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FACTORS CONTRIBUTING TO DRINKING ALCOHOL DURING
PREGNANCY IN RURAL KILIMANJARO TANZANIA: A
DESCRIPTIVE QUALITATIVE STUDY

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LIST OF ABBREVIATIONS

DOH	Department of Health.
FAS	Foetal Alcohol Syndrome
FASD	Foetal Alcohol Spectrum Disorder
HREC	Health Sciences Human Research Ethics Committee
ICD-10	International Classification of Diseases, revision 10
KCMCo	Kilimanjaro Christian Medical College
OT	Occupational Therapy
SES	Socioeconomic Status
TOTA	Tanzania Occupational Therapy Association
UCT	University of Cape Town
WHO	World Health Organization

DEFINITIONS

Alcohol: Any drink that contains any amount of ethanol (Algeo, 2003).

Factor: A situation, condition, fact, or influence that contributes to a result or outcome (Algeo, 2003).

Foetal Alcohol Syndrome (FAS): “Neurodevelopmental disorder associated with prenatal alcohol exposure that is characterized by a range of developmental disabilities following exposure to alcohol in utero” (American Psychiatric Association, 2013, p. 86).

Foetal Alcohol Spectrum Disorder (FASD): “An umbrella term for any number of cognitive or physical birth deficits brought about by maternal alcohol consumption during pregnancy. It is not a diagnosis. This spectrum disorder includes Foetal Alcohol Syndrome (FAS), Foetal Alcohol Effects (FAE) and Alcohol Related Neurodevelopmental Disorder (ARND)” (Duquette, Stodel, Fullarton, & Hagglund, 2006, p. 219).

Occupation: The “type of relational action through which habit, context, and creativity are coordinated towards a provisional yet particular meaningful outcome that is always in process; the type of occupation is defined by the particular combination of habit, context, creativity, and provisional outcome” (Cutchin, Aldrich, Bailliard & Coppola, 2008, p. 164).

Occupational engagement: “Engagement in work, play or activities of daily living that are part of one’s socio-cultural context and that are desired and/or necessary to one’s well-being” (Kielhofner, 2002, p. 122).

Mbege: A traditional brew of the Chagga ethnic group of Tanzania located in Kilimanjaro region. It is an alcoholic drink made from fermented bananas mixed with sprouted millet (Kubo, 2016).

ABSTRACT

Background: Understanding the factors that contribute to drinking alcohol during pregnancy is critical to supporting women's and children's health and wellness in rural Tanzania. The drinking of alcohol during pregnancy is a cause for concern in Tanzania. Due to high rates of foetal alcohol spectrum disorder (FASD) in the country, reducing alcohol use during pregnancy is a pressing public health priority.

Purpose: Alcohol consumption is a major problem in Tanzania that needs immediate attention (Francis, Weiss, Mshana, Baisley, Grosskurth & Kapiga, 2015). The purpose of this research was to investigate the factors that contribute to the drinking of alcohol among pregnant women in rural Kilimanjaro to inform the health promotion actions which the government, the health systems, and Tanzania Occupational Therapy Association (TOTA) need to take regarding drinking during pregnancy.

Method: A qualitative research approach was used for the study, utilising a qualitative descriptive design. The study was located within the social constructivist theoretical framework (Creswell, 2013). Eight participants were selected for this study, who were eighteen years old and above, some of whom were pregnant and drinking alcohol, and some who were not currently pregnant but had engaged in drinking alcohol in previous pregnancies. In-depth interviews explored the participants' personal experiences with drinking during pregnancy, and community norms and attitudes towards maternal drinking and knowledge about FASD were observed using participant observation. Transcripts were analysed using an inductive, thematic data analysis approach.

Findings: From the data analysis, three themes emerged: "*Tangu enzi na enzi*" (from generation to generation), "*kua na muda mzuri*" (to have a quality moment) and "*mimi ni binadamu kama wengine*" (I am a human like others). The first theme affirmed the contextual factors such as historical, cultural, physical, and social-political factors that contribute to women from rural Kilimanjaro drinking alcohol during pregnancy. This theme confirms the historical and pervasive presence of alcohol use during pregnancy. The second theme revealed social engagement and interactions, particularly due to deeply rooted values of ujamaa (familyhood/unity) in the community, as the factors influencing drinking alcohol among women during pregnancy. The third

theme gave insight into how economic situations, conflicting knowledge, religion, and spirituality factors enhanced women's decision to drink alcohol during pregnancy.

Implications: By examining the factors contributing to drinking alcohol during pregnancy, this study is contributing to the body of knowledge in assisting the Tanzania Occupational Therapy Association (TOTA) and the Tanzania Ministry of Health towards their goal of reducing the prevalence of FASD in rural Kilimanjaro. This research will also contribute to the capacitation of women about healthy choices regarding their drinking during pregnancy and substitution.

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CHAPTER 1: BACKGROUND

In this chapter, I introduce this study by providing the rationale, study problem, purpose, question, aim, objectives, and my assumptions as the researcher.

1.1 Introduction

Alcohol consumption among pregnant women in Tanzania is associated with the social, cultural, and political history of the country. McBride et al. (2012) claimed that drinking alcohol during pregnancy is the leading cause of mental and physical disability in communities worldwide. Foetal Alcohol Syndrome (FAS) is a result of maternal alcohol consumption during pregnancy (McBride et al., 2012). Although the prevalence of maternal alcohol consumption during pregnancy differs between countries with a high socioeconomic status (SES) and those with lower SES (Lanting et al., 2015), reports have highlighted an apparent increase in the number of children with FAS in poorer socioeconomic communities such as rural Kilimanjaro in Tanzania (Lanting et al., 2015). Despite these facts, there is limited evidence about the factors that contribute to alcohol use among pregnant women in rural Kilimanjaro, Tanzania.

