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**BARRIERS TO EXCLUSIVE BREASTFEEDING FOR MOTHERS IN THE
TSWELOPELE MUNICIPALITY**

BY

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DECLARATION

I, Quebu Simthandile Rebecca hereby declare that the research “**BARRIERS TO EXCLUSIVE BREASTFEEDING FOR MOTHERS IN THE TSWELOPELE MUNICIPALITY**” in submission for the degree of Master of Public Health at the University of Fort Hare is my own work and all external sources used or quoted in this study have been recognized by a complete reference list.

S.R. Quebu

A handwritten signature in black ink, appearing to be 'S.R. Quebu', written over a light grey rectangular background.

Date signed

18th January 2022

CERTIFICATION

This mini-dissertation entitled “**BARRIERS TO EXCLUSIVE BREASTFEEDING FOR MOTHERS IN THE TSWELOPELE MUNICIPALITY**” meets the guidelines outlining the award of the postgraduate degree MASTER OF PUBLIC HEALTH at the University of Fort Hare and is approved for its contribution to scientific knowledge and literary presentation.

SUPERVISOR Dr....Daphne...Murray...

SIGNATURE: 

DATE : 18 January 2022

DEDICATION

My research is dedicated to my parents and siblings for their unending prayers and motivation over the duration of this study, and to my nieces and nephews. This work is to demonstrate that there are no boundaries to what they can do and achieve. Finally, I would like to express my gratitude to God Almighty, who makes all things lovely in His own time.

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ABSTRACT

The purpose of the study was to assess the barriers to exclusive breastfeeding (EBF) of mothers in the Tswelopele Municipality. The South Africa Demographic and Health survey reported the country's EBF rates among children below six months of age to be at 32% for the year 2016. The World Health Organisation endorses the promotion and protection of the practice of EBF throughout the first six months of life, and the addition of complementary foods at six months coupled with breastfeeding up to two years of age. This feeding practise is recommended as the most efficient feeding practice to save infants from various illnesses and mortality across the globe, irrespective of their mother's HIV status and economic class.

A qualitative, contextual, explorative and descriptive research design was employed for this study to achieve the research objectives. The researcher incorporated both purposive and convenience sampling in this study. Purposive sampling was used to select the clinics, and convenience sampling was used to select the participants. Mothers who had infants 6-12 months old who were accessing infant and child health services in the three public health care facilities in the Tswelopele Municipality were a target population. Individual semi-structured interviews were administered, and an audio recorder was utilized to record the interviews with the participants' consent. The researcher throughout this study verbatim transcribed the interview audio tapes, and ethical principles and trustworthiness standards were adhered to. The University of Fort Hare (Ref # 2021=06=12 QuebuS) granted ethical clearance and all participants gave formal consent to voluntarily participate in this research. Tesch's approach for data analysis to open coding in qualitative research was used to analyse the data. Sixteen (16) participants in total took part in this study and the research study was conducted during the whole month of October 2021. During the data analysis, four main themes and thirteen sub-themes emerged, all of which were thoroughly examined.

The findings suggest that maternal factors such as extreme pain in the breast, maternal sickness, belief that milk supply is insufficient, lack of EBF knowledge and cultural influences are the key contributors to the success or failure of EBF practice. When mothers have difficulties with breastfeeding, their difficulties can become

barriers to EBF. Furthermore, a noteworthy finding is that some participants in this study were eager to breastfeed their babies and maintain EBF for six months; however, their infants had problems that prohibited them from doing so. These issues primarily included infants who refused to breastfeed and breast milk not being tolerated by some infants, as seen by baby vomiting after feeds.

It was recommended that breastfeeding education and counselling should be available to mothers and their families from prenatal to postnatal so that they have enough time to make informed infant feeding decisions. Furthermore, an open dialogue with mothers and their families on a realistic understanding of what to expect when they first breastfeed, as well as the exploration of myths, inaccurate information, and concerns can be addressed during the counselling sessions.

In conclusion, health professionals should also take into account the culture of mothers, respect cultural customs linked with breastfeeding, and respectfully educate them and their families about traditions that may affect breast-feeding.

Key words: Exclusive breastfeeding, barriers, mothers and infant

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CHAPTER 1: INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION AND BACKGROUND

The culture of breastfeeding practice has been identified to effectively reduce infant and child death rate. Cases of illnesses such as lung infections, diarrhoea and malnutrition are likewise reduced. In addition, research shows that breastfeeding can effectively reduce opportunities of acquiring lifestyle diseases such as adulthood obesity and diabetes mellitus. Breastfeeding also provides maternal benefits by functioning as a natural contraceptive, allowing for a pregnancy and birth interval and lowering the incidence of breast and ovarian cancer over time (Kavle, LaCroix, Dau & Engmann, 2017).

Jama, Wilford, Masango, Haskins, Coutsoadis, Spies and Horwood (2017) define exclusive breastfeeding (EBF) as serving the infant only mother's breastmilk and no other complementary foods or fluids than prescribed medicines or vitamins and mineral supplements, and it is the acclaimed infant feeding practice for all infants below the age of six months. Nonetheless, despite reported increase of EBF rate over the years among South African mothers and its benefits, EBF remains considerably below the global target of 50% for the first six months after birth, with about 31.6% infants younger than six months being exclusively breastfed in South Africa (Jama et al., 2017). Furthermore, it has been discovered that in South Africa many infants are being given complementary foods with breast milk as soon as they turn three months of age and, in some extreme cases, even a few days after their birth (Du Plessis, Peer, English & Honikman, 2016).

According to McKerrow (2019), breastfeeding is not only affordable but can also reduce infant and child mortality rates. In the year 2014/15, the South African Department of Health (DOH) introduced a nutritional data indicator. This indicator is meant to evaluate the number of infants who are being EBF at 14 weeks as a fraction of those receiving a third dose of Diphtheria, Tetanus, Acellular pertussis, Polio and Haemophilus influenza type B vaccine (DTaP-IPV-Hib-HBV). This indicator was adopted in all South African public health facilities to monitor the successful exclusive breastfeeding rate in our communities, with the national target of 55% (McKerrow, 2019). Madhi, Cutland, Jones, Groome & Ortiz, 2011) describe DTaP-IPV-Hib-HBV as

a six in one vaccine that is given to babies below two years of age, administered in three doses (6, 10 and 14 weeks of age) to protect against six viruses, namely, Diphtheria, Tetanus, Acellular pertussis, Polio and Haemophilus influenza type B and Hepatitis B.

The rate of infants exclusively breastfed at third vaccination dose of DTaP-IPV-Hib-HBV (2016/17) was reported to be relatively impressive in the Free State Province and Lejweleputswa district at 42.6% and 51.1% respectively, while Tswelopele sub-district reported 29.2% according to the District Health Information System (DHIS) database for the same financial year period.

McKerrow (2019) recorded that between 2012/13 and 2016/17 the rate of children younger than five years who suffered and died from Severe Acute Malnutrition (SAM) was higher in two provinces in South Africa with marginal increases seen in the Free State (18.3%) and Lejweleputswa (15.8%) with Tswelopele sub-district at 16.7%, against the national target of 9%.

EBF in infancy is being appraised as the most efficient way to save infants from low socio-economic backgrounds from sickness and death (Goosen, McLachlan & Schübl, 2014). According to Jama et al. (2017) it is of paramount importance to investigate and understand current practices and views on EBF during the infancy stage and acquire a clearer overview of how mothers make feeding preferences and choices for their infants. This will allow an opportunity for introducing practical interventions aimed at redefining the underlying practices and re-thinking and structuring the approach to promoting the culture of EBF among infants who are six months of age and younger.

Several studies confirm that mutual barriers discussed by mothers were related to their jobs, and mothers stopped practising EBF mainly because they must return to work and poverty is the prime reason that parents must work outside the home, preventing them from exclusively breastfeeding their babies. (Siziba, Jerling, Hanekom & Wentzel-Viljoen, 2015; Thet Khaing, Diamond-Smith, Sudhinaraset, Oo & Aung, 2016). In this context, mothers who are working or seeking for employment often choose to breastfeed and introduce complementary foods before infants reach the age of six months (Thet et al., 2016; Nieuwoudt, Ngandu, Manderson and Norris et al., 2019).

Additionally, young and unemployed mothers also face their own barriers, where particularly those who desire to return to school choose to formula feed and as well provide breastmilk. This practice is often not taught and is missed, and nor is any mention made of measures and efforts to create a breastfeeding friendly environment in the school setting (Nieuwoudt et al., 2019).

Mgongo et al., (2019) indicated that societal beliefs and culture are barriers to exclusive breastfeeding, such as burping causing pain in the breast, bad odour of breast milk, and if someone is regarded to have an “evil eye” and looks at mothers while the baby is breastfed, the mother develops breast sores, or the breast milk will dry up. There is also a belief that solid foods and liquids will satisfy the baby more (Thet et al., 2016; Jama et al., 2017).

Nieuwoudt et al. (2019) identified poor preparation of mothers to face challenges of practicing EBF successfully such as sleepless nights, and possible discomfort from breast problems as one of the barriers to EBF. The authors continue to note that the fact that such issues are not being openly discussed acts as a barrier to successful EBF practice. The limitation that comes with health workers’ inability to give thorough breastfeeding counselling results in mothers seeking feeding advice from their mothers and other relatives or community members, contributing significantly to ongoing infant feeding misperceptions and an age-to-age repetition of inappropriate infant feeding practices based on unreliable traditional beliefs (Goosen et al., 2014).

According to the South African Department of Health Infant and Young Child Feeding Policy (2013), it is a duty of every health worker to promote EBF for the first six months of an infant’s life to all mothers, regardless of the HIV status of the mother. However, if even after intensive counselling the mothers still choose to formula feed their infants and they meet the stipulated conditions known as Affordable, Feasible, Acceptable, Sustainable and Safe (AFASS) criteria, health workers can support them in their choice to exclusively formula feed. Although South Africa has 30.8% of pregnant women attending public clinics being diagnosed HIV positive, the HIV pandemic can only form a certain part and not the key reason behind low EBF rates (Nieuwoudt et al., 2019). Additionally, Nieuwoudt et al. (2019) recorded that it has been discovered in South Africa that many infants are being given complementary foods with breast milk as soon as they turn three months of age and, in some extreme cases, even a few days after their birth. In a research study carried out in the four South African

provinces on EBF rates, it was reported that during the period of the study only 12% of mothers interviewed at six months post-delivery were practicing EBF and 6% of infants were not breastfed, which was attributed to the HIV status of the mother (Siziba et al., 2015).

In their study, Seonandan and McKerrow (2016) reported that most of the babies (84.6%) are offered complementary foods before they reach the age of six months and, although mothers reported that they are breastfeeding, only 36% of infants were exclusively breastfed beyond three months. Sharmin, Chowdhury, Khatun and Ahmed (2016) indicated that maternal, social, and factors related to infants and healthcare systems could have influence on the extent of breastfeeding, which can surpass the undeniable benefits of exclusive breastfeeding. This study seeks to determine the barriers to exclusive breastfeeding in Tswelopele communities.

1.2 PROBLEM STATEMENT

The World Health Organisation (2016) endorses the promotion and protection of the practice of exclusive breastfeeding throughout the first six months of life, and the addition of complementary foods at six months coupled with breastfeeding up to two years of age, as the most efficient feeding practice to save infants from various illnesses and mortality across the globe, irrespective of their mother's HIV status and economic class. Breastfeeding is adequate and advantageous for infant nutrition in the first six months of life. Providing complementary foods with breast milk to the infant earlier than age six months is discouraged because it may hinder breastfeeding and put the baby at risk of illness. It is recommended that only at six months of age breast milk can be given with other liquids and gradually all complementary foods to provide adequate nutrition (WHO, 2016).

The South Africa Demographic and Health survey (2016) reported the EBF rates among children below six months of age are at 32%, with 25.2% aged 0–5 months not being breastfed at all, 11.4% were receiving breastmilk and other milk, and 17.6% were being given solid food with the breast milk. Nieuwoudt et al. (2019) noted that barriers to EBF are often similar among mothers, with most primarily related to a combination of health care system and family setting, maternal-baby factors and socio-cultural influences such as family pressure and returning to work/school.

In the same way, a study by Bhanderi, Pandya & Sharma (2019) that was conducted in rural community in India indicated factors such as young parenthood, uneducated parents, fewer antenatal visits, delivery by surgery, delayed initiation of breastfeeding, not giving colostrum, lack of understanding about EBF, and inadequate counselling for mothers regarding EBF as barriers to EBF.

In order to provide appropriate support strategies to improve exclusive breastfeeding, better understanding is needed of the problems faced by women in maintaining exclusive breastfeeding, henceforth the purpose of this study.

1.3 PURPOSE OF THE STUDY

The purpose of the study was to determine the barriers to exclusive breastfeeding of mothers in the Tswelopele Municipality.

1.4 OBJECTIVES

The objectives of the study were as follows:

- Describe the experiences of mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality,
- Explore support systems required by mothers to strengthen exclusive breastfeeding in the Tswelopele Municipality,

1.5 RESEARCH QUESTIONS

- What are the experiences of mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality?
- What support systems are required by mothers to strengthen exclusive breastfeeding in the Tswelopele Municipality?

1.6 DEFINITION OF CONCEPTS

Barriers

A circumstance or obstacle that makes it difficult or impossible to achieve (Daly, Pollard, Phillips and Binns, 2014).

In this study, barriers will refer to the obstacles experienced by mothers regarding exclusive breastfeeding.

Breastfeeding

Feeding a baby his/her own mother's milk either directly at his/her own mother's breast or biological mother's pumped breast milk from a cup or bottle (Rasmussen, Felice, O'Sullivan, Garner & Geraghty, 2017).

In this study, breastfeeding refers to feeding an infant his or her own mother's milk directly from the breast or expressed breast milk from a cup.

Exclusive breastfeeding

Practice where an infant is fed only breastmilk and no other complementary foods or fluids than prescribed medicines or vitamins and mineral supplements (Jama et al., 2017).

Infant feeding

Infant feeding is the manner of administering food to a baby from birth to 12 months of age (Martin, Ling & Blackburn, 2016).

Infant feeding is described as the process of feeding a baby from birth to the age of twelve months.

Complementary feeding

Complementary feeding is administration of safe and nutritionally sufficient solid, semi-solid or soft foods and drinks for consumption in addition to breast milk to an (White, Bégin, Kumapley, Murray & Krasevec, 2017).

In this study, complementary feeding is practise of giving an infant safe and nutritionally sufficient solid, semi-solid or soft foods and drinks for consumption in addition to breast milk.

1.7 SIGNIFICANCE OF THE STUDY

Findings from this study can assist to describe in depth experiences of mothers regarding barriers to EBF in Tswelopele Municipality. In addition, the results of this study can assist in the Lejweleputswa District DOH to facilitate decisions necessary to design interventions towards identifying support strategies to overcome these barriers, and the development of policy and tailored intervention approaches for the promotion of exclusive breastfeeding practices that can be implemented in the primary health care facilities. When health care professionals support breastfeeding mothers, it will empower, motivate mothers to continue EBF, and to be aware of any breastfeeding problems, attempt to prevent them and treat such if they do occur. Identifying experiences of mothers' regarding breastfeeding barriers and overcoming barriers can afford economic and social benefits to the families, as breast milk is free and readily available, and saves infants' lives by reducing sickness and malnutrition rates.

1.8 RESEARCH METHODOLOGY AND DESIGN

The research methodology elaborates on what was actually done by the researcher, how and why it was done the way, it was done and aspires to describe the research process, showing the scientific flow and interpreting the results of the study (Hennink, Hutter & Bailey, 2011). The research approach used in this study was qualitative as this study aimed to describe experiences of mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality.

1.8.1 DESIGN

To achieve the research objectives, this study used a qualitative, contextual, exploratory, and descriptive research design.

1.9 SETTING

This study was conducted in the Tswelopele Municipality. This municipality is rural, with 19% constituting farm areas. Selected sites in this municipality were Phahameneng Clinic and D.A. Maleo Clinic in Bultfontein together with Hoopstad Clinic and Mohau District Hospital in Hoopstad.

1.10 STUDY POPULATION

The study population for this research were mothers who have infants who are 6-12 months old who were accessing infant and child health services in the four public health care facilities in the Tswelopele Municipality.

1.10.1 TARGET POPULATION

The target population was mothers who were 18-40 years old, with 6-12-month-old infants who were accessing infant child health care services in the four public health care facilities. The reason for selecting 6-12 months old infants was that the mothers would have recently completed the period during which exclusive breastfeeding may or may not have been practiced and it would be easy to remember their breastfeeding practices.

1.11 SAMPLING

Brink, van der Walt & van Rensburg (2018) define sampling as a process of selecting the sample or model from a population for purposes of obtaining information regarding a phenomenon. The researcher incorporated both purposive and convenience sampling in this study. Purposive sampling was used to select the clinics, and convenience sampling was used to select the participants.

