NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

INVESTIGATING THE INFLUENCE OF CULTURAL PRACTICES ON PREGNANCY, CHILDBIRTH AND POSTPARTUM CARE IN KAVANGO REGIONS, NAMIBIA IN SOUTHERN AFRICA.

By

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ABSTRACT

Before hospitals were established, childbirth in Kavango region took place in homes assisted by relatives or elders in the community. Babies were born breastfed and lived into adulthood to experience life. Cultural practices were applied to ensure safety, augment labour and save lives. Hospital are now accessible to many Namibians. The care rendered in maternity wards is based on evidence-based findings and WHO recommendations. Despite the existence of hospitals, there are still women that deliver at home and there are those that take labour cultural/traditional remedies and yet come to deliver at hospitals. This study explored in-depth the cultural practices regarding pregnancy, childbirth and postpartum care in the Kavango regions.

A qualitative case study design was used, and data was collected through in-depth one on one interviews with key participants. The target participants for this study are elders who are experts in cultural practices/traditional birth attendants, pregnant women, mothers with history of home deliveries and health care practitioners. Interview guide was developed to facilitate data collection. In addition, samples of traditional remedies in forms of roots used during childbirth were collected for laboratory analysis. The data obtained was analysed using content analysis. Findings of this study revealed that till today some women in the Kavango regions use traditional remedies during pregnancy, labour and postnatal period and practice treatment specific for newly born babies. The purpose for taking the concoctions ranges from safe childbirth, speeding up labour progress and wellness of babies. The effects are positively described by givers and users while health care practitioners regard negatively such practices based on the experiences they have dealing with women who have taken these remedies. Some of the negative effects highlighted by health care practitioners are placenta abruption, uterine rupture, postpartum haemorrhage, foetal distress and infertility highlighted as a late complication. The study also unearthed some practices during home delivery that are not safe. Evidence-based findings of this research enhance understanding of the practices and this shared with relevant stakeholders to improve maternal and child health care in Kavango regions. Recommendations are made based on the findings, this includes developing strategies to educate TBAs and pregnant women on the effects of using traditional remedies in labour and to advise them on safe practices. Further research on these remedies is needed to ascertain the strength and the effect it may possess.

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ACRONYMS/OPERATIONAL DEFINITIONS AND TERMINOLOGIES

TBA	Traditional Birth Attendant
WHO	World Health Organization
Skilled birth attendant	Health professional such as nurse/midwife or doctor
Midwife	A person trained to help women give birth to babies (Oxford dictionary, 2000)
Midwifery	A profession or work of a midwife (Oxford dictionary, 2000)
NDHS	Namibia Demographic Health Survey
HELLP syndrome	Haemolysis, Elevated Liver enzymes, Low Platelet count
DIC	Disseminated Intravascular Coagulation
IUFD	Intra Uterine Foetal Death

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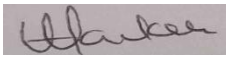
DEDICATION

This research is dedicated to my children; Kambanzera, Nepemba and Shikwetepo. Through research many great things were discovered e.g medicine to treat certain diseases or solution to solve a certain problem. May you always yearn to dig deeper and discover what is not known so that you may leave footprints wherever you go. I love you.

DECLARATION

I Hertha Kasiku Haikera hereby declare that the work contained in the thesis entitled INVESTIGATING THE INFLUENCE OF CULTURAL PRACTICES ON PREGNANCY, CHILDBIRTH AND POSTPARTUM CARE IN KAVANGO REGIONS, NAMIBIA IN SOUTHERN AFRICA is my own original work and that I have not previously in its entirety or in part submitted it at any university or other higher education institution for the award of a degree.

Signature:  Date: 30/03/2022

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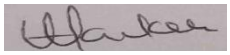
Signature:  Date: 30/03/2022

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CHAPTER ONE

INTRODUCTION

1.1. INTRODUCTION

Midwifery as an art relating to childbirth is the oldest health care activity. "When the first human being was born, someone severed the cord, removed the placenta and placed the infant in the mother's arms for warmth and put it to her breast for nourishment" *(*Van Dyk, 1997:2*).* In Namibia, the first hospitals were established around 1893 in Windhoek (Van Dyk, 1997:15). Before modern health care practices, traditional healers and traditional midwives played a very important role for their communities in healing the sick and helping women give birth. The traditional midwives are referred to as Traditional Birth Attendants (TBAs). According to World Health Organization (WHO), a traditional birth attendant is "a person who assists a mother during childbirth and who initially acquired her skills by delivering babies herself or through apprenticeship to other traditional attendants" (Aziato & Omenyo, 2018:6).

In some rural communities from the two Kavango regions, there were beliefs and practices carried out when a woman was pregnant, when contractions starts, during childbirth as well as during the postpartum period the first six weeks after delivery. Traditional birth attendants played a very important role in the implementation of these practices as they are regarded as midwives in the community (Shirungu, 2015:273). Modern medicine is now accessible to the majority of Namibians and health professionals encourage all women to deliver at health facilities, but cultural midwifery practices can still be observed in rural communities of the Kavango regions (Shirungu,2015:274). The traditional remedies for labour in the Kavango are however not tested in any laboratories to analyse the medicinal properties. Administration of traditional concoctions for labour can result in an overdose to cause harm to the labouring mother and/ or baby. A study done in Turkey stated that the traditional remedies have an adverse effect on maternal or baby's condition (Sultan & Sengul, 2008:13).

Given that background, health care workers categorize some cultural practices for labour as harmful practices. Health care practices are dynamic. Studies are periodically done through research to improve the care rendered to pregnant women. This is evident through the in-service

training conducted by the Ministry of Health and Social Services (MOHSS) through workshops and seminars. Contrary to cultural beliefs, the care of women in labour using modern midwifery is informed by evidence-based practice to ensure safety for mother and baby and avoid preventable maternal/neonatal death. “The midwife gives appropriate evidence based technical care and support for birth by listening to the woman’s requests and needs” (Sellers, 2013:333).

A study conducted in Nigeria indicated that deliveries by traditional birth attendants may have poor obstetric outcome because of lack of resources and inability to recognize complications (Olusanya, Inem & Abosede, 2011:474). A different study in Nigeria revealed that harmful practices during traditional childbirth do exist; hence Zubaida, Slusher, Danzomo & Slusher (2019) concluded that by successfully addressing dangerous practices and beliefs through appropriate public health measures and maternal education one will impact neonatal morbidity and mortality in northern Nigeria. It is therefore the same sentiment that prompt this study to be carried out in the two Kavango regions of Namibia.

1.2. PROBLEM STATEMENT

In the Kavango Region, speculations are that the faster labour progress observed among some women in labour are revelations of them taken traditional concoctions to speed up labour progress though they might not reveal it to the midwife. Other observations made in the clinical area in the Kavango region is that after visiting hour by family members in the maternity ward, a woman who had slow progress suddenly experiences strong contractions followed by delivery of her baby. Although, there is no physical proof of family members caught giving these remedies in the labour ward. There are assumptions that during visiting hour, the elders bring these remedies to the admitted woman. There are known traditional birth attendants that prepare women culturally for the birth of the newborn in different ways. Some of the maternity records for patients observed in the labour ward do show partographs that have faster progress than normal. It is a cause for concern that some women progress fast in labour as a result of taking traditional remedies because these could cause hypertonic/ very strong contractions and consequences can be fatal if uterus rupture occurs. These remedies are yet to be tested to determine strength, composition and safety for mother and baby. It is of great importance to investigate the influence or impact of these cultural practices on pregnancy, childbirth and postpartum in the Kavango region.

1.3. AIM/PURPOSE OF THE RESEARCH

The purpose of this study was to explore the influence of cultural practices on pregnancy, Childbirth and post-partum in the Kavango Regions. Therefore, this research aimed at studying in depth the cultural practices regarding pregnancy, childbirth and postpartum care in the two Kavango regions in order to fill the gap in the literature. The objectives below were designed to achieve the purpose of this study. The objectives are as follows: -

- Explore the understanding of mothers and expectant mothers on the influence of cultural practices on pregnancy, childbirth and post-partum.
- Explore the understanding of TBAs and health care professionals on the influence of cultural practices on pregnancy, childbirth and post-partum
- Establish the influence these traditional remedies used in cultural practices may have on labour progress and outcome

1.4. RESEARCH QUESTIONS

The main research questions for this study were:

1. What is the understanding of mothers and expectant mothers regarding the influence of cultural practices on pregnancy, childbirth and postpartum period?
2. What is the understanding of TBAs regarding the influence of cultural practices on pregnancy, childbirth and postpartum period?
3. What is the understanding of health care professionals regarding the influence of cultural practices on pregnancy, childbirth and postpartum period?
4. What are the effects of these traditional remedies on the well-being of the mother and her baby?

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In this section, the existing literature is explored to find similar studies were done in this area. The exploration was done using some textbooks, google scholar and the database availed by the NUST library on e-resources such as Health Source: Nursing/Academic Edition. Some of the keywords/phrases used in the search include but are not limited to; the influence of culture on childbirth, African childbirth traditional practices, cultural practices during pregnancy in the Kavango region and Namibia at large, labour and post-partum, care given by traditional birth attendants to labouring mothers and care of newborns. Articles that were seen to be beneficial to the study were considered, regardless of the year of publication. This was necessitated by the fact that this study is trying to unearth indigenous knowledge on the subject matter, hence there is a possibility of some studies being done and published many years ago. However, this literature review is filtered to articles published in the late 90s to 2019. All articles that did not have anything in common with the research topic was excluded.

