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TITLE: Understanding the perceptions of women who experienced any delay in accessing appropriate health care services during childbirth in Otjiwarongo district hospital, Namibia

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DECLARATION

I hereby declare that this thesis, entitled "Understanding the perceptions of women who experienced any delay in accessing appropriate health care services during childbirth in Otjiwarongo district hospital, Namibia" is my own work and effort, and that it has not been submitted anywhere for any degree. Where other sources of information have been used, they have been acknowledged.

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ABBREVIATIONS

ANC	–	Antenatal Care
CHW	-	Community Health Worker
EDD	–	Expected Date of Delivery
EmONC	–	Emergency Obstetric and Neonatal Care
EU	–	European Union
GDP	_	Gross Domestic Product
HB	–	Haemoglobin
HGT	–	Hemogluco Test
LNMP	–	Last Normal Menstruation Period
LOA	–	Left Occiput Anterior
MDG	–	Millennium Development Goal
MoHSS	–	Ministry of Health & Social Services
MMR	–	Maternal Mortality Ratio
NPC	–	Namibia Planning Commission
PHARMaCM	–	Programme for Accelerating the Reduction of Maternal and Child Mortality
PMTCT	–	Prevention of Mother to Child Transmission
PV	–	Per vagina (referring to vaginal examination)
REC	–	Research Ethics Committee
ROA	–	Right Occiput Anterior
SBA	–	Skilled Birth Attendant
SDG	–	Sustainable Development Goal
SOPH	–	School of Public Health
TT	–	Tetanus Toxoid
UN	–	United Nations
USAID	–	United States Agency for Development
UWC	–	University of the Western Cape
VIP	–	Ventilated Pit Latrine
WHO	–	World Health Organization
WR	–	Wasserman Reaction

DEFINITION OF KEY TERMS

Accoucheur

A male midwife (MoHSS, 2011).

Active Phase of Labour (first stage of labour)

The active first stage is a period of time characterized by regular painful uterine contractions, a substantial degree of cervical effacement and more rapid cervical dilatation from 4 cm until full dilatation for first and subsequent labours (UN, 2010).

Caesarean Section

Caesarean section, also known as C-section, or caesarean delivery, is the use of surgery to deliver babies. A caesarean section is often necessary when a vaginal delivery would put the baby or mother at risk (MoHSS, 2018a).

Health Education

The planned and managed process of investing in education to achieve improvement in health of a population. It involves consciously constructed opportunities for learning, which are designed to facilitate changes in behaviour towards a predetermined health goal. Health education is one aspect of health promotion (The Hospital Providence, 2019).

Health Service

Any service which can contribute to improved health or the diagnosis, treatment and rehabilitation of sick people and not necessarily limited to medical or health-care services. Health services can include health education, health promotion, and environmental services such as housing, sanitation, etc., which have a known health benefit (WHO, 2008).

Latent Phase of Labour

The latent first stage is a period of time characterized by painful uterine contractions and variable changes of the cervix, including some degree of effacement and slower progression of dilatation up to 4 cm for first and subsequent labours (UN, 2010).

Maternal Near Miss

A “maternal near miss” is defined as a case of either a mother or newborn which survived despite having developed severe life-threatening obstetric complications (WHO, 2011).

Otjiwarongo

The capital town in the Otjozondjupa region (one of the 14 administrative regions in the country) which host 36% (153,000) of the regional population (NPC, 2011).

Partograph

A partograph is a tool used to monitor the progress of labour in women through graphic presentations of the events of labour progression; and is recommended by the World Health Organization (WHO) and has the potential to identify obstetric complications in both the woman and the unborn baby (MoHSS, 2011).

Post Natal Care

A postpartum (or postnatal) period begins immediately after the birth of a child as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state. Postnatal care can also include assessment and counselling provided to the mother before discharge after giving birth in a health facility, as well as later contacts during home visits by community health workers or postnatal visits to a health facility (MoHSS, 2018b).

Second Stage of Labour

The second stage is a period from when the uterus is fully dilated until the time when the baby is born (WHO, 2016c).

Third Stage of Labour

The third stage of labour is the time between when you have your baby and when the placenta (or afterbirth) comes out (WHO, 2016c).

ABSTRACT

Access to appropriate health care service during childbirth is a great challenge to many women in Africa and Namibia is no exception. More than 70% of women in Otjozondjupa region experienced some form of delay during childbirth, and while maternal mortality continued to rise over the years in Namibia it is currently at about 265/100 000, which is too high for a middle-income country. Hence, this study aimed to get a deeper understanding of the perceptions of women who experienced any of the three delays in accessing appropriate health care during childbirth in Otjiwarongo hospital.

This was an exploratory research design where qualitative approaches of data collection and analysis were utilised. Data were sourced from interviews that were carried out on purposefully selected participants who had experienced a delay in accessing appropriate health care services during childbirth at Otjiwarongo district hospital; while secondary data was sourced from maternal hospital records. The data was analysed manually through the thematic analysis of the interviews and the records.

Findings confirmed to a negative perception by women who experienced substandard maternal health care by the medical staff resulting in most of the delays in receiving appropriate health care services during the maternal period. This was evidenced by poor record keeping coupled with poor monitoring of labour by medical staff which led to the delays being shifted from hospital-based (3rd delay) to community and individual level (1st and 2nd delay). Lack of community involvement in maternal care, lack of patient navigators at the hospital and lack of emergency transport for obstetric women in Otjiwarongo were among the major barriers to timely access to maternal care.

More needs to be done on improving women's access to accommodating health care services during childbirth in public health facilities to reduce poor maternal outcomes associated with either type of delays.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A healthy nation is defined by low mortality rates and high fertility rates of its population; this is why Namibia has put in place many programs to improve maternal and child health through the Health Sector Strategic Plan in the last two decades (MoHSS, 2016b). The death of a mother during pregnancy or childbirth has catastrophic consequences for the health and economic well-being of her family (Miller & Belizan, 2015). Studies have shown that children whose mothers die due to maternal-related events are often abandoned, undernourished, forced to drop out of school, take on difficult household and farm tasks and are far less likely to survive (Houle, Clark, Kahn, Tollman & Yamin, 2015; Molla, Mitiku, Worku & Yamin, 2015; Moucheraud, Worku, Molla, Finlay, Leaning &Yamin, 2015). There is also evidence that children whose mothers have died perform poorly in life compared to children whose mothers are alive (Case & Ardington, 2006) and overall are at higher risk of dying (Molla *et al.*, 2015; Moucheraud *et al.*, 2015; Kirigia, Mwabu, Orem & Muthuri, 2014). The effect of maternal deaths is also felt in the community, which grieves the loss of a community member.

A study has shown that the indirect cost of maternal death in Africa in 2010 amounted to a total non-health Gross Domestic Product (GDP) loss of $4.5 billion (Kirigia *et al.*, 2014). Furthermore, failure to achieve the Millennium Development Goals (MDGs) 4 and 5 by the end of 2015, has led to a renewed focus on maternal and child health. The country is a signatory to the new global commitments, the Sustainable Development Goals (SDGs) (MoHSS, 2016b). Sustainable Development Goals 3 advocates for the *improvement of the health and wellbeing of all people at all ages* while SDG 5 is striving to *Achieve Gender Equality and empower all women and girls*. Both include specific targets to ensure universal access to sexual and reproductive health care services; including family planning, information and education, and the integration of reproductive health into national strategies and programs.

A number of studies have suggested that improved maternal and newborn health outcomes can be achieved by increasing pregnant women's access to care during the critical period of labour,

delivery and the immediate postpartum period, during which most maternal and perinatal deaths occur (Anyait, Mukanga, Oundo & Nuwaha, 2012; Zere, Tumusiime, Walker, Kirigia, Mwikisa, & Mbeeli, 2010; UN, 2010). Despite 80% of women in Namibia delivering in a health facility, the maternal mortality rates are still high (MoHSS, 2018c). The decrease in maternal, perinatal and neonatal deaths requires concerted, multidisciplinary efforts through the use of a wide range of approaches to remove psychological, social, economic, cultural, geographic and personal barriers to care (WHO, 2016b).

Considering that maternal and neonatal deaths are on the increase in Namibia and Otjozondjupa region, in particular, the Ministry of Health and Social Services has made it mandatory for all perinatal, neonatal and maternal deaths to be audited to try to determine the contributory factors. Auditing of these deaths attempts to answer the question of what transpired before, during and after labour and eventually to determine if there was any delay (first, second or third delays) that may have contributed to the loss of life. The government of Namibia is doing death audits for every maternal, perinatal and neonatal death to identify gaps and implement strategies for addressing those gaps. The audits further help in identifying the presence of any of the three delays, lessons learned and substandard care if any. In the 2016/17 MoHSS with audits of maternal, perinatal and neonatal deaths in Otjozondjupa region, it was found that 52% of deaths were due to the first delay, 7% was due to second delay and 24% due to third delay (MoHSS, 2016/17). Therefore, having noted that many women who delivered in the region experienced some form of delay, this study found it necessary to investigate those women's perception of accessing appropriate health care services during childbirth. Further, this will allow the researcher to understand how the experiences of such women will assist the development of strategies which will address the problem of delays in receiving appropriate health care during childbirth.

1.2 The Three Delays

One of the critical frameworks used in understanding the significant factors contributing to and or having a direct influence on maternal and neonatal mortality is the three delays concept (Jammeh, Sunby & Vangen, 2011). The three delays are inter-related, and they help us to identify factors which prevent women from accessing the health care they need timeously (Shaikh, 2009). These factors are grouped in three as a first, second, and third delay. The first delay which is a delay in seeking health care is usually caused by the low educational status of the woman; poor

understanding of maternal complications or pregnancy risks and when to seek care; previous bad experience with health care and poor financial status (Sauza *et al.*, 2007).

The second delay which is a delay in reaching the health facility is caused by long distances to health facilities, poor road infrastructure, mountainous or sandy terrain, availability and cost of transport (MacDonald *et al.*, 2018). The third delay which is a delay in receiving appropriate care is mostly caused by inadequate facilities, lack of medical supplies, poorly trained staff, poorly motivated staff, and inadequate referral systems (Maternity Worldwide, 2017). From the definition of the three delays, it is convincing that maternal, perinatal, and neonatal deaths are influenced by the social, economic, cultural, and environmental conditions people live in.

1.3 Statement of the Research Problem

A study conducted in 2011 in eight of the fourteen regions in Namibia (including Otjozondjupa region) showed that 77% of the maternal deaths experienced the first delay (MoHSS, 2011). In addition, poor or no education in women also aggravates the first delay because of these women's poor understanding of an obstetric emergency; and it is known that 9.5% of women in Otjozondjupa had no education at all (MoHSS, 2014). Important to note is that 11.5% of the women with no education in Namibia falls in the lowest wealth quintile (MoHSS, 2014). This gives a situation of a poorly educated woman who delays in deciding to seek health care and who even after deciding to seek health care, may not reach the health facility due to the socio-economic conditions they live in.

The 2011 report from the Ministry of Health further indicated that most women in Namibia were living in remote areas far from health facilities and as a result of poor road infrastructure and lack of efficient transport system; they experienced the second delay in reaching the hospital for a timely delivery. Studies such as Thaddeus & Maine (1994) indicated that 7 out of 10 women with near-miss cases were as a result of the second delay, which is due to distance from their home to the health facilities.

Also, findings from studies such as Zere *et al*., (2010) found out that inequities in skilled attendance in Namibian hospitals were a significant cause of near-miss cases. This is significantly associated with the third delay whereby caregivers at hospitals are reluctant in attending to

pregnant mothers who are about to deliver. According to the UN (2010), the three delays are associated with adverse maternal and newborns health outcomes (MoHSS, 2016/17).

Women who experienced delays are the ones who usually ended up having adverse health outcomes during childbirth (MoHSS, 2016/17). However, it is not known whether those who had good outcomes in the Otjozondjupa region did not have any delays. That is why this study is hoping to create an understanding of the underlying factors experienced by women who had difficulty in accessing care, from either delay, irrespective of their health outcomes.

1.4 Purpose of the Study

According to the Namibia Demographic and Health Survey (2013), 86% of deliveries in the Otjozondjupa region were performed by a skilled birth attendant (MoHSS, 2014). However, maternal and neonatal outcomes remain weak in the Otjozondjupa region (MoHSS, 2016/17). Despite many maternal and child health care interventions in Namibia, maternal morbidity and mortality remain high in Otjozondjupa region with 83% of the audited cases in 2017 for Otjozondjupa region showing some form of a delay (MoHSS, 2016/17). Maternal and neonatal outcomes are indicators of the quality of care in maternal and child health care programmes (MoHSS, 2016b). According to MoHSS (2011), some delays and other unknown factors have resulted in some women delivering at home under the care of unskilled birth attendants (MoHSS, 2011)

That is why understanding the viewpoint of women who experienced any of the three delays during childbirth in Otjiwarongo hospital was necessary for identifying factors which revealed unique solutions and suggestions in improving maternal and newborns health care services in the district and the region at large. This study explored the perceived effects of the three delays on women. The study also increased the understanding of what women experienced because they were allowed to express themselves. It was not known in Otjozondjupa whether women's experiences were leading to decisions to stop giving birth or even decisions to use family planning methods or decisions to adopt early health-seeking behaviours. However, this study has enabled women to express their future decisions on childbirth as it may or may not be influenced by their previous experiences during childbirth; which assisted in answering the reseach question: How did the experience of delays in childbirth in women influence their perceptions of health care service

delivery in Otjiwarongo hospital?

1.5 Aim

The study aimed to get a deeper understanding of the perceptions of women who experienced any of the three delays in accessing appropriate health care during childbirth in Otjiwarongo hospital.

1.6 Objectives

The objectives of the study were as follows:

- To describe the experiences of women, of what they went through (from their perspective) before and after they decided to seek help for childbirth (experiences of first and second delay).
- To describe how women experienced the third delay using both the patient care records and personal experiences.
- To explore and understand the factors identified by mothers who had any delay that may affect their future perceptions of childbirth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the literature review of the study which entails a discussion of other related studies on perceptions of women who experienced any delay in accessing appropriate health care services during childbirth from various parts of the world. The review covers the global, regional and national and local literature; and went further to identify the gaps in research that it is trying to address.