1.11.1 INCLUSION CRITERIA

Mothers who are 18-40 years' old with 6-12-month-old infants who are accessing infant child health services in the four public healthcare facilities.

1.11.2 EXCLUSION CRITERIA

Mothers who were absent with their babies from the designated clinics where interviews were conducted were excluded.

1.12 DATA COLLECTION AND RESEARCH INSTRUMENT

Paradis, O'Brien, Nimmon, Bandiera, and Martimianakis (2016) explain data collection as a process in which information is gathered using various methods with an intention to help answer research questions, meet objectives, and interpret perspectives and the rich texture of the human experience.

Individual semi-structured interviews with qualifying mothers were used to collect data for this study, and the interviews were recorded with each participant's consent. A semi-structured interview, according to Paradis et al. (2016), is one in which the questioner does not precisely follow a predetermined list of questions, but instead asks a more unrestricted set of questions that allows participants to express themselves more spontaneously.

The research instrument that was used was an interview schedule with open-ended questions. This was to allow the researchers an opportunity to take a wide and broad look at the subject being studied in this research and allowed participants to provide more options and opinions in their responses, giving the data more diversity.

1.13 DATA ANALYSIS

Brink, Van der Walt and Van Rensburg (2015) specify that in qualitative research the study process data analysis is not a separate step; it is rather carried out concurrently with the data collection process. Tesch's eight steps approach was used to guide the data analysis process (as stated by Creswell, 2014):

- Get a sense of the whole. Read all the transcripts and handwritten data carefully.
- Choose one interview and examine it once more. Ask, "What is this about?" Write the findings in the margin of the document.
- Make a list of all of the topics. Compare and combine comparable themes together, then sort them into main, unique, and leftover categories.
- These themes should be condensed into codes, which should be written next to the text portions they correspond to.
- Check if fresh themes have developed.
- Alphabetize the codes to ensure that no duplication occurs.
- Convert topics into descriptive categories. Use clustering of similar topics try to reduce categories.
- Recode existing data if necessary.

1.14 TRUSTWORTHINESS OF THE STUDY

Gunawan (2015) defines trustworthiness as a method a researcher uses to ensure credibility and dependability, which relates more to reliability, transferability and confirmability of the research study they are conducting from the acquisition of data to the presentation of the outcomes.

The following were done in this study to ensure trustworthiness:

- **Credibility:** In order to create credibility, it is the responsibility of investigators to ensure that the persons who participate in study are appropriately identified and documented (Elo, Kääriäinen, Kanste, Pölkki, Utriainen, and Kyngäs, 2014). Roles of individuals involved in the study are explained in the sampling and methodology to confirm credibility.
- **Dependability:** This indicates the consistency of data throughout time and under various settings (Elo et al., 2014).
- **Confirmability:** Denotes the ability of more than one independent person to agree on the correctness, usefulness, or interpretations of data (Elo et al., 2014).
- **Transferability:** The concept behind transferability is that results can be extrapolated or applied to various situations or groups (Elo et al., 2014). Chapter 3 will elaborate further on these concepts.

1.15 ETHICAL CONSIDERATIONS

According to Arifin (2018), ethical considerations are a reflection of how protection of human rights of participants in the research will be carried out through competent implementation of appropriate ethical principles.

In this study important ethical issues considered included the following:

- **Ethical approval and access to participants:** Ethical clearance for this study was obtained from the Human Research Ethics Committee at the University of Fort Hare. Permission was also obtained from the Free State DoH Research Ethics Committee to conduct the study as well as the Lejweleputswa District DoH, Clinic Manager in the respective clinics and the CEO at the hospital.

- **Informed consent and voluntary participation:** Participating individuals were informed that partaking in this study was voluntary and there was no penalty for participants who wished to withdraw. The verbal discussion and informed consent were explained in Sesotho and English (Arifin, 2018).
- **Anonymity and confidentiality:** Participants in this study were identified by codes and selected based on inclusion criteria (Arifin, 2018).
- **Right to privacy –** Anonymity was observed throughout the interviews. Participants were also informed that some of the questions could be interpreted as requesting sensitive information and the researcher provided them ample opportunity to determine whether or not they wanted to share such information (Kumar, 2018)
- **Right to fair treatment –** The researcher did not intentionally attempt either to hide any findings of the study or to highlight something unreasonable to its true existence and all the participants were treated equally (Kumar, 2018).
- **Right to protection from discomfort and harm –**The security guards at each facility ensured that no harm befell any of the participating mothers both at the facility premises and in the room provided to conduct the study (Kumar, 2018).
- **Corona virus regulations –** Covid-19 regulations were strictly adhered to throughout the relevant processes of this research including data collection. These concepts are thoroughly explored in chapter 3.

1.16 LIMITATIONS OF THE STUDY

The study was limited to only three selected clinics in the Tswelopele Municipality, hence results cannot be generalised.

1. 17 CHAPTER SUMMARY

The researcher identified the study topic and provided background information to this research. The aim of the study was stated, as well as the research methodology and design that was used

1.18 CHAPTER OUTLINE

Chapter 1: Introduction and Problem Statement

Chapter 2: Literature review

Chapter 3: Research methodology and design

Chapter 4: Presentation of results

Chapter 5: Conclusion, limitations and recommendations

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is a systematized compilation and a review of existing knowledge and literature on a chosen topic from different kinds of credible sources, including but not limited to academic journals and articles, books and web-based resources. It gives the framework and background of the current knowledge on the specified topic and outline is the evidence to defend the conclusion it draws (Machi & McEvoy, 2016).

In this section, an overview of studies relevant to this study will be provided. It looks into addressing barriers to successful practice of EBF among the mothers of infants who are 6-12 months of age and to explore support systems required by mothers to strengthen EBF by providing different and/or similar findings on existing studies globally, around the African continent and around South African provinces. It will also show from existing research that a broader picture is seen on mothers' experiences regarding EBF, a distinction from other forms of infant feeding when infants are categorised by their pattern of breastfeeding, feeding frequency, and definition of all other fluids that are non-prescribed medications and complementary foods instead of indefinite criteria on whether they have or never received breast milk.

2.2 BENEFITS OF EXCLUSIVE BREAST-FEEDING

Early childhood feeding habits are critical in assisting the growth and health of babies and young children, according to Mphasha and Skaal (2019), and when infants are not fed adequately or properly malnutrition, poor childhood development, and/or illnesses can result. Complementary foods introduced within the first six months of life are linked to childhood diseases and death, particularly in low-income communities. When compared to mix feeding, EBF minimizes gastrointestinal illnesses, promotes rapid growth, and reduces the risk of the child acquiring HIV from the mother through breastfeeding. Breast milk has a long-term advantage on BMI, according to Couto, Dias, and de Jesus Oliveira (2020), because a child who is exclusively breastfed for the first six months of life absorbs more fat, very few carbohydrates, and therefore less milk, preventing weight gain and thereby improving overall nutritional outcomes throughout childhood, preventing cumulative excessive fat and subsequently obesity. It also lowers blood pressure and cholesterol levels in adulthood, lessening the risk of

diabetes. Furthermore, EBF has been reported to minimize the mother's risk of ovarian cancer and protect women from unintended pregnancies (Zielinska, Sobczak & Hamulka, 2017; Hossain, Islam, Kamarul & Hossain, 2018). According to Hossain et al. (2018), EBF has numerous other advantages besides health benefits, including socioeconomic, environmental, and psychosocial advantages. In agreement, Ayodeji, Allen & Deborah (2019) stated that compared to communities where EBF is not practiced, communities with higher rates of EBF have lower infant and childhood mortality rates and a higher percentage of mothers with good health, and communities where a significant number of breastfeeding mothers exclusively breastfeed their children encourage other women to do the same. According to the researcher's findings, early solid food administration may lower the amount of time that an infant spends at the breast, reducing the benefits of particular bonding between mother and child. Therefore, failure to maintain EBF for the recommended period can result in complications for both mother and baby, such as a lack of bonding between mother and infant; furthermore, babies who are not exclusively breastfed are more likely to develop health problems such as constipation, which are uncommon in exclusively breastfed infants.

According to Zielinska et al. (2017) breastfeeding, health advantages are often heightened by the time and exclusivity of breastfeeding in the very first six months of the child's life. Witte et al. (2020) state that human breast milk is a distinct, biomedical product that, according to research, is the greatest and most comprehensive organic food that meets all an infant's physiological demands throughout the first six months of life. Therefore, WHO recommends that a lactating woman practice and maintain exclusive breastfeeding for the first six months of her infant's life because of all the wonderful benefits (Hossain et al., 2018)?

2.3 BARRIERS TO EXCLUSIVE BREASTFEEDING

Despite evidence of its significance and medical importance, complete implementation of EBF practice encounters some challenges and barriers in both developed and developing nations (Gupta, Suri, Dadhich, Trejos & Nalubanga, 2019; Behzadifar et al., 2019). The worldwide 41% practice EBF (Gupta et al., 2019).

2.3.1 GLOBALLY

According to Thet, Khaing., Diamond-Smith, Sudhinaraset, Oo & Aung (2016) countries of the world and global organizations encourage EBF up to six months, particularly in the developing countries. However, Maonga, Mahande, Damian & Msuya (2016) record that the proportion of EBF is low worldwide, standing at 35% and varies between 22% to 33% in Sub-Saharan Africa.

A conclusion was reached by Lutter and Morrow (2013) in their research on breastfeeding global trends in 22 countries that support, and promotion of breastfeeding is highly associated with some positive improvements in EBF rate. They continue to indicate in their study, with strengthening findings from Asia, that factors that have influence on breastfeeding duration include the mother's educational level, living in city or rural area and the mother's income or employment status (Orabi, al-Sayad, & Alharthi, 2017; Khatun, Comins, Shah, Islam, Choudhur & Ahmed, 2018).

Zielinska et al. (2017) reported that, regrettably, exclusive breastfeeding is unsatisfactory around the world, and in Poland the percentage of new-borns who were exclusively breastfed went from 69.8% at one month to barely 9% at six months, as shown in a national survey conducted in 1997, and a significant proportion of mothers (43%) did not exclusively breastfeed at the time of participation in 2017. The authors go on to add that the findings of this study suggest that breastfeeding cessation could be caused by challenges in a mother's diet; additionally, exclusive breastfeeding was discontinued owing to breastfeeding problems, claimed milk insufficiency, infant self-weaning, infant or mother medical contra-indications to breastfeeding, and a lack of eagerness to breastfeed.

Another study conducted in Iran by Behzadifar (2019) indicated caesarean delivery, poor knowledge on EBF and mothers' demand to go back to employment as barriers to EBF. Furthermore, following a significant decline in EBF in the north-east region of Thailand in comparison to all other regions, Thepha, Marais, Bell, and Muangpin (2018) conducted a study to investigate barriers to EBF, with the findings indicating that promotion of formula milk, contrasting family counsel, mothers' opinions, and some health care professionals' lack of awareness of EBF were mentioned as impediments to six months EBF.

Sandhi, Chipojola, Huda & Kuo (2020) reported that in Indonesia, Mexico, and Turkey mothers who did not exclusively breastfeed their infants felt that their milk supply was insufficient after giving birth. In agreement, a study by Mohebati, Hilpert, Bath, Rayman, Raats, Martinez & Caulfield (2021) conducted in Mexico recorded that mothers reported insufficient milk because they thought their baby was crying quite so much, leading to early cessation of breastfeeding by the administration of formula milk. Similarly, findings of a cross sectional study in Qatar by Hendaus, Alhammadi, Khan, Osman & Hamad (2018) indicated that in their study, regardless of the fact that 96.2% of mothers were breastfeeding, only 24.3 % of those mothers exclusively breastfed their babies in the first six months. Some of the most common barriers to breastfeeding, according to the authors, are a perceived lack of adequate breast milk after delivery, the notion that formula milk is simple to use and widely available shortly after birth, the chance that the mother would need to return to work, and a lack of adequate breastfeeding knowledge.

Moreover, a study by Thet et al. (2016) in Myanmar indicated that babies are normally introduced to complementary foods between four-six months, rather than at six months, as guidelines suggest, and that communities in rural areas are the ones that are more prone to introducing solid foods and other drinks to infants earlier than six months of life. In their study Thet et al. (2016) continue to identify lack of correct knowledge on appropriate infant feeding practices and poor support within families and in the society as the main barriers to EBF and, however infrequent, other mothers raised a concern that breastfeeding would make them less attractive and ended up sustaining the practice of EBF for a shorter period than is recommended.

A pattern of improvement in the duration of BF was identified among American countries in women living in cities, educated and with access to antenatal care compared with uneducated women and those with limited access to antenatal care (Lutter & Morrow, 2013), while in Malaysia the most identified barriers to maintain EBF reported was mothers going back to work and low rate of breast milk production (Marzo et al., 2018). Moreover, Thet et al.'s (2016) study records that, although participants listed numerous barriers to practicing EBF, the most common barriers stated by both mothers and fathers were related to work and were health related.

2.3.2 AFRICA

Similarly, studies conducted in Africa show consistency of findings with the main barriers to EBF reported being the mother's return to place of employment (Otoo, Lartey & Pérez-Escamilla, 2009; Ohaeri & Bello, 2016); low breastmilk production; immediate and extended family pressure, with grandmothers being the main influence on choice of infant feeding (Otoo et al., 2009; Muchacha & Mtetwa, 2015; Ohaeri & Bello, 2016; Talbert, Jones, Mataza, Berkley & Mwangome, 2020); concerns about the infant's condition characterised with symptoms similar to infantile colic and commonly associated with abdominal pain and undue crying which leads to parents resorting to the use of none medical treatment (Matare et al., 2019); and the common African practice of giving of traditional medicines to infants that are believed to expel evil spirits and prevent death in infants (Muchacha & Mtetwa, 2015; Talbert et al., 2020). Outcomes of this study also indicated socio-cultural beliefs and influences as a barrier to the practice of EBF. Also mentioned was breast discomfort associated with incorrect positioning and attachment of infants (Otoo et al., 2009). Lack of breastfeeding knowledge is also a barrier as mothers with adequate knowledge of EBF were most likely to practise EBF for six months (Muchacha & Mtetwa 2015; Ohaeri & Bello, 2016).

In a much similar context, according to Matare et al. (2019), the Tanzanian government has committed itself to promotion of the practice of EBF for the first six months of age and so far research shows an increase of 26% in 1991 to 59% in 2015 in the practise of EBF among all infants aged 0 to 6 months, yet of those infants, the EBF prevalence in infants aged two to three months is 59%, and 27% of infants aged four to five months. In their study Matare et al. (2019) continues to report that lack of assistance from husbands and household members to minimize the burden such as farm labour and home tasks in order to improve time to breastfeed and maintain an uninterrupted EBF period was cited by half of the women as a barrier to successful EBF. Moreover, in the same study barriers to EBF included concerns about the production of breast milk not being enough, whereby both mothers and fathers supposed that the quantity of breastmilk was deficient solely by observing the baby's behaviour such as crying; sucking mother's breast until she feels her breasts felt painful; having difficulties with suckling; and presumed slow weight gain.

An African based systemic review conducted by Kavle et al. (2017) recorded some of the listed barriers to EBF as maternal perception of unsatisfactory breast milk

secretion and production to nurture infants. This was also directly related to the mother eating well and having adequate amounts of food in order to produce sufficient breast milk quantity; breast complications such as mastitis, engorgement, and cracked nipple; exclusive breastfeeding related education and counselling to mothers by health workers not being part of infant feeding scope; mode of delivery, whereby caesarean section may create a barrier to EBF; and family and cultural influence, particularly the role of the grandmother in determining the infant's feeding practices. In this study, alike research outcomes show that certain mothers are also persuaded by family member to initiate solid food prematurely.

Hunegnaw, Gezie, and Teferra (2017) reported a prevalence of EBF of 30.7% in Ethiopia. Furthermore, their study found that women who worked for the government were less likely to practice EBF than mothers who were unemployed, that EBF practice was more common among mothers who gave birth in hospitals than among mothers who gave birth at home, and that, after delivery, mothers who did not receive breastfeeding counselling had a less chance of EBF their infants. In the same way, this study identified that because they are not educated or motivated with EBF information, some women do not use EBF and, as a result, their feeding methods have been influenced by their ignorance. Some women, however, are still unable to sustain EBF for six months after being taught about it at health institutions. As a result, ignorance about EBF and its benefits is characterized as a barrier to EBF implementation, regardless of the fact that knowledge of EBF does not always imply implementation.