1. AN OVERVIEW OF CHILDBIRTH IN THE CULTURAL CONTEXT IN NAMIBIA AND OTHER AFRICAN COUNTRIES

Many scholarly articles exist regarding childbirth both in Namibia and beyond its borders. It is a perception that some women preferring the cultural route are most likely to take traditional concoctions to speed up labour. Such practices are however discouraged by modern midwifery practices. However, some women would still take the traditional medicine even when they go to hospital for delivery. Studies were done in countries such as Nigeria, Uganda, Ghana and Zimbabwe looked at issues surrounding labour care by traditional birth attendants and the effects thereof. A study conducted in Nigeria indicated that deliveries by traditional birth attendants may have poor obstetric outcomes because of a lack of resources (Olusanya, Inem & Abosede 2011:474). A different study in Nigeria revealed that harmful cultural practices during childbirth

do exist. Hence Zubaida, Slusher, Danzomo & Slusher (2019) concluded that by successfully addressing the dangerous practices and beliefs through appropriate public health measures and maternal education one will significantly impact neonatal morbidity and mortality in northern Nigeria. Some of the harmful practices highlighted in another study are issues such as an inability to maintain warmth for newborn to prevent hypothermia (Coalter & Patterson, 2017). In Ghana, World Health Organization gave a directive to discontinue using Traditional Birth Attendants (TBAs) to reduce maternal mortality (Haruna, Kansanga & Galaa, 2019:1337). However, despite the ban, TBAs still attend to a significant number of deliveries.

In her book *The History of Nursing in Namibia,* Prof Van Dyk describes Midwifery as the oldest health care activity. *"When the first human being was born, someone severed the cord, removed the placenta and placed the infant in the mother's arms for warmth and put it to her breast for nourishment," (Van Dyk, 1997:2).* Childbirth came first before the hospitals came into existence. People were born, grew, became knowledgeable and then build facilities to cater for their health needs. Historically, nursing is regarded as the service of people who provide various forms of health care to their communities without any formal training. These are mostly women who are experts in healing practices. They are the custodians of the accumulated folk-wisdom of how to cope with forces that threaten the health of their group. These are traditional healers and traditional birth attendants. The cultural norms and practices served as a guide on actions taken when assisting during childbirth. Van Dyk (1997:4) advocates that the rich cultural heritage should to be researched and recorded before all traces of it be overlaid by modern health care developments. A study done in the Oshikoto region, Namibia reveals herbal medicines such as *Dregiamacrantha (ondingulula), oshihangena* are some of the traditional treatments women in use to ease the birthing process (Cheikhyoussef, Muashekele, Shapi, Matengu 2011:7). This report also triggered the need to explore and discover more on traditional medicine that is used to facilitate childbirth in Kavango region. There are studies done on traditional medicine use in the Kavango but it only caters for other ailments, not labour and childbirth (Shirungu, 2015).

2. THE TRADITIONAL BIRTH ATTENDANTS AND THEIR SOCIO-CULTURAL ROLES IN RURAL NAMIBIA

In rural Namibia, traditional birth attendants (TBAs) play a very important role in their communities. The traditional scope of practice for TBAs ranges from treating infertility, caring for pregnant women, assisting during childbirth/conducting delivery, care in the postpartum period as well as caring for the newborn. Pregnant women approach TBAs for various services although they still book and attend antenatal care at health facilities or even when they plan to deliver at the hospital, visiting a TBA is still vital. TBAs educate pregnant women on how to behave during pregnancy, what to eat and what is prohibited. They also give traditional treatment believed to help the baby to be active in utero as well as for safe delivery. Certain pregnancy-related ailments are also solved culturally either by giving traditional treatment or advice. Literature explored on socio-cultural role for TBAs in rural Namibia did not yield any result. However, these roles in the rural Namibian context does not differ from those explored in other African countries. A research that was done in Ghana on the socio-cultural roles of TBAs shows that pregnant women do seek support ranging from non-orthodox therapy and psychological support to relieve fear and anxiety as well as herbal medications to assist keep foetus strong and healthy (Dako-Gyako, Aikins, Aryeetey, McCough & Andongo, 2013:5). Evidence from the study shows care-seeking behaviour of pregnant women is largely mediated by socio-cultural influences that shape individual perceptions of threats to pregnancy and these beliefs are often associated with early disclosure, sorcery and witchcraft (Dako-Gyeke et al, 2013:7).

3. THE IMPACT OF CULTURAL PRACTICES ON PREGNANCY, CHILDBIRTH AND POSTPARTUM ROLES IN RURAL NAMIBIA

A study that was done in one of the rural areas of Oshikoto, Oshana and ohangwena regions in Namibia found that some or most of the cultural practices relating to pregnancy have a greater influence on pregnancy and childbirth (Mulenga, David & Penihas, 2018:70). Some of the health advice given is beneficial to the pregnant women, for instance resting, being faithful and eating well. However, the study result revealed that there are some cultural restrictions that could be harmful or deprive the pregnant woman of something beneficial example telling the woman not to eat a certain type of food could deprive her of valuable nutrients. WHO recommends that all

pregnant women are attended by skilled health care providers at health facilities from antenatal period and also at delivery. However, because some pregnant women prefer to be attended to by TBAs there are records of home deliveries. The NDHS data shows that about 87% of births occurred in health facilities (NDHS2013:106). More studies need to be done in rural Namibia concerning the impact of the traditional treatment given to pregnant women on pregnancy, childbirth and postpartum. The research that was done in this area in other countries revealed that it could cause harm to the mother and newborn or may cause complication.

4. CHILDBIRTH IN MODERN MIDWIFERY

The care provided by midwives in modern times is supported by evidence-based practice. This evidence is obtained through research, experience and expert knowledge. Research-based practice in nursing and midwifery has long been regarded as a means of ensuring high-quality care (Fraser & Cooper, 2009:69). A pregnant woman is taught during the antenatal period to be able to recognize signs of labour and make her way to the health facility timely. At a health facility, the midwife will examine the woman focusing on basic observations including pulse rate, temperature and blood pressure.

A physical examination follows as well as abdominal palpation and feeling for the presence of contractions to ascertain if labour is initiating (Fraser & Cooper, 2009:467). A midwife then carries out a physical examination of the cervix to assess the dilatation, the effacement of the cervix and application of the presenting part of the cervix. A pregnant woman is considered to be in active labour if the cervix is 4 cm dilated (open). Labour progress during active labour is monitored using a guiding tool known as partograph. A partograph is a graphical record of progress of labour, used by all skilled birth attendants in all facilities conducting deliveries once the woman is in established labour (Grady, Van den Broek, Kongnyuy & Ameh,2009:107). The partograph can give a whole picture regarding the progress of labour, maternal and foetal wellbeing if recorded well and correctly. The findings recorded on partograph guides in decision making regarding the type of care the woman should receive. WHO recommends the use of partograph in all health facilities that conduct deliveries to ensure that the care rendered during labour is standardized at all levels. Deliveries conducted at home, however miss out on partograph benefits and that can have serious

health implications as the traditional birth attendants may not know when to take action to save mother and/or baby.

5. FACTORS INFLUENCING THE CHOICE OF PLACE OF BIRTH

Literature explores factors that influence the decision of pregnant women on the preferred place to deliver the baby. It is reported that socio-cultural beliefs and practices contribute to poor maternal and child health. Bhakta & Mani (2019:2) defines cultural belief as a conviction that 'a thinking is true'. The young generation may acquire education but is influenced by their families and communities where they are living. This compels some young women to follow their cultural practices and beliefs. The practice is done without the insight of what damage it might cause to the woman or baby/foetus. In Nigeria some tribal orientation/ethnicity, age, level of education and religion played a role in the choice of place of delivery. For instance, Nigerian teenage mothers preferred traditional maternity homes because of stigma and embarrassment facing caregivers at hospitals (Olusanye et al, 2011:481). This means that there are certain tribes that believe giving birth away from the hospital is best for them.

Literature reveals that cultural norms and religious practices can influence the choice of a woman; hence, caregivers should strive to understand those issues and make sure the care still benefits the labouring woman. It is important to find out what are the barriers that prevent women from coming to health care facilities (Fraser& Cooper, 2009:237). The World Health Organization recommends skilled birth attendants must attend to all pregnant mothers. However, the Namibia Demographic Health Survey 2000 revealed that about 48.8% of women in the Kavango had home deliveries, 49.9% delivered at health facilities (NDHS, 2003). Out of the 48.8% that deliver at home, traditional birth attendants assist only 2% while family members in the house according to cultural practices assists 45.5%. Namibia is committed to reducing maternal mortality by ensuring all pregnant women deliver at health facilities assisted by a skilled birth attendant. The NDHS (2013:99) stated about 2% of residents live more than 10 km (away) from health facilities and must travel long distances to access basic and comprehensive emergency obstetric care services.