1.2 Research setting

This study took place in Tanzania, specifically in Kilema village in Kilimanjaro Moshi district, which is situated on the slopes of Mount Kilimanjaro. The village has a population of approximately 9669 according to the 2012 Rural Census Population Statistics (RCPT, 2013). The village is dominated by the Chagga tribe and Christians. The main economic activities within this village include farming of cash crops such as coffee and banana plantations, animal keeping, and tourism, as well as making and selling a local homemade beer called "mbege". Drinking of alcohol is common in this village and community members drink alcohol, especially mbege, at any time during the day. Drinking alcohol, especially mbege, is perceived as healthy and people are therefore encouraged to drink (Setta, 2021).

1.3 Problem statement

In Tanzania, alcohol, especially locally made brews such as mbege, are an important part of social community functions, such as marriages and burial ceremonies (Saria et al., 2012). Alcohol consumption during pregnancy can cause serious health problems for the unborn baby and research has indicated that drinking any amount of alcohol at any time during pregnancy is a health risk to the unborn baby (McBride et al., 2012). There is no safe time to drink during pregnancy and drinking during pregnancy therefore increases the chances of the foetus developing FAS (McBride et al., 2012). However, individuals and collectives choose to drink during pregnancy as it is meaningful to them (Townsend & Wilcock, 2004), and therefore drinking alcohol is engaged by women during pregnancy, which may hinder the health and wellbeing of the unborn baby. Despite high health risks arising from drinking during pregnancy, there has been no research conducted about the issue in vulnerable villages where alcohol is consumed by pregnant women. FAS and related conditions resulting from alcohol use during pregnancy can be easily prevented. Exploring preventative strategies to limit alcohol use during pregnancy is pertinent within this context (Popova et al., 2017).

1.4 Rationale

The desire to conduct this research came when I witnessed my aunties and other members of my family drinking alcohol during pregnancy despite their high education level and understanding of the effect which alcohol may have on the unborn baby. Despite the awareness of the effects that alcohol has, people still drink. Evidence suggests that substance abuse, especially alcohol, in Tanzania is a growing public health problem (Mbatia et al., 2009). Even though alcohol was established as a teratogen in the 19th century, approximately 15% of pregnant women still use it, with the rate increasing to 20% (Bhuvanewar et al., 2007). In most developed countries, education is provided during pregnancy, and pregnant women are advised to abstain from drinking alcohol during pregnancy to protect their own health and that of their unborn child (Isaksen et al., 2015). In comparison with developing countries such as Tanzania, education and policies about drinking while pregnant have paid little to no attention to the effect alcohol may have on the unborn baby (Isaksen et al., 2015). Alcohol use during pregnancy is prevalent in Tanzania, but there is limited data exploring the factors that contribute to alcohol consumption among pregnant women, which

may be important to improve maternal and child health outcomes. Factors that contribute to alcohol use among pregnant women in rural Kilimanjaro are unknown.

1.5 Purpose

Drinking alcohol during pregnancy provides meaning for some and may develop and change over a lifetime as shaped by the environmental and historical context (Cloete & Ramugondo, 2015). The purpose of this research is to describe the factors that contribute to the drinking of alcohol among pregnant women in rural Kilimanjaro to inform the government, the health systems, and Tanzania Occupational Therapy Association (TOTA) about necessary actions to take to promote health for women who drink during pregnancy. This research will therefore add to the body of knowledge assisting the TOTA and the Tanzania Ministry of Health towards their goal of reducing the prevalence of foetal alcohol spectrum disorder (FASD) in rural Kilimanjaro. This research will also contribute to the capacitation of women around healthy choices regarding their drinking during pregnancy, including their options for alcohol substitution.

1.6 Research question

What are the factors that influence pregnant women to engage in drinking alcohol during pregnancy in rural Kilimanjaro, Tanzania?

1.7 Research aim

The aim of the research is to describe the factors that influence pregnant women to drink alcohol during pregnancy in rural Kilimanjaro.

1.8 Research objectives

The research objectives are as follows:

- To identify the contextual factors that contribute to the drinking of alcohol during pregnancy among women in rural Kilimanjaro.
- To identify the personal factors that facilitate the drinking of alcohol among pregnant women in rural Kilimanjaro.

- To describe the factors that facilitate choices made by pregnant women in rural Kilimanjaro to drink alcohol.

1.9 The researcher's position

I am known as many things: a researcher, a master's student, a mom to a beautiful daughter, a wife, a sister, a friend, an occupational therapist, black, able-bodied, middle class, originating from rural Kilimanjaro Tanzania, and currently living in Cape Town, South Africa. My reflection on my position and my use of a research journal have been my way of maintaining my research rigor throughout the research process. My aim for this research study was to investigate and learn more regarding the factors surrounding drinking alcohol during pregnancy, as I had observed that some of my relatives, despite their high education levels, continued drinking and perpetuating drinking behaviour during pregnancy. Growing up partly in this community, my mindset was that this behaviour was due to people's lack of education. However, I witnessed educated people and health care worker also drinking during pregnancy, and this inspired me to find out about the factors which contribute to drinking during pregnancy in my own community.

Due to my being from the same community where the research took place, I was accepted by the community member and community leaders (Researcher's Journal, p. 20), even though I left the community a long time ago. Therefore, I did not have difficulty in expressing my role as a researcher to the community.

During the data collection process, I did not reveal any observations that I made to any of the participants. Instead, I wrote about my feelings, impressions, and thoughts in my reflective research journal and shared them only with my supervisor. Despite the research being conducted during the Covid-19 pandemic, I mingled with the participants with no precautions, as no one in the community followed the pandemic regulations. At first, I tried to wear my mask and maintain distance, but everyone pointed at me, and it felt odd and foreign. I had to normalise the situation for myself, even though it was a bit scary.