The findings of a systemic review research in sub-Saharan African by Ayodeji et al. (2019) reports sociocultural beliefs and practices as a significant barrier to EBF whereby most mothers do not exclusively breastfeed their infants due to cultural beliefs such as evaluating breast milk for bitter taste before administering it to the child. The custom of giving new-borns water to satisfy their thirst, and in some parts of Africa mothers were persuaded by their families to feed their infants with food prematurely because it was socially unacceptable not to do so. Breastfeeding mothers' educational levels as well have been demonstrated to have a substantial impact on their decision to exclusively breastfeed their infants. According to Ayodeji et al. (2019), as uneducated mothers are less aware of the benefits of EBF than their educated counterparts, they are less likely to practise EBF. Finally, research has indicated that

some mothers do not practice EBF because they have engorged breasts or cracked nipples, which gives them pain when breastfeeding (Gianni, 2019). This is consistent with the findings of this study that extreme pain felt by mothers from breast and nipples when feeding the baby, as well as mother's physical strength not being sufficient to keep up with the baby's feeding intervals, leaving the mother exhausted, is a barrier to EBF.

2.3.3 SOUTH AFRICA

South Africa's exclusive breastfeeding rate is at a low 32%, despite national health efforts and attempts to promote it (Witten, Claasen, Kruger, Coutsooudis & Grobler 2020).

Studies show that in South Africa initiation of breastfeeding of infants is not the challenge, but the continuation of feeding breastmilk only during the first six months of life. Studies performed in Limpopo and Pretoria indicate that some mothers believe three months is a suitable infant age for initiating complementary foods and between the ages of two and three months most new-borns were introduced to supplemental foods (Goosen et al., 2014). Additionally, Goosen et al. (2014) identified a complex range of challenges to exclusive breastfeeding in the Western Cape, including the influences of tradition, beliefs and community perceptions, as well as a dearth of postnatal breastfeeding support efforts from the community and insufficient baby feeding counselling provided by the health care sector.

Participants in an Indian & South African study raised two concerns when taught at the primary health care facility about expressing breast milk to sustain EBF for the recommended period, one being that some mothers reside in a low socio-economic settlements with poor sanitation and therefore they fear that expressed breast milk might become contaminated, and, secondly, those mothers who had to return to work stopped EBF because they were not sure how the nanny would handle and administer the expressed breast milk and that it would eventually spoil (Horwood et al., 2020).

Returning to work was mentioned by Horwood et al. (2020) as a barrier to EBF. Especially in families where mothers carried the burden and responsibility for securing financial income, so returning to work was a necessity and that influenced the mothers' choice on infant feeding practices. Mothers will continue to breastfeed but not

exclusively either as they return to work or reduce the breastfeeding duration while others completely stop breastfeeding.

Other barriers to EBF include breastfeeding mothers giving in to family and community influences on the common beliefs on breast milk being insufficient (Seonandan & McKerrow 2016; Jama et al., 2020). Parallel to these findings is this study where the researcher found that the mother's desire to start solid foods and fluids sooner than six months was mostly owing to perceived milk insufficiency and the influence of family members such as the baby's father and grandmothers constituted barriers to EBF. Furthermore, the mother's state of mental health, predominantly antenatal depression, also played a strong role as a barrier to EBF (Nieuwoudt et al., 2019), similar to reports that another significant maternal problem participating mothers in this study expressed as a barrier to EBF is when a lactating mother becomes sick.

The outcomes from a study conducted in South Africa's North-West Province by Witten et al. (2020) show evidence that inadequate and unsatisfactory maternal nutrition induced maternal stress in some of their participants due to a lack of food, significantly affecting their mental temperament and, as a result, negatively affecting their ability to make sufficient, high-quality breastmilk for their baby. The authors go on to say that, their findings suggest that EBF adds to the stress of an unaided, jobless breastfeeding mother who is primarily responsible for her own and her child's health and well-being. In addition, family members' varying inputs when there are breastfeeding issues, as well as an absence of support from family members to aid the breastfeeding mother with household responsibilities, were noted breastfeeding challenges that posed barriers to EBF.

Results from the study conducted in Free State Province by the researcher reports the baby's unexplained crying, which is frequently attributed to the infant's failure to latch and refusal of the breast, as barrier to EBF. The results further submit that infants' intolerance of breast milk, even to the point of vomiting, can be a barrier to EBF. When a baby displays signs of poor breast milk acceptance or vomits milk after a feeding, mothers and family members feel a need to give solid meals or drinks to the infant right away before even seeking medical advice to prevent starvation and to calm the baby down.

2.4 SUPPORT SYSTEMS STRENGTHENED TO SUPPORT EXCLUSIVE BREAST FEEDING

The WHO (2013) recommends that efforts to expand and strengthen the practice of EBF for six months should include continued feeding support from health care workers, peers and family and cultivation of breastfeeding friendly settings including homes, childcare centres and general society. In the same way, WHO (2021) encourages health education as a way that health workers should promote and support EBF, by especially putting an emphasis on the importance of EBF. According to Thepha et al. (2018), education of health care professionals only may not be adequate, but policies that protect, promote, and encourage EBF must also be in place and implemented as part of an intervention approach.

According to Matare et al. (2019) in their Tanzanian study to improve prevalence of exclusive breastfeeding, approaches and policies recommending ways to overcome barriers to EBF should be acceptable and feasible, for example, although emotional support may influence the mothers' sureness with breast-feeding, active and involved support may however be as just as vital in guaranteeing that infants are administered breast milk only for the recommended period of time. To add on that, Kavle et al. (2016) suggested that health care service providers should be furnished with most recent and essential skills to address EBF related issues during antenatal and postnatal care as they play an essential role in EBF counselling and education.

Mudau (2020) mentioned that it is vital for health workers to assess mothers concerning feeding practices of an infant and persistently discourage mothers from introducing other foods and drinks before the age of six months while they continue to underpin the practise of EBF in the first six months of the baby's life. Literature shows that challenges with EBF, such as physical breast problems or the impression that there is inadequate milk must be addressed so that women can be encouraged to undertake EBF for the full six-month period. (Thet et al., 2016; Kavle et al., 2017). Moreover, health care providers play an important role in EBF counselling and should be provided with the appropriate competencies to address breast-feeding issues during prenatal and postnatal care. (Thomas, 2016; Kavle et al., 2017)

According to Thomas (2016), teaching lactating mothers about the benefits of EBF to the mother and infant will assist them in achieving their breastfeeding goal, developing a favourable attitude toward EBF, and strengthening implementation. Participants

from the study conducted by the researcher suggest that empowering and supporting mothers through clear and specific health education on the practice of EBF, the duration of EBF, and the benefits of EBF can improve implementation among mothers. Additionally, health education on maternal dietary intake and breast milk expression can help mothers overcome some breastfeeding challenges that are barriers to EBF. Lactating women from high-risk groups, such as those who are less educated, live in rural areas, or are overweight or obese prior to pregnancy should receive breastfeeding health education and support from health care providers (Zielinska et al., 2017). According to Behzadifar (2019), health policy makers and decision makers should strive to improve maternal care through enhancing care during pregnancy and after childbirth, as well as providing more breastfeeding knowledge to mothers and their families.

As per findings of Thepha, Marais, Bell, and Muangpin (2017), mothers with a high self-efficacy score intended to continue with EBF for longer than mothers with a low score, indicating that breastfeeding mothers who have confidence in their own abilities are more likely to be successful with exclusive breastfeeding. In the same way, lactating mothers should be empowered to develop self-ability to overcome breastfeeding obstacles that act as barriers to EBF, as well as to exercise their ability to be patient and perseverant during these times, as this will improve their ability to maintain EBF for six months.

According to Thepha et al. (2017) study, mothers' awareness and understanding of the health advantages of breast milk for their infants may significantly aid them in practicing EBF. Similarly, in their review research, Kavle et al. (2017) recorded that counselling, education, and promotion of EBF in health facilities and communities were identified as some of the most effective support interventions examined to promote breast-feeding in low- and middle-income countries, with a 152 percent increase in EBF. Moreover, community support interventions that pay close consideration to the quality, substance and consistency of counselling have a favourable effect on the practice of EBF for 6 months.

To strengthen EBF practice for six months, nutrition education should include instructional content and assistance that speaks to family and cultural perspectives, empowering family members to be diligently compliant with infant feeding recommendations (Dattilo, Carvalho, Feferbaum, Forsyth & Zhao, 2020). The findings

of the study by the researcher support that, when breastfeeding mothers are provided with emotional support within their families and in their social surroundings, they are better able to cope with stress when faced with breastfeeding issues that are barriers to EBF. Therefore, elimination of maternal stress through advocacy and emotional support can help to improve EBF practice. As indicated by Sandhi, Chipojola, Huda & Kuo (2020) partnership with other sectors in health systems including service providers, community health workers, stakeholders, and policymakers is also critical to ensuring effective and continued breastfeeding for women with special needs.

The findings of this study show that recognizing the financial burden of premature introduction of solid food and other fluids can be difficult, if not impossible, to maintain, particularly for unemployed moms. As a result, the cost-effectiveness of breast milk as compared to breast milk replacements may encourage unemployed women to choose EBF. Congruent with these findings is the research by Mgongo et al. (2019) that EBF practise, according to mothers, helps them save money because it is not a necessity for them to buy infant formula or cow's milk for the first six months.

Having consulted the available literature on the topic of EBF, there is only one record of studies related to EBF that has been published in Free State (FS) between 1980-2018 (Nieuwoudt et al., 2019).

2.5 CHAPTER SUMMARY

This chapter covered the literature review. The literature outlines benefit of EBF. Furthermore, it reveals several experiences of mothers regarding EBF and identified barriers to exclusive breastfeeding as well as support systems that strengthen the implementation to EBF.

CHAPTER 3: THE RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research methodology is explained by Sileyew (2019) as the route that a researcher takes in order to investigate and study a particular thing. It displays the pathway that a researcher undertakes to develop a problem and objectives, and show the results obtained from the data during the study period. Igwenagu (2016) defined research methodology as a set of orderly and organized technique used in research, which function as a guide to the researcher on how to conduct a research study.

Methodology for this research was outlined in this chapter, firstly by laying out the study design and the study site. Moreover, this chapter will highlight the study population and the study period. Additionally, the sample selection was discussed together with the data collection instrument, data analysis and the trustworthiness of this study. It was concluded by giving details of ethical considerations that were undertaken before the study. The purpose of this research study was to determine the barriers to exclusive breastfeeding of mothers in the Tswelopele Municipality.

3.2 RESEARCH DESIGN

According to Kumar (2018), research design is a strategic structure or design of investigation so comprehended as to provide answers to research questions or a problem. Ranganathan & Aggarwal (2018) define research design as an outline plan and/or measures used by the researcher to collect and analyse data on measurable attributes specified in a particular research problem. A qualitative, descriptive, explorative and contextual research design was employed for this study to achieve the research objectives.

3.2.1 QUALITATIVE RESEARCH

Qualitative research, according to Busetto, Wick, and Gumbinger (2020), is the investigation of the nature of occurrences, and it is very beneficial for figuring out why something is observed or not, analysing difficult multi-component mediations, and concentrating on intervention development. Moreover, Hammarberg, Kirkman & de Lacey (2016) state that a qualitative research is a method of research the researcher employs to answer questions about participants' real-life experience, meaning and

viewpoint. In this study, the researcher used a qualitative approach to explore the experiences of women in the Tswelopele Municipality on barriers to exclusive breastfeeding.

3.2.2 CONTEXTUAL DESIGN

Contextual research design is a unique and well-organized participant-centred design process. It provides ways for gathering data on the sampled population, interpreting and combining that data in a systematic manner so that it can be utilized to develop sample product and service concepts, and testing those concepts with participants (Holtzblatt & Beyer, 2014). Duda, Warburton & Black (2020) highlight that contextual research is a type of field research study approach that is used to investigate the setting in which a product or service is used, as well as the cultural context and it is used when a user's task involves other persons or processes that need to be watched in order to properly comprehend the user's demands and goals. For this research study data was gathered from three health facilities in the Tswelopele Municipality, situated in Lejweleputswa district, Free State. Individual interviews were conducted.

3.2.3 EXPLORATIVE DESIGN

Mudau (2020) looked into areas that have not been looked at before, attempting to find new insights, new understandings, and new meanings, as well as investigate elements relevant to the topic. Exploratory research studies are normally a pioneer to a later, extensive research and their major objective is to determine suggestions or research questions for a future study (Biggam, 2018).

The researcher used this design to explore support systems required by mothers to strengthen exclusive breast-feeding in the Tswelopele Municipality.

3.2.4 DESCRIPTIVE DESIGN

Descriptive design is a research design a researcher employs in order to explain participants' experiences and events by studying them in their original form (Siedlecki, 2020). According to Bhattacharya (2020) descriptive research refers to a scientific process in research which a researcher follows to observe and find out 'what' related to a phenomenon as it exists from the sampled population.

By use of this study design, the researcher was aiming to get an accurate description of the challenges mothers' experience that prevents them from implementation of EBF for the period of six months or that act as barriers to EBF.

3.3 STUDY SETTING

According to Brink et al. (2018) and Majid (2018), research setting points to the place or an environment where data for research study is collected. This study was conducted in the Tswelopele Municipality, situated in Lejweleputswa district, Free State (Figure 1). The municipality consist of two towns namely Hoopstad and Bultfontein. This municipality has an estimated population of 47 625 and is characterised by a low education profile, poverty, and with the majority of residents relying on farming and government grants as the main sources of household income. This municipality is rural, with 19% constituting farm areas (Tswelopele Municipality, 2020).



Figure 1: Lejweleputswa district municipalities (Lejweleputswa Development Urgency, 2016)

The health care facilities selected for the purpose of this research and used as data collection sites in this municipality were Phahameneng Clinic, D.A. Maleo Clinic in Bultfontein together with Hoopstad Clinic and Mohau District Hospital in Hoopstad; however, for the one-month period of data collection Mohau District Hospital had no qualifying participants available. This resulted in only three facilities being used as data collection sites.

3.4 POPULATION

Population is the entire group of individuals or subjects that the researcher has interest in that meet specific criteria of the research in order to conduct a complete study (De Vos et al., 2011; Dashina, 2021).

The study population for this research was mothers who had infants of age 6-12 months old who were accessing infant and child health services in the three public health care facilities in the Tswelopele Municipality.

3.4.1 TARGET POPULATION

Asiamah et al. (2017) outline that a set of individuals or participants who possess specific qualities of interest and relevance to the research aim is referred to as the target population. In the same way, Casteel & Bridier (2021) explain target population to be the definite, theoretically limited pool of prospective participants to whom the researcher may have access and who represent the population. In this study, the target population was mothers who were 18-40 years old with 6-12 month old infants who were accessing infant child health services in the three public healthcare facilities.

Inclusion criteria

Mothers who were 18-40 years' old with 6-12-month-old infants who were accessing infant child health services in the four public healthcare facilities.

Exclusion criteria

Mothers who were absent with their babies from the designated clinics where interviews were conducted were excluded.

3.5 SAMPLE AND SAMPLING

A sample is part of the community or a number of people, things or cases, which the researcher studies as the focus of the research (Etikan, Musa & Alkassim, 2016). According to Brink et al. (2018), by definition sampling is the process by which a researcher selects a subset of a community for the purpose of collecting information about a phenomenon in a way that is representative of the population of interest, whereas a sample is a portion of the entire population that the researcher chooses to participate in the research study.

The researcher incorporated both purposive and convenience sampling in this study. Purposive sampling was used to select the clinics, and convenience sampling was used to select the participants. Etikan, Musa & Alkassim (2016) described convenience sampling as a method of a non - random sampling in which respondents in a research study are chosen who meet certain practical requirements, such as ease of access, geographic closeness, availability at a specific time, or willingness to participate, are included in the study. Furthermore, the authors continued to define purposive sampling as a sampling approach in which the researcher determines what information is required and then seeks out persons who can and are willing to offer it

based on their knowledge or experience. According Acharya, Prakash, Saxena & Nigam (2013) convenient sampling is when a sample is selected based on the researcher's expediency; it is mainly utilized in research, where participants who meet the inclusion requirements and are in the specific location at the correct moment are selected into the study.

The health facilities selected in this research study are all the clinics geographically situated in the Tswelopele municipality. Moreover, the participants who met the inclusion criteria for this research were selected at the respective health facilities, as they were patients who were at the clinic for health care services during the period of data collection.

This study included sixteen (16) participants, with eight (8) from Hoopstad Clinic, four (4) from Phahameng Clinic and four (4) D.A. Maleo Clinic, respectively. The research was carried out throughout the entire month of October 2021. The size depended on how soon data collected was saturated. Altogether, 16 participants took part in the study.

3.6 RESEARCH INSTRUMENT

As defined by Sathiyaseelan (2015) and Canals (2017), research instruments are tools and strategies used for data collection.