2.2. CONCLUSION

Literature reveals that some studies have been done that supports this kind of topic proposed. However, most studies were done in other African countries and beyond. In Namibia, very little is found, especially in the Kavango region where this study is to be conducted, no research of this nature was done.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Background of study population

The research was conducted in the Kavango East and West Regions. The Kavango regions are geographically located in the north-eastern part of Namibia, separated from Angola by the Kavango River on the north, includes the western part of Namibia's Caprivi Strip to the northeast, and is bounded by Botswana on the southeast and bounded by the Ohangwena region on the west. The 2016 population census reported that the Kavango East region 148 466 inhabitants while the Kavango West region had 89 313 inhabitants (NSA, 2017:45). The 2 regions combined has 4 health districts namely; Nankudu in Kavango West and Rundu, Andara, Nyangana district in Kavango East. The distribution by gender shows the Kavango east had 53.5% females and west Kavango's 52.7% of the population are female. According to the Namibia Inter-censal Demographic Survey 2016 Report, pensioners or those above 60 years old are few for both regions in the range of 5.8%-6.3% respectively (NSA, 2017:47) However, the total population for this research study is (twenty-three) 23 because of the qualitative nature of this study. Population in this context refers to a collective of subjects or individuals with the same characteristic or meeting the eligibility criteria (Majid, 2018:3). The subjects consisted of traditional birth attendants (TBAs) and/ or elders with rich indigenous knowledge in the communities, nurse/midwives and medical officers, pregnant women and those that have history of home deliveries. The rationale behind the selection is that TBAs and elders have expertise in the area of cultural practices in the interest of study, Health care workers to shed light on experiences with clients who are suspected to have taken traditional concoctions in relation to labour progress and outcome, while pregnant women can also share their expectation and preparation for the birth culturally and those that delivered at home in the past also shared the experience and birth outcome as well as the care they received after. This study is limited to 2 districts, namely; Nankudu in west Kavango and Rundu in Kavango east. The two regions were once one region until the recent split in to two regions in 2013, and inhabitants share almost the same cultural practices, norms, values and principles. In research

done in the region reported that home delivery decreased in 2013 but still Kavango appeared in the top 7 regions with high maternal and neonatal deaths (Muntenda, Sterns & Nuuyoma, 2019:99). Being a nurse/midwife by profession and resident of the Kavango region, the investigator learnt that there are certain cultural practices that some women execute to augment as well as precipitate labour and care for newborn babies but there is no evidence hence the need to embark on this project to discover more.

3.2. Type of study

A qualitative case study research design was utilized as it makes provision for an in-depth study of the phenomenon. The philosophical underpinning informing this study is the interpretive paradigm as it seeks to understand the participants' interpretations of their choices in terms of pregnancy, childbirth and postpartum care. According to Scotland (2012:12), the interpretive procedures in research make provision for gathering "insight and understandings of behaviour [and] explain actions from the participant's perspective …" Henceforth, its suitability for this study seeking to understand the cultural beliefs and practices undertaken by some pregnant women during childbirth. The investigator had one on one in-depth interviews with health care workers, TBAs and pregnant women, family and community members who have a history of home deliveries. These interviews are aimed at revealing more about the subject matter (Bell & Waters, 2014:9).

3.3. Sample method

In qualitative studies, non-probability sampling methods are utilized and in particular, theoretical or purposive sampling techniques are used rather than random sampling (De Vos, 2005:328). In this study, a combination of purposive and snowball sampling was used to select participants, chosen based on the fact that they could provide vital information on the topic. Purposive sampling method and snowball sampling are described as techniques that involve the assistance of study subjects in obtaining other potential subjects (Brink 1999:141). Purposive sampling was used in selecting skilled birth attendants such as Medical Doctors and midwives while snowball

sampling was used to locate TBAs and mothers (preferably those that delivered at home) as well as expectant mothers. The Regional Primary Health Care (PHC) office was approached to assist in identifying TBAs that are known by the districts. The PHC supervisor assigned the community health workers to compile the list of known TBAs in different villages. The Village Development Committee also assisted in identifying elders in the community that assist pregnant women. Midwives and doctors were approached in the maternity departments and those that were free willingly participated in the study.

3.4. Sample size

The sample size was relatively limited to 23 participants making use of purposive and snowball sampling. Sampling in qualitative research is relatively limited, based on data saturation, no representative, the size not statistically determined and involving low cost and less time (De Vos, 2005:327).

3.5. Data collection methods

Interview guide sheets were used for data collection during one on one interviews and an audio/voice recorder was used to capture the interactions. Participants were not addressed by names but by codes such as TBA 1, 2, 3…. Or nurse 1, 2 etc. An interview guide was compiled in English and translated in the vernacular language for those subjects that cannot speak the official language. The information gathered through audio recording was transcribed accordingly. There was also an intention to collect samples for traditional medicines used to precipitate labour for laboratory analysis.

3.6. Validity of the research study

The validity and trustworthiness of this research study were ensured by applying the canons of qualitative research developed by Lincoln and Guba (1985). The criteria include; credibility for

purpose of internal validity, transferability for external validity, dependability and conformability (De Vos, 2005:346).

3.7. Ethical considerations of the research:

The nature of this study involves human beings; hence, it was deemed necessary that permission has been obtained from the Ministry of health and social services ethical committee and the Kavango region health directorate before the research journey was embarked on. The 3 ethical principles were observed during this research, namely; respect for the person, beneficence and justice (Brink 1999:40).

3.7.1. Principle of respect for the person

All individuals approached were given adequate information about this research study. Participants were provided with a clear information sheet on the topic for them to read, understand and keep for future reference. All subjects had an option to consent/decide whether to partake in the research voluntarily after a detailed explanation was given to them by the investigator or not to participate 'without risk of penalty or prejudice' (Brink 1999:40). A consent sheet was availed for signing as proof of permission granted to participate in the interview. An audio recorder was used in some sessions for participants that agreed to be recorded. Participants were also informed that they could withdraw anytime from the study should they wished not to continue or answer/give details on only what they were comfortable to share, without penalty.

3.7.2. Principle of Beneficence

This principle involves an effort to secure the wellbeing of persons (Brink 1999:41) therefore, the researcher only proceeded with this study after ethical clearance was granted by the Namibia University of Science and Technology and from the Ministry of Health and Social Services because the research involving human subjects. The researcher did not subject the participants to any experiments that could have caused them harm or discomfort. The researcher also ensured that

measures for referral for counselling with a social worker were in place in an event where a participant suffer emotional or psychological effects as a result of participating in the research study.

3.7.3. Principle of Justice

The researcher did not violate any rights of persons pertaining to privacy. No names were attached to interview guides or recordings. All information gathered were on an anonymous basis and kept confidential. Participants were only referred to by their roles with number attached, such as TBA 1 when reporting information gathered from a traditional birth attendant, NM1 or 2 (for Nurse/Midwives) etc. The data gathered was kept in a lockable cupboard and was only shared with people involved in the research such as the supervisor and mentors. No other person had access to the locker where the data was stored. The final report for the research will be shared with the stakeholders as indicated in the significance of the study. Any matters or situations that could have led to a breach of confidentiality were avoided at all costs.

CHAPTER FOUR

RESULTS OF THE STUDY

4.1. INTRODUCTION

This chapter presents findings of this study in terms of the characteristics of the participants, their understanding of cultural practices during pregnancy, childbirth and the postpartum period as well as the interpretation of these views. This data was collected from 5 pregnant women (PM), 5 mothers with a history of home deliveries (MHD), 7 out of 10 elders (E) of which 5 practice as TBAs (Data saturation reached with this group), 4 skilled birth attendants nurse/midwives (NM) and 2 medical officers (MO) from the gynaecology and obstetrics departments from 2 districts in Kavango East and West regions. One on one interview was held with every participant. The results will be arranged according to the different categories in terms of area of expertise and the emerging themes.

4.2. Pregnant women's understanding of cultural practices for pregnancy

4.2.1. Cultural view on pregnancy

The pregnant women interviewed represent both Kavango regions. And they all had almost similar sentiments with regards to pregnancy. Culturally, pregnancy is viewed as a blessing as it proves worthy to be a woman, however here are some statements from the interviews:

"*As much as pregnancy is a blessing, it is also scary not knowing what kind of baby is growing inside you and also not being certain whether the baby will be okay at birth or not"* said PM1.

Pregnancy is a blessing though there are complications (PM2). This was also echoed by the other pregnant mothers who took part in the interview.

PM3 narrated that it is not an easy journey, although it is every woman's wish to be a mother. In Kavango culture to be pregnant is referred to as 'to await' or *'mendindiro'*. This refers to waiting for the unknown, uncertainties as one can give birth and be well with the baby while some might die while giving birth or a baby might die in the uterus or be born abnormal. This is why people ululate when a woman gives birth and both mother and baby are well.

4.2.2. Awareness of cultural practices necessary during pregnancy and before delivery

All pregnant mothers that participated in the study showed awareness of what needs to be done culturally and the rationale behind it. The need for safe delivery topped as a priority. They feared dying in labour or losing their babies in the process if some of the practices are not carried out. All the 5 PMs indicated they are or they will be given concoctions to take during labour for the childbirth process to be smooth. Most of them mentioned concoction as "*sivatu*" and traditional tea made from elephant dung. However, they are not aware of the ingredients of such concoction. Below are some of their expressions:

"*I was given 'sivatu', so that when I give birth there will be no complications. This also to justify that in case my partner was unfaithful it will not affect me. Moreover, it makes childbirth smooth. Our elders also say if I do not drink it during my pregnancy, I can die but if I am lucky I may end up being operated on because the baby will not come out.*" Said PM1.