2.2 Maternal Mortality Burden

Maternal mortality is defined by the World Health Organisation (WHO) as **"the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"** (WHO, 1994: 8-12; WHO, 1992). In addition, the World Health Organisation (WHO) estimated that 287, 000 maternal deaths occurred in 2010 globally with over 66% of them occurring in sub-Saharan Africa annually (WHO, 2012; WHO, 2019). WHO further estimated that 295,000 women died from pregnancy and childbirth-related causes globally in 2017 with 86% (254,000) of them occurring in Sub Saharan Africa (WHO, 2019). In 2015 in the Africa Region maternal mortality ranged between 53 in Mauritius to 789 per 100 000 live births in South Sudan, while the overall regional average was 542 per 100 000 live births and this figure had dropped since the year 2000 by 40% in 2017 (WHO, 2016b; WHO, 2019). WHO also estimated that an overall 94% of maternal deaths occur in low and lower-middle-income countries whereby the MMR is 462 per 100,000 in low-income countries and 11 per 100,000 in high-income countries (WHO, 2019). Bleeding, hypertensive disorders, infections, post abortions and complications are among the leading causes of maternal deaths and accounts for 75% of the causes of maternal deaths (WHO, 2019). Filippi *et al.* (2006), established in their study that there are far more women who suffer maternal morbidity, since it is estimated that, for every maternal death, at least 25 more women suffer from maternal morbidity in the form of near-miss events, pregnancy-related complications, and long-term disabilities.

The Maternal Mortality Ratio (MMR) for Namibia was 271 per 100 000 live birth in 2000 and almost doubled in 2006/07 when it reached 449 per 100 000 live birth (UN, 2009; UN, 2010). Most of the maternal deaths that occurred in 2006/07 were due to direct causes (61%) with sepsis, post partum haemorrhage and eclampsia being the top three causes under this group; while 39% were due to indirect causes which included HIV and AIDS as the most common (MoHSS, 2014). In 2015, Namibia saw a decline in the MMR to 265 per100 000 live births which meant a reduction of almost half of the maternal deaths reported in 2006/07 (MoHSS, 2014; WHO, 2016b; UNFPA, 2017a; UNFPA 2017b). The country implemented strategies to reduce maternal mortality and the Roadmap for Accelerating the Reduction of Maternal and Neonatal Morbidity and Mortality in Namibia was one of the strategies. Namibia, like many other countries, were unable to reach the Millennium Development Goal 5 of reducing maternal mortality by three quarters between 1990 and 2015 to 56 per 100 000 live births (UN, 2009; WHO, 2016b).

Just like in Namibia, other countries also developed strategies and policies that helped to improve the social and economic status of their people. For example, in most developed countries, governments have ensured free and compulsory education and even provide an incentive for people to continue to higher learning institutions. According to the World Bank (2015), in a country such as Kenya, the government has provided an opportunity for adults who were not able to get primary and secondary education to take part-time classes of the same level of education. Countries such as Sweden have increased the number of referral hospitals to ensure easy reach and access. This indeed has resulted in reduced cases of near misses as a result of any of the three delays.

Most developed countries have a strict policy on caregiver's workplace code of conduct that ensures that they prioritise the needs of their patient and attend to them on time without any delays. Countries such as Finland, Japan, Sweden, and Norway have efficient maternal care that is provided by midwives. For example, Sweden is sparsely populated with sparse road networks, but their maternal mortality rates are at 0.04% (Hodnett, Downe & Walsh, 2012). This was achieved due to the coordination of obstetricians and midwives; because midwives are responsible for births of healthy women. This coordination ensures constant and timely feedback during and after the pregnancy period (Hodnett *et al*., 2012).

2.3 Maternal and Newborn Health Initiatives in Africa

In response to maternal, neonatal and child health challenges the African governments developed the regional agenda to accelerate universal access to Sexual and Reproductive Health (SRH) in 1998 through the World Health Organization's Regional Committee for Africa. This was done because Africa lagged behind other regions with regards to sexual reproductive health (WHO, 2013). The purpose of this initiative was to develop approaches which will deliver critical interventions towards the achievement of universal access to SRH in the region, most notably towards the realisation of MDG 5.

The main challenges facing the region were; i) inadequate access to, and inequitable distribution of high-quality maternal and child health care; ii) inadequately skilled health care workers; iii) inadequate financial resources; iv) poor tracking of data by health information systems and v) weak community involvement and participation (WHO, 2013). Therefore, the priority area for this initiative was maternal and child health attainment. However, the African region was rated as having a shortfall of about 139% shortage of healthcare workers in 2013 to fill the missing gap (WHO, 2013). It is well known that the shortage of skilled health care workers is an underlying cause of poor quality SRH services, most notably for maternal and newborn health (WHO, 2013).

In addition, the Africa leadership acknowledged the inadequate health financing by governments in the region, at the Abuja Declaration in 2001, they agreed at a high-level meeting at Abuja Nigeria that 15% of domestic budgets should be allocated to the health sector as a strategy to resolve the problem. However, only five out of forty-five member countries by then met this target in 2010; and in 2016 it was eight out of forty-seven member states that met the target (WHO, 2013 & WHO, 2016a). Inadequate health financing resulted in underfunding of Sexual and Reproductive Health services in most member countries, and many people had to access maternal and child health care services by using out-of-pocket payments (OOP). In 2006, 77% of the member states' out-of-pocket payments were more than 20% of the total health expenditure. This means that families have to reallocate money from basic needs such as food, children's education and clothing to pay for health care (WHO, 2016a). The World Health Organization's report (2016a) indicated that finances were the main barriers to accessing health services, hence resulting in underutilization of MCH services by women who mostly depended on men for income and

decision making.

Another Africa regional commitment is the Ouagadougou Declaration on Primary Health Care which was held in 2008 in Burkina Faso, which reaffirmed the Alma Ata Declaration of 1978 which is built on the principle affirming that health is a fundamental human right, and that it is the responsibility of governments to ensure the health of its people (WHO, 2008). It is therefore at this 2008 conference that African governments realised the need for accelerated efforts and action in order to realise the PHC agenda of 1978. The interrelationship among the determinants of health such as socioeconomic status, education, gender, political instability, to mention but a few, formed part of the declaration by African governments to tackle inequalities and poor access to health care in the region (WHO, 2008).

Again in 2009, a Campaign for the Accelerated Reduction of Maternal Mortality in Africa (CARMMA) was launched by the African Union under the theme "Africa cares: No woman should die while giving birth" (WHO, 2013). The campaign was aimed at increasing political commitment towards the reduction of maternal mortality in countries with high rates (AU, 2009). This campaign was responding to strategies spelt out in the African Union Policy Framework for the Promotion of Sexual Reproductive Health and Rights in Africa of 2005 and the 2006 Maputo Plan of Action (AU, 2009).

Further, the Safe Motherhood Initiative was launched in 1987 internationally by inter-agency groups comprising of the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the International Planned Parenthood Federation (IPPF), and the Population Council. Family Care International which serves as the Group's secretariat with the objective of raising awareness on maternal mortality has stimulated governments, UN agencies, and other stakeholders to address maternal morbidity and mortality worldwide (MoHSS, 2011).

2.4 Maternal and Newborn Health Initiatives in Namibia

In addition to the international and regional initiatives that Namibia was part of, it also implemented its additional programmes that were developed to improve the maternal health outcomes. One such programme is the Safe Motherhood Initiative signed in 1991 because of being

a member state of the World Health Organization. Then, in 2000, Namibia adopted the Millennium Development Goals (MDGs) with Goal 4 focusing on reducing the child mortality rate by 2/3 and Goal 5 focusing on reducing maternal mortality by 3/4 by the year 2015 (NPC, 2011). Further, Namibia conducted the Emergency Obstetric and Neonatal Care (EmONC) assessment countrywide, to assess the country's outcomes of maternal, neonatal and child health care (MNCH), which revealed that there were some gaps in the quality of care given to obstetric women and newborns (MoHSS, 2006). After that, the Roadmap for Accelerating the Reduction of Maternal and Newborn Morbidity and Mortality was developed in 2007. This was done to guide the process of delivering the MDGs and to address the gaps identified by the EmONC assessment (MoHSS, 2006). This Roadmap facilitated the deployment of skilled health care providers for EmONC services, expansion of Prevention of Mother to Child Transmission of HIV (PMTCT) services, training of Skilled Birth Attendants (SBAs), initiation of maternal, perinatal and neonatal death reviews, construction of maternity waiting homes, enhancement of referral services and the availing of essential medical equipment (MoHSS, 2006/7).

Furthermore, the Namibia Maternal Health Initiative Project was piloted and implemented in the capital city of Namibia, Windhoek, with some local and international organisations, to help address maternal mortality in (McKenzy Quarterly, 2010). Again, in 2013, the European Union (EU) funded Programme for Accelerating the Reduction of Maternal and Child Mortality (PARMaCM) under the leadership of the then First Lady of Namibia Madam Penehupifo Pohamba, was introduced (MoHSS, 2017; EU, 2016). The PARMaCM then secured funding for the second national EmONC assessment, which was done in 2016. This assessment indicated that there is a need for policy change and re-organisation of services to accelerate the reduction of maternal and newborn morbidity and mortality in the country (MoHSS, 2017). Despite the social and infrastructural challenges facing the Namibian government in providing better maternal care, much has been done to reduce maternal morbidity and mortality cases such as providing training to caregivers on how to treat pregnant women during and after delivery (Vries, 2013). The government has improved its health infrastructure by building more health facilities and upgrading its maternal care units for efficient service delivery (Jacob, 2014). The EmONC assessment report also indicated that the primary cause of maternal death is HIV/AIDS, whereas complications that resulted from the three delays have greatly reduced. Despite all these strategies and interventions, the Namibian government has however failed to reach its MDG Goal 5 of reducing maternal

mortality ratio to 56 per 100 000.

2.5 Factors Associated with Maternal and Newborn Morbidity and Mortality

Antenatal Care (ANC) is care provided to pregnant women until childbirth to monitor maternal and foetal risk factors and to improve their health outcomes (Berhan & Berhan, 2013; Babalola & Fatusi, 2009; MoHSS, 2014). However, ANC alone cannot identify complications arising during labour, delivery, and the immediate period after birth (Maine, 1991). Therefore, the probability of saving a woman and her newborn is increased when the woman who attended ANC delivers in a health facility (Maine, 1991).

That is why the World Health Organization (WHO) has recommended that all deliveries should be attended to by a skilled birth attendant as part of implementing effective interventions which will lead to the proper management of complications arising during childbirth (WHO, 2016b). This is because much of the care given in ANC has not been shown to reduce the impact of risk of development of severe complications during childbirth (Maine, 1991). It was also noted that many women who developed life-threatening complications such as eclampsia, haemorrhage and puerperal sepsis had no distinct risk factors during pregnancy because most of the complications were found to occur shortly before or after labour and delivery (Maine, 1991).

Although the ideal situation would be for women to deliver in a health facility under the care of a skilled health care worker, this might be an unrealistic short-term goal in most low and middle-income countries. Therefore, the use of community-based health care services in such countries may be more practical and cost-effective and may minimise the delays experienced by women when seeking obstetric care at remote health facilities (WHO, 2016b). Maternal, perinatal and neonatal deaths are aggravated as earlier mentioned by the presence of any of the three delays which may be experienced before, during and after childbirth (Barnes-Josiah, Myntti & Augustin, 1998; Zere *et al.*, 2010). According to Maternity Worldwide (2017), the three delays are defined as those factors which prevent women and girls from accessing maternal and childcare services on time (Maternity Worldwide, 2017).

2.6 **Studies on the Three Delays**

A study was conducted in rural India in 2013 using the three delays model to investigate the causes

and contributing factors to neonatal deaths (Upadhyay, Rai & Krishan, 2013). This study found that the caretakers' delay in seeking health care for the newborn and delay in reaching the health care facility was most common. The three delays model of identifying community and health care system factors contributing to neonatal deaths was used to establish mechanisms for improved outcomes (Upadhyay *et al*., 2013). This was done through maternal death audits, which enable a better understanding of the causes of maternal deaths and helps to identify possible ways of addressing them (Upadhyay *et al*., 2013).

In Malawi, a study was conducted to determine the socio-cultural and health facility factors contributing to maternal deaths using the three delays framework (Thorsen, Sundby & Malata, 2012). In this study, most maternal deaths were increased by the failure of the health care system to refer the woman to the next level timeously coupled with poor management and inadequate resources at the facility level (Thorsen *et al*., 2012).

Another study conducted in rural Gambia with the purpose of describing the socio-cultural and health care service factors associated with maternal deaths found that some of the factors which delayed access to maternal care services were women's previous bad experience with the health care system and seeking care at more than one health facility (Cham, Sundby & Vangen, 2005). This study also concluded that women do seek health care but fail to access quality health care due to multifaceted factors.

In rural India, a study was done to investigate the causes of and contributors to newborns deaths using the three delays audit approach, which showed that 44% of newborns deaths investigated, occurred within the first twenty-four hours after birth (Upadhyay *et al*., 2013). The major contributing factors to these neonatal deaths were the caretakers' delay in deciding to seek care due to household and transport-related factors.

The results of a retrospective observational study describing the socio-demographic characteristics and the three delays of maternal mortality showed that 68% of women were uneducated, 62.5% belonged to the lower socio-economic class, and 58% had received no antenatal care (Shah, Hossain, Shoaib, Hussain, Gillani & Khan, 2009). The most frequent reasons for the first, second and third delay were lack of awareness (88.5%), long-distance (39.7%) and difficulty in getting

the blood of women (49%) (Shah *et al.*, 2009). The conclusion from this study was that most women who suffered the delays could be due to the socio-demographic factors.

2.7 **Effects of Delayed Health Care Services on Women**

Studies on the impact of the three delays on women as well as those that describe women's viewpoints on the three delays are not easily found. However, a systemic review of the psychological effects of pregnancy, childbirth and early parenting revealed that anxiety about the survival of the infant and early parenting is high in women during childbirth (Human Reproductive Update, 2008).

In another study that was conducted on women who delivered at home to gain an understanding of the context and to explore reasons for home delivery (Morrison *et al.*, 2014) its results showed that women are generally aware of the benefits of delivering in a health facility, yet their status in the home and previous experiences with health care restricted their access. Many factors in the women's home prevented them from delivering in the health facilities such as: not wanting to bring shame on the family by going against their will or by showing their 'naked' bodies at the health facilities, not wanting to demand transport arrangements for fear of bringing financial problems to family, insufficient government incentives, lack of family support at time of delivery, past bad experience with health care system and poor quality health care services (Morrison *et al.*, 2014). This same study concluded that sociocultural issues, perceived accessibility of health care services, and perceived quality of care and attitude of health care workers were all among the barriers preventing women from institutional delivery. Hence, this study has allowed women to explain how they experienced three delays.