Individual semi-structured interviews with eligible mothers were used to obtain data for this research study, and the proceedings of the interviews were recorded with permission from each participant. A semi-structured interview has a set of predetermined questions, which did not dictate but rather guided the interview process the researcher also developed and used an interview guide with open-ended questions. The researcher designed an interview schedule in order for the researcher to allow time for participants to talk during and after interviews. Using an interview schedule assisted the researcher in considering the degree of mental concentration that was required for both researcher and participant. Probing follow up questions were asked according to the participants' responses.

3.7 DATA COLLECTION

Data collection is a process, which the researcher uses to assemble the research information required. The researchers may employ one or more techniques to collect data (Biggam, 2018). Muhammed & Kabir (2016) define data collection as the process of bringing together and evaluating information on factors of importance, in a standard, organised fashion that makes it possible for the researcher to answer research questions, make predictions, and evaluate results.

3.7.1 DATA COLLECTION METHOD

This study used semi-structured individual interviews to collect data, and a tape recorder was used to record the interview sessions with the participants' consent. All respondents met the research's inclusion criteria, which are outlined in this chapter. As outlined by McIntosh & Morse (2015), semi-structured interviews are predominantly used to understand the reasons people act the way they do by exploring their attitude, experiences and perceptions. In this research, semi-structured interviews were used to discover breastfeeding experiences of mothers in the Tswelopele Municipality in order to determine exclusive breastfeeding barriers. The semi-structured interviews provided the researcher with some flexibility in the sense that it was simpler to raise follow up questions with all spoken and unspoken replies, such as intuitions, humour, and stillness, to disclose hidden knowledge that could be useful. DeJonckheere & Vaughn (2019) describe semi-structured interviews as dialogue and/or a conversation between the researcher and the respondents, which is directed by a flexible interview guide and complemented by follow-up queries, enquiries and remarks.

Furthermore, Muhammad & Kabir (2016) stipulate the characteristics of semi-structured Interviews as:

- The interviewer and interviewee participate in a formal interview.
- The interviewer compiles a list of guiding questions and topics in a specific order that needs to be discussed during the conversation. The list is referred to as the 'interview guide'. The interviewer develops this guide and uses it to proceed with the interview.

- Although the interviewer follows the interview guide, he/she can follow topical paths in the conversation that may be relevant and stray from the guide when he/she feels the need.
- Consists of open-ended questions.

3.7.2 PRE-INTERVIEW PLANNING

Upon receiving ethical approval from the relevant bodies and approval to conduct research in each of the selected health facilities, the researcher telephonically contacted clinic managers to inform them about the study and its objectives and also to requested a room at each facility that met the Covid-19 regulation measures and one conducive to conduct interviews with privacy and no distractions, and to also inform the staff about the research and ask for support during the period of study.

A set of open-ended questions was devised for the interviews by the researcher to use as a guide to initiate and direct conversation during the interview session. This was to helped the researcher to explore the topic of interest in depth and to understand especially infant feeding practices in the first six months of life and to identify what support mothers need in order to strengthen implementation of EBF for six months.

3.7.3 INTERVIEW PROCESS

The researcher ensured that all ethical consideration as outlined were adhered to during the interviews in this research, including that all participants were told that participation in the study was completely optional and that they could opt out at any moment. Moreover, permission was obtained from the participants to proceed with the interviews and the protection, privacy and confidentiality of research participants were ensured. Participants in the study were identified by codes, which were kept undisclosed during data processing, and the publication of the findings. All participant's voluntary participated and signed the consent form.

The interviews were conducted in each of the selected health facilities in Tswelopele Municipality. In total 16 qualifying mothers were interviewed and all qualifying participants were identified and selected among visiting patients while they were still waiting to be attended for medical care by health workers. In this way, the routine clinic functionality was not disrupted at all and it reduced idle waiting time for participants.

Each interview took between 45-50 minutes. Each facility offered a private interview room that was adequately ventilated and spacious in order to comply with Covid-19 rules. Wearing of masks and hand sanitizing were also adhered to and there were no distractions observed throughout the interview process. A voice recorder was used to record the proceedings of the interviews with permission from the participants. Data was collected in Sesotho and therefore interpreted and transcribed into English. In addition, data collection took place over a period of one month in October 2021(20 working days). Interviews stopped when data was saturated.

The predetermined questions that the researcher asked all the participants included the following: How would you describe your experiences as a mother regarding barriers to exclusive breast-feeding?

- What have you heard about exclusive breastfeeding?
- What was your experience of feeding baby with breast milk only?
- What was the best thing about exclusive breastfeeding?
- What was the most challenging?
- Why did you initiate complementary/other foods and drinks in addition to breastmilk during the first six months postpartum?
- What could have helped/encouraged you to feed your baby breast milk only up to six months of age?
- What support systems would you require as a mother to strengthen exclusive breast-feeding? Probing questions was based on the responses of the participants.

3.8 DATA ANALYSIS

According to Coghlan & Brydon-Miller (2014) data analysis is defined as the process of deriving meaning and knowledge from the various datasets that may be collected during research project and using it as a foundation for further action and concept development. Whereas Mudau (2020) defines data, analysis as a process used to consolidate and manage information so that it gives meaning. In this study, the

researcher transcribed the information verbatim after listening to the recordings several times after data collection.

Tesch's eight-step approach were used to guide the data analysis process (as stated by Creswell, 2014):

- Reading the data: Get a sense of the wide view. Carefully read all of the transcripts and handwritten data.
- Reduction of collected data: The researcher chose one interview and examined it once more. Ask, "What is this about?" Wrote the findings in the margin of the document.
- Created a comprehensive list of all of the topics: Identical themes were compared and grouped together, and they were divided into three categories: significant topics, unique topics, and leftovers.
- Codes were used to shorten the descriptions of the topics, which were then written adjacent to the relevant text sections.
- Development of themes and subthemes: checking of fresh themes that have developed.
- Compare and alphabetize the codes to ensure that no duplication occurs.
- Convert topics into descriptive categories. Use clustering of similar topics to try to reduce categories.
- Recode existing data where necessary.

Data analysis started with the transcribing of the interviews by the researcher. The researcher then familiarised herself with the raw data that was transcribed by reading it a number of times as well as listening to the tape-recorded interviews. From the raw data, the researcher then identified common themes, while the newly collected data were compared to the existing data to determine which themes were supported or not supported by the emerging information. This constant comparison enabled the identification of saturation when it occurred (Houser, 2015). The identified themes and sub-themes were grouped, coded, and sent to an independent coder for review.

3.9 DATA MANAGEMENT

Interview sessions were recorded and the data was stored by means of audio records and copies were made and saved as back up on the researcher's computer. The ID number, names, dates and location of participants were obscured. The data was transferred and saved on the computer and removed from the digital audio recorder within 48 hours of data collection in the form of recorded interview sessions, and it was organized in folders and these folders holding data were encrypted. The audio recordings were also transcribed verbatim and kept as a Word document (Lin, 2009).

Files were stored in folders on the computer. All folders were encrypted and the password to open these files was shared with the research supervisor. Data was duplicated in the copies on Google Drive, cloud storage and external drive. The researcher keeps the printouts in a safe office with a lock system. The principal researcher is in charge of data storage. Data will be kept for a minimum of five years by the principle researcher (Sutton and Austin, 2015).

3.10 TRUSTWORTHINESS OF THE STUDY

According to Gunawan (2015) trustworthiness is a method a researcher uses to ensure credibility and dependability, which relates more to reliability, transferability and confirmability of the research study they are conducting from data collection to reporting of the results. The standard of trustworthiness in a qualitative study is based on and resounds from its capacity to display credibility, to show dependability, express transferability and uphold confirmability (Groove et al., 2015).

To ensure trustworthiness, the following were carried out in this study:

3.10.1 CREDIBILITY

Nowell, Norris, White & Moules (2017) state that credibility of a study addresses the "match" between participants' ideas and the researcher's portrayal of them, which is determined when other researchers or readers are presented with the experience and can recognize it.

In this study, credibility was achieved by establishing a trusting relationship with the participants through explaining research objectives and process, by spending enough time interviewing the participants to ensure prolonged engagement. Information was

gathered using multiple strategies, e.g., interviewing, and using an audio recorder to capture data directly from the participants.

3.10.2 DEPENDABILITY

Connelly (2016) notes that the research's dependability is the data's consistency across time and under similar study settings and Nowell et al. (2017) suggest that the research process should be rational, traceable, and properly recorded in order for the researcher to reach dependability.

The researcher ensured dependability for the study by carefully documenting each step and activity in order to conduct each individual interview by following the same process. The same semi-structured interview guide was used for all sixteen participants and the researcher and supervisor verified audio recordings. The researcher reviewed other literature in order to identify other studies that supported the findings of the research.

3.10.3 CONFIRMABILITY

The uniformity and repetition of research results, or the degree to which they are consistent and repeatable, is referred to as study confirmability (Connelly, 2016). In the same way, Nowell et al. (2017) echo that confirmability is focused on establishing that the researcher's interpretations and findings are clearly taken from the evidence, and it requires the researcher to illustrate how conclusions and interpretations were derived.

In this research, the researcher ran an audit trail of the verbatim descriptions, categories and sub-categories, and the findings of the study are related and supported by evidence from literature.

3.10.4 TRANSFERABILITY

The level to which study findings are advantageous to people in varied contexts is referred to as transferability and readers evaluate how applicable the findings are to their own circumstances (Connelly, 2016).

Qualitative findings of this study were done on a small scale and thus not transferable.

3.11 ETHICAL CONSIDERATION

According to Arifin (2018), ethical consideration is a reflection on how protection of human rights of participants in the research will be carried out through competent implementation of appropriate ethical principles. Also, Gelling (2016) commented that every researcher who undertakes a research study that will directly or indirectly involve human participants needs to consider the ethical implications of their research.

In this study important ethical issues that were payed attention to include the following:

3.11.1 ETHICAL APPROVAL AND ACCESS TO PARTICIPANTS

Ethical clearance for this study was obtained from the Human Research Ethics Committee at the University of Fort Hare (**Ref # 2021=06=12 QuebuS**). Permission was granted by the Free State DoH Research Ethics Committee to conduct the study as well as the district manager at Lejweleputswa District DoH for the clinics and the CEO at the hospital.

3.11.2 CONSENT AND VOLUNTARY PARTICIPATION

According to Arifin (2018), consent should be freely granted. Additionally, participants in a research study must be thoroughly informed about the study, understand the content, and have the ability to make decisions whether or not to participate.

All participants were asked to give permission to participate in the study and to be interviewed and have the interview session recorded. Moreover, participants were explained to by the researcher that they had the right to pull out from the study at any moment if they desired to do so. The verbal discussion of the proposed research and informed consent were made available in English and verbally explained in Sesotho by the researcher (Arifin, 2018).

3.11.3 ANONYMITY AND CONFIDENTIALITY

Anonymity indicates that data cannot be linked to a specific participant; confidentiality, on the other hand, means that data can be erased from participants' records while still being linked to a specific person by the researcher (Ketefian, 2015).

In this research study participants were identified by codes and their identity codes were concealed in the data collection, data analysis and reporting of the study findings.

The interview room was provided by each facility, a well-ventilated and spacious room to make allowance for Covid-19 regulations and there were no distractions encountered during the interview proceedings (Arifin, 2018).

3.11.4 RIGHT TO PRIVACY

Right to privacy relates to people's interest in regulating who has access to them and that no participant should ever be coerced to share information with the researcher that they do not wish to share (Popescu, Sechel, Leășu, Țânțu, Cotoi & Rogozea, 2018).

In this research the researcher informed each participant that some of the questions may be regarded as asking for sensitive information and thus invade their privacy and they were granted enough time to decide if they wanted to share the information without any major stimulus. This included questions on marital status, income and age (Kumar, 2018). A 'Do not disturb' sign was placed at the door of interview room during the proceedings of the interviews. Anonymity was observed throughout the interviews.

3.11.5 RIGHT TO FAIR TREATMENT

The right to fair treatment requires that participants be treated in the same manner, that all members of the relevant population be represented equally, and that selection be fair and unbiased (Ketefian, 2015).

All the participants in this study and the information they provided during the research processes were treated the same. All participants were represented equally. The selection of participants were fair. The researcher did not intentionally attempt either to hide any findings of the study or to highlight something unreasonable to its true existence.

3.11.6 RIGHT TO PROTECTION FROM DISCOMFORT AND HARM

This refers to the protection of study participants against injury, whether physical or mental in origin, as well as discomfort and harm. If participants will be uncomfortable, they should be informed ahead of time (Ketefian, 2015).

In this study, the researcher was always attentive, acted professionally and prevented any harm towards the participants. The researcher also ensured that no participant

felt uncomfortable or unfairly treated throughout the whole process of interviews. The questions were well formulated. The researcher throughout the process monitored the participants for any sign of distress.

3.11.7 CORONA VIRUS REGULATIONS

Participants were selected from the clinic's waiting area on the waiting line after they had registered for their daily visit. All participants were screened for Covid-19 symptoms on arrival at the facility and were required to fill in a daily on-site register for all persons accessing the health facility, including their full contact details and daily temperature. None of interviewees presented as a high risk for coronavirus infection. Each health facility provided the interview room that was well ventilated and spacious enough to allow the practice of maintaining physical distancing of 1.5 metres between interviewer and participant. Additionally, upon entering the interview room the researcher and each participant wore, a facemask or face visor and alcohol-based hand sanitizer was used continuously.

3.12 DISSEMINATION OF RESULTS

By definition, data dissemination is a strategic approach taken by a researcher that includes considering the target population and the context in which the study findings will be presented, as well as conversing and interacting with wider policymakers and health care audiences in ways that enhance the use of research in decision-making and practice (Wilson et al., 2010).

The researcher will share results from this research study with the University of Fort Hare, the Free State Department of Health and the Lejweleputswa district DOH for training and information purposes for conferences and Nutrition Assessment Counselling and Support (NACS) training. Results will also be shared and made available online through South African Journal of Clinical Nutrition, International Breastfeeding Journal and Breastfeeding Medicine Journal and other relevant accredited journals.

3.13 CHAPTER SUMMARY

In this chapter, the researcher provided the detailed research method, which she followed in order to carry out the study research process in a manner that would yield results that could meet the research objectives and answer the research question. Moreover, the researcher highlighted measures followed to ensure that the research was carried out ethically and the data dissemination details were given.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

In the preceding chapter, the researcher discussed the study's research design and methodologies. The researcher will outline the data collecting and analysis techniques for this study in this chapter, followed by participant profiles and an overview of the themes that were identified that answered the study questions. The themes that have been identified will be examined separately, with a detailed discussion of the sub-themes as well. Additionally, relevant extracts from participants gathered during the data collection process will be used to support each theme and sub-theme covered. Furthermore, to support the topics and sub-themes in this research, a literature control was used.

All presented outcomes from this study helped to meet the study objectives, which were: *(i)* to describe the experiences of mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality and *(ii)* to identify support systems required by mothers to strengthen exclusive breast-feeding in the Tswelopele Municipality.

4.2 OPERATIONALISING OF DATA ANALYSIS AND LITERATURE CONTROL

The researcher will address the operationalization of data analysis and the implementation of the literature control in this section.

4.2.1 INTERVIEWS

16 participants volunteered to partake in this research and all participants were interviewed individually in a semi-structured format by the researcher. Mothers who were 18-40 years old with 6-12 month old infants who were accessing infant child health services in the selected public health care facilities in the Tswelopele Municipality made up all of the 16 people interviewed in accordance with the researcher's inclusion criteria given in chapter 3.

With the permission of the participants, the researcher used an audio recorder while conducting the interviews and verbatim transcription of the tapes was made. The data collection process advanced up to a point where the researcher achieved saturation

of information adequate to provide answers to the research questions. As cited by Creswell (2014), the researcher used the open coding method to analyse data in accordance with Tesch's (1990) approach.

4.2.2 LITERATURE CONTROL

By giving background, informing procedure, finding invention, limiting unnecessary repetitive research, and ensuring that professional standards are fulfilled, the literature review assists any researcher in "joining the discourse" (Maggio, Sewell & Artino, 2016). As explained by Onwuegbuzie, Leech & Collins (2012) a researcher is performing a literature control when they compare and contrast information from two or more literature sources with their own research findings prior to data analysis and interpretation of their own study. Literature control is the system whereby, before analysing the findings of their study, the researcher employs literature during data analysis to construct a framework based on the conclusions of parallel earlier research (De Vos et al., 2011).

4.2.3 DEMOGRAPHIC PROFILE OF THE PARTICIPANTS

All of the participating mothers were of black ethnicity, and their ages ranged from 18 to 44 years, dominantly between 18-29 years of age. All the participants were unemployed and presently not in school, with the majority dropping out of school before they attained matric. A large number of babies were delivered at the health facility although not all of them were initiated on breastfeeding within the first hour of birth. Table 4.1 shows the detailed demographic profile of the participants.