1.10 Researcher's main assumptions

- Families, society, and culture influence women's decision to alcohol drinking during pregnancy.
- Environmental factors also influence drinking during pregnancy.
- Engagement in drinking alcohol is shaped by a person's history, culture, and the environment in which they live.

CHAPTER 2: LITERATURE REVIEW

In this chapter, I have examined international and national literature within the field of drinking during pregnancy to assess what is already known about the consumption of alcohol during pregnancy and its associated factors. A review of both local and international literature revealed a scarcity of studies regarding this topic.

2.1 Alcohol consumption during pregnancy

In Tanzania, alcohol consumption is indicated to be a major problem that needs immediate attention (Francis et al., 2015). Isaksen et al. (2015) found out that, in Tanzania, alcohol consumption increased with age, from 17.4% among mothers aged 17 and younger, to 42.5% among mothers aged 36 years and older. Women in Tanzania consume locally brewed alcohol as a part of social and ritual events (Saria et al., 2012). Women of the Chagga tribe from rural Kilimanjaro are reported to engage in drinking alcohol more compared with other tribes in Tanzania (Isaksen et al., 2015). According to Mongi et al. (2013), 68% of women in Tanzania drink alcohol, 76% of which reported to have drunk some in the past 12 months. Thus, the proportion of alcohol consumption during pregnancy in Tanzania is higher than in developed countries (Isaksen et al., 2015). This is indicative that alcohol consumption during pregnancy varies across African and other countries. In Sub-Saharan Africa, the prevalence of alcohol consumption varied from 4.30% to 59.28%, while in Ethiopia it was found to be from 4.3% to 44.99%. The prevalence differs across Europe, with 5.5 % in Sweden, 13.6 % in Germany, and between 12% and 63% in France (Lanting et al., 2015). The variation might be due to maternal or individual drinking behaviour, or environmental, genetic, political, religious, policy, and cultural factors (Jorgenson et al., 2017).

2.2 Factors contributing to drinking alcohol during pregnancy

Given the increase in the prevalence of alcohol consumption during pregnancy, there is a need for understanding the factors contributing to alcohol consumption. There is evidence that, in developing countries such as Tanzania, socioeconomic levels, culture, and a lack of knowledge about the effects of alcohol during pregnancy are factors contributing to alcohol consumption

during pregnancy (Kerr-Corrêa et al., 2007). In occupational therapy (OT), evidence on how different factors such as culture, socioeconomic status (SES), and peers perpetuate drinking alcohol in a rural context is elusive (Cloete & Ramugondo, 2015). It is undeniable that individuals are inseparable from the context in which daily occupation and activities take place (Cloete & Ramugondo, 2015). The locus of control over an occupational choice is not just individual but also lies with the collectives or groups that form part of the society (Galvaan, 2014).

Drinking is therefore learned through social influence. This theory is supported by Bandura (1977) in the theory of social learning that behaviour and habits, such as drinking alcohol, are learned from the environment. Furthermore, Bandura (1977) theorises how individuals and collectives engage in actions such as drinking during pregnancy as a result of motivation, norms, and positive attitudes about drinking. The theory emphasises the influences of family, society, and culture on the drinking of alcohol.

A study done in Australia identified that women could describe the factors that contribute to alcohol consumption during pregnancy and the effect that alcohol may have on their unborn baby (Crawford-Williams et al., 2015). In developing countries such as Tanzania, women's awareness of the factors and effects of alcohol during pregnancy is unknown. A study conducted in Canada found that the factors for alcohol consumption during pregnancy included marital status, smoking status, being unhappy with regard to their pregnancy, having partners or friends who drink, not being happy with the pregnancy, not being aware of the pregnancy, and previous alcohol consumption before pregnancy (Walker et al., 2011). In Sweden, the factors for alcohol consumption during pregnancy were found to be older age, living in a large city, using tobacco, low social support, strong alcohol habits before pregnancy, and social drinking (Skagerström et al., 2013). The findings of a study done in Dodoma, Tanzania, indicated that the consumption of alcohol was associated with educational status, drinking before pregnancy, source of income, having relatives and family members drinking alcohol, and experiencing complications in previous pregnancies (Mpelo et al., 2018). In South Africa, it was reported that women drink during pregnancy as a means to cope with daily stress. Having a history of trauma or currently experiencing abuse have been shown to be a risk factor for women abusing alcohol during pregnancy (Cloete, 2012).

The findings from both Cloete (2012) and Mpelo et al. (2018) indicate that the easy accessibility of alcohol, with many places to find it either in nearby bottle stores or on an alcohol-producing farm, is one reason why women consume alcohol during pregnancy. Having a drinking routine and habits of alcohol consumption before pregnancy was also found to be a factor that influenced the likelihood of alcohol consumption during pregnancy (Cloete, 2012; Vythilingum et al., 2012). This is consistent with Skagerström et al.(2013), who found that alcohol use before pregnancy is the best predictor of drinking during pregnancy. Furthermore, a study conducted by Mpelo et al. (2018) in one part of Tanzania showed that higher education levels were associated with alcohol use during pregnancy, while in countries such as Spain, higher education levels influence the abstinence from alcohol consumption during pregnancy (Palma et al., 2007). Addila et al. (2020) conducted a systematic review and meta-analysis study which revealed that there were high levels of alcohol consumption during pregnancy, which were associated with social economic factors such as education status, knowledge regarding the effect of alcohol consumption during pregnancy, source of income, and employment status. Other factors included obstetric factors, such as having complications in previous pregnancies, marital status, and pregnancy plans, and behavioural factors, such as alcohol consumption before pregnancy, having partners who drink alcohol, peer pressure on alcohol consumption, and smoking, as well as depression, unplanned pregnancy, and unemployment.

