the **PhD** dissertation by **Katekani Joyce Shirindza**, titled: "**A Model to Enhance the Continuity of Postnatal Care by Primary Caregivers in Selected Districts of Limpopo Province, South Africa,'' hereby submitted to the University of Venda**" The manuscript was also professionally typeset by me.

Sincerely Yours

Cert. Freelance Journalism, Dip. Creative Writing, MSc (Medicine), PhD (Medicine)