"*On my first pregnancy I drank a combination of both sivatu and elephant dung tea and I delivered twins with no problems. During my second pregnancy, I did not receive elephant dung to drink, the labour took long and I was even referred to a bigger hospital where I gave birth. For this current and third pregnancy, I will definitely drink the concoctions.*" PM2 shared.

"*The elders insist that we take the concoctions because it helps childbirth to happen smoothly. However, during my first pregnancy I took it but still ended up in theatre because the baby's heart rate dropped. On my second pregnancy I did not drink it because the doctor had booked me for theatre due to the previous operation. The operation was successful. I am now pregnant for the third time but I will not drink it because I am not going to push as the doctor already indicated that I will be operated on."* PM3 narrated.

"*I am drinking sivatu, apparently for my safety when I give birth. It is just roots; I am not sure from which tree. However, I will not take the concoctions that will make my labour to go fast, I do not want more pain to be added to the original pain*" Said PM4 and PM5 who shared the same view.

All these pregnant women have the same thought in common regarding the chosen place of delivery. They all chose to deliver in hospital.

4.3. The experiences of mothers with a history of home delivery

Five mothers took part under this category. These deliveries are mostly conducted by their mothers-in-laws. Through content analysis of the field notes there are about 5 themes that came out; namely 1. Care during pregnancy, 2. Care during the first stage of labour, 3. Process of delivery conducted at home, 4. Postpartum care and 5. Care of a newborn baby. Details regarding these themes will follow under the specific subheadings. In this report, this group of participants are referred to only as MHD1, MHD2…, respectively. MHD in this report therefore refers to 'Mother with history of Home delivery'.

4.3.1. Care during pregnancy

According to some of the participants, pregnancy in the cultural context is not regarded as a disability. They do all house chores until the time to deliver nears. The treatments they received varied from one tribe to another. The *chokwes* (a tribe in Kavango) are given "*sivatu*" and other concoctions comprising of a variety of roots such as *mbuumbu, mpindu, muroro* and other roots throughout the pregnancy and near term they are given another concoction to fasten the labour process. The *vakwangalis* and *vamanyo* are usually given at the onset of labour concoctions of *'sivatu'* and *'mpindu'* scientifically known as *Ancylanthus bainesii.*

One of the participants added that *sivatu* is given in case the woman or partner was unfaithful. If it is not given, the woman can die or the baby can die immediately after birth. If the woman had many sexual partners an act ''to cut them off'' should be performed. When asked how this is done MHD1 replied: "*a long root about 10 cm is given to the woman to bite and the elder cuts off pieces amounting to the number of sexual partners and leave out only one.*"

4.3.2. Care during the first stage of labour

There is very little information obtained regarding the care of a woman in labour at home. Most of these pregnant mothers indicated that it was not really planned that the delivery takes place at home but more of an unexpected situation or it happened at night or early hours of the morning with transportation being mentioned as a challenge to reach the nearest health facility. Mothers and mothers-in-law are the persons mentioned to have assisted the women who gave birth. Some testimonies are shared below:

"*I delivered at home my first child and I was assisted by my mother in-law. I did not plan that way, I wanted to deliver at the hospital but in the process of trying to get transport, the baby came"*. Said MHD2

"*I have been pregnant 4 times. my first child came out through operation because I had measles when I was in labour, the second child was vaginal birth at hospital. The 3rd and 4th were home deliveries. Most of the time my pains start at night, so I had no choice but to deliver at home because transport is hard to get at night". (*MDH3).

"*I delivered at home 2 times. On both occasions I did not know it was time for me to go to the hospital, I thought real pain would come. However, my mother-in-law was a well-known TBA in our village. I was given mahangu millet to pound, as I was busy pounding, I started feeling pain, it went on for an hour then it stopped and I went to sleep. In the middle of the night, the pain started again, that is when I went to wake my mother in-law. My mother in law checked and saw that the baby was soon to arrive. We sat to wait.*" Said MDH1

4.3.3. Process of delivery conducted at home

The process of home delivery is described by the participants as smooth. None of them reported any challenges with the practices. However, it also came to light that sometimes the helpers or TBAs use any available equipment/items to execute the task. Some would use gloves while some would use plastics to cover their hands but there are times in emergencies such items are just not available. When the baby comes out the umbilical cord is cut using either a clean blade or kitchen knife that was never used before. The participants also said any string available is used to tie the cord.

After the baby is born, the placenta expulsion follows. None of them reported having an incident of retained placenta. After delivery, the woman is encouraged to rest and when possible taken to the hospital the day after. Some of the practices regarding the delivery of the placenta are stated below:

"*The afterbirth product also known as the placenta was removed shortly after the birth of the baby, chicken droppings were smeared on the hands of the traditional birth attendants and smeared in the vagina so it can help detach the placenta from uterine wall,"* said MHD4.

"*My mother in-law applied pressure at the upper abdomen/fundus to help the placenta come out*," said MHD5.

4.3.4 Post-partum care for home deliveries

The participants highlighted the care after delivery consist of resting, being indoors and doing sitz baths in hot water mixed with coarse salt to expel clots. One participant indicated vaginal enema can be given to expel clots and some of this water can be mixed with *mukwevo* (scientific name not found) leaves. It is believed this treatment help cleanse the birth canal.

4.3.5. Care of a newborn baby

Some mothers said babies are wiped dry and covered with a blanket to keep warm. When the mother is done, she is given the baby to feed. Another mother spoke of the baby being bathed after delivery and then dried and covered for warmth. One mother spoke of her baby being born floppy and not crying, the TBA intervened by splashing water on the baby and gently hitting the buttock of the baby and then the baby started crying. Some of the specific care are highlighted below:

"*Sipumuna concoction is put in water to bath the baby and some of it applied on the baby's body to keep bad spirits away,"* said MHD3.

"*My baby was covered to keep warm and taken to the clinic in the morning for immunization",* said MHD5.

4.4. The understanding of the Elders/TBAs on the influence of cultural practices during childbirth, labour and postpartum

The target number of participants for this group was supposed to be 10 (ten) but data was saturated after reaching the 5th participant but continued to 7th participant no new information was coming out anymore. The views of this category of participants is arranged in the following themes; 1. Care during pregnancy and Traditional treatment recommended, 2. Conducting the delivery, 3. Immediate care of newborn baby, and 4. Postpartum care for mother. Details per theme to follow under the respective headings.

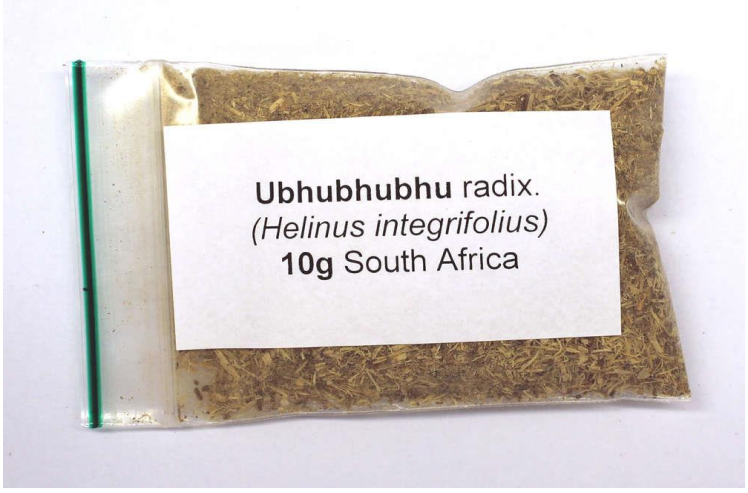
4.4.1 Care during Pregnancy

Sub-theme 1: Cultural care and Treatment during pregnancy

The elders and TBAs shared their views individually representing both regions and respective districts. Practices shared were almost similar, in exception of some having more knowledge on indigenous medicine. Care in pregnancy is outlined below:

- Regular abdominal palpation/massages to ensure baby turns into the right position. This is done by using pure Vaseline. No herbs used.
- Perineal massages are also done routinely during pregnancy to ensure no vaginal tears occurs during the delivery. Some herbal treatments used are *Eromborora* "*sesamum triphyllum"* or wild sesame is used to smear on the fingers before massaging because it is slippery. This is done as the pregnancy nears term even two times. Another method is to do perineal massages using fingers that are dipped in *'munandwa'* scientific name *Pavonia senegalensis*.
- When the woman is near delivery time, she is given some roots to drink. These are referred *"mbatu". Mbatu* literally means the jumping style of a frog/tadpole. It is believed that during pregnancy the husband might "jump" the wife and go sleep with another woman (been unfaithful to his wife). This has serious consequences according to *vaKavango* culture as the pregnant woman might die during labour. Sometimes this kind of treatment is given in form of crushed powder smeared on abdomen of the woman, or drinking dirty water from the husband's shoes. some of the elders mentioned elephant dung as part of the remedy a woman needs to drink in order to avoid all these complications.
- One elder who is a practicing TBA also share her views that: "*The commonly used roots are that of Mpindu scientifically known as Ancylanthus bainesii, mbatu, mbuumbu (Vangueria esculenta), mukekete (Ziziphus mucronata), muroro (Helinus integrifolis) amongst many others. Remedies made from root mixtures of mpindu/ Ancylanthus bainesii keep baby active in utero and sivatu to prevent complications that result from infidelity of either the woman or her partner*".