2.3 The effects of alcohol consumption during pregnancy

The effect of alcohol consumption during pregnancy is huge (Research New Zealand, 2014). The numerous adverse health consequences of alcohol consumption during pregnancy for the foetus and development of a child later in life have been well documented (Skagerström et al., 2013, Glover, 2011: Van den Bergh, Mulder, Mennes, & Glover, 2005. Charness et al, 2016) claimed that heavy prenatal alcohol exposure can have lifelong effects on a child's brain functions and cognition, and that alcohol exposure during the first trimester may produce the characteristic facial dysmorphism that supports a diagnosis of FAS, which is part of a spectrum of abnormalities referred to as foetal alcohol spectrum disorders (FASD). FASD is a group of conditions which is related to alcohol exposure to the foetus, characterised by a range of irreversible neuro developmental deficits, and intellectual, behavioural, and physical disabilities (Chola et al., 2017).

According to the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10), individuals with FAS had many comorbid conditions, most of which are congenital malformations, chromosomal abnormalities, or mental and physical deformities (World Health Organization, 2016).

Riley et al. (2011) indicated that alcohol exposure to the foetus affects brain development through numerous pathways at all stages from neurogenesis to myelination, and that there is no 'safe' quantity or period of alcohol consumption during pregnancy (Charness et al., 2016). Furthermore, it was reported that alcohol consumption during pregnancy increase mothers' risk for a wide range of problems, including that most women who drink alcohol during pregnancy had a higher risk of developing anaemia compared to women who abstain from alcohol during pregnancy (Charness et al., 2016). Chola et al. (2017) found that alcohol consumption during pregnancy can cause miscarriage, stillbirth, premature birth, congenital malformation, intrauterine growth retardation, and low birth weight. Therefore, alcohol affects individuals, their families, society, and the nation in numerous ways because people with FAS and FASD require lifelong assistance and therefore are an economic burden to society (Research New Zealand, 2014).

2.4 The awareness regarding the effect of alcohol consumption during pregnancy

A survey study done in Australia found that 61.5% of the women surveyed knew about the effect of alcohol during pregnancy and had heard about FAS. In the same study, 92.7% of the women surveyed agreed that alcohol can affect the unborn baby and 16.2% did not agree that drinking alcohol during pregnancy may cause lifelong disabilities for the child. Women with higher education levels knew the effects of alcohol during pregnancy (Peadon et al., 2010). A study done in north Tanzania found that most of the pregnant women involved in the study (42.7%, n=157) had no knowledge regarding the effects of alcohol during pregnancy, and only 28% knew that alcohol during pregnancy is not good but did not know why (Mosha & Philemon, 2010). Crawford-Williams et al. (2015) found that health professionals showed adequate knowledge regarding physical and mental problems as a result of alcohol consumption during pregnancy, but they did not have knowledge about FASD and the broader spectrum of problems associated with alcohol

consumption during pregnancy. A study done in Danish by Kesmodel and Urbute (2019) found that most pregnant women had not been informed about the effects of alcohol consumption during pregnancy, hence contributing to limited knowledge and perpetuating the consumption of alcohol during pregnancy.

2.5 Summary

This literature review has highlighted the prevalence of alcohol consumption in different areas around the world, which varied due to different factors. Women's level of awareness was indicated to be a contributing factor to drinking during pregnancy. Alcohol consumption during pregnancy may produce the characteristic facial dysmorphology that supports a diagnosis of FAS, which is part of FASD. In Tanzania, alcohol consumption is a major problem that needs immediate attention, especially in rural Kilimanjaro where the prevalence is higher than in other regions.

CHAPTER 3: METHODOLOGY

In this chapter, the methodology of this study will be described. This includes the study design, population and participant selection, process of engaging with participants, data generation, data management, data analysis, and ensuring an ethical stance throughout the research process. The study is a qualitative study using descriptive inquiry and respected the multiple principles associated with the research approach.

3.1 Research approach

A qualitative research approach was proposed for the study, utilising a qualitative descriptive design. The study is located within the social constructivist theoretical framework, which seeks to understand the world in which people live in terms of their social reality. This reality is regarded as the product of processes by which social actors together negotiate the meanings of actions and situations in their context (Creswell, 2013). The constructivist framework allowed for the exploration of the factors contributing to women engaging in drinking alcohol during pregnancy. The first assumption of constructivism is that there are multiple, subjective realities that can be constructed through interacting with the participants and exploring their stories. Therefore, I interacted with the selected participants to gain insight into their subjective realities of drinking alcohol during pregnancy. The second assumption of constructivism is that there are multiple truths (Punch, 1998). Through the findings, it was found that there are multiple truths and experiences regarding drinking alcohol during pregnancy. Therefore, the data collection was centered on forming relationships and collaborating with all the participants so that the subjective realities could be constructed, and the truths unveiled. These were discovered using multiple data gathering techniques.

3.2 Research design

Qualitative description was used in this study. It is especially amenable to health environments research because it provides factual responses to questions about how people feel about a particular space, what reasons they have for using features of the space, who is using services or functions of the space, and the factors that facilitate or hinder this use (Colorafi & Evans, 2016). Qualitative

description is grounded in the general principles of naturalistic inquiry (Colorafi & Evans, 2016) and draws out the characteristics of a particular entity through an in-depth description of a phenomenon and is anchored in real life scenarios and multiple data collection methods (Njie & Asimiran, 2014).

3.3 Gaining access to the community

Ethical approval was obtained from the Faculty of Health Sciences Human Research Ethics Committee (HREC) at the University of Cape Town (reference number: HREC REF:358/2018) and from the National Institute for Medical Research Tanzania (NIMR) (reference number: NIMR/HQ/R.8a/Vol.1x/3709). I gained access to the district via district leaders, and the participants signed the consent form/agreement.