2.8 **Auditing of Maternal Near Misses**

In a process to determine the quality of care given to obstetric women, the World Health Organization used the "maternal near-miss" approach to assess the factors contributing to maternal deaths and the consequences women suffer after going through severe complications (WHO, 2011). Maternal near-miss is associated with the third delay, which could be due to inadequate staff, skills, equipment etcetera, in the health facility.

Women who escaped maternal deaths had complications almost similar to those who ended up as

maternal deaths (Kalhan, Singh, Punia & Prakash, 2017). Maternal deaths are said to be the 'tip of an iceberg' for maternal disability as most women would have survived but with severe complications. Thus, reviewing maternal near-misses offers an opportunity to study maternal morbidity and get in-depth understanding from the surviving women's perspective through interviews (Kalhan *et al.*, 2017).

In Ethiopia, a prospective cross-sectional study was conducted to assess the incidence and causes of maternal near misses. This study identified hypertensive disorders and obstetric haemorrhage as the leading causes of maternal near misses (Liyew, Yalew, Afework & Essen, 2018). These studies findings were in line with that of many others, which found that most maternal near-miss cases were already critical by the time they arrived at the level of care reporting the case. This then indicated the presence of some form of delay in managing the obstetric complications by the referring health facilities.

2.9 **The Research Gap**

Access to appropriate health care services during childbirth in Africa and most especially Sub Sharan Africa is a great challenge to many women in various parts of the continent. Given the poor infrastructure and low socio-economic status of many families, there are more reasons that inhibit the utilisation of appropriate maternal care than those that encourage the usage. In addition, women's level of education, family background, and resources play a significant role when deciding whether to utilise professional health care during childbirth in public or private hospital (MoHSS, 2017). Furthermore, the distance to the health facility for the pregnant woman who is due to give birth plays a significant role in her decision whether to use a community birth attendant or to proceed to the maternal care unit at the hospital. The availability of sound transport system and money to pay the transport has a greater influence on decision making and action taking when it comes to access to maternal care during childbirth.

Creating interventions and more awareness, improving infrastructure and use of policy are just, but a few measures that have been adopted but the gap remains. UNICEF (2008) indicated that maternal mortality rates account for 59% of the child mortality in the country and over 3,500 mothers died during pregnancy or while giving birth between 2012 and 2015 in Namibia. The study by Cham *et al.* (2005) concluded that women do seek health care but fail to access quality

health care due to multifaceted factors. Given this disturbing revelation from research, it is necessary to carry out a study to investigate the perceptions of women who experienced any delay in accessing appropriate health care services during childbirth in Otjiwarongo district hospital, in Namibia. This study will not only explore details of how women experienced the delays, but it will also fill the gap of knowledge on when exactly women experienced those delays, why they experienced it and which factors contributed to the delays which may have been beyond these mothers' control.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the details of the methods used in gathering and analysing information related to the three types of delays experienced by pregnant mothers during delivery time. According to Ojo (2003), a methodology is a system of explicit rules and procedure in which research is based and against which claims of knowledge are evaluated. The research methodology of this study entails; study design, study setting, study population, sampling process and size, data collection, data analysis, rigour, ethical considerations, and limitations.

3.2 Study Design

This is an exploratory study, and the researcher, therefore, used the qualitative approach. According to Jack (2006), qualitative research is interested in understanding how the experiences of the research participant will help them solve the problem being researched. The exploratory research design allowed the researcher to get an in-depth understanding of the perceptions of women who experienced the three delays in accessing appropriate health care services during delivery time.

According to Mugenda & Mugenda (2009), exploratory research has the goal of formulating problems more precisely, clarifying concepts, and gathering explanations, gaining insight, eliminating theoretical ideas, and forming hypotheses. Exploratory research may develop hypotheses, but it does not seek to test them. The researcher seeks an in-depth understanding of women's experiences of the three delays because the methodology emphasised understanding. The purpose of the study was to provide answers as to 'what' and 'how' women experienced the three delays in Otjiwarongo district hospital to identify strategies for improved maternal and newborn health outcomes.

3.3 The Study Setting

Otjozondjupa is one of the fourteen regional health directorates in Namibia (NPC, 2011). The catchment population of the region was estimated to be 150,048 in 2017, with fifty-four per cent

(54%) of the population living in urban areas (NPC, 2011). The Otjozondjupa region is further divided into four health districts, which are Okahandja, Okakarara, Grootfontein, and Otjiwarongo. Thirty-six per cent (36%) of the region's population lives in Otjiwarongo district, which is about 53,487 people (MoHSS, 2014). Otjiwarongo district has one district hospital with a bed capacity of 160 beds, one health centre which operates on a 24-hour basis, and five clinics which operate during office hours and only open for emergencies during weekends and after hours. From Otjiwarongo hospital, the health centre is 120 km away from the hospital on a tar road, while two clinics are 70 km away on a tar road and another clinic is 100 km away (50 tarred and 50 gravel road).

All health facilities in the district provide Antenatal care (ANC) services, while routine deliveries are only conducted at the health centre and the hospital (MoHSS, 2014b). The majority of the population in Otjiwarongo lives in informal settlements, and only 31% of them have access to improved toilets (MoHSS, 2014). Almost ten per cent (9.5%) of women in Otjozondjupa region have no education at all, and about 87% of women in Otjiwarongo attended Antenatal care services in 2017 (MoHSS, 2014; MoHSS, 2018c). Some farming (crop production and livestock) and mining (charcoal, gold, fluorspar, and cement) activities are taking place in the district, and this has contributed to the mushrooming of informal settlements in Otjiwarongo.

3.4 Study Population

The study population was divided into two. The first one consisted of women aged 18 to 24 years who delivered a live birth in Otjiwarongo hospital between January and March 2018 inclusive, and who experienced any of the three delays. The study strategically targeted respondents within that specific age group because statistics from the Ministry of Health (MoHSS, 2018c) indicated that there were more cases of maternal near-misses among women in that age group. Secondly, because of all the constraints coupled with the sample size for this study which is a mini thesis and qualitative in its nature, sampling all women of child bearing age (15-49 years) was going to be costly and time consuming. The second study population consisted of records of maternal near-miss cases occurring between January to September 2018 in Otjiwarongo hospital.

3.5 Sampling Process and Sample Size

The researcher used purposive sampling of the maternity records to sample the women who

participated in the study. Maternity files of these women were retrieved from the archives of the Otjiwarongo hospital because after women deliver, their maternity files are kept in the hospital.

The maternity records were useful in identifying women who had any of the three delays which were then followed up by telephone calls and home visits, after which only those who were reached formed the sample. The researcher through this process was able to purposively select eight (8) women for semi-structured interviews. Whereas the maternal death audit form is routinely used to audit maternal deaths, in this study, it was used to identify and categorise women who had any delay or any adverse event, as long as the adverse event excluded death of mother and or that of the infant.

Secondly, four records of women with adverse events (maternal near misses), were extracted and reviewed. Only live births were considered for this sample and these records were different from those of women who were interviewed. These maternity records used for record reviews were different from those of the women who were interviewed.

A heterogeneous sample for both semi-structured interviews and maternity records was ensured during the selection of the study population by considering different characteristics such as socio-economic, demographic, educational, marital status, and in order to gain a deeper understanding of the phenomenon. During the selection of the records of women who had adverse events, quota sampling (a subtype of purposive sampling) was applied. In this study, the researcher was not much concerned about obtaining a statistically significant sample as in quantitative research but rather the interest was more in obtaining a representative sample (Ritchie, Lewis & Elam, 2003). Through quota sampling, the researcher used their knowledge of the study population to ensure that the sample is representative enough (SOPH, 2017). A detailed description of the socio-demographic characteristics of the women who were interviewed is found in Table 4.1 in Chapter 4.

3.6 Data Collection

The data was collected using two methods, namely the semi-structured interviews and record reviews. According to Patton (2002), interviews allow face to face engagement between the researcher and their respondents, which is essential for collecting sincere information on various

issues under research. The researcher collected the data using the two methods because the two methods have proven to collect rich and comprehensive data in qualitative studies. The researcher collected all the data.

3.6.1 Semi-Structured Interviews

Semi-structured interviews were used, which consisted of a set of open-ended questions that define the area to be explored from which the interviewer could diverge to pursue emerging information in more detail (Patton, 2002). Meaning there was room to discover new phenomena which may not have been anticipated as the researcher continued to use open-ended questions. The interview guide (Appendix F & G) was therefore used to help guide the interview in all the interviews. During the interviews, the researcher was able to probe for more information, to get more details or ask for clarifications of any statements made by the interviewee. The place of the interview was selected with the input of the women, ensuring that it is convenient and agreed upon by both the researcher and the participant. Most of the interviews were conducted at the participants' homes. Interviews were conducted in English and Oshikwanyama (one of the languages spoken in Otjiwarongo) and were recorded using a voice recorder while the interviewer was taking unstructured notes to supplement the recorded data. Interviews lasted between one and two hours. Due to the cost involved, only women within Otjiwarongo town were interviewed.

3.6.2 Record Reviews through Qualitative Case Audits

In this study, maternal near misses or women with any other adverse event were used as criteria for selecting the study population for record reviews. Using the study population of women of childbearing age (WCBA), files of women aged 15 to 44 years who delivered in Otjiwarongo hospital between January and June 2018 were extracted. Selected records of these women were audited qualitatively using the maternal death audit form (Appendix E). The purpose was to conduct an in-depth analysis of what transpired from the moment the woman was admitted in the hospital until she delivered. A detailed narrative description of each case which had a first, second, or third delay was done in an attempt to address part of the second study objective. Due to the scarcity of maternal near-miss cases in Otjiwarongo and also because the near-miss cases are not easily identifiable in the maternity records, the study population for the record reviews was widened to include women who delivered between July to September 2018.

The World Health Organisation developed a standard tool for the identification of maternal near-miss cases (Kalhan *et al.*, 2017). This tool has three steps, which are baseline assessment; situation analysis and interventions for improving health care, and data collection and management. The baseline assessment focuses more on classifying or identifying the type of complications that were present in the women for them to be classified as either a near maternal miss or not (Kalhan *et al.*, 2017). During the situation analysis phase, the emphasis is more on the identification of opportunities for improving health care (Kalhan *et al.*, 2017). This involves auditing of cases, interviewing and engagement of opinion leaders, educational activities, etc. During data collection and management, which is the last step, a database is created by using the relevant patient care records. The review of maternal near-miss case records used a format similar to that of step two above (situation analysis and interventions for improving health care), where the focus was on auditing the patient records in order to identify factors indicative of suboptimal care in the management of the cases, which could have led to women developing severe complications and thereby being classified as maternal near misses.

3.7 Data Analysis

Data obtained through the interviews were transcribed verbatim and translated where necessary. Each of the qualitative record analysis of the delays and the semi-structured interview data was interrogated to formulate a detailed description of events. Thematic analysis was used to analyse the data (Barbour, 2001). All the transcripts and the narrative descriptions were read over and over, and codes were generated from the data, from words or phrases with similar meanings. The codes were generated when the researcher reduced the data by collapsing it into labels in order to identify patterns and relationships within the data. The researcher then moved the coded data into similar groups. Similar codes were grouped to form categories, and these were collapsed to form themes. The themes are usually having meaning even though their meaning may not necessarily be fitting into the research topic (Barbour, 2001).

Thematic analysis was used for the four records reviews; and the details of care given to these women was determined by making use of the qualitative section of the maternal audit form. Using this form has resulted in the researcher getting more fruitful explanations and a narrative of what happened from the moment the women reached the health facility up until the time they gave birth.

The data analysis was inductive, meaning that the themes were emerging from the data, and no prior set themes were available before the analysis of the data (Baum, 1995). The researcher was guided by the research questions and objectives to formulate themes emerging from the data. The themes were defined, and what was important about each theme was highlighted. Qualitative data can be analysed manually or electronically using software such as ATLAS Ti, but for this mini-thesis, data analysis was done manually.

3.8 Rigor

One way of ensuring rigor in qualitative data analysis is to be aware of reflexivity. According to Robson (2002), a researcher's character or perspective can affect how they interpret qualitative research findings (Robson, 2002). Hence, the researcher's experience, personality, background, etc. is considered an integral part of the study in qualitative research because of how it influences their interpretation of study findings. In this study, the researcher kept an interview journal to address the issue of distorted information, and this helped in dealing with researcher bias, prejudice, and preconception (Roller, 2012).

During the interviews, the interviewer noted down the thoughts and opinions coming to mind immediately during the interview to ensure that whatever was going on in the subconscious mind was brought on paper (Elbow, 1995) as cited in SOPH (2016). Thoughts and ideas jotted down by the researcher were used during data analysis to help in identifying and dealing with potential biases.

Member checking is described as one of the most important criteria for establishing trustworthiness and credibility in qualitative studies (Creswell & Miller, 2000). Where data lacked coherence in this study, the researcher went back to review the themes and meaning of collected data with individual study participants to ensure that the information was not distorted. However, this process had its challenges in that it was not easy to get a second appointment with most of the mothers who were initially interviewed. At this point, the women were requested to give further clarity of collected data and assist the researcher in rectifying misunderstandings and misinterpretation of data.

Data was collected from different data sources (women and patient records), and two data

collection methods were used namely the semi-structured interviews and record reviews. The use of different data collection methods increased the validity and reliability of the data. The data collection tools were also tested first before the actual study started in order to improve clarity and avoid ambiguity of questions.

Transferability refers to the extent to which the study findings can be generalised outside its study population but to a context which is the same as the study (Robson, 2011). This was ensured through the selection of a heterogeneous sample which was representative enough for this study to be used in a similar context elsewhere. By ensuring that the context in which the research was conducted is fully described including the social and cultural context, transferability was addressed (Malterud, 2001). However, even though the results of this study can be transferred to another setting, it is essential to remember that similar settings may not always yield the same results, hence the need for customisation of each study (Robson, 2011).