Table 4.1: Demographic profile of participants

Participant	Age (years)	Marital status	Educational qualification	Age of baby (Month)	Place of delivery	Mode of delivery	Breastfeeding initiation time post delivery
1	18	Single	Grade 11	12	Home	Natural	>1 hr
2	34	Single	Grade 9	6	Hospital	Natural	<1hr
3	29	Single	Grade 10	10	Hospital	Natural	<1hr
4	44	Married	Grade 5	8	Hospital	Natural	<1hr
5	28	Single	Grade 9	9	Hospital	Natural	<1hr
6	28	Single	Grade 9	8	Home	Natural	>1hr
7	33	Married	Grade 11	9	Hospital	Natural	>1 hr
8	18	Single	Grade 8	7	Hospital	Natural	<1hr
9	35	Married	Grade 5	12	Hospital	Natural	<1hr
10	22	Single	Grade 10	8	Hospital	Natural	<1hr
11	28	Single	College	6	Hospital	Natural	<1hr
12	20	Single	Grade 4	9	Hospital	Natural	<1hr
13	21	Single	Grade 8	6	Hospital	Natural	<1hr

14	18	Single	Grade 9	11	Hospital	Natural	<1hr
15	23	Single	Grade 9	9	Hospital	C/ section	>1hr
16	25	Single	Grade 12	9	Hospital	Natural	>1hr

4.3 DISCUSSION OF THEMES

Four primary themes emerged and twenty sub-themes from the data analysis. The four themes, as well as the sub-themes that go with them are shown in Table 4.2. The four themes were: Mother related barriers to EBF, baby associated barriers to EBF, support system to enhance EBF and complications created by barriers to EBF.

Table 4.2: Identified themes and sub-themes

NO	THEMES	SUB-THEMES
1	Mother- related barriers	1.1 Extreme pain from breast when breastfeeding 1.2 Mother's desire to introduce solids pre-maturely 1.3 Diseases suffered by mother 1.4 Ignorance about the practise of EBF 1.5 Traditional beliefs like 'mohlala'.
2	Baby-associated barriers	2.1 Baby's refusal to breastfeed

		2.2 Breast milk not tolerated by some babies: e.g. vomits after breast feeding
3	Support system to enhance EBF	3.1 Health education: spelling out benefits of breastfeeding 3.2 Reduction of stress for mother 3.3 Cost effective: Mothers saved from buying milk formulas and other solids 3.4 Encourage mother to be patient and persistent to breast feed
4	Complications created by barriers to EBF	4.1 Failure of the baby to bond with mother 4.2 Denying baby benefits of breast milk

4.3.1 THEME 1: MOTHER RELATED BARRIERS TO EBF

According to the findings of this study, maternal factors are one of the key contributors to the success or failure of EBF practice. When mothers have difficulties with breastfeeding, their difficulties can become barriers to EBF. Some of the mothers reported that they were able to successfully initiate breastfeeding while in the hospital, but once they returned home they found it difficult to maintain EBF for six months for a variety of reasons, including the majority's perception of low breast milk volume, as evidenced by crying and restless babies; breast pain while breastfeeding, and as a result some mothers claimed to have lost interest in breastfeeding and felt compelled to start solid foods earlier than recommended; maternal sickness and others reported that they were never properly educated on EBF.

These findings are supported by the findings from a study by Jama et al. (2017) where it is reported that, despite successful breastfeeding initiation at the hospital during admission, some mothers report finding breastfeeding to be hard, embarrassing, and insufficient to satisfy the baby's hunger once they come home thus making them prone to non-EBF.

Sub-theme 1.1: Extreme pain from breast

Some of the participating mothers in this study stated breast problems such as painful breast when breastfeeding. The responses from participants regarding breast problems that prevented EBF were as follows:

“My breastfeeding experience, it was painful. Really, when you start breastfeeding your breast is so painful... From the nipples especially and even as the baby was suckling and pulling the milk from my breast, it was so painful.” (Participant 5)

“Iyoh (exclaims) for me it was really painful, especially when he would grab the breast and start sucking it...” (Participant 10)

“I felt so much pain that I wished I did not need to breastfeed... I really just wanted to quit.” (Participant 10)

As specified by the findings in the study conducted by Apanga (2014), certain lactating women do not practice EBF because of breast problems such as cracked nipples or an engorged breast that leads to pain when breastfeeding. Participants in this study were unable to explain why they experienced pain while breastfeeding their infants. However, Gianni et al. (2019) mentioned that literature describes that approximately 8-10% of breastfeeding mothers begin mixing feeding because of extreme pain experienced when breastfeeding, which is typically caused by poor latching and position while the infant is feeding, resulting in nipple cracks, mastitis, and engorgement.

Some mothers in this study expressed to have had difficulties with breastfeeding due to painful breast and nipples when the baby was suckling from breast, and such participants soon lost interest in breastfeeding and felt compelled to start solid foods and other fluids too soon. However, the demotivation to continue EBF was not only

dependant on breast pain as other participants indicated that certain breastfeeding intervals would tire them out physically.

“I am a person who likes to sleep, so when he drinks at night he would wake me up and I would be tired.” (Participant 6)

To support these findings Gianni et al. (2019) recorded that preceding data also indicated a pattern of lactating mothers reporting variables such as pain, tiredness and fatigue as breastfeeding difficulties preventing EBF in a comparatively high number of cases.

It was therefore identified in this study from the respondents that another factor that can be a barrier to EBF for six months is extreme pain felt from the breast and nipples when feeding the baby, as well as mother's physical strength not being sufficient to keep up with the baby's feeding intervals, leaving the mother exhausted.

Sub-theme 1.2: Mother's desire to introduce solids prematurely

The majority of participant in this study expressed that they introduced other fluids and solid food too soon because they had an impression that their breast milk alone was insufficient to sustain the baby's sole source of nutrition for six months and several of the participants responded in this way.

“Because he was not getting satisfied and full with just breast milk.” (Participant 8)

“Because I thought she was not getting satisfied and full with just breast milk.” (Participant 9)

Other participants stated that they took certain infant behaviours as an indication that breast milk alone was insufficient to satisfy the baby's hunger, prompting them to introduce other fluids and solid foods too soon.

“Because she drank so much on me, her appetite was big and I did not think my breast was producing enough milk.” (Participant 7)

“Every time I held him he would start opening his mouth, he was crying and drinking breast quickly after another feed, so my mom also agreed he was not getting full and she said I must buy purity and add that.” (Participant 10)

The results of this study were not unusual because, according to Seonandan & McKerrow (2016) and Jama et al. (2020), previous studies have reported a supposed shortage of breast milk to maintain the baby feeding on breast milk only as the most generally reported barrier to EBF. The reasons for this belief included the baby constantly crying and/or the baby being keen to breastfeed for longer. As a result, mothers feel bound to introduce solids or other fluids despite the health worker's recommendation to exclusively provide breast milk for six months (Sandhi, Chipojola, Huda & Kuo, 2020).

Additionally, in this study, certain mothers were also persuaded by family member to initiate solid food prematurely.

“... his father also suggested that the baby was too old to be just drinking on my breast and water we should add baby foods in order for him to be satisfied.” (Participant 5)

“... Both the baby of the father and myself did not see anything problematic with starting solid foods; as a matter of fact the father was also very keen for baby to take other foods.” (Participant 1)

“...my mom was like no ways this child doesn't get full with the breast as he should, so she went to buy a sachet of cerelac and prepare it with some water, she prepared it on a small cup and then we fed the baby two teaspoons of cerelac, he ate very well as though he was old baby and fell asleep after that then he was fine.” (Participants 2)

In the same way, a study conducted in Ethiopia by Deme, Ababa, Ababa & Ababa (2015) reports that at the age of three months a large proportion of infants (32.9%) were exposed to solid foods or fluids, primarily by mothers who gave birth at home and mothers who were influenced by family member to mix feed.

Because of this study, it is clear that another barrier to EBF is the mother's desire to start solid foods and fluids sooner than six months, mostly owing to perceived milk insufficiency and influence of family members such as the baby's father and grandmothers.

Sub-theme 1.3: Diseases suffered by mother

Another significant maternal problem participating mothers in this study expressed as a barrier to EBF is when a lactating mother becomes sick. Respondents in this study regarding their health in relation to their EBF experience said the following:

“I fell sick and I was told to stop breastfeeding.” (Participant 10)

“So they told me they going to put an injection on me that is going to make me calm down but it’s harmful for the baby and it can be transferred to her through breast milk so I had to stop breastfeeding at that time and they gave her Prenan (formula milk) ...” (Participant 14.)

Congruently, maternal sickness and death are cited as a critical barrier to EBF by Otto (2015). Moreover, Thepha et al. (2017) reported that physical complications of the mother, such as breast issues, postpartum depression, caesarean section birth, smoking, and drug addiction have all been documented as barriers to EBF.

Based on the findings of this research certain maternal illnesses constrain mothers to cease breastfeeding earlier than six months in order to protect their babies' well-being and health.

Sub-theme 1.4: Ignorance about the practise of EBF

Some of the participating mothers in this study indicated unawareness of the practice of EBF and the benefits thereof. Examples of mothers' responses regarding any knowledge acquired relating to EBF include the following:

“No I did not ever know about that practice.” (Participant 1)

“No I have not heard what I have heard of was giving bottle as in formula milk but nothing was mentioned with water”. (Participant 7)

“No I did not ever know about exclusive breastfeeding.” (Participant 10)

“No I did not. But my grandmother told me that for a baby to grow well they have to breastfeed at least a year, but about exclusive breastfeeding I did not really know.” (Participant 14)

Participants continued to express that if they were taught and attained EBF knowledge timely it would have empowered and enabled them to practice EBF.

“I think had I known in time that I should give breast milk only and no other drinks and no other foods for first six months of life, I would have avoided to even thinking of trying to give formula milk even to start giving water.” (Participant 7)

A study by Mgongo et al. (2019) demonstrated that the majority of breastfeeding mothers who were not informed by health care providers that breast milk is optimal for the baby's health in the first six months and were not taught that the sole food a baby should eat for the first six months of his or her life were unsuccessful in the practice of EBF.

This pattern was also identified in a study whereby, although some others claimed to have been educated by nurses during antenatal visits and during labour about EBF, they did not necessarily continue with EBF for six months.

“I heard at the hospital when I was going to deliver, they said I must give breast milk only for six months and to never give other foods or drinks including water and formula milk before then.” (Participant 9)

“...I figured out my breast did not have enough milk and he doesn't get full. So I decided by myself to make the mash potatoes in addition to breast milk, and when I did give him the mashed potatoes he would calm down and be normal.” (Participant 9)

However, similar to these reports Ganu & Kogutu (2015) stated that, although mothers are taught and have knowledge on EBF, it does not equally interpret to application of that knowledge.

According to the findings of this study, some participants did not practise EBF because they were not equipped or empowered with EBF information, and, as a result, their feeding practices were influenced by this ignorance. However, after being taught about EBF at the health institutions, several of the participating mothers were unable to maintain EBF for six months. As a result, ignorance about EBF and benefits of EBF are both classified as a barrier to EBF implementation, as understanding of EBF does not necessarily translate to implementation.

Sub-theme 1.5: Traditional beliefs like ‘mohlala’

Participants in the study also indicated socio-cultural beliefs and influence as barriers to the practice of EBF. When questioned about reasons for early breastfeeding cessation, one of the participants answered:

“When I would give him breast he would cry a lot, and even at night he started crying a lot. So during my early lactation days I was cared for by my grandmother and upon hearing this unusual cry of the baby when I was trying to breastfeed the baby, she told me my breast has ‘mohlala’ and I must stop breastfeeding the baby, you know how these grannies’ are, It’s these traditional things, like bad omen, she did not explain what it really means, you know how elderly people can be, she just said it can’t happen that every time I put the baby on breast he cries so much, it must be that and I must stop the breast feeding.” (Participant 5)

Although the participant was not informed, what ‘mohlala’ is she was fully convinced that it has everything do with cultural beliefs from elders in her family?

“...She did not explain what it really means; you know how elderly people can be... It’s these traditional things, like bad omen.” (Participant 5)

In the study conducted by Jama et al. (2017) findings, show that despite the fact that most lactating women were opposed to the use of traditional medicine or practices, elders in the family recommended them to do so for the protection of their infants. Participants from rural regions regularly report the use of traditional medicine or practices. Traditional healing rather than prescription medicine is regarded as the best treatment to relieve episodes of baby crying that they believe are caused by abdominal pain or by the baby waking up in the middle of the night (Talbert, 2020). In the same

way, Apanga (2014) reported that in West Africa socio-cultural beliefs and practices have been cited as an imperative barrier to EBF as there have been reports those mothers mix-feed due to cultural beliefs and family pressures.

Therefore, this study suggests that socio-cultural beliefs play a significant role in determining mothers' feeding practices for their infants and may function as a barrier to EBF.

4.3.2 THEME 2: BABY ASSOCIATED BARRIERS TO EBF

Comparable to the previous theme, infant-related factors also have an important impact on the success or failure of breastfeeding. Some participants in this study were eager to breastfeed their babies and maintain EBF for six months, but they stated that their infants had problems that prohibited them from doing so. These issues may primarily include infants who refuse to breastfeed and breast milk not being tolerated by some infants, as seen by baby vomiting after feeds. Theme 2 was supported by the following two sub-themes, which are discussed further below.

Sub-theme 2.1: Baby's refusal to breastfeed

Some of the participants expressed that their infants started feeding well on their breast at first, but suddenly they noticed that the baby does not want to latch on their breasts anymore and they felt an urgent need to find replacement feeds. The following are some examples of responses:

"Next day at home when I was breastfeeding him, he was refusing the milk and was refusing the breast, I tried giving him the bottle with just water as well but he was refusing the dummy as well." (Participant 2)

" He was just drinking on my breast and no other things for 2 weeks but then he started not wanting my breast milk anymore so I bought him formula milk." (Participant 5)

The participants in this research indicated that if the baby declines to drink milk from the mother's breast, the first motherly instinct leads them to find another item as a feeding replacement, making it impossible for them to continue with EBF for the appropriate amount of time.

Furthermore, some participants expressed that their babies displayed inability to grip the nipple and latch, which could lead to breast refusal.

“When I put the breast in him, he would refuse it by not suckling.” (Participant 2)

“Randomly when I was breastfeeding he started crying, spitting the nipple out and pushing breast away and would cry a lot.” (Participant 13)

“Never latched on me, only cup feeding throughout that week to when she got discharged... I wished he was feeding directly on my breast participant even when I got home its only then my sisters were trying to teach me to breast feed.” (Participant 16)

The mothers who took part in this study also showed that the baby's difficulty to latch and/or hold the nipple might cause the baby to become irritable and refuse to drink from the breast, which can be a barrier to EBF.

The majority of the mothers in this research articulated also that the unexplainable crying of the baby was a significant concern, which compelled them to cease practising EBF even before the child could reach six months of age. These are some of the examples of responses shared by participants:

“But the problem is when the baby starts crying now it's hard for you as a mother; it's hard for you just look at your baby without wanting to prepare something for your baby.” (Participants 2)

“It was the baby crying a lot, that also made me think he was not being satisfied so I also just introduced Nestum and baby foods with formula.” (Participant 5)

These results identify with a study by Amaral (2020) which reports unexplainable refusal of breast milk as a barrier to EBF, which compels the mother to introduce solid foods or other fluids even when they had initially intended to EBF for six months. Moreover, some infants may have weak jaws, which makes it difficult for them to suckle, resulting in persistent crying and prompting the mother to feed them different foods (Otto, 2015; Thepha et al., 2017).

According to the participants' responses in this study, one of the barriers to EBF is the baby's unexplained crying, which is frequently attributed to the infant's failure to latch and refusal of the breast.

Sub-theme 2.2: Sick babies

The infant becoming ill was another problem mentioned by mothers in this study as posing a difficulty to sustainable EBF practice for six months. Participants vocalized their experiences in this way:

“I was troubled with how the baby was, I actually thought maybe he was sick yet I didn't understand because the doctors discharged us from the hospital with him very well. But now when we get home the issue is the baby is now starting to cry and he doesn't look fine.” (Participant 2)

“At the hospital to breastfeed? She took three days before she was breastfeeding.... Yes, my breasts had milk but the nurses made a mistake, they thought I was HIV positive and I was negative and I do not know how they made that mistake. Because when they discharged me the baby was still admitted.” (Participant 15)

“He did not breastfeed at all after birth; after the baby was born they just took the baby away from me without any explanation. For the whole day we separated without explanation, meanwhile baby was in ICU I only learnt the next day. When I went to see him the nurses in ICU asked me to try to express breast milk but I was struggling at first eventually it came...they were preparing hr formula milk.” (Participant 16)

Research continues to show EBF being interrupted by infants getting sick to a point of hospitalisation, as cited by Amaral (2020). When a baby is sick, he or she loses interest in breastfeeding and may become upset when the mother tries to feed them. As a result, mothers may feel compelled to introduce different foods or fluids in order to keep their children from losing weight or worsening (Otto, 2015).