As a member of the community where the research took place, I was easily accepted as I speak the same language (Swahili) as the participants, I understand the local values, knowledge, and culture, and I am familiar with the formal and informal power structures operating within the community. This not only facilitated easy access for me to the community but also helped to gain deeper insight into the research study. It also facilitated my having access to the participants, getting consent from them, making appointments, and having access to the records and documents. Having the same ethnic background as the participants also enhanced my access to and trustful relationship with the community.

3.4 Pilot study

Prior to the beginning of data collection, a pilot interview was conducted to ensure face validity. Three community members who I know well, who met the inclusion criteria, and who have had extensive research experience were approached for a pilot interview. This served the purpose of testing the interview questions to make changes accordingly. The questions were evaluated and then enhanced to elicit the data required to answer the research question effectively.

The pilot study was completed one week before the main study data collection began. The pilot study procedures were based on the recommendations of Peat et al. (2002) and consisted of the following steps:

1. The interview was administered to the pilot test participants in the same way as to the main study participants.
2. The participants were asked for feedback to identify ambiguities and difficult questions.
3. Each question was assessed to determine whether it gave an adequate range of responses by observing how it was answered, and suggestions were made accordingly.
4. The time taken to complete the interview was recorded and determined to be reasonable.

3.5 Participant recruitment

Verbal and written announcements were made in churches, hospitals, and social places to inform community members about the study and to request their participation. An information letter detailing the procedures was then distributed to the community members who were willing to participate in the research study. Purposive sampling was used to recruit eight participants from Marangu, rural Kilimanjaro, who are information-rich and who met the selection criteria discussed in 3.7 below. These participants provided me with the opportunity to develop an in-depth answer to the research question (Creswell, 2007). I met with each of the selected participants and had an informal interview (face-to-face individual discussion about participating in the research study) to answer any questions regarding participating in the research study and the research process. Each participant also signed a consent form during this discussion.

3.6 Sampling method

Purposive sampling was used to guide the recruiting process for the study as it provided in-depth information from the selected participants (Creswell, 2007). This form of sampling entails purposeful selection of the participants, which enabled me to obtain a sample of participants that met predetermined criteria (Creswell, 2013). I selected eight participants who had experience and were information-rich with regards to the drinking of alcohol during pregnancy to enhance answering the research question. Polkinghorne (1989) suggests that the number of participants recommended for a qualitative descriptive study is between five and twenty-five. Given the scope of this research study, eight participants were selected, which allowed for a necessary number of variations in participants' experiences and to explore the typical essence of these experiences

(Finlay, 2011). To achieve these principles, I conducted one interview with each participant, as they were the holders of knowledge in the area I intended to investigate.

The study aimed to employ maximum variation as a sampling approach (Creswell, 2013). This involved selecting key demographic variables such as age and experience that were likely to have an impact on participants' views of the topic (Patton & Cochran, 2002). The research questions were framed to understand how a phenomenon is seen and understood among different women, in different settings within the community, and at different times. The research used a maximum variation sampling method by selecting a small number of units that maximised the diversity relevant to the research question.

3.7 Selection criteria

The selection criteria were determined to provide a fair and just recruitment process of potential participants who had experienced drinking alcohol during pregnancy. The criteria were set out in order to focus the study on the phenomenon being explored, outlining the inclusion and exclusion criteria covering the sources for data collection.

3.7.1 Participant inclusion criteria

1. Women from Marangu, rural Kilimanjaro, in Tanzania
2. Between the ages of 18 and above who can speak, read, and write simple Swahili so they can write a journal as part of the data collection
3. Women who are currently pregnant and are engaging in drinking alcohol during this pregnancy
4. Women who are not pregnant but consumed alcohol when previously pregnant.

I selected a diverse sample to promote a deeper understanding of the phenomenon in question. The diversity among the participants was reflected through pregnant and non-pregnant women, age, and education level.

Table 1: Participants' diversity and maximum variation

Participants	Age	Education	Pregnancy status
Participant 1	45	A level	Not pregnant
Participant 2	28	University degree	Pregnant
Participant 3	56	Phd holder	Not pregnant
Participant 4	38	STD 7	Pregnant
Participant 5	76	Grade 4	Not pregnant
Participant 6	20	O level	Pregnant
Participant 7	22	STD 7	Pregnant
Participant 8	31	University degree	Pregnant

3.7.2 Exclusion criteria

There were no exclusion criteria in this research. All participants who met the inclusion criteria were included.

3.8 Data collection

This section introduces the data collection techniques that were used for the study. A qualitative descriptive design describes a phenomenon in depth, anchored in real-life scenarios, and uses multiple data collection methods (Njie & Asimiran, 2014). Data gathering techniques applied included face-to-face semi-structured interviews, document reviews, participants' diaries, artifacts, and observations within the context.

3.8.1 Data gathering techniques

In qualitative descriptive studies, data collection attempts to discover the who, what, where, and how of events or experiences (Colorafi & Evans 2016). Data collection in this study was the most significant activity in the research process because the richness and depth of what was eventually known was contingent on the craft and effectiveness of the data collection methods in uncovering details related to the situation (Njie & Asimiran, 2014).

During the process of data gathering, as a community member, I was dependent on the participants' willingness to take part and share their experiences, thoughts, and knowledge (Karnieli-Miller et al., 2009) about drinking alcohol during pregnancy. The data collection process was conducted with community members who share the same culture, language, ethnicity, and nationality as me. Thus, it is important to acknowledge the advantage that my being both the researcher and a community member may have brought to this research (Mile & Huberman, 1994). This status added a degree of importance to this research study for the community, such as my speaking the same language (Swahili) as the participants, understanding the local value systems, and being familiar with the formal and informal power structures operating within the community. I was also easily able to find and gain access to the participants, obtain consent from them, make appointments, and gain access to necessary documents, because I had established relationship with the participants (Dawyer & Buckle, 2009).