The credibility of data in this study was ensured by paying close attention to design coherence through logical linkage and internal consistency between all the sections of the study. Starting with the introduction to the study, the aim and objectives, and all other information in the study showed a clear flow and logic. Sampling methods clearly described who the participants were, why they were selected, how many they are, and why this method/strategy was selected to increase the trustworthiness of qualitative data.

3.9 Ethical Considerations

Written permission to conduct the study was obtained from the Research Ethics Committee (REC) of the University of the Western Cape (UWC). The application was accompanied by a full proposal and research tools that were used in this study. After obtaining ethical approval from the Ministerial Research Ethical Committee of the Ministry of Health and Social Services in Namibia at the national level, further permission to conduct the study was obtained from Otjiwarongo district hospital management.

Participation in the study was entirely voluntary, and participants were informed of their right to withdraw at any point they so wish to without fear of intimidation or any negative consequences. Each participating woman was requested to sign an informed consent after a thorough explanation

by the researcher. Information in the maternity files was treated with the highest level of confidentiality. Women were identified using their maternity records, but then the files were delinked, and codes were used to protect their identity. Collected data was stored using password-protected coded files on the researcher's personal computer. After the data was analysed and reported upon, the raw data remained stored on the researcher's computer using password-protected files and will be kept there for at least five years after which it will be permanently deleted.

No maternity record was moved out of the hospital premises. Socio-demographic data and information on the delays were reported in the aggregate, and no names or identifying information was used during the dissemination and presentation of the study findings. Harms and wrongs were minimised because the information was purely used for this study and nothing else. The study will benefit the community in Otjiwarongo and Otjozondjupa region at large because it made recommendations to improve maternal health care service delivery, which will contribute to the improvement of maternal and foetal health outcomes.

3.10 Limitations

This study only interviewed women who had experienced any of the three delays, and neither they nor their babies died. Ideally, women who have lost babies would have been the best respondents as they are likely to have undergone more emotional trauma. However, due to the sensitivity of such interviews and also the limited ability to get such a study approved by ethics committees, the interviews were limited only to women who had their babies alive and well. Furthermore, the study results can only be generalised to another setting similar to this one because the sample size was relatively small, and the sampling method used (purposive sampling) could not create a statistically representative sample.

Lastly, control of bias, attitudes and opinions of the interviewer is limited in this study. As mentioned earlier, the researcher's background could have influenced the interpretation of results. Time is another factor that may have affected the study as the researcher is in fulltime employment with the Ministry of Health and Social Services while being a Masters student at the same time. There was also difficulty in reaching all the women who were sampled because some have relocated, some gave wrong home addresses on maternity records, and some could not be reached

through their mobile phone numbers. The analyses of maternity records were affected by poor record-keeping, and there was no opportunity for clarification of such data.

CHAPTER FOUR

RESEARCH FINDINGS

4.1. Introduction

The key findings in this study show that mothers' decisions to seek health care were influenced by their previous experiences of the signs and symptoms of childbirth, combined with those experienced by their immediate family members. Although some mothers went early to the hospital, they ended up being regarded as if they have delayed seeking care because of reasons such as not knowing the direction to the maternity ward, because of misdiagnosis of their condition and or because the nurses did not attend to them as soon as they arrived in maternity ward. In addition, despite Otjiwarongo being classified as an urban town, mothers experienced delays in finding affordable transport to the hospital, most especially when labour occurs late at night or during early morning hours. In addition, unprofessional health care workers' attitude was identified by mothers as one of the barriers to seeking health care. The research used the thematic analysis method to analyse the data summarised in the key findings with five themes and eight sub-themes derived from several codes as described below.

4.2. Description of Study Participants

Eight mothers who gave birth in Otjiwarongo hospital participated in the semi-structured interviews while 4 files of mothers were used for record reviews. The interviewed participants' ages ranged from 18 to 24 years and the records reviewed were for mothers aged 18 years and above. Table 1 below, presents an outline of the socio-demographic characteristics of the participants although the mothers are indicated as employed, they are entrepreneurs selling fruits and vegetables on a small scale from their houses. The informal houses below are at informal settlements and are made of corrugated iron sheets, wooden hardboards or any other material regarded as fit for a house such as cardboard boxes and some are neither serviced with electricity nor with water. Some households are having electricity, but some of those without electricity have connected cables illegally from nearby houses. The informal houses are not fitted with water pipes, water is collected from communal prepaid water taps. Two of the participants speak Damara/Nama language, three speak Oshiwambo, one speaks Otjiherero, and two speak Rukwangali language. The socio-demographic characteristics of women whose files were reviewed were only limited to age, employment and marital status as this was the only information that could be obtained from

the maternity records.

Table 4-1: Socio-demographic characteristics of participants of this study

Data Collection Method		***Interviews***	***Record Reviews***
Age in years	<18	N/A	1
	18-19	2	0
	20-21	2	0
	22-24	4	0
	>24	N/A	3
Educational Level	Unknown	0	No information
	Primary	6	No information
	Secondary	2	No information
Employment Status	Unemployed	7	4
	Employed	1	0
Marital Status	Single	6	4
	Married	2	0
Housing Type	Formal	3	No information
	Informal	5	No information
Sample size		**8**	**4**

4.3. Study Themes

These themes and sub-themes are further described as follows.

4.3.1 Mother delaying decision to go to the hospital

The study findings showed that most of the participants experienced the first delay due to lack of family support and a companion to accompany them to the health facility. The absence of the husband from home delayed a mother's decision to go to the hospital for appropriate health care services during childbirth because they did not have transport money. The findings from health records confirmed that some women who experienced the first delay did not indicate the name of the child's father after being admitted but rather that of their mothers, siblings or a female friend. Having majority of the mothers being single could be the reason why most of them were not accompanied by a husband or male partner to the hospital for delivery. Two mothers below were

quoted saying:

"My husband was not at home when I decided to go to the hospital. I kept dialling his number, but he did not answer. I took a taxi and went to the hospital alone". Said a 24-year-old mother of three.

"I live with my uncle and cousins at home who are all men, but they were not interested in my complaints. Only a woman staying next door came to accompany me to the hospital." Said a 23-year-old mother of 2.

Further findings from the interview responses on delay in decision making established that while some mothers decided to seek health care as soon as they labour started, there were others who delayed in deciding by more than twelve hours. The following quotes by two women are showing one mother deciding to seek care within two hours while the other one took much longer to seek care.

"At midnight the pain started & at 2:00am I phoned my cousin who is a taxi driver to take me to the hospital". Said a 22-year-old mother of two.

"The discomfort started during the day while I was at work, but I decided to go to the hospital at 5 o'clock the next morning." Said a 21-year-old mother of two.

Further, the lack of better understanding of the risk factors associated with home delivery may make the decision to go to a health facility difficult as in the case of this mother who is at term but delayed going to the hospital by almost twelve hours because of lack of information and understanding of the risks in childbirth.

Health education is an antenatal care policy requirement in Namibia and is given routinely to all pregnant women at antenatal care (ANC) clinics. The findings from the record analysis, however, showed that despite the good attendance and utilisation of ANC services by pregnant women in Otjiwarongo, health education sessions are only given during the first ANC visits. On subsequent ANC visits, women do not get health education, most notably on signs and symptoms of labour,

unless if they present with problems, then only are they given health education based on the problem at hand. In addition, the records showed that some women arrived at the hospital with the baby's 'head on the perineum' which means that the mother was ready to give birth immediately. This mother's records did not elaborate on why she arrived late at the hospital because the Maternity Record does not make such provision. This information is usually only available when a nurse is pro-active and enquires from the mother her reason for delaying. Having most women attending ANC services, it is expected that women in Otjiwarongo will be knowledgeable about the signs and symptoms of labour, but this was not the case. This is demonstrated by the words of the 22-year-old single mother of two, below who said: *"The pain started on Sunday night, and I decided to go to the hospital at around noon on Monday".* This then gives rise to the question as to whether the current ANC model used in the Ministry of Health and Social Services is effective.

The study again established a significant relationship between the demographic characteristics of women who experienced any of the three delays and their perception towards accessing appropriate healthcare services during childbirth. The mothers' delay in deciding to seek health care was in addition caused by factors such as individual issues such as bad birth experiences from the health caregivers in that same health facility, or the mother's low socioeconomic status, and or low educational status. Findings further indicated that six out of eight women had primary level education qualification, whereas two women had a secondary level of education.

The study found that mothers' decisions to seek health care were at times influenced by their perceptions, knowledge and understanding of labour and childbirth. Health education given at ANC plays a crucial role in ensuring early health care-seeking behaviour by pregnant mothers.

4.3.2. Classification of what the different signs and symptoms meant to the mothers and how they caused delays

It also emerged that pregnant mothers were not convinced to seek health care as long as they did not consider that what they felt were sufficient signs for giving birth. This has led to them classifying specific symptoms and signs as not good enough reasons for seeking health care. These following signs and symptoms were regarded as poor or minor for seeking care by the mothers. These are slight back pain, slight lower back pain, sweating, body heaviness, frequent urge to pass urine, feeling hot in the body and running stomach (diarrhoea). Even in the presence of these signs

and symptoms, as long as the expected date of delivery (EDD) was far, the mother would still not decide to visit a health facility. They took these signs lightly, leading to them delaying in deciding to seek health care for childbirth. Some mothers explained that going to the hospital too early shows that the mother is somehow 'a coward' and therefore, they would rather delay seeking care until the pain is strong enough – this was expressed by two women from the same tribe. Another woman said that she would rather delay going to the hospital and spend less time in the presence of the nurses, whose attitude toward mothers is not always good. Also, one mother said that labour pain feels much more bearable when one is in their comfortable home environment than when they are at the hospital.

Another 24 year old mother of three said that she felt some slight back pains coming on and off from the fifth month of pregnancy and therefore was not aware that labour had commenced on that specific day. As puts it in her own words: *"I was not sure I'm experiencing labour pain since it[the pain] was on and off and I thought it was just like [a] normal day [where the] baby is turning in my womb"* This mother ended up giving birth two months earlier than what was estimated according to her dates. However, through the health education session at ANC, the mothers should have been informed on how to differentiate between true and false signs of labour which then could have influenced their health-seeking behaviour. This could be indicative of the gaps in the health education given at ANC and whether the information given to mothers is well understood. Is there a way of assessing whether mothers understood the signs and symptoms of imminent labour at ANC; and to dispel the myths emanating from cultural and social influences?

The absence of some signs regarded as critical by mothers delayed their decision making as well. Some mothers reasoned that when there is no liquor drainage when there is no vaginal discharge, and when there is no bleeding, then there was no need for them to seek health care for childbirth. As stated by the 23 year mother of two in her own words:

"Everything was fine, and I only felt the baby turning which felt like normal pain. I was not expecting to give birth at that moment since my date [the expected date of delivery] was almost ten days far."

This mother managed to get to the hospital for delivery, although she arrived late, and her chances

of delivering before reaching maternity ward were high.

On the contrary, the same mothers regarded certain signs and symptoms as sufficient evidence of labour, and even if only one of these is present, they would decide to seek health care immediately. For most of the mothers, their decisions concerning these signs were influenced by their previous experience of labour, the advice they received from older women and some was information they received during the ANC clinic visits. These were signs such as substantial back pain or increasing back pain, increasing lower abdominal pain, bleeding or seeing blood, when the abdomen feels hard, when water is draining, when feeling an urge to pass stools but no stool is coming out, and when feeling that the baby is pushing. In the presence of these signs and symptoms, mothers affirmed that they would immediately decide to visit a health facility in anticipation of giving birth. As a first-time mother, aged 19 years said:

"*After I started feeling pain and after seeing the blood, I decided to google a video of a woman giving birth; because I never gave birth before. Afterwards, I called my mother, and she took me to the hospital."*

4.3.3. Time lapses experienced by mothers after they decided to seek health care

The second delay experienced by mothers occurred at different levels starting from the community up until the mother reached the hospital. What came out prominently in this section, is that women experienced problems such as lack of emergency transport, lack of transport money, poor geographical access, e.g. location of the area and nature of the roads, poor and lack of involvement of family members and the high cost of public transport, e.g. during after-hours and when picking mothers from home. The details pertaining to how these challenges caused delays are discussed below as they will assist in the identification of appropriate interventions for their prevention.

Women living in Otjiwarongo had to find their way to the hospital for delivery even though they live in informal settlements on the outskirts of town with some of them living as far away as 10-20 kilometres from the hospital. Although Otjiwarongo is classified as an urban town, most of the respondents in the study live in informal settlements and reaching the hospital within a reasonable timeframe was a challenge for them. Some mothers expressed that their delay in reaching the hospital was not only because of distance but also because of lack of money to pay for transport

to reach the hospital.

Mothers in labour used private vehicles or taxis as a means of transport to the hospital because the ambulance does not routinely collect pregnant women in urban areas. The cost of a taxi is N$12 (which is almost equivalent to US$1) from 06H00-22h00. However, the rate doubles beyond these hours for distances that are beyond the designated areas of operation or when a person wants to be dropped/picked from home (The Namibian, 2005). As a resident of Otjiwarongo for the past five years, I have not seen the metered taxis, and one can only call a taxi if you have the number of that specific driver. There is no system where women can make calls to any available taxi when in an emergency such as labour. On the other hand, it also emerged that the availability of taxis in Otjiwarongo was more during the daytime as compared to night time and early morning hours. In addition, the use of private vehicles for obstetric cases is inappropriate given the complexity of labour and the fact that a woman may deliver while on the way to the hospital.

The data from the maternity records showed that most mothers had a first delay because they arrived at the hospital with the cervix dilated seven centimetres or more; however, the reasons for their delay and the level at which the delays occurred was not captured. It was only during the interviews that mothers disclosed that they faced transport challenges when in labour. It is important to note that the maternity records do not assess for the delays, but during record analysis and maternal death audits, the records may show the presence of the delays depending on the details captured by the health care providers. These delays are further understood in women's own words like the 22-year-old mother of three said:

"It took me about 50 minutes to get the taxi that took me to the hospital because it was night time and raining. There was more than one-hour difference between the time I decided to seek care and the time of arriving at the hospital. The taxi took some time to arrive at the hospital because I found other passengers in the car and we first went to drop them off, and we had to use another road because the shorter route coming from my residential area was blocked by rainwater."