Figure 1: *Vangueria esculanta* locally known as *Mbuumbu*



B

Figure 2A and 2B is Helinus integrifolis locally known as muroro

Sub-theme 2: Dealing with pre-term labour

Some roots are given to avoid preterm labour and keeping foetus healthy. If this is not given it can lead to miscarriage. Some examples of these roots are *muroro/Helinus integrifolis* and *mbuumbu* scientifically known as *Vangueria esculenta.*" Contractions that start before a woman is term/before 9 months is assisted by TBA to stop the preterm labour. A tree locally known as "*mutundungu"* scientific name *Burkea afrikana hook* is used for this. The mud from the nest of wasp known as mud dauber is mixed with water and placed on the bark/phloem of *mutundungu*, it is moved on the abdomen starting at fundus until suprapubic area then it is placed on top of her room. This means the baby is lifted up, will not come down until it is her time.

Figure 3: *Burkea Africana* locally known as *Mutundungu* which is used in treating premature labour

Sub-theme 3: Health education to a pregnant woman in the cultural context

The pregnant woman is given traditional health education such as to avoid eating dry meat specifically for eland, meat from a pregnant cow that dies on its own, overnight porridge and bone marrow. Consequences of eating this type of food includes difficulty breathing, grunting, blocked nose in the neonate, and intrauterine growth retardation (TBA 1). Other TBAs added that the woman should not be lifting heavy objects, avoid stressful situations as it affects the baby not to cry at birth, her partner/husband must be educated on the implications of infidelity while the wife is pregnant and eat well according to cravings any food available.

4.4.2. Conducting the deliveries

Not all participants in this category conduct deliveries, some are elders that assist pregnant mothers take the traditional treatment, do palpations and give advice. Some indicated they only conduct deliveries in case of emergency although they are skilled as TBAs but because they are not certified they always advice the women to deliver at hospital after they have prepared them. However, those that conduct regardless shared that they never had any complications while helping the mother deliver at home. Their contribution is summarized under the subthemes below.

Sub-theme 1: diagnosing readiness for baby to be born

The TBAs have their own ways of determining readiness for a baby to be born. Some of them do check the descent of the foetal head, some check for bloody mucoid vaginal discharge and some insert fingers to feel if the baby is near. Once certain then they get the necessary items ready such as blade or knife, strings, baby towel or blanket and hot water. Vaseline may be applied to relax the rigid perineal muscle so that baby can slide through the birth canal with no struggles.

One TBA shared this: "*I give a combination of mpindu and sivatu during labour. Mpindu speed up labour and delivery as the baby will come out in full force with no delay. Last week, I conducted a delivery for my daughter in-law here in the house with no complications. All these children you see running up and down in this house were born right here in the house. We only go to the clinic for immunization for the new-borns.*"

The TBAs do not do much but sit and allow nature to take its course. Any labour that fails to progress is then sent to hospital but that is very rare according to them.

Subtheme 2: Assisting with the birth

TBAs just wait for the baby to come out, however some mentioned they also monitor signs of a perineum threatening to tear and intervention is taken by pressing down the perineum with a thumb. Once the baby is born, he/she is separated from the mother by cutting the cord with a knife or blade.

Subtheme 3: Delivery of the placenta

Afterbirths are removed slowly and not pulled out in a hurry as that cause infertility. In some cases, a woman is asked to blow breath in a bottle until the placenta is out, or TBA perform elbow massage on the back of the woman from top all the way down to the sacrum and then the placenta comes out.

One TBA said that after the baby is born she palpates the womb for another baby. If there is a baby in case of twins, she does the delivery and if there is no presence of a second baby, she delivers the afterbirths products. There are times the afterbirth products get stuck and the TBA would call it out with a clicking sound made by sticking the tongue to upper teeth and release. This sound detaches the afterbirth products known as the placenta from uterine wall.

Another one also said to remove the placenta, she follows the cord and tries to pull the placenta out, if it feels hard, she leaves until it moves smooths. If stuck a woman is given *muteyu-teyu (maerua juncea pax)*.

4.4.3. The understanding of TBAs/Elders regarding immediate care of new-born baby

The TBAs understand that the babies need to be kept warm right after delivery by covering them with blankets. One TBA said "*Babies are not bathed in the first 24 hours, they are kept warm and sipumuna is applied to avoid catching bad spirits*."

The baby is expected to cry immediately after birth. However, one TBA shared that if the baby is not crying, she slaps the baby's buttock once or twice to stimulate baby to cry, an alternative to that is a splash of water on the baby. Baby is separated from mother while she completes the care for the mother. Baby is dried and covered with blankets.

Baby is also checked for any abnormalities that may need attention to send to hospital. If baby is not crying, TBA would pour water on the baby as a result the baby will automatically sneeze and start to cry. Babies are bathed immediately after delivery. A baby that is born not crying is stimulated using metal parts of an axe hitting against each other.

As the baby grows, they continue to give remedies for *sipumuna or simbundu* so that the baby does not get sick when coming across people with bad spirits. This can be given in form of enema or by smearing on the body or put in water for baby to drink. *'Muroro'* roots are also given to the baby to drink for the wellness.

4.4.4. Postpartum care culturally

The opinions regarding care after delivery varies, some say there are interventions specific for postpartum while others say no other treatment is given in this period. Most common practices during postpartum include steaming the perineum with hot water to expel clots but sometimes this water is given in form of a vaginal enema. The woman is encouraged to rest to recuperate.

One TBA said: "*when discharged from hospital I give to the mother 'kawesamasini' that serve as family planning to avoid pregnancy while still breastfeeding. All these grandkids of mine you are seeing running up and down here, they have never been ill to be taken to hospital since they were born and that is because these treatments work and kids remain healthy.*"

4.5. The understanding of skilled birth attendants/health care professionals regarding the influence of cultural practices on pregnancy, labour (including outcome) and postpartum

The participants in this category comprise of 4 nurse/midwives that work in maternity ward and 2 medical officers whose clients are mainly pregnant women (Obstetric care). Once again this group represents both regions and districts. All the midwives that participated in the study confirmed that they everyday attend to pregnant women who come to deliver, and that some of the pregnant women do come in while they have taken traditional remedies but some do take while already admitted in the ward.

4.5.1. Nurse/Midwives experience dealing with women who take traditional remedies for labour

Theme 1: Characteristics of pregnant women suspected to have taken traditional remedies

The midwives indicated that at many times pregnant women would come in with some sort of crushed herbs smeared on the abdomen and upon enquiry some clients confirm that it is traditional treatments to help the delivery process to be smooth while others might say they do not know what the herbs are, claiming that they were just given and they adhere because elders just say so. However, some would present with very strong/hypertonic contractions upon admission, with no rest.

"In worst case scenarios, these hypertonic contractions can lead to uterine rupture," said NM1.

Another midwife (NM2) shared one incident that happened:

"*One day a woman was admitted and discharged with a diagnosis of false labour and to come back in established labour and when she went home she was given these concoctions. She started with contractions and when she came back for re-admission, no foetal heart activity was picked by cardiotocograph (CTG), and she delivered a stillbirth (dead baby).*"

Theme 2: The Effect on Labour Progress and Outcome

The midwives shared that the effect these concoctions on labour progress differ from one woman to another depending on the type and concentration of concoction taken. One thing observed in all cases suspected to have taken traditional treatment is the presence of hypertonic contractions which does not tally with the dilatation of the cervix.

"*Most pregnant women who take these concoctions progress fast. The contractions are abnormally intense and more frequent. One can even count up to 7 contractions in 10 minutes with very minimal rest.*" Said one NM3

"*Contractions are usually strong and are followed by foetal distress which may be bradycardic or tachycardia.*" Said another NM4.

The contractions progress very fast in some pregnant women while others do not progress at all and pregnant women end-up going for caesarean section. The delivery outcome in some cases is not satisfactory because the baby might be born floppy and need resuscitation, but some babies are well at birth.

NM3 said: "*Babies are usually born with good Apgar score especially if labour did not prolong, and no complications are observed.*"

Theme 3: Effect in puerperium phase

The opinions of participant midwives on the effects of the concoctions on the puerperium phase are contradictory. Some of the midwives indicated that the effects are usually negative. One common side effect is too much bleeding after delivery medically known as Post-partum haemorrhage (PPH) is observed. On the contrary another midwife had a different opinion, these are her views:

"these mothers have minimal vaginal bleeding after delivery assuming maybe the herbs taken has the properties that help contract a uterus."

Another midwife shared this case: "*Postnatal discharged may come back for readmission with lower abdominal pain and elevated temperature. Upon examination a nurse may notice herbs*

inserted in the vagina. Some common herbs discovered are locally known as 'Kawesamasini'. Such mothers are then treated for puerperal sepsis".

4.5.2. Medical officers' experience dealing with women who take traditional remedies for labour

Two medical officers took part in this study. Both of them confirmed to have worked with pregnant women who have taken concoctions/remedies either during pregnancy, labour or postpartum. One of the Doctors stated categorically that the influence that cultural practices has on pregnancy, labour and postpartum depends on how and why it was used. From his observations, these concoctions affect negatively all the three stages of labour. In labour, it is used with the assumption to induce labour or make childbirth smooth. However, there are complications that can present early, immediate and late complications. This data is arranged in 4 themes, which are 1. Effect in labour, 2. Effect in post-partum 3. Immediate and late foetal complications and 4. Medical effects or complications.