I enhanced my reflective practices through personal journaling, including providing details of the context of the study. I reflected on my reactions to the people and events in the settings, reflected on my relationships with the participants, examined how I was feeling when undertaking participant observations and interviews, and provided reasoning for my decisions (Gerrish, 1997).

As an existing member of the community, I had some existing knowledge and familiarity with context and participants. My familiarity with the community led to an open line of questioning which enabled the participants to provide a richer description, resulting in richer data being attained (Dawyer & Buckle, 2009). It is important to acknowledge that, even though I am a member of the community, I didn't know some of the practices or meanings related to drinking alcohol during pregnancy. Thus, I may have had unconscious assumptions about my research

based on my prior knowledge (Berger, 2013). I acknowledged these assumptions for myself and let the participants narrate their experience, prompting them to give more information (Dwyer & Buckle, 2009) by asking them questions that required detailed answers from them.

Furthermore, as a member of the community, I was confronted with multiple roles (Gerrish, 1997). Before starting the research project, I was known as a member of the community and therefore had no difficulties in expressing my research role to the participants. Once I had informed them of my intention to do my research, they may have perceived me not only as a member of the community but also as a researcher, a student (Burke & Kirton, 2006), and a sister., roles which I struggled to balance (DeLyser, 2001). Gerrish (1997) suggested that a researcher should try to balance her dual (or more) roles by developing a trusting relationship with the participants, while at the same time establishing sufficient distance between herself and the participants to make sense of the data collection methods. Therefore, during this research project, I created distance by implementing boundaries and separating my research life from my personal life through writing and reflecting on the research process. Additionally, I engaged in prolonged observation and immersed myself in the setting. On some occasions, I had to remind the participants about my role as the researcher, allowing them to become familiar with my role.

Throughout the research process, reflective practices assisted me to identify more probing questions, becoming aware of my reactions to the participants' experiences, which in turn helped me to acknowledge my own sensitivities while reporting on my findings (Berger, 2013). Moreover, during the research process, I negotiated the data collection in such a way that both the participants and I were able to achieve the goal of the research project, while we also all felt valued and respected. Throughout the data collection process, I made good use of the benefits of being a member of the community, while also taking steps to minimise bias because I was mindful of the impact my position as a member of the community may have on the data collection and analysis.

3.8.1.1 Semi-structured interviews

Individual semi-structured face-to-face interviews with the selected participants were the primary technique for data collection in this study. This is a common method of data collection used by

researchers who are members of the community in which the research is being conducted (Dwyer & Buckle, 2009). The semi-structured interview technique provided enough structure for participants in this study to express their thoughts and feelings, without deviating too broadly from the study's focus. Participants had two interviews each, which took place at a venue decided on between the participants and the researcher. The initial meeting included giving the participants a consent form and a brief description of the research study and organising possible times for research engagements. It also included a discussion about the logistics of the interviews and the journaling requirements, as well as the observations, which took place in the environment where the drinking of alcohol normally occurred. The interview sessions were captured using an audio recording device for each interview, and Swahili was used as the language of communication because it is the main language spoken within the community. Thereafter, the audio recordings were safely stored on a separate private storage device and kept in a locked compartment in Tanzania where the data analysis took place.

I conducted the interviews with each participant, with whom I shared a cultural, linguistic, ethnic, national, and religious background. I am a member of the community, with an understanding of the local values, knowledge, and formal and informal power structures that operate in the community (Rouney, 2005), and was therefore able to establish rapport and build relationships that enhanced the research (Smyth & Holian, 2008). This, in turn, positively contributed toward obtaining reliable research data. However, the participants may not have shared enough information for fear of being judged (Chavez, 2008), and therefore to get them to provide more information during each interview session, I prompted them by asking questions that required detailed answers. Due to my being a member of the community, the participants and I shared much in common, which enhanced the opportunity to ask the participants questions that they might have assumed I already knew the answer to.

During each interview, I remained in a neutral position and resisted the temptation to share my own thoughts (Dwyer & Buckle, 2009). I also considered the importance of listening and questioning each participant's narrative regarding drinking alcohol during pregnancy. I showed respect and gained the trust of the participants, which was essential for the data collection process.

3.8.1.2 Document review

Document review is a way of collecting data by reviewing existing documents (Colorafi & Evans, 2016). Hard copy and electronic information about drinking policy, advertisements, documents, the historical use of alcohol in rural Kilimanjaro, and archival information was reviewed to gain an understanding of the ways drinking alcohol is portrayed in Marangu Kilema, rural Kilimanjaro. I also gathered materials that were not used in the initial analysis but had been archived, and then compared this to collected data.

3.8.1.3 Participant observation

In this research, participant observation was used as a method for data collection. According to Morse and Field (1996), participant observation represents an excellent source of qualitative data. Participant observation is a typical data collection method which occurs in the natural setting where participants are located (Morse & Field, 1996). Participant observation consists of gathering the participants' information regarding their behaviour, which involves looking, listening, and asking (Lofland, 1971, as cited in Bonner & Tolhurst, 2002). Kawulich (2005) described participant observation as a process that enables researchers to learn and collect data about the activities of the people under study in their natural setting, through observing and participating in those activities with them.

After the collection of the consent forms from the participants, two participant observations (one with me as an observer and the other with me as a participant) took place over one week. The community visitations and observations were planned and negotiated between participants and me, for me to visit the environments in which participants engage in the drinking of alcohol. The participants were informed about the observation process and that my process of note taking was for the purpose of research only. As a member of the community, I was familiar with the norms, beliefs, rules, and rituals, which was not only key for my gaining access to the observation field but also enhanced my interpretation of the participants' body language and non-verbal communication within the cultural environment during the observation process. Understanding cultural norms was helpful for me to minimise the risk of causing offense to an individual or by unwittingly gesturing rudely, which helped create trust (Barley & Bath, 2014).