Mothers who participated in this study concur with the literature because their own experiences show that when a baby becomes ill and is not supported to breastfeed

during the period of illness, the practice of EBF can be disrupted by the introduction of solid foods or the use of formula milk.

Moreover, some participants stated that when the baby is sick they tend to show low tolerance of breast milk to a point where they vomit. Below are examples of some of the mother's responses:

"When I put the breast in him, he would refuse it by not suckling and starts crying a lot and when I gave him the bottle with water, he would spit it out. So my mom was like no ways this child doesn't get full with the breast as he should, so she went to buy a sachet of cerelac and prepare it with some water, she prepared it on a small cup and then we fed the baby two teaspoons of cerelac, he ate very well as though he was old baby and fell asleep after that then he was fine." (Participant 2)

"She vomited at one feed and the second one also immediately she vomited. So my grandmother and her paternal grandmother told me in that case the breast milk was not good for the baby it's going to make him sick, even in future I must never breastfeed." (Participant 16)

According to Sehgal (2018), some early infancy illnesses may show gastrointestinal symptoms such as vomiting causing an infant to be reluctant to breastfeed. Murray & Christie (2000) reported that approximately half of all infants vomit at least once a day from birth to three months, rising to nearly 70% by four months, and this reflux is sometimes related with crying or increased activity.

The findings of this study submit that infants' intolerance of breast milk, even to the point of vomiting, can be a barrier to EBF. When a baby displays signs of poor breast milk acceptance or vomits milk after a feeding, mothers and family members feel a need to give solid meals or drinks to the infant right away before even seeking medical advice to prevent starvation and to calm the baby down.

4.3.3 THEME 3: SUPPORT SYSTEM TO ENHANCE EBF

The participants presented suggestions during the interviews that could help increase the implementation of EBF for six months among mothers. Increased continuing exclusive breastfeeding health education at primary health care facilities and other health institutions, as well as the necessity of providing emotional support to breastfeeding mothers to alleviate maternal stress are among the suggestions made by participants. The following are the sub-themes that support Theme 3.

Sub-theme 3.1: Health education: Spelling out benefits of breastfeeding, facilitation of breast milk expression

Participants recommended that purposeful health education by nurses, particularly during prenatal visits at clinics, with an emphasis on educating pregnant and breastfeeding mothers about EBF practice and its value, could help with implementation of EBF for six months. The following are some of the participants' responses:

"I think if the nurses at the clinic taught us as soon as the baby is born or even better during pregnancy about not giving water or baby foods even formula milk before the baby is six months and to give breast milk only during that period would really be of help and supportive instead of the way I attained this knowledge, later when the baby was born and already drinking water at that time I was even trying to give her formula milk only she refused the bottle." (Participant 7)

"I think by communicating and educating lactating mothers clearly, because some really don't know." (Participant 6)

"As we come to clinic you can ask all breastfeeding mothers separately and address them specifically for like 5-10 min about EBF for six months and the importance thereof and ensure that they are fully informed." (Participant 11)

"Maybe publicly at the clinic especially to pregnant women and mothers with young babies." (Participant 15)

“Maybe publicly at the clinic, sit them down all the mothers and explain the importance of EBF for six months. Call them aside and address them separately especially the young mothers.” (Participant 16)

Some of the mothers who took part in the study went on to say that being equipped through health education, particularly with knowledge of how to express breast milk and maternal dietary intake to increase breastmilk production, can help increase EBF practice and keep it going for the recommended period. The following is one of the participants' responses:

“Maybe if I was told to express some of my breast milk in the bottle and then he would drink from it.” (Participant 13)

Motee & Jeewon (2014) state that, although expressing breast milk has its disadvantages in comparison to the baby drinking directly on the breast, it is however beneficiary because when mothers are unable to breastfeed they can express their milk because it is the only opportunity for the infant to consume human milk.

“It would have been helpful if I was taught early enough to be aware on kinds of food that helps with milk production, because I discovered late that when I drink tea and soft porridge I produce more milk than when I eat other foods.” (Participant 8)

It is critical that expectant mothers and lactating mothers obtain regular infant feeding guidance from the health care system (Otto, 2015). In agreement with those studies, Thepha et al. (2017) record that many studies showed that knowing about the benefits of breast milk can improve a mother's desire to breastfeed and extend the length of time she breastfeeds.

The findings of this research are in line with previous research in that they suggest that empowering and supporting mothers through clear and specific health education on the practice of EBF, the duration of EBF, and the benefits of EBF can improve implementation among mothers. Additionally, health education on maternal dietary intake and breast milk expression can help mothers overcome some breastfeeding challenges that are barriers to EBF.

Sub-theme 3.2: Reduction of stress for the mother

Participants expressed that having a loved one's support and belonging to a supportive group of people can assist them overcome barriers to EBF. Participants' responses suggested that carrying the burden of breastfeeding challenges alone causes mothers to easily terminate EBF practice, and therefore reducing maternal stress can improve EBF practice. The following are some samples of mothers' responses:

"I wish the father of my baby would have stood by my side and followed it up because he is the one who sent me to his family when the baby vomited my breast milk and they immediately instructed me to stop breast milk." (Participant 16)

"Seeing other people who can sustain EBF six months then I can see that I also can.....Close people around me would be more supportive." (Participant 1)

According to Thepha et al. (2017) not only has support from family members been shown to have a positive impact on EBF but also have supportive health care services, such as a monthly post-natal check, home visit follow ups, nursing support, breastfeeding guidelines and education programmes, breastfeeding promotion programmes, and good access to health care in the prenatal and postnatal periods, - all been reported as facilitators of EBF. Moreover, findings from the study by Ganu (2015) revealed a strong relationship between a support system, motivation and breastfeeding. Lactating mothers who have excellent support structures are more inclined to practise EBF.

The findings of this study support that when breastfeeding mothers are provided with emotional support within their families and in their social surroundings; they are better able to cope with stress when faced with breastfeeding issues that are barriers to EBF. Therefore, elimination of maternal stress through advocacy and emotional support can help to improve EBF practice.

Sub-theme 3.3: Cost effective: Mothers saved from buying milk formulas and other solids

When it comes to introduction of other foods or fluids, a concern mentioned by mothers in this study was the cost of the infant's feeding supplies. When it came to deciding

whether to stop breastfeeding, mothers said the cost of alternate foods to breastmilk was their main concern. Some of the participants' expressions are shown here:

“They taught us that breastfeeding is best in the first six months you just give breast milk, especially us unemployed mothers because with me in my first pregnancy the father left me and there was no way I could even afford formula milk.” (Participant 11)

“it was not easy for me to wean him because I wondered what else would my baby eat because I can't even afford formula milk.” (Participant 12)

In their research, Mgongo et al. (2019) recorded that EBF practise, according to mothers, helps them save money because they do not need to buy formula or cows' milk for the first six months. Furthermore, because the child does not become sick very often because of practising EBF, they do not need to seek medical treatment as frequently.

Findings of this research indicate that realizing the financial burden that comes with early introduction of solid foods and other fluids can be difficult and nearly impossible to maintain, especially for unemployed mothers. As a result, because breast milk is free and readily available, its economic effectiveness in comparison to the expenses of breast milk substitutes can encourage mothers to implement EBF.

Sub-theme 3.4: Encourage mother to be patient and persistent to breastfeed

Participants stated that when it comes to breastfeeding, patience and perseverance against all difficulties could help overcome exclusive breastfeeding barriers. These mothers went on to say that, equipping breastfeeding mothers to develop endurance could help them be more committed to EBF. Furthermore, interviewees indicated that if a mother were willing to persevere through breastfeeding issues for the sake of the infant, she would be encouraged to follow EBF for the recommended length of time. Some mothers' responses are shown below:

“If maybe, I built patience and endured longer that could have helped me with EBF.” (Participant 10)

“...advise the mothers to be persistent and keep trying, even if they struggle at first with breastfeeding only, they must not just decide to stop for the sake of their baby.”
(Participant 4)

“Many times I would build my courage and tell myself I should not give in to the temptation to start baby foods earlier than six months because they taught us at the clinic it’s good for the baby and so I held it up.” (Participant 11)

The results in the study by Thepha, Marais, Bell & Muangpin (2017) suggested that mothers with a high self-efficacy score tended to continue with EBF for longer than mothers with a low score, showing that breastfeeding mothers who believe in their own capabilities are more likely to be successful with exclusive breastfeeding.

Responses of mothers from this study also affirm that if lactating mothers are empowered to cultivate self-ability to overcome breastfeeding challenges that act as barriers to EBF and exercising their ability to be patient and persevering during such times can greatly enhance them to sustain EBF for six months.

4.3.4 THEME 4: COMPLICATIONS CREATED BY BARRIERS TO EBF

Some participants who experienced breastfeeding challenges that inhibited them from sustaining EBF for six months expressed concerns that failing to do EBF for the necessary duration has brought them more complications including that their infants were deprived of the protective benefits of breast milk. The sub-themes that support theme 3 are listed below:

Sub-theme 4.1: Failure of the baby to bond with mother

Some participants expressed their disappointment for not breastfeeding their babies from birth due to ill health, which resulted in failure to bond with the baby. Whereas, some mothers described the quality time they spent with their babies through the process of breastfeeding. One of the participants vocalized this experience in the following manner:

“I enjoyed how we would bond nicely.” (Participant 11)

The experience of breastfeeding is a unique bond that only a mother and her infant(s) may have. Breastfed babies not only get the best nutrition, but they also get the best nurturing from their mothers because of the intimate physical touch between mother and child. When breastfeeding goes smoothly and uninterrupted, the well-being of the mother and infant is often high (Lau, 2018).

However, premature introduction of solid foods may reduce the time the infant spends on the breast and thus minimize the benefits of the special bonding between mother and the baby.

Sub-theme 4.2: Denying baby the benefits of breast milk

Some mothers in this research who considered that the barriers to EBF they experienced were beyond their control, and had cheated themselves out of their will to EBF for the required length of time, expressed a regret that they would have made better choices regarding EBF if things had been different. Some of the mothers' responses are listed below:

“It was a traditional thing for me, had it not been for my grandmother’s inputs and advice I would have continued to BF unto 18 months at least and just give breast milk for six months.” (Participant 5)

“I looked forward to seeing my baby grow and develop healthily because breastfeeding babies grow healthy and weight is always good.” (Participant 14)

Furthermore, some participants acknowledged that a consequence of the early introduction of complementary foods was that their babies were susceptible to various health issues that breastfeeding-only babies are not exposed to. The following responses are some of examples of health issues noted by participants:

“...but also I was aware that for his age I must start giving water so that he doesn't get constipation also the sisters had told me that I shouldn't give water before end of six months' age of the baby but because I had given my baby other foods, then I decided I'm going give him some water.” (Participants 2)

“What I loved most was that he was developing well and weight gaining was also good, but when he stopped breastfeeding he got sick for 2 weeks, when I stopped breastfeeding.” (Participant 8)

Over the year’s breast, milk has proven to give, among many benefits, the best nutrition, immunological protection, and growth, development, and metabolism regulation for infants. Breast milk shown to be helpful for addressing immune function problems in infants by decreasing gut porosity. As a result, breastfeeding saves and improves the quality of lives for infants of all social and economic backgrounds (Dietrich et al., 2015). Furthermore, in the long run EBF has been related to a lower incidence of obesity and cognitive impairment in children and adolescents (Adda et al., 2020). According to Adda et al. (2020), early introduction of solid foods and fluids to children has been linked to an increased risk of illnesses and undernutrition in Ghanaian children as proven by previous studies.

The findings of this study indicate that barriers to EBF cause other complications for both the mother and the baby, such as a failure to bond between mother and infant, and that babies who are not exclusively breastfeeding are more likely to develop health problems like constipation, which are not common in exclusive breastfeeding infants.

4.4 CHAPTER SUMMARY

This chapter investigated and discussed the barriers to exclusive breastfeeding faced by women. The findings highlighted that intensive health education, reduction of maternal stress as well continuous encouragement and support can enhance the rate of EBF for six months among mothers. The researcher outlines the study's limitations in the subsequent chapter and will provide recommendations that can assist overcoming barriers to EBF among mothers.

CHAPTER 5: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The researcher presented the results in the previous chapter and was supported with literature control. This chapter discusses the conclusions drawn from the data analysis arising from the study's findings. This chapter will also include proposals from participants and researchers that can be used as a support system to overcome EBF barriers and strengthen EBF practice among mothers. This section will also go over the research study's limitations.

5.2 THE PURPOSE AND OBJECTIVES OF THE STUDY

The aim of the study was to determine the barriers to exclusive breastfeeding of mothers in the Tswelopele Municipality and exploring the support systems required by mothers in the Tswelopele Municipality to strengthen exclusive breastfeeding practice. This study adhered to the following objectives:

- Describe the experiences of mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality.
- Explore support systems required by mothers to strengthen exclusive breastfeeding in the Tswelopele Municipality.

5.3 THEMES GENERATED FROM INTERVIEWS RELATING TO EXPERIENCES OF MOTHERS REGARDING BARRIERS TO EXCLUSIVE BREASTFEEDING IN THE TSWELOPELE MUNICIPALITY

This study brings awareness of mothers' experiences with EBF barriers in the Tswelopele Municipality of the Free State Province.

5.3.1 THEME 1: MOTHER-RELATED BARRIERS

Through the analyzed data, it was discovered that several of the mothers who took part in this study were having trouble when it came to the practice of EBF, and participants noted that maternal factors are one of the key contributors to the success or failure of EBF practice. This notion was supported by findings from Jama et al.'s (2017) study, which reported that, despite successful breastfeeding initiation at the

hospital after delivery, some mothers report finding breastfeeding to be hard, embarrassing, and insufficient to satisfy the baby's hunger once they come home, thus making them prone to not practise EBF. Participants in this study articulated that they found it difficult to maintain EBF for six months for a variety of reasons, including the majority's perceived notion of low breast milk volume, as evidenced by crying and restless babies; breast pain while breastfeeding, which caused some mothers to lose interest in breastfeeding and feel obliged to start solid foods earlier than recommended; and maternal sickness, while others stated that they were never educated properly on EBF.

A number of participants in this study expressed to have had difficulties with breastfeeding due to painful breasts and nipples when the baby was drinking on the breast, and such participants soon lost interest in breastfeeding and felt compelled to start solid foods and other fluids too soon. However, the demotivation to EBF was not only dependant on breast pain as other participants indicated that certain breastfeeding intervals would tire them physically. Gianni et al. (2019) supported this by stating that approximately 8-10% of breastfeeding mothers start mix feeding due to excruciating pain felt during breastfeeding, which is commonly caused by poor latching and positioning while the infant is feeding, resulting in nipple cracks, mastitis, and engorgement. Moreover, the authors mentioned that research suggests that maternal factors like sleepiness and fatigue can cause breastfeeding difficulties, inhibiting EBF in a disproportionately high number of cases.

Furthermore, respondents in this study stated that they initiated complementary foods too soon because they believed that breast milk solely would not be enough as a baby's sole source of nutrition for six months, and that infants' behaviours such as unexplained crying and increased appetite were taken as indicators that breast milk alone was insufficient to satisfy the baby's hunger, prompting them to introduce other fluids and solid foods too soon. The results of this study were not unusual because, according to Seonandan & McKerrow (2016) and Jama et al. (2020), previous studies have reported a supposed shortage of breast milk to maintain the baby feeding on breast milk only as the most generally reported barrier to EBF. The reasons for this belief include the baby constantly crying and/or the baby keen to breastfeed for longer. On the other hand, some mothers claimed to have been convinced by family members to start solid food too soon, consistent with a study conducted in Ethiopia by Deme et

al. (2015), which found that 32.9% of babies were introduced to additional foods and fluids by the age of three months, primarily by mothers who gave birth at home and mothers who were influenced by family members to mix feed.

Participants also indicated that maternal illnesses compelled mothers to cease breastfeeding earlier than six months in order to protect their babies' well-being and health. Thepha et al. (2017) were also in agreement as they mentioned that physical complications of the mother, such as breast issues, postpartum depression, caesarean section birth, smoking, and drug addiction, have all been documented as barriers to EBF.

Some participating mothers specified that they were uninformed of the practice of EBF and its benefits and that if they had been taught and gained EBF information sooner, they would have been empowered and enabled to practice EBF. However, the study also found that knowledge of EBF and its benefits taught to mothers by health workers does not always convert to application. These findings are similar to those of Mgongo et al.'s (2019) study in Tanzania, which found that the majority of breastfeeding mothers who were not informed by health care providers that breast milk is optimal for the baby's health in the first six months and were not taught that breast milk is the only food a child should have in the first six months were unsuccessful in the practice of EBF, and the reports from the study by Ganu & Kogutu (2015) in Kenya that indicated that although mothers are taught and have knowledge on EBF, it does not equally interpret to application of that knowledge.