Theme 1: Effect during labour

Early complications observed in the clinical area are as follow; placenta abruption, Disseminated Intravascular coagulation (DIC), Haemolysis Elevated Liver Enzymes Low Platelets (HELLP syndrome) and rupture of the uterus which may lead to hysterectomy or lead to death if done by unskilled personnel. The late complication in most cases includes permanent infertility if uterus rupture occurs.

Theme 2: Postpartum complications

In postpartum, the complications depend on the route that was used during the administration of the concoction. Cases dealt with in the Outpatient department (OPD) involved insertion of herbs in the birth canal which may lead to necrotic uterus of which the only intervention is hysterectomy (surgical removal of uterus) and as a result the woman will be permanently infertile. If herbs are inserted in the rectum/digestive route it leads to necrotic bowel and that will require colostomy to be done. There are cases where part of intestines become necrotic and had to be cut out. See illustration below for necrotic bowels which appears darkish in colour.

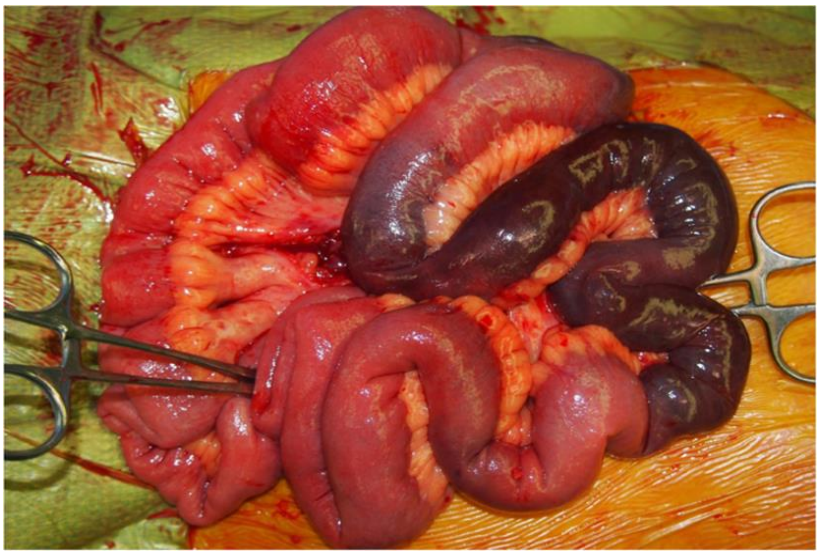


Figure 4: Necrotic bowels (Credit: Yajima, S., Asano, H., Fukano, H. *et al.* 2019)

Theme 3: Immediate and Late Foetal complications

Immediate foetal complications are foetal distress and death of foetus in utero/IUFD.

Late foetal complications include hypoxic ischaemic encephalopathy. If mild, baby can recover but sometimes they have connective impairment and the child will not perform well in school. The child may have cerebral palsy which is a permanent disability.

Theme 4: Medical complications in pregnancy/labour and postpartum

Complications in pregnancy or labour may include: sepsis, renal failure, hepatic failure, hepatorenal encephalopathy induced by the herbs used, multiple organ failure which leads to death. Medical complication in postpartum are the same as in labour, it also includes sepsis, multiple organ failure, hepatic failure, renal failure and hepatorenal encephalopathy.

4.6. Conclusion

This chapter covered the results of the study. The results comprise of the understanding and experiences of the service users being the pregnant women and mothers with history of home deliveries, opinions and the understanding of cultural care providers who are hereby referred to as TBAs and the opinions and experiences of skilled health care providers (doctors and nurses). The plants/herbs and other remedies used in the cultural context of caring for a woman in labour are covered in this chapter.

CHAPTER FIVE

DISCUSSION OF FINDINGS & CONCLUSIONS

5.1. Introduction

This chapter shall focus on discussing the findings outlined in Chapter 4. In-depth exploration of similar studies in this area will be done in order to connect findings to existing evidence based information. After that a conclusion will be drawn in relation to the objectives and research questions raised in the introductory chapter.

5.2. Discussion of findings obtained from pregnant women, mothers with history of home deliveries, elders/TBAs

5.2.1. Care during pregnancy

In the previous chapter, the above participants' responses were listed separately. However, in this chapter, the discussion of the findings is merged together because of the similarities obtained in the information.

This category of participants described the care during pregnancy in the cultural context as vital. The given care includes abdominal and perineal massages as well as treatments based on certain herbal concoctions ranging from roots to elephant dung. This cultural treatment is necessary for every pregnant woman even if she plans to deliver at hospital. The persons involved in this practice believe that the concoctions given are powerful and efficient to prevent maternal or foetus/neonatal death. The participants also feel, the care at home prepares the pregnant women for safe delivery. The expectation is that when the perineal massage is done at home; on the delivery time, the vaginal opening will stretch to allow baby to pass through without sustaining any perineal tears. The Participants claim that this kind of information or care is not being given at health facilities even though they attend antenatal care. These sentiments are echoed in a study conducted in Nigeria, where participants described the services of TBAs as loving, caring, more considerate and always available when needed (Afoyalan & George, 2010:1). Another study

done in Ethiopia also revealed that culturally pregnant women feel that the care they receive from TBAs assures them of less complications from pregnancy (Masele, 2018:4). The use of elephant dung to speed up labour is not only common in Kavango region. A study done in Zimbabwe showed high prevalence rate in women using elephant dung, anthill soil, *Fadogia ancylantha* and muddy nest of mud daubers (Mawoza, Nhachi & Magwali, 2019:3). *Fadogia ancylantha* (mentioned in a study for Zimbabwe) and *Vangueria esculenta* (mentioned in this research) seems to be the same plants, which means this particular plant is used for the same purpose in Namibia as well as in Zimbabwe.

TBAs and elders do advice women to take care of themselves during pregnancy, to be faithful to their partners, to avoid heavy work, to eat right according to what is available but also to be cautious not to eat the restricted diet such as eland meat, cold porridge and bony meat especially the bone marrow. It is a belief that if a pregnant woman consumes eland meat during pregnancy, it may cause the foetus not to grow well in utero and even after the baby is born. The other concoction given is *sivatu* to prevent dying in labour or having obstructed labour in case the woman or her partner was unfaithful during pregnancy. There are several studies reviewed that concur with these participants in exception to protection if she had multiple partners or husband unfaithful. However, being faithful can prevent contracting sexually transmitted infections which is a commendable behaviour. With regards to food taboos, a study done in Malaysia; dietary restrictions after birth entail avoiding cold food and toxic fish with the rationale that the body must remain hot and free of toxicity for suckling (Wilson, 2010:267). Although this category of participants believes this practice on food restriction needs to be adhered to, there are studies that were done and concluded that observing food taboos during pregnancy might have impact on maternal and neonatal health outcome (Irakunda, 2019:159).

5.2.2. Management of preterm labour

Preterm labour in the cultural context of the vaKavango people is treated using the phloem or bark of *mutundungu* tree scientifically known as *Burkea afrikana* mixed with mud from the nest of mud dauber wasp. It is not yet known what medical properties are found in this concoction but users are certain it is highly effective for that purpose. Some of the ethno-pharmacological studies done in South Africa found evidence of *Burkea Africana* to have antioxidant, anti-inflammatory, and has the highest 15 anti-lipoxygenase activity with 85.90% inhibition at 100µg/ml (Dzoyem &

Ellof, 2015:194). A study that was done in Kigoma region in Tanzania also found that local herbs (no specific names mentioned) are very useful in preventing miscarriage or preterm labour (Fukunaga, Morof & Blanton, 2020:4). However, in modern medicine, more is done not just focusing on the mother but the baby as well. WHO recommends that preterm labour is managed holistically to make sure foetal and maternal wellbeing is not compromised. Treatment therefore includes giving tocolytics to suppress contractions if possible, corticosteroids to mature the foetal lungs and last but not least prophylactic antibiotics to prevent infection (WHO, 2015:3).

5.2.3 Care during labour and handling of delivery

Most of the TBAs/elders that participated in the study indicated that nowadays, they hardly conduct deliveries at home except in emergencies or at night. They always encourage their pregnant women to deliver at hospital emphasizing that although they are knowledgeable, they are not recognized by the Ministry of Health and Social Services (MoHSS) and they fear lawsuits should anything go wrong at home. Despite their effort to encourage women to deliver at the health facility, clients still ambush them in emergencies and they have no choice but to help. A challenge faced is because of not being supported by the MoHSS, they lack basic necessities to use when they conduct deliveries. In neighbouring Zimbabwe, TBAs are officially recognized by government (Mathole, Lindmark & Ahlberg, 2005:3).

There is no specific care with regards to labour in comparison to WHO recommended standard operating procedures for a woman in labour. However, the TBAs highlighted that they perform vaginal examination to check the descending (coming down) of the presenting or leading part. This is done by inserting 1 or 2 or 3 to four fingers in the birth canal. They do also give the *sivatu* herbal concoctions to prevent complications or death that might occur if the woman or partner was unfaithful and some other herbs or roots are given to speed up labour. This practice is also being done in most African countries, for instance in Zimbabwe, the TBAs give herbs to precipitate labour and make the cervix dilate (Mathole, Lindmark & Ahlberg, 2005:7). In Ethiopia, herbs are given to speed up labour or escalate contractions (Masele, 2018:7). In Zambia as well the same practice is done for the same reason.