There are, however, some disadvantages to being a member of the community in which one is conducting participant observations. Bonner and Tolhurst (2002) pointed out that the researcher might have difficulties in recognising the patterns of practice due to being so familiar with behaviours, such that routines practiced could easily be ignored or glanced over because they are known to the researcher. Gerrish (1987) also claimed that there were some risks of over-familiarisation with the community which could cause the researcher to make assumptions about what she was observing, without necessarily seeking clarification on the rationale underpinning a particular action or practice.

I needed to overcome these potential negative consequences for the research process when conducting participant observations, and I thus paid attention to the relationship that already existed between the participants and me. I remained reflective throughout the process and critically examined my assumptions and actions in relation to both the data collection and data analysis to minimise the potential for researcher effect (Bonner & Tolhurst, 2002).

Therefore, much attention was paid to the complexity of my role as a member of the community and as an observer. Gerrish (1997) advised that in a research study involving participant observation, the researcher needs to be concerned about balancing her roles as researcher, community member, and student. She can do this by developing trusting relationships with participants while at the same time establishing sufficient distance between herself as a researcher and the participants to make sense of the observation process (Bonner & Tolhurst, 2002).

I made use of the observation protocol and guide in which I recorded various elements as part of my field notes. However, participant observations might be conducted by a biased human who serves as the instrument for data collection. I therefore built an understanding of how my gender, class, and theoretical approach may affect my observation, analysis, and interpretation.

Table 2: Data gathering Methods and it links to the objectives

Objectives	Data gathering methods			
	semi-structured interviews	Observation,	Document reviews	participant s' diaries
To identify the contextual factors that contribute to the drinking of alcohol during pregnancy among women in rural Kilimanjaro	x	x	x	x
To identify the personal factors that facilitate the drinking of alcohol among pregnant women in rural Kilimanjaro	x			x
To describe the factors that facilitate choices made by pregnant women in rural Kilimanjaro to drink alcohol.	x	x	x	x

3.8.2 Data gathering process

After the initial meeting with each participant, the interview and the observation were scheduled with me and participants in the community, and the journal/diary writing was explained. During the initial meeting, the participants were provided with the consent form and information letter, and their contact details (home address and phone numbers) were gathered so that I could contact them to discuss the research process (time, location) for the interview. A community visit to the places where the drinking of alcohol takes place was done and gave me an opportunity to observe where the participants drank alcohol. The review of documents and observation notes took place continuously throughout the data gathering process. The process is elaborated in figure 1 below.