During seasons of rain, some roads in Otjiwarongo get blocked off by rainwater. Most of the roads in the informal settlements in Otjiwarongo are not tarred. This causes the roads to overflow with water after heavy rains leading to further delays for women in labour going to the hospital. The

following is a typical example of the experiences of women that had multiple cases of delay

A case study of a typical case of multiple causes of delays

Nalima* is 18-year-old single, unemployed mother and dropped out of grade 8 due to pregnancy. The father of her ten-month-old baby is also unemployed. Nalima is the 2nd born of 5 siblings, and her mother who is a single parent has been without work for the past five months due to ill health. They live in a two-bedroom shack made of hardboard and corrugated iron sheets in one of the informal settlements on the outskirts of Otjiwarongo. This is how Nalima narrated her story on that fateful day when she was full term and ready to give birth to her first baby:

"When the pain started, we struggled a lot because there was no taxi money at home. I was paining too much, in the lower abdomen. I kept going to the toilet, feeling an urge to pass stools, but nothing was coming out. I told my mother about the pain, but she was sleeping. My older sister who was sharing the room with me and my other siblings went to tell my mom to wake up, and that was when she woke up. After waking up, my mother went to ask for money from somewhere. In the meantime, I felt like the baby wanted to come out and I kept going to the toilet over and over. At one time, there was water (amniotic fluid) coming out. All this time my mother was still not back because she had gone far to look for the money. It was just my sister and me at home. I had to go to the hospital because my mother was not able to help me give birth. She took two hours before she came back and then we started walking alongside the road, looking for a taxi to take us to the hospital ...

It took us long to get a taxi because it was early morning hours and still dark. So, there were no taxis on the streets yet. After about two hours we finally got a taxi, and we had to walk up to the tuck shop. The taxi dropped us off at the hospital gate ...

We started walking to the maternity ward because the Security Guards did not allow the taxi to enter the hospital premises. As I was walking to the ward, I would sit down or bend down for some time during times of severe pain. This is what I kept doing until we reached the ward. In the ward I had to wait for the nurses to attend to a mother who came after me. Later on, I was taken inside the examination room, and my mother went back home to get me a blanket. The

nurses asked me if I was having pain and I said yes, but this specific nurse did not assist me. She [the nurse] just looked at her phone and started reading a newspaper. Another nurse came to examine me and told me that I was 7 cm dilated. She asked me to walk around for a while in the ward and come back later. After some time, I went back to the nurses' room and told them that I could no longer take the pain. The nurse asked me to get on the bed and said the baby is about to come and I gave birth..."

Case Summary

The mother, in this case, had multiple levels and causes of delays. She decided to seek health care when she realised that she was in labour but had no transport money. In addition, it took her time to wake up her mother who then spent about 2 hours to get hospital transport money. This shows that despite having a mother who is full-term pregnant and expecting to give birth at any time, there may be no awareness of the importance of health facility delivery or early health-seeking for maternal cases in some community members.

Another challenge identified is that women who go in labour at night face multiple problems because access to taxis at night is limited. This is evidenced as the mother said that they had to look for a taxi for another 2 hours. Finding a taxi between midnight and before daylight can be difficult most especially at informal settlements. The best way to find one will then to walk alongside the main roads where the chances of getting a taxi are much higher.

Most of the streets are also dark because of poor street lights, and this is why some women despite being in labour will delay seeking health care until when it gets lighter. The distance from the mother's house to the tuck shop is approximately 4-5 kilometres, and the mother in labour had to walk this distance on foot, which is on its own another risky decision to take. It was dark, and they could not find a taxi immediately. The hospital is about 10-15 kilometres from the tuck shop mentioned above.

Upon arriving at the hospital, the mother again had to walk from the gate to the ward despite having severe labour pains. The hospital gate has Security Guards who use their discretion on whether a woman should be dropped off inside the hospital premises by a taxi or not. The Security Guards are not trained on signs and symptoms of labour and yet they make decisions

having an impact on the outcome of women in labour. This mother had a risk of delivering in the hospital corridors like she explained that she kept stopping when the labour pain became severe. Despite this, in the ward, the first nurse treated the mother in an unprofessional manner and with disrespect and did not attend to her promptly. Upon examination, by the second nurse, the mother's cervix was 7 centimetres dilated, which means that she was in active labour by the time she reached the ward.

Mothers living in informal settlements have a challenge with access to health care services. The above mothers' delays were caused by long distances to the hospital, lack of transport money coupled with lack of public transport at night and bad nurses' attitude.

4.3.3.1 Delay on arrival caused by lack of information on where a mother should go for delivery

In this section, mothers described what they encountered from the time they arrived at the hospital up to the time they reached the maternity ward. At times mothers made decisions to seek care for delivery as soon as the first sign of labour started, but they at times encountered prolonged periods of waiting to receive care after reaching the hospital because of not knowing where the ward is or due to various barriers at the hospital level.

The maternity ward at Otjiwarongo hospital can be accessed using three routes from the main hospital entrance that is: 1) through the Casualty department which is open on a 24-hour basis for emergency cases. This department has nurses, doctors and emergency care practitioners although no staff members are dedicated to either register or accompany the women in labour to maternity ward, 2) going through outpatient department (OPD) which provides access to visitors and day patients on a 24-hour basis, using the entrance facing the paediatric and medical ward, and lastly 3) using the entrance to maternity ward from the door facing the side of the laundry and kitchen, without going through either OPD or Casualty.

In addition, all three routes leading to the Maternity ward are passing through Surgical ward, which has a nurses' station on the side adjacent to the maternity ward. Meaning, a nurse from maternity has to go through the Surgical ward when going to Casualty. The nurses' station at Surgical ward is not used by nurses, only by cleaners, because the nurses are using another office as their station.

These cleaners, when on duty and available, can sometimes direct women in labour to the maternity ward. Unlike surgical ward, the maternity ward does not have a nurses' station nor a reception area to receive patients entering the ward. Instead, nurses are using an office which also serves as a staff room. This office does not enable the nurses to see the patients easily upon arrival in the ward, most especially if the door is closed.

Furthermore, the maternity ward has only one corridor with rooms on either side making up the entire ward. Otjiwarongo hospital maternity has one delivery room, one antenatal and one postnatal room plus and an additional room designated for premature babies. These rooms have doors and only if they are open can one see who is in the room. The nurses' office is about the fourth room on the left side of the corridor while the delivery room is almost opposite that office on the right side. If a nurse is busy in the delivery room, they cannot see a client entering the ward. Some mothers could not recall the exact time, but they could tell that they had to wait for long periods before being attended to by the nurses. There is no bell in the maternity ward, which patients can ring upon arrival to alert the nurses. Mothers who have never been to the maternity ward before said they did not know where the nurses' office was, especially, if they find the office door closed, which is mostly the case after midnight. When the nurses' office door is closed, it causes further delays to mothers who do not know the ward because they end up sitting and waiting not knowing where the nurses are. This was what a 20-year-old mother of three meant when she said:

"I asked a fellow client to show me the direction to the maternity ward, and she accompanied me to the ward and asked me to sit on the benches. I did not see any nurse upon arrival inward and spent about 40 minutes waiting for them. Another mother/patient asked me if I needed help and she knocked at the office, that was when the nurses came to assist me. The nurses were sleeping, and I sat on the chair and did not knock on their office door which was closed at the time, also, because it was my first time delivering at Otjiwarongo hospital and I did not know where to find them."

What makes it more difficult for mothers is that Otjiwarongo hospital does not have dedicated staff to accompany mothers who are in labour to maternity ward upon arrival. The mothers waste time looking for the maternity ward, which is a dilemma. It is even more difficult at night because they hardly get anyone to help them. Signage for direction to the various wards are missing at the

hospital. This makes the search for maternity ward a difficult task for women in labour who have to ask around. Most mothers have expressed their desire to have a person accompanying them to the maternity ward. Mothers' expressed their appreciation of health care services received at health facilities in other parts of the country and suggested that such practices be duplicated in Otjiwarongo hospital. Like the 24 years old mother of three said:

"*I remember well when I was at a particular hospital in the northern part of Namibia, where I went to give birth to my firstborn. At the time, I was staying in the maternity waiting home; any mother in labour would be accompanied by her fellow mothers to the security guards at the hospital gate. At the gate, the security guards will have a bed [stretcher] ready to take the mothers in labour to the nurses at the maternity ward."*

One mother said that when she arrived at the hospital, there were many student nurses at casualty, and she expected them to offer her some help because she had much pain. However, none of them attended to the mother, until she reached the maternity ward. The second mother said that because she knew where the maternity ward was, she walked straight to the ward alone through casualty and Surgical ward without anybody offering to help her. The third mother said she went to casualty where she found the Emergency Care Practitioners (ECPs). The ECPs asked the mother if she was in pain and told her to proceed to the maternity ward without accompanying her. The good thing is that for those mothers who knew where maternity ward was, it was not difficult to find it. It is also important to note that mothers are attending ANC at a clinic that is far from the hospital, and that is why most of them are unfamiliar with the maternity ward.

The findings of this study demonstrate the lack of clinical navigators at the hospital and a nurse's station or reception area at the maternity ward as a source of delay in itself for mothers in labour. This is so because the main challenge faced by mothers visiting maternity ward for the first time was in finding where the nurses are, and this in itself has been a delay to health care for women in labour.

4.3.3.2 Delay experienced upon arrival at the maternity ward

Despite maternity ward not having a reception area, there were mothers who expressed their appreciation for having received prompt care by the nurses upon arrival in the ward. However,

some mothers had delays caused by the nurses themselves. The reason for these delays was not established because this study was focused on the mother's perceptions and not on that of the nurses. On one occasion, the nurse took the mother's health passport upon the mother's arrival in the ward and only returned after about 30 minutes to attend to the mother. This 19-year-old first time mother said:

"I would say that the care I received was fine because I did not know what to expect. It was my first-time giving birth, and I did not have enough experience in the area."

There is also an interesting observation that the nurses' decisions to attend to the mothers were determined by their perceived assessment of the severity of pain because women who appeared to be calm were ignored (or treated with complacency), and those who screamed and made noise were attended to first. In the quotes below, it seems that the nurses responded faster when the mothers' behaviour demanded urgent attention e.g. when a mother screams out of fear and anxiety.

"*I kept knocking at the door because I feared that my baby might fall on the floor because I could feel her pushing. I remained standing in the corridor, fearing that if I sit down on the floor, I might not be able to stand up. I Knocked several times"* said the 24 years old mother of three.

A 23-year-old mother of two said: *"The nurse examined me and told me that the baby was still far and that I should go back to the room where I was admitted before. That is where I stayed until the pain became unbearable. They kept sending me back (to the room) saying the baby is far. They sent me back three times and the fourth time I decided to kneel in front of their office. That is when they decided to attend to me and I gave birth right there."*

One mother said the nurses did not explain to her why they did certain things, and this situation could have been perceived differently by the mother, had the nurses explained to her the reason for attending to another mother before her. This 18-year-old first time mother said:

"I felt so bad and was asking myself as to why the nurses should treat me the way they did. They attended to a mother who came after me while I am just sitting. I was wondering why they should attend to the person who came last, first."

Caregiver laxity, lack of professionalism and poor caring attitude toward patients reflected sub-standard service delivery which led to women in labour experiencing delays in receiving health care.

4.3.3.3 Delay caused by misdiagnosis and failure to do a proper assessment of the mother

This type of delay shows that mothers did not receive the appropriate health care at the time they needed it. Findings from interviews revealed that some mothers who went to the hospital while pregnant, not knowing whether they are going to give birth or not and were sent back home while indeed they were in labour; only for them to come back later that day for delivery. This delay is pointing to incorrect or inaccurate assessment of women in labour contributing to delayed health care.

One of the mothers, a 22-year-old gravida 3, was referred from the antenatal clinic to the hospital's out-patient department (OPD) to be seen by a doctor. Upon arrival at OPD, the doctor did not examine the mother but only took the ANC passport from the mother, wrote in it and told her to go home. The assessment of the expectant mother's readiness to deliver was poorly done and was only based on the expected date of delivery. No consideration was done to either understand if the cervix was open to the appropriate propositions for delivery or if the estimated delivery date was wrong. This mother came back later in the evening to the hospital and gave birth. However, the mothers' health passport had the doctor's notes stating that the mother was still far from her date of delivery. This points to both medical staff and mothers' use of the expected date of delivery as a predictor of the accuracy of labour, although in both instances these predictions were proven to be wrong by the labour outcome. If the doctor could have examined the mother, this mother could have been admitted immediately to maternity ward for delivery. The patient was not examined, and this shows that the maternity records are not always a true reflection of what was done to the patient.

Another mother was hospitalised for labour and discharged home, but she returned early the next day to give birth. This could mean that not all cases classified as delays are true delays, but that some delays are caused by the health care providers and therefore ends up being misclassified as

either first or second delay. Two different mothers said:

"The doctor did not touch me or ask any questions. The doctor took the passport and wrote in it while I was sitting on the benches, and no sooner was done. I was asked to go back home and came back that evening to give birth." Said a 22 year old mother of three.

Another 22-year-old mother of two said:
"I spent the second night in the ward, but by then the pain was becoming lesser. The next morning, I was sent home (discharged) and advised to continue taking the tablets I received. I had to come back early the next day to give birth."

4.3.4 Mothers' experiences of care received in the maternity ward

4.3.4.1 Care before childbirth

The mothers described the type of care they received from the nurses who attended to them in the maternity ward. In some instances, the nurses would have delayed in attending to a mother, and then the delivery ends up appearing like an emergency. Like the case described below: under normal circumstances and according to the maternity record, a mother is monitored hourly during the latent phase of labour and then half-hourly during the active phase also known as the first stage of labour. The nurses are supposed to use a partograph to monitor the progress of labour. What follows below is the narrative of a mother who was in labour but was sent back to the room by the nurses.

This mother was not monitored closely even after demanding to be examined. She then took the initiative of going several times to the nurses to get help and finally decided to kneel down in front of the nurses' office because they kept sending her back to the room. Only then did they attend to her and she added that: "…*the moment I laid on the bed and opened my legs, the baby's head came out immediately, and I gave birth. The nurse then said, 'so you were truly having pain'?"* Said the 23-year-old mother of two. The mother could have given birth in the room had she not used this strategy to push the nurses to attend to her. It is not known what could have happened to this mother had she listened to the nurses and sat in the room she was in. Going back to the records, this mother's partograph was never opened, and the partograph page was written across 'fully dilated' which is usually used for women arriving fully dilated in the ward. This woman did not

arrive fully dilated in the ward because she kept telling the nurses that pain was unbearable. The mother was in the ward for more than six hours according to the records, which means that the partograph was supposed to be opened for the monitoring and management of labour. The nurses failed to examine her and give her the care needed for women in labour. This case shows negligence from the side of the nurses and unprofessionalism because it is difficult to detect maternal and foetal complications when labour is not monitored closely.