Whilst waiting for baby to be born, the TBAs just sit and observe until the baby's head starts to show or crowns. As the baby pushes through some of the TBAs apply techniques to prevent perineal tear. When the baby is finally out, they either use a blade or knife to separate baby from

mother. The afterbirths known as placenta is removed shortly after the baby is born. This practice of using blades is another common practice for most TBAs as evident in studies done in other African countries such as Nigeria (Adeleke & Iweriso, 2010:1). However, some TBAs in neighbouring countries are advanced at monitoring for signs of labour. The participants in this study did not elaborate much on what signs do they look for to ascertain true labour, but the TBAs in Malawi do check for watery vaginal discharge (which may signify draining of amniotic fluids as the membranes rupture), bloody vaginal discharge (which is referred to as "show" in modern midwifery practice, painful legs, and painful back (Maliwichi-Nyirenda & Maliwichi, 2010:3). After the TBA is sure it is true labour then they give traditional treatment necessary to fasten labour such as eating porridge or giving the common traditional Pitocin in Malawi popularly known as *mwanampepo wamng'ono*.

When participants spoke of delivery of the afterbirths, methods ranged from gently pulling it out or woman is asked to blow in a bottle which will naturally trigger a push to release the placenta, as well as applying chicken poop in the birth canal to help detach the placenta. There is no supporting literature for using chicken poop for management of third stage of labour in human but humans do use chicken poop as manure in their gardens. Some web sources indicate that chicken poop can carry diseases that can affect humans example salmonella bacteria, E. coli and campylobacter. This practice might be harmful to humans by causing infection.

5.2.4. Newborn care and Postpartum care for the mother

Care of the newborn is described by the participants as crucial in every delivery. Babies are mostly kept warm and put on the mother's breast for feeding. Some delay baby baths while some bath babies immediately which can expose the baby to get cold and suffer from hypothermia.

The mother who has just given birth is encouraged to rest and be indoors to feed the baby. According to the *vaKavango* culture, it is also important to ensure the clots are removed by either steaming the perineum with hot water or do sitz bath but some do the extreme by giving enema through vaginal route. The TBAs also give some herbs locally known as *kawesa-masini* which serve as family planning method after delivery. The sitz bath is supported by literature even in modern midwifery. However, giving vaginal enema to do a washout might be harmful and introduce infections in the female reproductive system. A study done in Tigray also reveal that women postpartum need to stay indoors so they do not catch bad spirits and bring diseases to the

newborn, they also encourage rest and warm drinks (Masele, 2018:8). Other studies done in Nigeria also had similar findings that TBAs recommend provision of warmth and breastfeeding immediately after birth (Afoyalan & George, 2010:1).

5.3. The experience of skilled birth attendants regarding women who use traditional remedies in pregnancy, labour and postpartum.

The skilled birth attendants shared their experience as stated in chapter 4. In a nutshell, the health professionals hereby referred to as skilled birth attendants believe that these traditional remedies do more harm than good based on the experience they have with the clients. Midwives whose primary role is to execute the monitoring of labour shared that the contractions are hypertonic (very strong) and more frequent than normal in pregnant women that have taken concoction to speed up labour. This results in maternal exhaustion and once the mother is tired whilst still in labour, she may end up with foetal distress (a decrease or increase in foetal heart rate) whereby the woman can end up being operated to extract the baby because regardless of the strong contractions, the cervix fails to dilate sometimes. There are also those pregnant mothers that progress abnormally fast and deliver very fast because of taking the traditional oxytocin. The midwives always discourage this practice because of the complications. Literature supports the views stated here, “the uterine contractions compress the placenta in the upper uterine segment, and this can retard the amount of oxygen to the foetus to a greater or lesser degree especially at the peak of a contraction” (Sellers, 2013:325). This means in case of continuous contractions secondary to having consumed ‘traditional Pitocin’, the foetus is subjected to a certain amount of hypoxia (not enough oxygen) hence the decrease in foetal heart rate (foetal bradycardia). In such cases even the delivery outcome might be affected because the baby might be born floppy and need resuscitation.

Doctors have the same opinion as midwives but also added that some of the complications do present immediately (like in the case of foetal distress) but some may present later in life (example infertility). The unfortunate part is both mother and baby can be affected by this and suffer complications. In worst-case scenarios, some women end up with, uterine rupture which may lead to permanent infertility if uterus is removed (hysterectomy), DIC, HELLP syndrome, sepsis, necrotic bowels and some even succumb to this phenomenon due to multiple organ failure. In

babies might complications may include foetal distress, IUFD, hypoxic ischemic encephalopathy which may affect the child's performance as he/she grows.

A research study that was conducted in Rundu Hospital in Kavango east region revealed that in a period of 3 months (January-March 2017) 242 caesarean sections were done of which 25% is attributed to foetal distress and 6.7% due to prolonged labour (Hatupopi, Nghamukamo, Nghitanwa & Tuhadeleni, 2019:4).

Several studies done in the past and recent also found that the use of herbs in pregnancy and in labour have negative effects on both mother and baby causing heart defects, liver damage, cardiorespiratory depression and poor Apgar score in babies (Dika, Dismas, Iddi & Rumanyika, 2017:3). Another study done in Malawi also revealed that the use of herbs leads to obstetric complications. There is also very little evidence with regards to safety when using traditional medicine in labour. A plant known as *Cissampelos mucronata* was researched using rat models. The result of this study found that this particular plant induced labour with an inceasingly high level of maternal stress which led to premature labour and cannibalism in rodents however no uterine rupture was observed (Lampiao, Maliwichi-Nyirenda, Mponda, Tembo & Clements, 2018:160). Several other studies also concurred with the views of skilled birth attendants that herbal medicine lead to continuous contractions not corresponding to slow cervix dilatation (Lampiao et al, 2018:159). Post-natal complications revealed by other studies include vaginal discharge, pelvic pains and fever which may lead to puerperal sepsis (Fukunaga et al, 2020:7).

5.4. Conclusion

From onset the purpose for embarking on this research project was in order to explore the understanding of the *vaKavango* women particularly the pregnant women, the elders and/or traditional birth attendants, mothers with history of home deliveries and skilled birth attendants on the influence cultural practices have on pregnancy, labour and delivery. The results show different views from participants. Whilst the non-health personnel participants speak greatly about the use of herbs that it has many advantages ranging from helping prepare for the birth. Cultural herbal use includes, keeping mother and baby safe, keeping baby active in utero, preventing maternal or neonatal death, preparing perineum to prevent tears during childbirth, speeding up labour process and many more. Once again, this is their understanding and beliefs. These practices are not unique to Kavango region but it is evident in literature reviewed that these

are common practices in Africa and even beyond. In America, women use a plant known as blue cohosh for the same purpose. However, the concoction for *sivatu* (for the *vaKavango* women) in the event of unfaithfulness or drinking dirty water from the shoe of a partner is not backed up by any evidence based practice. As matter of fact, dirty water drinking may cause infection.

Labour monitoring in case of home delivery is not sufficiently defined by participants, and this may pose a risk to the labouring woman as the traditional birth attendants may not be able to pick complications on time to refer to the hospital. During delivery, the environment is not even surgically cleaned or sterile and equipment used can be categorized as unsafe especially cutting the umbilical cord with kitchen knife and using plastics in the place of gloves. The TBAs also uses indigenous knowledge as they did not receive any form of training from the Ministry of health and social services. Given that background of working without legal authorization makes them perform their tasks privately and may hide the information from the skilled birth attendants when something goes wrong fearing reprimand.

The care of the new-born by TBAs/elders is almost similar to that being done in hospital by skilled birth attendants, i.e keeping the baby warm and initiating breastfeeding. However, practices such as pouring water on a newborn can pose a health risk. WHO recommends that newborns need to be kept dry and warm in order to avoid hypothermia in a newborn which can lead to baby feeling sick and fail to suck and eventually lead to hypoglycaemia.

Postnatal care culturally includes staying indoors, sitz bath and giving some sort of vaginal enema to expel clots. On the contrary, health professionals (skilled birth attendants) have an opposite view and there are many reports also supporting their views. From experience, they observed more harm or negative effects secondary to herbal use and in worst case scenarios the woman may suffer permanent coagulation disorders, infertility, multiple organ failure and even death.

Regardless of the different views, culture is what defines people or communities and they do certain practices according to their beliefs because they feel if it is not done something might go wrong. And yet, there is no evidence of toxicity on these plants commonly used locally. In conclusion the evidence presented in this report can serve as a stepping stone for further studies to be done in order to analyse traditional herbs utilised in rural area (for the purpose of inducing or augmenting labour) for chemical properties, safety and physiological effects.

CHAPTER SIX

RECOMMENDATIONS AND LIMITATIONS

6.1 Recommendations

Based on the findings of this research study conducted in Kavango region involving Elders/TBAs, pregnant women, women with history of home delivery and skilled birth attendants; recommendations are deemed necessary in order to ensure that users of this kind of service are not put at risk. If the health of the mother and baby are well looked after, this will contribute to the Sustainable Development Goal 3 (SDG 3) which advocate for a decline in maternal and infant mortality rate. Recommendations shall be made to the ministry of health and social services, particularly the Kavango East and west health directorate.