One participant expressed that her family's traditional beliefs prevented her from practicing EBF, demonstrating that socio-cultural attitudes play an important role in influencing mothers' infant feeding patterns and may act as a barrier to EBF. In the study conducted by Jama et al. (2017) findings, show that, despite the fact that most breastfeeding women were opposed to the use of traditional medicine or practices, elders in the family recommended them to do so for the protection of their infants and participants from rural regions regularly report the use of traditional medicine or practices. Correspondingly, Apanga (2014) recorded that in West Africa socio-cultural beliefs and practices have been cited as an imperative barrier to EBF as there have been reports that mother's mix-feed their infants due to cultural beliefs and family pressures.

5.3.2 THEME 2: BABY ASSOCIATED BARRIERS

Breastfeeding success or failure was shown to be influenced by infant-related factors, according to the participants. Some participants in this study were determined to breastfeed their babies and maintain EBF for six months, but they stated that their infants had problems that prohibited them from doing so. These issues may primarily include infants who refuse to breastfeed and breast milk not being tolerated by some infants, as seen by the baby vomiting after feeds.

One of the challenges to EBF, according to the participants in this study, is the baby's unexplained crying, which is commonly linked to two factors, the infant's difficulty to latch and refusal of the breast. These participants expressed that initially their infants started feeding well on their breast, but eventually they realised that the baby does not want to latch on their breasts anymore and they felt an urgent need to find replacement feeds. Meanwhile, some participants expressed that their babies displayed inability to grip the nipple and latch, which could lead to breast refusal. Additionally, some participating mothers continued to tell that the uncontrollable crying of the baby even after breastfeeding prompted them and some of their family members to administer additional fluids and solid foods.

These results identify with a Brazilian study by Amaral (2020) describing unexplainable refusal of breast milk as a barrier to EBF, which compels the mother to introduce solid foods or other fluids even when they had initially intended to EBF for six months. Moreover, some infants may have weak jaws, which makes it difficult for them to suckle, resulting in persistent crying and prompting the mother to feed them different foods. (Otto, 2015, Thepha et al., 2017).

According to Sehgal (2018), some early infancy illnesses may show gastrointestinal symptoms such as vomiting causing an infant to be reluctant to breastfeed. Murray & Christie (2000) reported that approximately half of all infants vomit at least once a day from birth to three months, rising to nearly 70% by four months, and this reflux is sometimes related to crying or increased activity.

The findings of this study submit that infants' intolerance of breast milk, even to the point of vomiting, can be a barrier to EBF. When a baby displays signs of poor breast milk intake when drinking or vomits milk after feeding, mothers and family members

feel a need to give solid meals or drinks to the infant right away, rather than seeking medical guidance, in order to avoid hunger and calm the baby down.

5.3.3 THEME 3: SUPPORT SYSTEM TO ENHANCE EXCLUSIVE BREASTFEEDING

Participants suggested that clinics and hospitals could provide consistent and extensive EBF health education, as well as providing emotional support to breastfeeding mothers to decrease maternal stress, as ways to enhance the practice of EBF. Participants recommended that purposeful health education by nurses, particularly during prenatal visits at clinics, with an emphasis on educating pregnant and breastfeeding mothers about EBF practice and its value, could help with implementation of EBF for six months. It is critical that expectant mothers and lactating mothers obtain regular infant feeding guidance from the health care system (Otto, 2015). In agreement with those studies, Thepha et al. (2017) recorded that many studies have shown that knowing about the benefits of breast milk can improve a mother's desire to breastfeed and extend the length of time she breastfeeds.

Some of the respondents went on to say that being equipped through health education, including knowledge of how to express breast milk and maternal nutritional intake to increase breastmilk production, can help increase EBF practice and keep it going for the appropriate duration of time. Likewise, Motee & Jeewon (2014) stated that although expressing breast milk has its disadvantages in comparison to the baby drinking directly on the breast, it is however beneficiary because when mothers are unable to breastfeed they can express their milk because it is the only opportunity for the infant to consume human milk.

Participants suggested also that mothers' understanding and knowledge of the health benefits of breast milk for their babies could greatly assist them in practicing EBF. Reports by Desai et al. (2014) stated that their research in Zimbabwe revealed that the majority of mothers (84%) specified that EBF for the first six months is beneficial for infants because it reduces risk of sickness and provides enough energy for growth and that knowledge of mothers on EBF benefits was significantly associated with EBF practice.

In addition, some participants voiced that having a loved one's support and belonging to a supportive group of people can assist them overcome barriers to EBF. These participants also indicated that carrying the burden of breastfeeding challenges alone causes mothers to easily terminate EBF practice, hence reducing maternal stress can improve EBF practice. According to Thepha et al. (2017) not only has support from family members been shown to have a positive impact on EBF but also supportive health care services, such as a six-month post-natal check, home visit follow ups, nursing support, breastfeeding guidelines and education programmes, breastfeeding promotion programmes, and good access to healthcare in the prenatal and postnatal periods, have all been reported as facilitators of EBF. Moreover, findings from the study by Ganu (2015) revealed a strong relationship between support system, motivation and breastfeeding. Lactating mothers who have excellent support structures are more likely to exclusively breastfeed their infants.

Findings of this research indicate that realising the financial burden that comes with early introduction of solid foods and other fluids can be difficult and nearly impossible to maintain, especially for unemployed mothers. As a result, because breast milk is free and readily available, its economic effectiveness in comparison to the expenses of breast milk substitutes can encourage unemployed mothers to implement EBF. In their research, Mgongo et al. (2019) recorded that EBF practice, according to mothers in Tanzania, helps them save money because they do not need to buy formula or cows' milk for the first six months. Furthermore, because the child does not become sick very often because of practising EBF, they do not need to seek medical treatment as frequently.

5.3.4 THEME 4: COMPLICATIONS CREATED BY BARRIERS TO EBF

Some participating mothers in this study who believed that the challenges to EBF they faced were beyond their control and that they had robbed themselves of their desire to EBF for the needed duration of time, expressed regret that they would have made better decisions if circumstances had been different. Furthermore, these participants acknowledged that their babies were defenceless against various health problems owing to the early introduction of complementary foods that breastfeeding-only babies are not exposed to. According to Adda et al. (2020), previous studies in Ghana have shown a relationship between early introduction of solid foods and fluid with the

potential risk for increased morbidity and under-nutrition among children. The authors continue to state that EBF has been linked to a lower risk of obesity and cognitive impairment during childhood and adolescence in the end.

5.4 LIMITATIONS OF THE STUDY

- The study was limited to only three selected clinics in the Tswelopele Municipality, hence results cannot be generalised.

5.5 RECOMMENDATIONS

The outcomes of this research study give an insight into the experiences of mothers in the Tswelopele Municipality about barriers to exclusive breastfeeding. It is therefore recommended that the Lejweleputswa district and Free State department of health, managers of the concerned health facilities, and relevant authorities and stakeholders take these recommendations into account in order to assist mothers in overcoming breastfeeding challenges and strengthening the culture and practice of EBF in this municipality.

At every clinic visit, health providers, including nurses, dietitians, and community health workers, should set a standard of frequent EBF education and counselling on all possible occasions. Breastfeeding education and counselling should be available to mothers and their families from the prenatal to the postnatal period so that they have enough time to make informed infant feeding decisions. Health professionals can also advise parents about the importance of exclusive breastfeeding as well as the costs and risks of not doing so. Furthermore, an open and honest discussion with women and their families about what to expect when they first start breastfeeding, as well as the exploration of myths, inaccurate information and concerns, can be addressed during the counselling sessions.

Health professionals should also take into account the culture of mothers, respect cultural customs linked with breastfeeding, and respectfully educate them and their families about traditions that may affect breast-feeding. Family involvement is critical because a supportive partner, family member, or friend is critical to breastfeeding success. According to the findings of this study, a mother is more likely to feel confident and empowered in her decision to breastfeed if she feels supported. As a result, providing consistent and ongoing health education on breastfeeding to family

members (grandparents, elders, partners, and siblings) and friends will open an opportunity for other family members who have breastfed to talk about their personal experiences, as well as create a breastfeeding-friendly environment for breastfeeding mothers.

Breast assessment, breastfeeding assessment, and review and modification of the mother's nutritional intake can all be done at postnatal clinic visits and home assistance postnatal visits. This will help to identify breast problems such as engorgement, nipple cracks, and inappropriate attachment and position in a timely manner, and mothers will be assisted to overcome or avoid potential breastfeeding challenges.

5.6 RECOMMENDATIONS FROM PARTICIPANTS

- Health workers can provide clear and specific health education on the practice of EBF, the duration of EBF, and the benefits of EBF.
- Breastfeeding and pregnant women undergo health education, with a focus on how to express breast milk and how to enhance breast milk production through dietary changes.
- Elimination of maternal stress through advocacy and emotional support within family structures.
- Health education can include putting an emphasis on the financial burden that comes with early introduction of solid foods and other fluids can be difficult and practically impossible to maintain, particularly for unemployed women.
- Health workers can empower breastfeeding mothers through health education to develop self-capacity to overcome breastfeeding difficulties that act as barriers to EBF, as well as to exercise their ability to be patient and perseverant during these times.

5.7 RECOMMENDATIONS FROM THE RESEARCHER

The study's research recommendations can be put into practice in the Department of Health among policy makers, health facilities (clinics and hospitals) and for further research.

5.7.1 RECOMMENDATIONS FOR HEALTH FACILITIES

Health education and counselling include the following:

- EBF and advantages of EBF
- Expressing breast milk, storage and administration of expressed milk
- Correct attachment and positioning (breastfeeding assessment)
- Overcoming breast challenges
- Maternal health and wellbeing
- Cultural practices should be incorporated into breastfeeding education discussions
- Household social welfare.

5.7.2 RECOMMENDATIONS FOR DEPARTMENT OF HEALTH FOR POLICY DEVELOPMENT AND MANAGEMENT

- Administration and implementation of existing policies such as Infant and Young Children Feeding Policy (IYCFP), Integrated Management of Childhood Illness (IMCI) and Hospital Mother Baby Friendly Hospital Initiative (MBFHI). Monitoring and evaluation in facilities to ensure that these legislatures and standard operating procedures are supported and in place.
- Awareness programmers should be put in place for the communities for promotion and protection of exclusive breastfeeding, and include families, partners and peers. These programs can also include campaigns, dialogues, radio slots, support groups, home visits and breastfeeding support events.

- Involve stakeholders such as traditional leaders, religious leaders and elderly members of the community.
- Structured training and empowerment to health professionals related to breastfeeding attitudes, knowledge and skills, breastfeeding issues and on how to overcome them. Monitoring and evaluation strategies should put in place following these trainings.

5.7.3 RECOMMENDATIONS FOR FURTHER RESEARCH

- The outcomes of this study can be utilised to guide future research into both mothers' and health professionals' experiences regarding exclusive breastfeeding in Tswelopele Municipality and Lejweleputswa district.

5.8 CHAPTER SUMMARY

The researcher's judgement is that the objectives identified at the beginning of this chapter were achieved. The experiences of research participants that were broadly categorised into four themes were used to explain the experiences of mothers regarding barriers to exclusive breastfeeding and explore support systems that can be put in place to support these mothers. This study has meaning for health workers including nurses, dietitians, community health care workers and the Free State Department of Health at large concerning the experiences of mothers in rural areas regarding barriers to exclusive breastfeeding. The results of the study will assist in the recognition of the challenges, gaps and strengths discovered by the findings, which will ultimately inspire new strategies. The findings of this study identified that the majority of participants were faced with various challenges that they could not overcome and those challenges presented barriers to exclusive breastfeeding. Barriers to exclusive breastfeeding identified in this study can be divided into two categories: mother-related barriers and baby-associated barriers. Moreover, the findings of this study reveal that vigorous breastfeeding health education for pregnant women and their families, as well as family support or support from a loved one for breastfeeding mothers, can be an excellent support system for strengthening EBF practice. Furthermore, the findings of this study indicated difficulties caused by barriers

to EBF, such as the mother's failure to bond with her baby and new-borns being denied the benefits of breast milk.

5.9 REFERENCES

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ANNEXURE A: UNIVERSITY OF FORT HARE ETHICAL CLEARANCE



University of Fort Hare
Together in Excellence

HEALTH RESEARCH ETHICS COMMITTEE

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ETHICAL CLEARANCE CERTIFICATE REC-100118-054

Certificate Reference Number: **Ref #2021=06=12=QuebuS**
Project title: Barriers to exclusive breastfeeding in the Tswelopele municipality: qualitative findings from unemployed mothers
Nature of Project: Masters of Public Health
Principal Researcher: Quebu S
Student Number: 202015436
Supervisor: Dr D Murray

On behalf of the University of Fort Hare Health Research Ethics Committee (HREC), I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instruments(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the HREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the HREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

The HREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
 - Any unethical principles or practices are revealed or suspected
 - relevant information has been withheld or misrepresented
 - regulatory changes of whatsoever nature so require
 - the conditions contained in the Certificate have not been adhered to
- Request access to any information or data at any time during the course or after completion of the project.



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Together in Excellence

HEALTH RESEARCH ETHICS COMMITTEE

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- In addition to the need to comply with the highest level of ethical conduct principal investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to HREC_monitoring@ufh.ac.za.

The Ethics Committee wishes you well in your research endeavours.

Yours sincerely

Professor DT Goon
Chairperson: HREC
24th June 2021

ANNEXURE B: ETHICAL CLEARANCE FROM FREE STATE DOH



health

Department of
Health
FREE STATE PROVINCE

03 September 2021

Ms Quebu
Masters of Public Health
UFH

Dear Ms Quebu

Subject: Barriers to exclusive breastfeeding in the Tswelopele municipality: qualitative findings form unemployed mothers.

- Please ensure that you read the whole document, Permission is hereby granted for the above – mentioned research on the following conditions:
- Participation in the study must be voluntary and a written consent by each participant must be obtained.
- Serious adverse events to be reported to the Free State department of health and/ or termination of the study
- Ascertain that your data collection exercise neither interferes with the day to day running of **Hoopstad Clinic, Phahameng (Bultfontein) & Mohau Hospital** nor the performance of duties by the respondents or health care workers.
- The DOH expects that the researcher will be the responsible data manager according to the POPI act . The responsibility thus lies with the researcher to ensure that the processing of all participant's personal information and research data is lawful according to the stipulations of the POPI Act (Protection of Personal Information Act 4 of 2013).
- Confidentiality of information will be ensured and please do not obtain information regarding the identity of the participants.
- Department of Health to be fully indemnified from any contravention of the POPIA Act as you conduct this study.
- **Research results and a complete report should be made available to the Free State Department of Health on completion of the study (a hard copy plus a soft copy).**
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Any amendments, extension or other modifications to the protocol or investigators must be submitted to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- **Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Clearance Certificate should be submitted to sebeelats@fshealth.gov.za/g.wantshuws@fshealth.gov.za before you commence with the study**
- No financial liability will be placed on the Free State Department of Health
- **Please discuss your study with Institution Manager on commencement for logistical arrangements see 2nd page for contact details.**
- Department of Health to be fully indemnified from any harm that participants and staff experiences in the study
- **As part of feedback you will be required to present your study findings/results at the Free State Provincial health research day**

Trust you find the above in order.

Kind Regards

Mr. MNG Mahlatsi
ACTING HEAD: HEALTH

Date: 8/09/2021

Head: Health
PO Box 227, Bloemfontein, 9300
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ANNEXURE C: LETTER OF CONFIRMATION FROM AN INDEPENDENT CODER.

TO: Masters Student: SIMTHANDILE REBECCA

From: AN Mbatha

Address: No: 65 Mc Pherson Street

Ginsberg, King William's Town

5601

Cell: 0837491478/ 076 991 3637.

E-mail Address: adeliciambatha@gmail.com

CERTIFICATE OF CO-CODED WORK: FOR MASTERS STUDENT: Simthandile Rebecca

This is to certify that I co-coded the work that was sent to me by the student's supervisor

I wish to indicate that I have expertise in doing this kind of work

I have done it to several students' Masters Studies due to my background knowledge of the different designs within qualitative research approach.

I have done this work for several Masters Students, especially from the University of Fort Hare Nursing Science Department and I have always done it satisfactorily and successfully.

When I do it I always consider the following:

- The title of the study
- Problem statement
- The set objectives
- The questions asked
- The design and methods employed in data collection and analysis

For this particular student I allowed the supervisor to compare my coded work with that of the student to ascertain if I have done it within the context of items relevant to the study as outlined above.. I did so after I completed my analysis to ensure maintenance of my independent analysis. The purpose of such comparison was just

to check if we analysed data within the same contexts of the above bulleted identified items.

- Comments are often given to Student and supervisors.