4.3.4.2 Care during and after childbirth

Some mothers at the maternity ward, however, had a good experience with the matrons in that same hospital. They were advised to do some light exercises to relieve muscle tension through deep breaths, walking and stretching, while waiting to give birth. These mothers also showed appreciation towards this specific group of nurses for their caring attitude like in the quote below.

"I walked for a while and came back to sit, and the matron [supervisor of nurses/head nurse] came to tell me that it is not good for a mother in labour to sit and that I should walk around if I want the baby to come soon. She [matron] also advised me to breathe deeply in and out while walking around so that the baby can get enough air. After some time, I went back to the nurses' room and told them that I could no longer take the pain. The nurse asked me to get on the bed and said the baby is about to come out. She then asked me to push and the baby came out and was received by the nurse." Said the 18-year-old first time mother.

They were also a few mothers that expressed their appreciation of the way nurses in the maternity ward treated them well showing that mothers had different experiences with different staff members. One mother said she was not poorly treated like the others because the nurses were kind to her and encouraged her to practise Kangaroo Mother Care (KMC) for her premature baby. Mothers also felt that the day duty nurses were friendlier than the night shift nurses because of a nurse who was screaming and shouting at the mothers delivering during the day shift. According to the mother, the nurse would say words to mothers like – "when you were doing this [meaning when you were having sex] you knew how to open your legs, but here you do not know how to open your legs". This scared the mothers as one said that she was glad to have given birth during the day and therefore did not have to go through such treatment at night. Another mother who overheard the nurses talking like that to other patients said she was scared to call them for

assistance when she was in need. That is why, when she wanted to go to the toilet, she just stood up by herself and ended up falling down, and the nurses came and helped her afterwards.

The mothers felt that health care workers' attitudes portrayed a lack of respect and a breach of confidentiality. While some mothers were bold enough to relate their personal experiences with the nurses, others preferred to relate examples of what they observed or heard from fellow mothers in the maternity ward. Another mother explained how her roommate was told by the nurses that she was smelling bad and should take a bath; even though the mother was not given warm water and soap to use. The mother was from a town located 120 kilometres away and had no relatives to bring her soap whilst in the hospital. The other mother said she saw a doctor pulling the plasters of mothers who had caesarean sections so roughly that some mothers were screaming and were scared of the doctor.

The bed curtains were not pulled or closed to create privacy and confidentiality, the procedures were not explained to the mothers, and the forceful removal of the plasters from mothers' wounds showed disrespect and a violation of their rights. The mother telling the story said she felt nauseous and upset after witnessing what the doctor was doing to other mothers in the same ward, and she said that most mothers knew that specific doctor for always pulling the wound plasters in that manner and some mothers would cry during this procedure.

A mother who delivered said she felt hungry and asked the nurses to give her food, but the nurse told her not to ask for food from them. Therefore, she lay in her bed hungry until around lunchtime when her relatives brought her food although she delivered early in the morning.

Generally, a mother's birth experience has some influence on her future birth plans and birth spacing. However, other factors such as mother's age, socio-economic status, and educational level, complications during the last delivery, and several children all seemed to play a role in some mothers' decisions and choices. A mother said that having too many children can affect a person's progress in life negatively while another said she does not want to give birth anymore because of lack of decent employment. Another mother felt that giving birth to a premature baby was a sign that the next baby might be malformed, which was clearly indicating a lack of knowledge by this mother and could be addressed at ANC or even after women have given birth because this is a

single mother of three and leaving with this perception may not be beneficial to her at all. Most reasons given by mothers were not so much related to their experiences with health care, but they were more related to their socio-economic status.

4.3.5 Other factors related to childbirth which may or may not necessarily be linked to any of the delays

4.3.5.1 Preparations for childbirth by mothers

Pregnant mothers in this study prepared differently for childbirth, depending on their prenatal assessments, health education received at ANC and financial capabilities. In most cases mothers indicated that preparation for childbirth also includes buying the baby's clothes and packing a bag with both mother and baby's items including the ANC passport. However, some mothers went to give birth unprepared because of reasons like a baby being born two months earlier or labour starting late at night. In some cases, relatives coached and taught the mothers on what to do to ease childbirth pain like taking deep breaths, not closing the legs when the baby is about to come out, pushing hard so that the baby can come out, etc. as a way of preparing the mother for childbirth.

"I knew it was time for the baby to come. My mother told me that if I go to the hospital to give birth, I should push well and not close my legs. I was told that if I close my legs, the baby will die. I also prepared a bag with the baby's clothes" said 18-year-old first time mother.

These findings show that some respondents were quite prepared for the childbirth process, both mentally and psychologically, while others were not. The results from the records also confirm that relatives and community-based midwives played a significant role in guiding and supporting mothers during the childbirth period as they accompanied women to maternity ward for delivery.

4.3.5.2 How infection control, hygiene and the general hospital environment was perceived by mothers

Mothers had diverse perceptions of the hospital environment. Mothers said that the delivery room and the ward where mothers stayed after giving birth was clean, but the room for premature babies was untidy and poorly maintained. The mothers said the floor was dirty, and because the cleaners did not clean it properly, mothers who had delivered and waiting for the premature babies to grow, were cleaning the floor of this room themselves. While some women mostly felt that the hospital

was generally not clean, others felt that the size and set up of the maternity ward was inadequate and proposed that and additional delivery rooms be added for privacy and confidentiality. The 19-year-old first time mother explained the lack of privacy as follows:

"I wish that the delivery room setup can be changed, there were many students [five ladies and one guy] standing around and looking at me as I was giving birth. I felt ashamed (shy) and wish that I could have given birth in a room where I am alone with no other mother giving birth next to me. The mother next to me was shouting, and I got scared as I was hearing the things the nurses were telling her. I want that extra delivery rooms to be built at the hospital so that more mothers can be attended to at the same time but in privacy."

Otjiwarongo hospital is a training hospital for Enrolled Nurse-Midwives and Accoucheurs, and therefore the students are rotated to maternity ward to learn and to do their practical sessions. Again, the mother's frustration could be an indication of the lack of communication between the staff and mothers. The mother may have been more understanding why the room had many students if things were explained to her.

Another first-time mother was placed in a waiting room because the postnatal room was full. This mother was sharing the room with a pregnant woman who was vomiting, and she did not feel that this was healthy for her newborn baby. These were words of the 21-year-old mother of two:

"After giving birth, I was placed in a waiting room because the other room (postnatal room) was full. I was sharing this room with a pregnant woman, and she was vomiting."

A mother said the hospital is not a place she likes because it is a place that is usually dirty. The inside of the hospital was much cleaner, but the condition of the beds was not good in that after mothers have given birth, the beds are not cleaned. According to her, a newly admitted mother will lie on the same bed where the other one left. The nurses only remove the plastic covering at the top and throw it away, and they do not clean the bed with water or some liquid before placing another patient on it.

4.3.5.3 Poor Recordkeeping

One mother's baby was recorded on one page of the maternity record as a girl and the other page as a boy. On discharge, the baby was given a boy's child health passport (blue in colour) while the baby was indeed a girl. This is a case pointing to poor record-keeping which may neither be accurate nor reliable. This may be coupled with the low educational status of mothers in that an educated mother could have realised by reading, that her baby was given a boy's health passport. Due to the seriousness of this case, the matter was taken up with the management and was rectified immediately because some of these cases can lead to litigation against the Ministry.

The maternity records at Otjiwarongo hospital are not kept in a dedicated storage and some boxes used to store these files are torn and stacked in cupboards with some papers hanging loose from the mothers' files. The nurses have improvised by storing the boxes in the order of months of birth but still, not all files of sampled clients could be found for this study. This created to difficulty and even led to the increasing of the sample size by month of delivery in order to reach the appropriate sample size for this study. It was also observed that the records reviewed did not have all the required information, and most of the partographs were not filled up.

4.4 Summary of Findings

It was noted in the study that mothers living in informal settlements have a challenge with access to health care services. The mothers' delays were caused by long distances to the hospital, lack of transport money coupled with lack of public transport at night and during the early morning hours. Once a mother has reached the hospital, another challenge they face is lack of company to the maternity ward. Mothers often found themselves walking alone in the hospital corridors, especially if no relatives accompanied them from home. While there were some nurses referred to as good by mothers, other nurses were referred to as bad simply because of the manner in which they treated the mothers like shouting, and or using abusive language. What is important to note is that not all nurses are the same and the situations that mothers presented with were different. The mothers' level of income has a significant influence on their decisions for future childbirth as they felt that having more children was a financial burden. Otjiwarongo hospital was described as cleaner on the inside than the outside, and mothers suggested that the delivery rooms be expanded for privacy during delivery.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1.Introduction

This chapter presents a summary of the research findings, discussion from the semi-structured interviews and record reviews conclusion, and recommendations. The key findings of this study pointed to lack of support for obstetric women by the husband, family and community; limited knowledge of signs and symptoms of labour, lack or emergency transport; poor maternity ward set up in Otjiwarongo and poor record keeping. Despite Namibia having good policies in place to address maternal and health challenges, there is still room for implementing identified strategies that have proven to be effective in other settings, in order to fill those gaps.

5.2.Discussion

Poor Family & Community Support

The study findings confirm that lack of support from mothers' family members, most especially the male members, as one of the major causes of frustrations faced by women in labour. This finding was similar to what Ganle & Deryl (2015) found that more than three-quarters of the male respondents in their study agreed that they have never accompanied their female partner for ANC or childbirth. Obstetric women have indicated the need for their husbands' support as in Sokoya, Adekunbi & Ojewole (2014), where 86-96% of women agreed that a husband's support made pregnancy less stressful, gave emotional security and made pregnancy less stressful. In order to improve health outcomes for women; Kaye, Kakaire, Nakimuli, Osinde, Mbalinda, & Kakande, (2014) recommended that it was important to identify strategies that will increase male involvement in pregnancy and childbirth. In another study, men responded that although they were aware of the benefits of their involvement in pregnancy and childbirth, they did not actively involve themselves until a complication arose (Ganle & Deryl, 2015). Further, men have expressed willingness to support women during childbirth but they cited that they were facing barriers such as poor health care providers' attitude, high cost of accompanying women to seek maternal care and lack of clear information on what role they should play during pregnancy and child birth. (Kaye *et al.*, 2014; Ganle & Deryl, 2015). According to Sokya *et al.* (2014) identified the need to introduce a programme to increase men's knowledge and awareness about the physical, emotional

and socio-economic needs of pregnant women. The authors recommended that men be engaged in birth preparedness, complications readiness and awareness of emergency obstetric conditions.

Poor support for obstetric women in this study to a great extent can be attributed to ignorance about the importance of pregnancy, care and support for the mother at family and community level. MacDonald *et al.* (2018) conducted a study in Haiti, and interestingly they identified the fourth delay. In this delay the author acknowledges that the community has the most potential to save a maternal woman from dying because at this level lies "…**the greatest chance for practical, achievable, immediate and sustainable changes**." It is important to note that when a mother dies during childbirth, the surviving infant often face problems with malnutrition due to lack of breastfeeding and the older siblings often drops out of school, starts giving birth at an early stage and faces the risk of maternal death themselves (Miller & Belizan, 2015; Anyait, Mukanga, Oundo, & Nuwaha, 2012). Hence, family and community members need to be made aware that if not addressed, maternal death can become a vicious cycle.

With the mother being the centre of her home, all functions that she contributes to, literally dies when she dies (Miller & Belizan, 2015). Therefore, family and community education on the importance of support for maternal women is essential as mothers play a key role in reproduction, social relations, education, health, etc. of her family and the community at large (Miller & Belizan, 2015). Through the community-based action research (CBAR) conducted in Haiti, the study by MacDonald *et al.* (2018) concluded that finding sustainable ways to reduce maternal mortality involves empowering community members in maternal health-related matters, which then can result in accountability toward maternal health and increased political will to bring about change.

The findings on mothers not being knowledgeable about when they expect to give birth was attributed to inadequate information received during ANC visits. Some mothers did not know the importance, or the risks associated with not accessing proper health care services during childbirth on time, which according to Mbai (2015) posed a greater risk of high mortality rates during childbirth. Health education to pregnant women about early health-seeking behaviour is important because when women die during childbirth, their infants have about 80% chance of dying as well (Moucheraud *et al.*, 2015). Further, the prevention of maternal death is a health right, a human right and a social issue (Miller & Belizan, 2015). According to Mugo, Dibley & Agho (2015)

women who had poor knowledge on pregnancy and newborn danger signs were those who had not attended ANC.

The ANC attendance rate is at 87% in Otjozondjupa region but despite this, knowledge of labour and childbirth sign was still limited. With such an ANC attendance rate, one would expect mothers to be well educated about the signs and symptoms of labour. Is the current ANC model good enough and is how often is its effectiveness assessed? Otjiwarongo is having Community Health Workers formerly known as Health Extension Workers and the Ministry can strengthen this cadre to implement community-based interventions that have proven to work well in Ethiopia in order to improve the maternal and newborn healthy outcomes in Otjiwarongo (Lassi, Kumar & Bhutta, 2016).

Transport Related Challenges

The research also established that some women could not afford transportation from their homes to the hospital and had delays in accessing appropriate maternity care due to financial and transport difficulties. According to the WHO (2003) as cited by Chaibva (2008), unmarried pregnant women are less likely to seek antenatal care services due to a lack of economic and social support from parents, guardians, and spouses. Other studies further established that married pregnant adolescents may lack social independence and decision-making powers to seek ANC (Chaibva, 2008; Anyait, Mukanga, Oundo, & Nuwaha, 2012).

In 2015/16 eighteen percent of Namibians were classified to be poor while 11% were rated as severely poor but women were worse affected by both (MoHSS, 2018b). Namibia's Harambee Prosperity Plan (HPP) of 2016/17-2019-20 talks about significant reduction of poverty in Namibia by the year 2020 although the country's Gini coefficient at 0.594 is still one of the highest in the world, indicating a large gap between the poor and the rich (MoHSS, 2018b). According to MacDonald *et al.* (2018) the community can help to organise emergency transport for women that are in labour. Further, the lack of emergency ambulances for maternal women in Otjiwarongo and the lack of phone numbers of taxis also surfaced as barriers.