6.1.1. Ministry of Health and Social Services/ Kavango East and West health directorate

- It is evident in this study that the use of local herbs is used to speed up labour amongst other many more reasons, of which according to the skilled birth attendants is having a negative effect on the mother and baby. Based on that finding, we recommend that the family health division within the directorate takes up this issue to educate women of childbearing age, pregnant women and TBAs to make them aware of the complications caused by these herbs.
- The study also reveals that the home deliveries are not conducted in a safe manner. Therefore, the researcher recommends that the regional Primary Health Care division in collaboration with the family health division identify TBAs/elders assisting with deliveries in the community to give them basic training on emergency labour and delivery care as well as educating them on signs of complications so that they refer timely and perhaps solicit funds from partners to provide the TBAs with emergency kits. (not necessarily advocating for home deliveries but in case of emergency).
- A further study needs to be embarked on to explore more on medicinal properties.

6.1.2. To Namibia University of Science and Technology

- Since the researcher has started with this journey, a recommendation is being made to continue this project on a higher level checking for medicinal properties and developing strategies bring TBAs on board so that harmful practices are minimized through knowledge.

6.2. Limitations

Kavango East and West region is vast and highly populated but the research was limited to 2 health districts, namely; Rundu and Nankudu districts. Andara and nyangana districts were left out. This might not cover the understanding of the majority of the *vaKavango* people on the subject matter. The investigator is convinced that if this research could be done on a larger scale involving more TBAs, more could be unearthed. Therefore, the findings in this study could just be a tip of an iceberg. Analysis for medicinal properties could not be done at this stage because of the Covid 19 pandemic, the laboratory had a backlog of industrial samples. If analysis will be done at a later stage, the information shall be published in an article with this study.

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Appendix 1: Information for participants

Topic: **Investigating the influence of Cultural Practices on Pregnancy, Childbirth and Postpartum Care and labour outcome focusing in Kavango Regions, Namibia in Southern Africa.**

Background Information:

The researcher is a Master student at Namibia University of Science and Technology in the field of Health Sciences who intends to research on cultural practices for pregnancy, labour/childbirth and afterbirth care in Kavango regions in Namibia. You are approached to participate based on your knowledge in the subject matter. Kindly take note that participation is voluntarily, under no circumstances will you be forced to say or do something you are not comfortable with. The study is aimed to explore the influence of Cultural Practices on Pregnancy, Childbirth and Postpartum Care focusing in Kavango Regions, Namibia in Southern Africa.

Procedure:

1. The researcher will explain to you the procedure in a language you are conversant with. If anything is unclear to you, ask the researcher to repeat the explanation
2. You will be required to sign an informed consent before you participate in the research.
3. Your identity will be kept confidential
4. There are no incentives in participating in this study.
5. You may feel free to withdraw from the research at any time you so wish.
6. Should the conversation trigger emotional or psychological effects, the researcher will ensure you get the necessary support or referred for counselling to a social worker.

Do you wish to continue? Yes/No

If yes, sign the attached consent slip below where applicable.

……

- I consent for one on one interview. Signature……..
- I consent for audio recording. Signature……
- In case the need arise to refer to social worker: sign here……..

Appendix 2: Health Care Worker Interview guide

Guiding points

- View on cultural practices with regards to pregnancy, labour/childbirth and postpartum
- Experiences dealing with clients who have taken traditional treatment during labour.

Appendix 3: TBAs/Elders Interview Guide

Points of discussion

- Cultural practices for pregnancy, childbirth and postpartum
- Treatment necessary during pregnancy, labour/childbirth and postpartum in the cultural context and benefit it entails
- Care for pregnant woman, laboring women and newborn

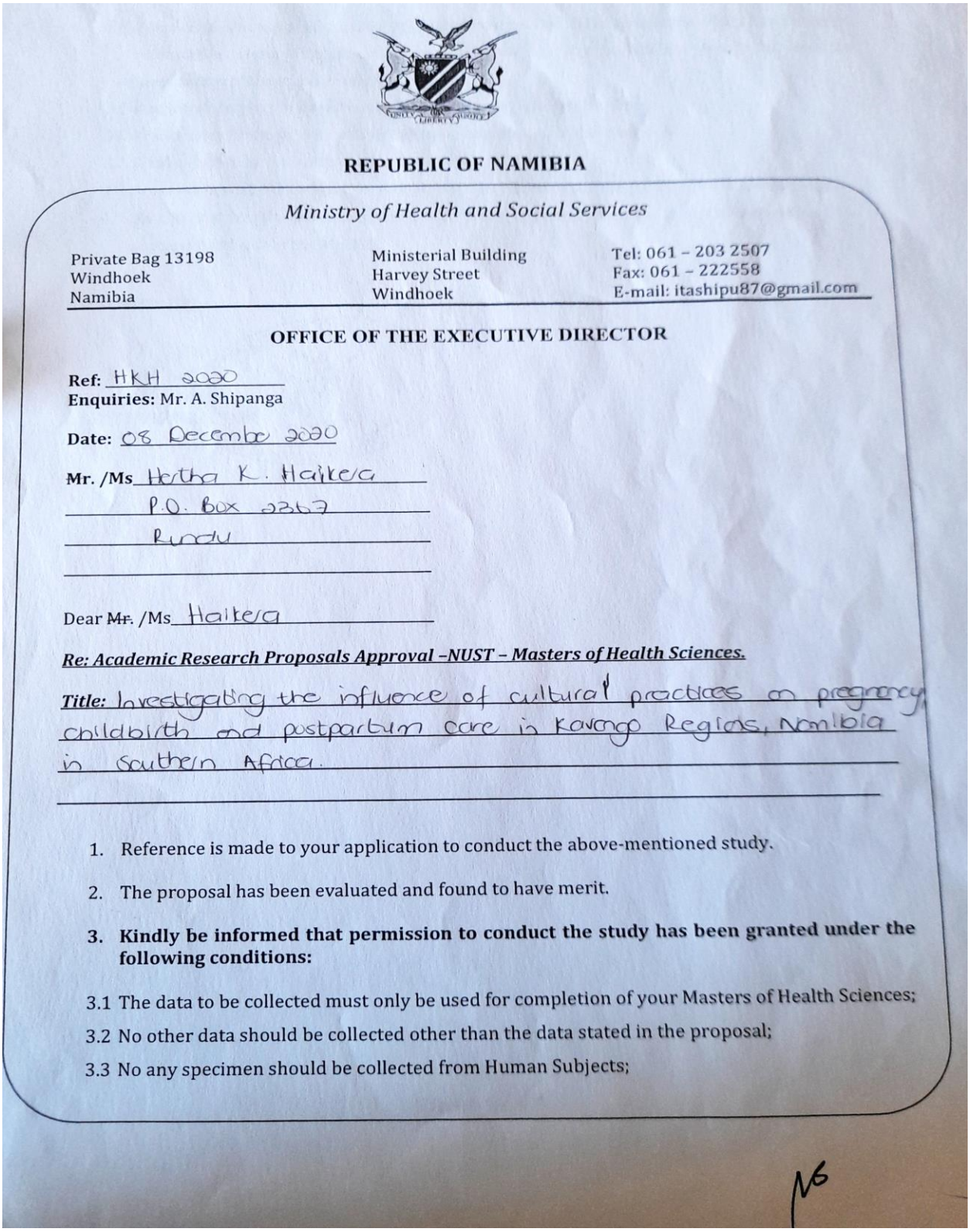
Appendix 4: Interview guide for mothers and expectant mothers

Points for discussion:

- Your view on Pregnancy
- Cultural practices necessary during pregnancy
- Benefits of the cultural practices for pregnancy, labour and postpartum
- Consequences if not carried out
- Preferred place of delivery and rationale.

THANK YOU FOR PARTICIPATING IN THE RESEARCH STUDY

Appendix 5: Approval letter from MOHSS



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OFFICE OF THE EXECUTIVE DIRECTOR

Ref: HKH 2020
Enquiries: Mr. A. Shipanga

Date: 08 December 2020

Mr. /Ms Hertha K. Haikera
P.O. Box 2367
Rundu

Dear ~~Mr.~~ /Ms Haikera

Re: Academic Research Proposals Approval –NUST – Masters of Health Sciences.

Title: Investigating the influence of cultural practices on pregnancy, childbirth and postpartum care in Kavango Regions, Namibia in Southern Africa.

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**

3.1 The data to be collected must only be used for completion of your Masters of Health Sciences;
3.2 No other data should be collected other than the data stated in the proposal;
3.3 No any specimen should be collected from Human Subjects;

3.4 Stipulated ethical considerations in the protocol related to the protection of Human Subjects' information should be observed and adhered to; any violation thereof will lead to termination of the study at any stage;

3.5 A quarterly report to be submitted to the Ministry's Research Unit;

3.6 Preliminary findings to be submitted upon completion of the study;

3.7 Final report to be submitted upon completion of the study;

3.8 Separate permission should be sought from the Ministry for the publication of the findings.

4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

EXECUTIVE DIRECTOR
MINISTRY OF HEALTH AND SOCIAL SERVICES

BEN NANGOMBE
EXECUTIVE DIRECTOR