INDEPENDENT CO-CODER: AN Mbatha (Mrs)

Highest Qualification: Masters in Nursing Education (UKZN)

As an Independent co-coder I am also a Doctoral candidate at the UNISA and am due to submit my thesis at the end of this year.

Signature: *AN Mbatha* Date: *03/11/21*

ANNEXURE D: APPROVAL LETTER FROM LEJWELEPUTSWA DISTRICT.



University of Fort Hare
Together in Excellence

District Director
Department of health
Kopano Complex
Corner Meulen street and Long Road
Welkom
9459
08 September 2021

Request for Permission to Conduct Research

To whom it may concern.

My name is Quebu Simthandile Rebecca, I am Master's student in Public Health at the University of Fort Hare. I would like to request permission to conduct my interviews towards my master's mini-dissertation study at the three primary health care facilities in Tswelopele sub-district namely, Hoopstad clinic, S.A Maleo and Phahameng clinic.

The purpose of the study is to assess the barriers to exclusive breastfeeding of unemployed mothers in the Tswelopele Municipality

I hereby include a copy of my proposal as well as a copy of the approval letter which I received from the University of Fort Hare Research Ethics Committee (UREC) and from Free State Health Research Committee (FSHRC). All ethical principles will be adhered to throughout the interviews.

For any further information, please do not hesitate to contact me

contact number: 071 940 2464/ 082 046 7187, email address: simthandiler@gmail.com

Thank you for your time and consideration in this matter.

Yours sincerely,

Quebu S.R

I, Mr. DM Nkala hereby approve / disapprove the above mentioned request.

Signature Bela

District Director, DM Nkala

Date 27/09/2021

ANNEXURE E: APPROVAL LETTER TO CONDUCT RESEARCH AT THE HOSPITAL.



University of Fort Hare
Together in Excellence

Chief Executive Officer
Mohau District Hospital
Prince George Rd
Hoopstad
9479
14 September 2021

Request for Permission to Conduct Research

To whom it may concern.

My name is Quebu Simthandile Rebecca; I am Master's student in Public Health at the University of Fort Hare. I would like to request permission to conduct my interviews towards my master's mini-dissertation study at Mohau District Hospital.

The purpose of the study is to assess the barriers to exclusive breastfeeding of unemployed mothers in the Tswelopele Municipality

I hereby include a copy of my proposal as well as a copy of the approval letter which I received from the University of Fort Hare Research Ethics Committee (UREC) and from Free State Health Research Committee (FSHRC). All ethical principles will be adhered to throughout the interviews.


For any further information, please do not hesitate to contact me

contact number : 071 940 2464/082 046 7187 , email address : simthandiler@gmail.com

Thank you for your time and consideration in this matter.

Yours sincerely,
Quebu S.R

I...Mr TS Shale hereby approve / disapprove the above mentioned request.

Signature..... 14/09/2021

Mr TS Shale
CEO, Mohau/Nala District Hospital,

ANNEXURE F: INTERVIEW GUIDE



University of Fort Hare
Together in Excellence

RESEARCH INTERVIEW GUIDE/SCHEDULE

TITLE OF THE RESEARCH STUDY: *Barriers to exclusive breastfeeding in the Tswelopele municipality: Qualitative findings from unemployed mothers.*

OBJECTIVES OF THE STUDY ARE

- *Describe the experiences of unemployed mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality,*
- *To identify support systems required by unemployed mothers to strengthen exclusive breast feeding in the Tswelopele Municipality*

SECTION A: DEMOGRAPHIC DATA

Name of the institution	
Participants No	
Ethnicity	
Age	
Marital status	
Educational Qualification	None Primary school Matric Higher learning
Place of delivery	Health facility Home birth

Mode of Delivery	Vaginal C/S
Breastfeeding initiation time post delivery	Immediately after delivery Within 1-hour post delivery Beyond 1 hour post delivery
How old is your baby?	
What is the baby currently eating(list)?	
Up to what age was the baby feeding on breastmilk only?	

SECTION B

1. How would you describe your experiences as an unemployed mother regarding barriers to exclusive breast feeding?

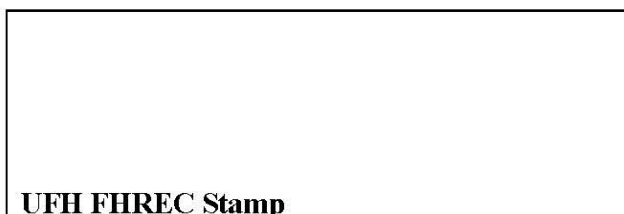
Probing Questions

- What have you heard about exclusive breastfeeding?
 - Where did you learn?
 - What was your experience of feeding baby with breast milk only like?
 - What was the best thing about exclusive breastfeeding?
 - What was the most challenging?
 - How much do these challenges affect you and the baby?
 - Why did you initiate complimentary/other foods and drinks in addition to breastmilk during the first 6 months postpartum?
 - What could have helped/encouraged you to feed your baby breast milk only up to 6 months of age?
2. What support systems would you require as an unemployed mother to strengthen exclusive breast feeding ?

ANNEXURE G: CONSENT FORM



University of Fort Hare
Together in Excellence



UFH FHREC Stamp

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: *Barriers to exclusive breastfeeding in the Tswelopele municipality: Qualitative findings from unemployed mothers.*

PRINCIPAL INVESTIGATOR: *Simthandile Rebecca Quebu*

ADDRESS: *Prince George rd,
Mohau District Hospital
Hoopstad
9479*

CONTACT NUMBER: 071 940 2464

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you did agree to take part.

This study has been approved by the **University of Fort Hare Faculty of Health Sciences Research Ethics Committee (UFH HREC) (Ref No: #2021=06=12=QuebuS)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records.

Who will have access to the data?

- *Data will be collected by means on interviews and the proceedings of the interview will be recorded, data collected will be stored for maximum of 5 years and will be made available and accessible the research supervisor for the purpose of conducting an audit trail.*
- *Identity of participants including names and ID number will not be revealed in the data collection, data analysis and reporting of the study findings to ensure confidentiality and privacy of participants. The recorded proceeding of the interview will be reviewed in a lockable and safe boardroom or environment, where only the researcher will be reviewing/listening.*

What will happen with the data/samples?

- *This is a once off collection of data, it will be analysed and communicated to FS and Lejweleputswa district department of Health and UFH through reports and articles will be published in peer-reviewed journals.*
- *Once all the audio recorded are coded and transcribed and the data has been fully analysed all the raw material will be destroyed.*

Will I be paid to take part in this study and are there any costs involved?

- *No. You will not be paid to take part in the study. There will thus be no costs involved for you, if you do take part.*

Who can you contact for additional information regarding the study?

The primary investigator *Quebu Simthandile* can be contacted during office hours at (053 444 1912), or on his cellular phone at (071 940 2464). Should you have any questions regarding the ethical aspects of the study, you can contact the Acting Chairperson of the UFH HREC, Prof Leon van Niekerk, during office hours at leonvn@ufh.ac.za or tel. no: +27 (0) 40 602 2435.

How will you know about the findings?

- *The findings of the research will be shared with the Lejweleputswa department of health through a report.*

What is this research study all about?

This study will be conducted at Mohau District in Hoopstad, Phahameng Clinic and DA Maleho Clinic. Eligible mothers will be interviewed to explore their experiences regarding barriers to exclusive breastfeeding.

- *The objectives of this research are:*
 - *Describe the experiences of unemployed mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality,*
 - *To identify support systems required by unemployed mothers to strengthen exclusive breast feeding in the Tswelopele Municipality.*

Why have you been invited to participate?

- *The researcher seeks to gather data from eligible mothers by means of interviews.*
- *You have also complied with the following inclusion criteria: Unemployed mothers who are 18-40 years' old*
- *6-12 month old infants who are accessing infant child health services in one of Tswelopele public healthcare facilities.*
- *You will be excluded if: you are a mother with sick infants will be excluded.*

What will your responsibilities be?

- *Be available for interview and answer questions openly and extensively according to my experiences .*

Will you benefit from taking part in this research?

<i>Direct benefits for participants</i>	<i>Indirect benefits for society at large or for the researchers/institution</i>
<ul style="list-style-type: none"> • <i>When healthcare professionals support breastfeeding mothers, mothers will be empowered and motivated mothers to continue exclusively breastfeeding and to be aware of any breastfeeding problems, attempt to prevention them and the treatment of such if they do occur.</i> • <i>Identifying unemployed mothers' breastfeeding experiences and overcoming barriers can afford economic and social benefits to the families, as breast milk is free and readily available, and saves infants' lives by reducing sickness and malnutrition rates.</i> 	<ul style="list-style-type: none"> • <i>The results of this study can assist in the Lejweleputswa District DOH to facilitate decisions necessary to design interventions towards identifying support strategies to overcome these barriers, and development of policy and tailored intervention approaches for the promotion of exclusive breastfeeding practices that can be implemented in the primary health care facilities.</i> • <i>The results of the study can also generate information which could contribute to new knowledge.</i>

Are there risks involved in your taking part in this research?

- *There are no risks in this study.*
- *The benefits outweigh the risk.*

Declaration by participant

By signing below, I agree to take part in a research study titled: *(Barriers to exclusive breastfeeding in the Tswelopele municipality: Qualitative findings from unemployed mothers.)*

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher and all my questions have been adequately answered.
- I understand that I will not be taking part in this study other than availing myself as a participant for an interview as approved by the facility manager and Lejweleputswa district health department manager and I have not been pressurised to do so.

Signed at (*place*) on (*date*) 20....

Do you agree to voluntarily participate in this research study? (Mark your answer with an X)

Yes, I consent	<input type="checkbox"/>
No	<input type="checkbox"/>

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (*name*)Quebu Simthandile Rebecca.....
..... declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ANNEXURE H: PARTICIPANT INTERVIEW DISCUSSION

BARRIERS TO EXCLUSIVE BREASTFEEDING IN THE TSWELOPELE MUNICIPALITY: QUALITATIVE FINDINGS FROM UNEMPLOYED MOTHERS

Objectives

- Describe the experiences of unemployed mothers regarding barriers to exclusive breastfeeding in the Tswelopele Municipality,
- To explore support systems required by unemployed mothers to strengthen exclusive breast feeding in the Tswelopele Municipality,

Participant 9

Interviewer: Thank you for taking your time to participate in this research, please take your time in answering and in the conversation you are welcome to speak all your mind, you can also ask for clarity and raise questions if you have.

Interviewer: For the purpose of this research what race you identify as

Participant: I am black sotho person

Interviewer: So how old are you, ma'am?

Participant: I'm 38 years old.

Interviewer: Are you married?

Participant: Yes, I am married at home affairs

Interviewer: And who do you stay with at home?

Participant: With the husband and kids

Interviewer: Okay, what level of education do you hold?

Participant: I was at school up until standard 3.

Interviewer: Okay that would be grade 5 in this age. So where was your baby born? At the clinic, hospital or home?

Participant: He was born in hoopstad, at the hospital.

Interviewer: You did not encounter any delivery problems? Was the delivery natural?

Participant: it was normal birth.

Interviewer: If you can recall how long on estimation did you take to start feeding baby on breast after delivery? Was it within an hour or more

Participant: It did not even take an hour because after delivery they took baby for injection and gave me a new room, when they soon brought him to me the nurse told me to start breastfeeding.

Interviewer: Oh okay then, and how old is your baby now?

Participant: he's 1-year-old, he turned 1 yesterday.

Interviewer: So presently, what is she feeding on now? You can list all

Participant: At present time I'm giving him pap and milk, and anything such as bread, rice, milk

Interviewer: Is the baby drinking breast or formula milk?

Participant: I weaned her from breast milk and she was not on any formula milk I was taught by nurse to never mix formula and breast milk. and the nurse told me she won't be getting anymore medication from 12 months so I also stopped breastfeeding

Interviewer: how long did you breastfeed your baby?

Participant: She was breastfeeding for 12 months, but with other foods. What I never gave was formula milk

Interviewer: But how long in that 6 months were you just giving breastmilk only and other foods and drinks including water, or let me put it this way, what was the first food and/or drink you ever gave your baby in addition to breastmilk?

Participant: it was mash potatoes and soft pap.

Interviewer: And at what age of the baby did you give that

Participant: She was 4 months' old

Interviewer: Prior to 4 months you never gave any other drinks or other foods?

Participant: No, only breast milk.

Interviewer: Did you ever know or learn about a certain period where by a lactating mother should only give breast milk to the baby, no other drinks including water and no other foods, period of exclusive breastfeeding?

Participant: Yes, it's something I knew of

Interviewer: And where did you hear or learn about it?

Participant: I heard at the hospital when I was going to deliver, they said I must give breast milk only for 6 months and to never give other foods or drinks including water and formula milk before then because I am on treatment.

Interviewer: How did they explain it?

Participant: At the hospital when I went for birth they said I should give only breast milk for 6 months and not give anything else but when I wanted to wean him at 6 months the nurse told me at the clinic that I can continue to breastfeed until the baby is 12 months

Interviewer: If I understand you correctly, you said the first additional food or during to ever give your baby with breast milk was mashed potatoes with pap and that was

only when she was 4 months old right? In that first 4 months when you were EBF, how was your breastfeeding experience?

Participant: It was an easy thing for me to do it was not troublesome.

Interviewer: What was your best thing or moment with exclusive breastfeeding in that first 4 months of his life?

Participant: it was seeing my baby feed well on my breast.

Interviewer: What was your biggest motivation then to give her the mashed potatoes and pap?

Participant: Because I thought she was not getting satisfied and full with just breast milk.

Interviewer: And how did you come to that conclusion that she was not getting full from just drinking milk?

Participant: she would moan time and again, crying out of the blue and he would even push the breast away as though the breast was empty and start crying.

Interviewer: okay, so that indicated to you that she was not being satisfied by breast milk? Was that your greatest challenge towards practising EBF 6 months?

Participant: Yes, I couldn't bear seeing my child restless and crying when I gave him the breast and I figured out my breast did not have enough milk and he doesn't get full. So I decided by myself to make the mash potatoes in addition to breast milk, and when I did give him the mashed potatoes he would calm down and be normal.

Interviewer: So you mean that by your baby crying without reason was what indicated to you that breast milk doesn't fill him up?

Participant: Yes, he really was restless in that.

Interviewer: So to mothers who may face some challenges with exclusive breast feeding in the first 6 months of life, just like you also did how do you think they can be supported, what kind of support do you think could have helped you to be determined to EBF 6 months despite your challenges?

Participant: I don't think anything could have helped other than adding the foods I did so that my child is not oppressed

Interviewer: So what kind of support do you think unemployed mothers need from health system to encourage and strengthen practice of EBF for 6 months? What could have we done to influence you and other unemployed mothers out there to be determined and motivated to EBF for 6 months

Participant: I really don't know, I can't think of anything

Interviewer: Okay mama, that's the end of the interview unless if you have more inputs.

Interviewer: thank you for your time.

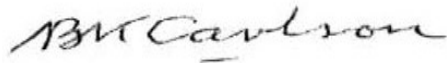
ANNEXURE I: LANGUAGE EDITOR CONFIRMATION LETTER

8 Nahoon Valley Place
Nahoon Valley
East London
5241
11 January 2022

TO WHOM IT MAY CONCERN

I hereby confirm that I have proofread and edited the following thesis using the Windows 'Tracking' system to reflect my comments and suggested corrections for the student to action:

Barriers to exclusive breastfeeding in the Tswelopele Municipality: Qualitative findings from unemployed mothers by SIMTHANDILE REBECCA QUEBU, a mini-dissertation submitted in fulfilment of the requirements for the degree of Master in Public Health at the University of Fort Hare.



Brian Carlson (B.A., M.Ed.)
Professional Editor

Email: bcarlson521@gmail.com
Cell: 0834596647

Disclaimer: Although I have made comments and suggested corrections, the responsibility for the quality of the final document lies with the **student** in the first instance and not with myself as the editor.

ANNEXURE J: LETTER FROM TECHNICAL EDITOR

24 Lutman Street

Richmond hill

Port Elizabeth

6070

16th September 2022

TO WHOM IT MAY CONCERN

I hereby confirm that I have done Technical Editing on the following mini-dissertation
**BARRIERS TO EXCLUSIVE BREASTFEEDING FOR MOTHERS IN THE
TSWELOPELE MUNICIPALITY**

BY SIMTHANDILE REBECCA QUEBU – 202015436

I Fixed the fonts, and font size, as well as Numbering, added spacing and set up Headings in H1, H2, H3 and H4 styles. I ensured no headings started at the bottom of the pages. Replaced the graphic image of Map. Clean up the Table to Fit it on the page. I also set up the Table of contents. I replaced the UFH logo in the document, fixed the Annexure and cropped the attachments, and enlarged them. As well as adding words to the Dictionary. I have done these Edits for the student to produce a clean Professional copy.

Kind regards

MR TIM WILSON
CREATIVE CONSULTANT
CELL: 074 609 0064