The Ministry of Health's Policy on Emergency Rescue Services in Namibia does not make provision for the emergency transportation of women in labour to the hospital in urban areas (MoHSS, 2012). The study conducted in rural Haiti by MacDonald *et al.* (2018) found that rainy

season and onset of labour at night were amongst the barriers why women would not deliver in a hospital or why they would delay in accessing health care. According to Holmes & Kenedy (2010), prevention of maternal mortality requires timely access to skilled birth attendants and access to quality emergency obstetric care for those with complications. Singh *et al*. (2016) affirmed that women using emergency ambulance services where mostly from rural background and of lower socio-economic status. This could mean that despite Otjiwarongo being a town, the use of emergency transport for maternal women will remain a need for women of the lower socio-economic class. Therefore, the lack of transport, poor communication, high transport cost and geographical barriers has led to delays in reaching lifesaving care in a timely manner to women in Otjiwarongo just like it was found in other studies (Holmes & Kenedy (2010); Kalhan, M., Singh, S., Punia, A. & Prakash, J. (2017)).

***Causes of Delay** at Hospital Level*

Our findings show how mothers experienced delays after reaching the hospital. Despite Otjozondjupa region having the best staffing ratio in Namibia with 94% of the staff requirement as per WISN report of 2015, mothers did not have someone to show them the direction or to accompany them to maternity ward (MoHSS, 2018b). According to The Hospital of Providence (2019) for improved maternal and neonatal health outcomes, patient navigators are supposed to be used at hospitals to help patients and family to get information about labour and the delivery process. They tour the hospital before delivery, receives prenatal classes and even schedule appointments for patients with doctors. Patient navigators basically serve as advocates for the overall patient care and these are trained registered nurses/midwives who have knowledge on maternal issues instead of using the Security Guards (The Hospital of Providence, 2019).

Women could also not easily identify the maternity ward because of lack of signs at the hospital entrance. Maternity ward does not have a reception, which could make it easier for women to be seen by the nurses upon arrival in the ward. In addition, there is no bell that a patient can ring when in maternity ward for them to be able to alert the nurses of their arrival. All these are barriers causing women to experience further delays upon arrival at the hospital. MacDonald *et al.* (2018) also found that among other barriers, poor health care worker attitude was amongst the barriers why women would not deliver in a hospital or why they would delay in accessing health care.

Poor Record Keeping

Findings from the record reviews confirm to wrong entries in maternity records which resulted in fear and lack of trust in health care providers by some women. According to Pirkle, Dumont and Zunzunegui (2012) keeping good medical records is essential to the quality of care. The shifting of the third delay to first and second delay was noted and is attributed to health care workers wanting to shift the blame away from themselves. This same mother was classified as fully dilated in her maternity record; which is intended to mean that the women entered the ward fully dilated and hence the medical staff had no time to open the partograph. This was not a true reflection because the woman was in the ward for more than six hours according to the records. In this scenario, the nurses wanted to shift the blame away from themselves by making the case to appear as either a first or second delay instead of a third delay. According to Lavender, Cuthbert & Smyth (2018) the partograph is a tool that provides the view of labour progress and it alerts the health care providers of any problem with the mother or baby although some women were deprived of this essential care during childbirth.

The poor archiving of maternity records at Otjiwarongo hospital also made it difficult to trace some maternal records for this study. According to Pirkle *et al.* (2012) poor charting and archiving of medical records can be a serious threat to the quality of care provided. Further, maternity records do not capture those delays experienced by mothers before they are admitted to maternity (first and second delays); and as such these delays are only discovered during auditing of death cases or when a health care worker has captured detailed sequence of events in the maternity record. The importance of capturing the delays that mothers experienced at home is not only important for death audits but can also be used to address issues beyond the health care system that are contributing to first and second delays. Further, the keeping of good patient records is a legal requirement in Namibia and the Ministry of Health and Social Services has guidelines on how health records should be archived and the interval at which such records should be destroyed (MoHSS, 2018a). On the contrary, this policy is not adhered to because the hospital lacks a dedicated lockable storeroom for patient records.

Health Worker Attitude

First-time and previous bad experiences during childbirth dramatically influences mothers' decision to access appropriate medical care from hospitals; because it delays their decisions to seek

health care. In most cases, nurses tend to be rude while dealing with expecting mothers by leaving them unattended for long hours either before or after admission. This significantly affects mothers' attitude towards accessing appropriate health care services during the expectancy period (Adamu, Y.M. & Salihu, H.M. 2002, WHO, 2010). The attitude of health workers greatly influences women's access to ANC and maternity services and poor health worker attitude discourages mothers from coming back to the health facility another time (WHO, 2010; Adamu, Y.M. & Salihu, H.M. 2002). The Namibia Patient Charter clearly stipulates that patients have the right to dignity and respect, privacy and confidentiality, etc. (MoHSS, 2016a). When these rights are violated, patients shy away from seeking health care earlier, they lose trust in the health system and these ultimately contributes to the delays faced by obstetric women.

5.3 Conclusions

Although women had positive perceptions towards accessing appropriate health services during their pregnancy and childbirth period, they delayed seeking care early due to various barriers. These barriers range from individual to socio-cultural factors and service delivery factors.

Generally, mothers perceived the care they received at Otjiwarongo hospital as unprofessional and they felt that their rights were violated. Respondent demographic factors such as education, social, and cultural backgrounds also influenced their decisions to access appropriate health care services during childbirth. Further, the study findings conform to that of several studies done in this field and confirms to inadequate knowledge of childbirth signs and dates, lack of emergency transport for obstetric women, poor community support for maternal women and lack of transport money as among the significant factors influencing access to appropriate childbirth services.

5.4. Recommendations

A number of strategies for the improvement of maternal and newborn health care services are proposed based on the study findings as follows.

- A well-functioning health work-force is the one that is responsive to the needs of its users or customers. As such the Ministry of Health & Social Services should train health workers on customer care so that they can change their attitude towards women who attend labour and delivery wards. Nationwide sensitization of the general public is needed to ensure that Namibians are made aware of their rights as stipulated in the patient charter.

- Community Health Workers should be used fully to strengthen community-based interventions that have proved successful in countries like Ethiopia, in order to ensure that rural-based obstetric women receive the same attention as those in urban areas. Therefore, community leaders as the custodians of custom should be sensitized to come up with deliberate actions which can help in addressing social-cultural practices so that women should start receiving support at community level to enable them to seek early health care for childbirth.
- Men involvement should be regarded as a key priority and messages should be developed to ensure that men are prepared holistically to understand and support their pregnant partners. This should ideally include information related to ANC, labour, delivery and the post-partum period and well as the psychosocial and financial needs for men, women and families/communities. Strategies to attract men to attend ANC or reaching them through feasible means such radio, social media or other proven successful means should be considered and where they exist, strengthened.
- Availability of mobile clinics and maternity waiting homes with integrated services, which include ANC and postnatal care, should be encouraged at all levels especially in hard to reach areas, to reduce the transport barriers endured by pregnant women in accessing maternal services. In the absence of public transport at night, pregnant women can be given contact details of CHWs living nearer to them who can then contact the hospital to collect women in labour. However, this will only be possible if the Ministry revise its emergency transport policy to include obstetric women in informal settlements because they face hardships when labour starts at night and also because of occasional inaccessible roads and lack of public transport at night.

- The use of patient navigators for maternal women will greatly reduce delays at the hospital level and enhance timely access to essential and emergency obstetric care services. As per WISN report Otjozondjupa is well staffed, and provision of dedicated staff to accompany patients to maternity ward should be considered a life-saving strategy mothers and their newborns. The goes with improving the setup of maternity ward to ensure that there are signs showing clearly where the ward is, ensuring that the nurses station is visible and present in the ward and also ensuring that if no nurses station, a bell is set up which can be used by mothers upon arrival.

- Health records are legal documents and the Ministry should consider having dedicated record rooms for the storage and archiving of maternity records, which if missing during cases of litigation, causes the Ministry to pay thousands of dollars because of lack of evidence.

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APPENDIX A: CONSENT FORM - English

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2809, Fax: 27 21-959 2872

E-mail: 3206713@myuwc.ac.za

CONSENT FORM - *English*

Title of Research Project: UNDERSTANDING PERCEPTIONS OF WOMEN WHO EXPERIENCED ANY DELAY IN ACCESSING APPROPRIATE HEALTH CARE SERVICES DURING CHILDBIRTH IN OTJIWARONGO HOSPITAL, NAMIBIA

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve, and I agree to participate in my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that participation in this study is voluntary, and I do not expect any compensation. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

I understand that this research project involves making audiotapes of me.

___ I agree to be audiotaped during my participation in this study.

___ I do not agree to be audiotaped during my participation in this study.

Participant's name……

Participant's signature…….

Date……

APPENDIX B: CONSENT FORM – Oshikwanyama

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CONSENT FORM – *Oshikwanyama*

Oshipalalanyole: OMAPEKAAPEKO ENASHA NOKU UDAKO NGHENE OOMEME AVA VADALELA MOSHIPANGELO SHATJIWALONGO MO NAMIBIA VATALAKO OUHAKU OU VAPEWA KONIMA ESHI KWALI VASHAKENEKA OMAIMBO ELILI NA ELILI

Elalakano lomapekaaapeko aa ondeli fatululilwa melaka lange. Omapulo ange enasha nomapekaapeko aa, aanyamukulwa. Onduu diteko shinasha nekufo mbinga lange nonda itavela oku kufa ombinga shadja kehalo nokehoololo lange mwene. Onda udako yoo nokutya oukwatya wange kauna fiku uhololelwe ovanhu velili. Onda udako yoo nokutya ekufo mbinga lange olo shali na inandi teelela ofuto yasha. Ondi uditeko yoo navali nokutya ohandi dulu oku xulifapo ekufo mbinga lange efimbo keshe olo ndahala pehena nande owii washa ile oshilanduli shasha ilo ekanifo louwa washa.

Onduuditeko kutya omapekaapeko aa otaa kalongifa ekwato lewi lange.

___ Onda itavela opo ewi lange likwatwe.

___ Inandi itavela opo ewi lange likwatwe.

Edina lanaku kufa ombinga……

Eshaino lanaku kufa ombinga…….....

Efiku……..

APPENDIX C: INFORMATION SHEET - English

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2809, Fax: 27 21-959 2872

E-mail: 3206713@myuwc.ac.za

INFORMATION SHEET - *English*

Project Title: UNDERSTANDING PERCEPTIONS OF WOMEN WHO EXPERIENCED ANY DELAY IN ACCESSING APPROPRIATE HEALTH CARE SERVICES DURING CHILDBIRTH IN OTJIWARONGO HOSPITAL, NAMIBIA

This is a research project being conducted by Frieda N. Stefanus, a student at the University of the Western Cape, South Africa. This study is a requirement in partial fulfilment of the Master of Public Health (MPH) degree from the University of Western Cape. The purpose of this study is to understand the perspectives of women who experienced any of the three delays during childbirth in Otjiwarongo hospital. We are inviting you to participate in this research project because you gave birth in Otjiwarongo hospital between January and March 2018. The information you give us will help in revealing unique solutions and suggestions for improving maternal and newborn health care services in the district and the region at large.

If you agree to participate, I will do a face-to-face interview with you during which I expect you to share your experiences, challenges, feelings, and perceptions of what you went through during the process of childbirth at Otjiwarongo hospital. The first question I will ask you will be on your childbirth experience in Otjiwarongo hospital. Thereafter, your answers will guide the rest of our discussion. The interview will last for about one hour, depending on our interaction. During the interview, I will be recording our conversation so that I can use the recording to write my report afterwards. I will also be taking notes during the interview for those things which the recorder cannot pick up.

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study.

Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention. This research is not designed to help you personally, but the results may help me learn more about what women are going through so that other women do not have to go through the same experience.

There is no compensation as participation in the study is voluntary. You do not have to answer questions which are uncomfortable to you, and you can choose to end the interview at any time. Feel free to ask questions at any time.

Your participation in this research is entirely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalised or lose any benefits to which you otherwise qualify.

All records obtained from you will be kept confidential (locked up), and no other personal information will be shared with anyone. Your name will not appear on any form because I have allocated you a code. The information linking your code to your name is saved on a computer, and the file is protected by a password only known to me. After the study, all this information will be destroyed.

If you agree to participate in the study, I would like you to sign the consent form attached to this form. Please review the form (hand over from to participant) and sign it if you agree to participate in the study.

This research is being conducted by Frieda Ndapvudja Stefanus, School of Public Health at the University of the Western Cape. If you have any questions about the research study itself, please contact Frieda Stefanus at Erf 1699, Orwetoveni, Otjiwarongo, Mobile: +264 8137 40530, E-mail: friedastefanus@hotmail.com in the Republic of Namibia.

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof Uta Lehmann
Director: School of Public Health
University of the Western Cape
Private Bag X17
Bellville 7535
Tel: +27 21-959 2809 Fax: 27 21-959 2872
E-mail: soph-comm@uwc.ac.za

Prof Anthea Rhoda
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Biomedical Research Ethics Committee

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION
Research Office
New Arts Building,
C-Block, Top Floor, Room 28
University of the Western Cape
Private Bag X17
Bellville 7535

APPENDIX D: INFORMATION SHEET – Oshikanyama

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INFORMATION SHEET – *Oshikanyama*

Oshipalalanyole: OMAPEKAAPEKO ENASHA NOKU UDAKO NGHENE OOMEME AVA VADALELA MOSHIPANGELO SHATJIWALONGO MO NAMIBIA VATALAKO OUHAKU OU VAPEWA KONIMA ESHI KWALI VASHAKENEKA OMAIMBO ELILI NA ELILI

Omapekaapeko aa otaningwa ku Frieda Ndapvudja Stefanus omunafikola koUniversity ya Western Cape ko South Afrika. Omapekaapeko aa otaa ningwa ongo shinakuwanifwa shodjapo oyo hayuufanwa o master's in public health koUniversity ya Western Cape.Elalakano lomapekaapeko aa oku udako nghene oomeme ava vadalela moshipangelo sha shiwalongo va talako ouhaku ou vapewa konima yashi vali vamona omashongo mekongo lavo lohaku. Oto indiliwa ukufe ombinga momapekaapeko aa shaashi owa dalele meemwedi Januali fiyo Maalitya modula 2018. Ouyelele owu otawu tu ketu kwafela opo tu tale kutya oshike hatu dulu oku lundulula opo tu kwafe oomeme ovo hava dalele moshipangelo shatjiwalongo naavakwao yoo ovo veli moshikandjo ashishe.

Ngeenge owa itavela oku kufa ombinga ohandi keku pula omapulo omo handi kakala nda teelala ulonmbwelenge shinasha nomashongo ilo omaliyudo oye ilo ngheene watalako ouhaku owu wamona pefimbo loye loku pulumuma. Epulo lotete handi keku pula okombinga yaashi watalako ilo washakeneka mefimbo loye lokupulumuna moshipangelo shashiwalongo. Nokudja opo omapulo ange aa taashikulako otae kiikolelela kenyamukulo loye. Omapulo otaa kakwata oule

wovili lwaapo, tashi likolelele keenghundafana detu. Enghundafana detu ohandi kedi kwata, opo ndi ka dule okushanga eshi twa kundafana meembapila dange. Ohandi ka kala ne handi shange eshi tuli meenghundafana shaashi opena oinima yimwe itandi dulu okuyi kwata, ashike ohandi dulu okuyi shanga manga tuli meenghundafana.

Alushe opo pena ovanhu veli mekwatafano, iha papu omashongo. Onghee ne ohandi ka kendabala opo omashongo atya ngaho ndaa shonopaleke apa tashi shiva. No ngeenge nde ta holokapo, ohandi ka kendabala opo ndi xupipalife onghalo oyo tayi dulu oku kweetela ukale wafa ino manguluka, ilo onghalo yeudo lonayi oyo pamwe tayi dulu oku etifwa keengundafa detu.

Ngeenge otashi dulika, notu wete sha pumbiwa, ohandi keku tumina konhele ile kovahakuli vamwe ovo tava dulu oku kupa omakwafo awedwapo. Omapekaapeko aa kaena naana ouwa washa kwoove paumwene, ashike oyidjemo otayi ka kwafela opo oomeme vakweni veheli hange monghalo ngaashi omo mwa enda vakwao.

Kapena ofuto yasha toka pewa eshi hatuyi naave meengundafana. Inashi pumbiwa u nyamukule omapulo aeshe, unene tuu oo uwete ino manguluka okwaa nyamukula. Oto dulu yoo oku lombwela nge ngeenge owu wete kutya ino hala valu okuya komesho neenghundafana detu. Kala wa manguluka oku pulange omapulo efimbo keshe.

Ekufo mbinga loye momapekaapeko aa otaadi kehalo loye ndee hake finiko. Oto dulu yoo okwaanya oku kufa ombinga. Keshe efimbo ngee twa tameke oto dulu u lombwelenge opo tu xulifepo eenghundana detu. Ngeenge ino hala oku kufa ombinga, nongeenge wa tokola oku xulufapo eenghundafana detu, kutya otwali mokati, kapena ouwa washa tau kufyapo pwoove, na ito ka kanifa omauwa asha nande owo wali wanuniwa.

Keshe ouyelele washa toka pange, kandi na owu handi keu topola naye. Ashishe tweshi kundafana oshili ashike pokati ketu naave. Ouyelee keshe tokeu pange neembapila adishe edi dinasha neenghundana detu ohandi kedi patella mobelewa yange. Edina loye itandi lishange keempila ndeenghundafana detu naave, ohandi kalongifa ashike onomola ponhele yedina loye. Naapo pena edina loye tali ka kwatakanifwa nonomola, ouyele watya ngaha ohandi u tula mokomputer yange omo pehena ou tadulu okuwu patulula. Konima yomapekaapeko aa, ouyele aushe ohandi keu

hanaunapo. Ngeenge owa itavela tuye momapulaapulo, onda hala u shaine ombapila eyi yoku yandja epitikilo opo tu twikile. Ombapila yitala nawa ndele toyi shange edina loye opo wii shaine nawa, nge owa pitika tuye momapuulapulo.

Omapekaapeko aa otaa ningwa ku Frieda Ndapvudja Stefanus, omunafikola koSchool of Public Health moUniversity ya Western Cape. Ngeenge owuna omapulo awdwapo ilo wahala okuuda ouyelele unasha nomapekaapeko aa, kwatafana na Frieda Stefanus at: Erf 1699, mOrwetoveni, mOtjiwalongo, Ongodi yopeke: +264 8137 40530, noE-mail yaye oyo: friedastefanus@hotmail.com moNamibia.

Ngeenge owa hala natango omauyelele amwe enasha nodjapo eyi tayi lihongelwa apa ilo shinasha nomaufemba oye ongo munhu takufa ombinga momapekaapeko aa, ilo pamwe una oudjuu washa taudi moku kufa ombinga kwoye momapekaapeko omu, oto dulu oku yandja omanyenyeto oye kondjukifi eyi tayi shikula apa:

Prof Uta Lehmann
Director: School of Public Health
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This research has been approved by the University of the Western Cape's Biomedical Research Ethics Committee

APPENDIX E: MATERNAL DEATH AUDIT FORM

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MATERNAL DEATH AUDIT FORM

CASE SUMMARY

Region: _____ District: _____

Residential Address:

_____

_____

_____

If referred indicate from where: _____

Initials of Patient: _____ Age: _____ Reg. No._____

Date of admission: _____ Time: _____

Date of delivery: _____ Time: _____

Trimester: _____ Fundal Height (cm): _____

Gestational Age (weeks): ____ Last Normal Menstruation Period: _____

Gravidity: _____ Parity: ___ Expected Date of Delivery: _____

ANC visits: _____

Obstetric/Gynaecological history:

_____

_____

_____

HIV status: _____

Complaints on admission:

Findings on physical examination:

_____

_____

_____

_____

_____

_____

Findings on abdominal exam:

_____

_____

_____

_____

Presenting part:

_____

Membranes & liquor:

_____

Provisional diagnosis:

_____

_____

_____

_____

_____

_____

Mode of delivery (i.e. Caesarean Section or Normal Vertex Delivery):

_____

PATIENT MANAGEMENT

What transpired whilst in the ward to mother/infant (e.g. use of partogram):

Any other relevant info:

FETAL/INFANT CONDITION

Date of birth: _____ Date of (diagnosis of) death: _____

Time: _____ Birth Weight: _____

Outcome:

_____

CAUSE OF DEATH

Primary cause of death:

_____

Final cause of death:

_____

Substandard care:

_____

_____

_____

Missed opportunities:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

DELAYS

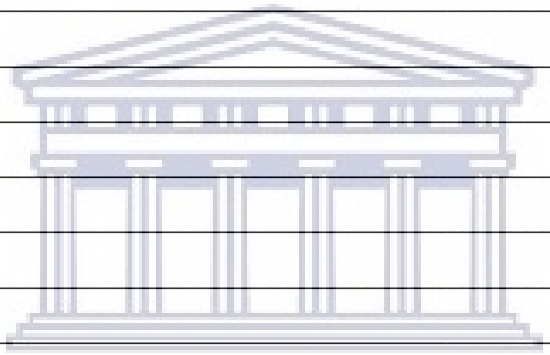
- 1st delay :
- 2nd delay:
- 3rd delay :

LEARNING POINTS

Record keeping:

Learning points/lessons learnt:

Recommendations:_____



APPENDIX F: INTERVIEW GUIDE - English

UNIVERSITY OF THE WESTERN CAPE

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INTERVIEW GUIDE - *English*

This is an interview guide that will be used for semi-structured interviews with the mothers who delivered at Otjiwarongo hospital. The first set of questions will be on the socio-demographic data of the women (most of which will be obtained from their maternity records).

- Self-introduction
- Interviewee sign Consent Form

Semi-structured Interview Questions:

1. How would you describe your last birth experience/process?
2. How did you prepare for the coming of the baby? Who else was involved, and how?
3. Can you tell me more about how the labour pains started?
   - *At what stage of the labour process did you decide to go to the hospital?*
   - *What made you make that decision?*
   - *How did your family (community) play a role in you deciding to go to the hospital? How did that affect you?*
4. Describe any challenges you experienced after deciding to deliver at the hospital?
   - *How did that affect you?*
   - *How much was your family (community) involved?*
   - *What made you decide to give birth at the hospital?*
5. What would you advise other pregnant women in labour concerning the place of delivery?
   - *What could be your reasons?*
   - *If given a choice, could you have preferred to deliver at a place other than the*

hospital? Can you give your reasons?

6. Describe how you reached the hospital? Can you estimate the time?
7. Tell more about what happened when you arrived at the hospital.
   - *How did that make you feel?*
   - *Describe the hospital set up and how it made you feel as a woman in labour?*
   - *What would be the ideal setup for you? Give reasons.*
8. Can you describe the process of giving birth?
   - *How did that make you feel?*
   - *How would you describe the condition of your baby after birth? How did that make you feel?*
   - *How did you feel after giving birth? Would you like to give more details?*
9. How would you describe the health care you received?
   - *How did that make you feel?*
   - *How would you describe your relationship with the nurses who attended to you?*
   - *Can you give reasons?*
10. Tell me your future plans concerning childbirth?
    - *Why would you say that?*
    - *How would your future birth plan change if your experience was different? Please elaborate*.
11. What would you change in the hospital if given an opportunity?
    - *Could you give reasons?*
12. To end with, what else would you like to share with me concerning what we just discussed?

APPENDIX G: INTERVIEW GUIDE - Oshikwanyama

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INTERVIEW GUIDE - *Oshikwanyama*

Eyi oyo onghalo omo omapekaapeko aa enasha nokuya meeghundafana noomeme ovo va pulumunina moshipangelo shashiwalongo, taaka landula. Omapulo ope tameko eelela eenasha noukwatya womumeme (mahapu omanyamukulo awo ota hangika kepeko lomumeme lokupulumuna lomoshipangelo)

Etwalemo la naku ninga omapekaapeko

- Naku nyamukula omapulo ta shayina ombapila yokuyandja epitikilo opo akufe ombinga momapekaapeko

Omapulo eenghundafana domoule

1. Lombwelenge shinasha noku pulumuna kwoye kwokaana kaxuunina.
2. Owali weli longekidila epulumuno eli momukalo ulipi? Olye ali teku yambidida neyambidido laye olali ngahelipi?
3. Lombwelenge shinasha nashi ouyehame woku pulumuna watameka.
    - Etokolo lokuya koshipangelo oweli ninga efimbo lilipi?
    - Oshike sheku ningifa etokolo eli?
    - Ova kwanedimo voye (ilo ova namukunda) ova kufa ombinga ngehelipi mekufo loye letokolo lokuya uka pulumunine koshipangelo? Oshali sheku

udifa ngahelipi?

4. Lombwelenge omashongo aa wa shakeneka konima eshi waning etokolo loku ka pulumunina koshipangelo?
    - Oshali sheku udifa ngahelipi?
    - Ova kwanedimo voye (ilo ova namukunda) ova li va kufa ombinga ngahelipi metokolo eli?
    - Oshike sheku kufifa etokolo loku pulumunina moshipangelo?
5. Oma kumaido ashike todulu okupa oomeme veli momateelelo shinasha nonhele yoku pulumunina?
    - Omolwashike mbela?
    - Ngeno okwali tashi dulika, ngeno oto hoolola oku pulumunina ponhele imwe iheshi moshipangelo? Omatomhelo elipi una?
6. Lombwelenge kutya poshipangelo owa fikapo ngahelipi? Oto dulu oku tengeneka efimbo?
7. Lombwelenge kutya eshi wafika poshipangelo opa ningwa shike?
    - Owali wauda ngahelipi?
    - Lombwelenge kutya omudingongoko woshipangelo meni lasho owali ngaheli noshali sheku udifa ngahelipi onga meme eli mouwehame wokupulumuna?
    - Omudingonoko owali weku wapalela? Omatomhelo ashike una?
8. Lombwelenge nghene oku pulumuna kwoye kweenda?
    - Oshali sheku udifa ngahelipi?
    - Onghalo yohanana yoye oyali ngahelipi konima eshi wapulumuna? Oshali sheku udifa ngahelipi?
9. Omukalo omu wayakulwa owali ngahelipi?
    - Owali wauda ngahelipi?
    - Onghalo pokati koye novapangi oyali ngahelipi?
    - Oto dulu oku yandja oma tomhelo?
10. Lombwelenge kutya ouna omatengeneko eli ngahelipi enasha noku pulumuna omo nakwiiwa?
    - Omo lwaashike to tile ngaho?
    - Ngeno okwali wa pulumunina ponhele iheshi eyi, ngeno omatengeneko oye owa lundulula? Yelifa etomhelo loye?

11. Oshike uwete shapumbwa elunduluko moshipangelo omu?
    - Oto dulu oku yandja oma tomhelo?
12. Pexuulilo, oshike mbela todulu oku lombwelange vali shawedwapo shinasha nashi twa kundafana apa?

APPENDIX H: Letter of Permission

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

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E-mail: 3206713@myuwc.ac.za

LETTER OF PERMISSION

The Acting Permanent Secretary
Ms P. Masabane
Ministry of Health & Social Services
P. Bag 13198
Windhoek

Dear Ms Masabane,

REQUEST FOR PERMISSION TO ACCESS THE PATIENTS' RECORDS FOR STUDY PURPOSES

My name is Frieda Stefanus, the Acting Director for Otjozondjupa Region. I am currently doing my Master's Degree in Public Health with the University of Western Cape.

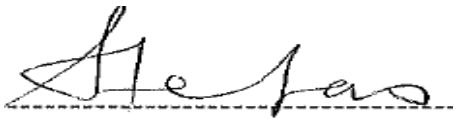
Part of the requirement to fulfil my Master Degree is to conduct a research study. My research study is focusing on understanding the perceptions of women who experienced any delay in accessing appropriate health care services during childbirth in Otjiwarongo district hospital. It requires me to review the maternal records of women who delivered at Otjiwarongo district hospital.

Based on the above, I am humbly requesting your right office to provide me with permission to

access the maternal records of women who delivered between January and September 2018 in Otjiwarongo hospital. The data that will be collected from the records will merely be for study purposes and nothing else. Attached is the approval letter to conduct the study from the university.

Your kind consideration in this request will be highly appreciated.

Faithfully Yours,



Ms. Frieda N. Stefanus
Student Number: 3206713
Mobile: 0813740530