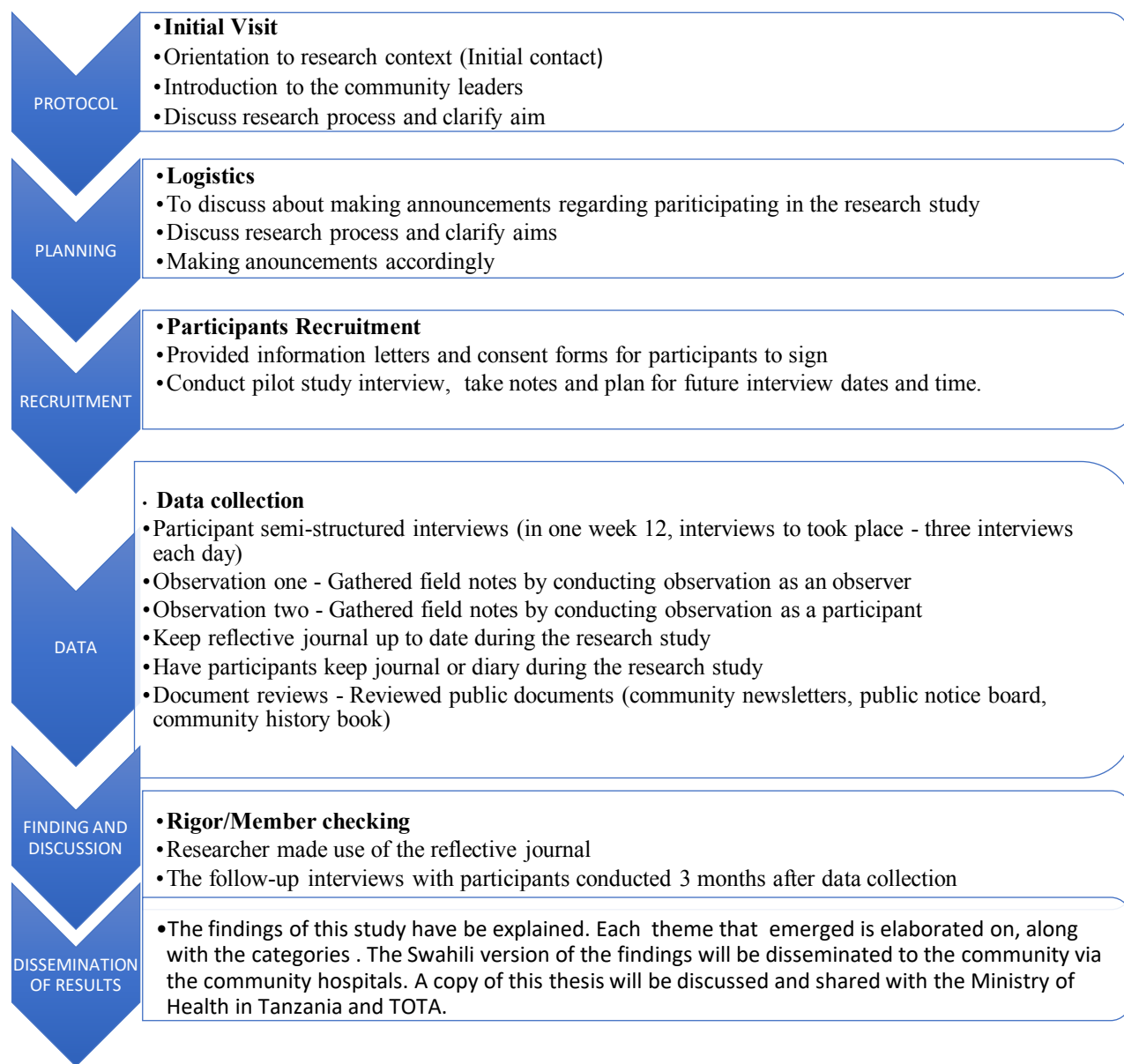


Figure 1: Data collection process

3.9 Data management

All the interview recordings were securely stored electronically, and all transcriptions were printed and stored in one file which only I have access to. All the participants were allocated pseudonyms for all the interviews, field notes observations, diary notes, document review, and transcriptions, ensuring the confidentiality of the participants throughout the research process. Furthermore, I am fluent in Swahili and therefore did not experience any difficulties with transcribing the raw data that was collected. Data translation took place during the data analysis process.

3.10 Data analysis

Once all the data had been collected, I rigorously reviewed it (Creswell, 2013). All the raw data (from the interviews, observations, document review, and diary notes) was transcribed in the original language (Swahili) and organised in computer files in preparation for analysis (Creswell, 2013). I initially thoroughly read through all the transcribed texts, field notes, and diaries to obtain an overall and comprehensive impression of the content and context before the abstraction process of coding began, where units of meaning were identified and labeled (Strauss & Corbin, 2008).

Suh et al. (2009) recommend that translation take place during analysis because they believe that this will ensure the authenticity of research findings if the study is to be published in a different language. If data is translated before analysis, there is the possibility that meaning will be lost from the participants' implicit expressions (Larkin et al., 2007). If a researcher waits until after analysis to translate the data, she may find the translation difficult to do because sometimes there is no precise English word or phrase to express the participant's experience (Suh et al., 2009). The raw data collected in the original source language (Kiswahili) was transcribed word-for-word (verbatim), including pauses, emotional expressions, and annotations in Swahili. Van Nes et al. (2010) advocated for the use of original language for as long as possible to avoid the potential of limiting the quality of the analysis. I can speak both Kiswahili and English, and therefore I was the one who interviewed the participants, wrote the memos, and transcribed the data for analysis. Although English is my second language and I am not truly bilingual, I also translated all the transcriptions into English. The translations were checked and re-checked against the raw data by

the Tanzanian consultant. Lyons and Coyle (2008) recommended that checking the transcripts against the translated interpretations during data analysis increases the credibility of the research findings. Furthermore, backward translation was used as a further method to verify the adequacy of translation (Van Nes et al., 2010). Both translated versions were compared to check their accuracy and similarity. The discrepancies that occurred during the process were negotiated between me and my Tanzanian research consultant.

Data analysis followed the process for thematic analysis, which is a process of coding, identifying mutually exclusive and inclusive categories, and discovering themes and sub-themes that emerge (Creswell, 1998). Coding involved the identification and naming of segments of meaning from the field notes, diaries, and transcripts in relation to the (research topic/question) factors which contribute to the drinking of alcohol during pregnancy. The focus of coding was on wording, phrasing, context, consistency, frequency, extensiveness, and specificity of comments. The segments of meaning from the field notes, diaries, and transcripts were marked/highlighted and labeled in a descriptive manner. Codes and labels were then assigned to specific units or segments of related meaning identified from the data sources (Neuman, 2011) and the transcribed text was arranged into meaningful themes and categories. Selecting the final coding involved scanning all the codes that had been identified for comparison with, contrast to, and links to the factors which contribute to drinking alcohol during pregnancy, and then the possible central theme was selected.

The **observation of every participant** and related actions were recorded individually, and the relevant notes illustrated the characteristics of the environment in which each observation took place (Corbin & Strauss, 2008). I analysed the written field notes by breaking them down into details, either line by line or word by word (Strauss & Corbin, 2008) to bring to light the actions, words, emotions, behaviour patterns, and roles of the participants while they engaged in the drinking of alcohol during pregnancy. In the microanalysis of the data, a deeper meaning was revealed in the kinds of gestures, postures, voice, and/or words used by the participants observed in the interactions.

The participants were required to keep a **daily journal**. These were transcribed by jotting down the occurrence of the written text, and then the text was broken down into details, line by line and

word by word (Strauss & Corbin, 2008), to identify patterns in the meanings, thoughts, experiences, common behaviours (what they did, the differences in engaging in drinking of alcohol, the context of use, the situation action, the user needs, the successes/barriers), and actions of the participants who engaged in the drinking of alcohol during pregnancy.

For the document review (documents and artifacts), I began by identifying and gathering relevant public records (that is, the official, ongoing records of drinking alcohol during pregnancy including policy manuals, strategic plans, and village activities) and physical evidence (that is, physical objects found within the study setting such as flyers, posters, agendas, handbooks, and training materials) about drinking alcohol during pregnancy. I noted the number of occurrences of particular words, phrases, and concepts, and then organised the information with regards to the drinking of alcohol during pregnancy. I interpreted the documents to give meaning and voice to the participants engaging in the drinking of alcohol during pregnancy. The records were organised, and key information was written down according to the research timeline.

Analysing documents involves an iterative process that requires skimming, reading, and then interpretation (Bowen, 2009). Coding involved the identification and naming of segments of meaning from the field notes, diaries, and transcripts in relation to the factors that contribute to the drinking of alcohol during pregnancy.

The focus of coding was on wording, phrasing, context, consistency, frequency, extensiveness, and specificity of comments. The segments of meaning from field notes, diaries, and transcripts were highlighted and labeled in a descriptive manner.

Thereafter, the meaning of each document was gained from the document analysis, and its contribution to understanding the drinking of alcohol during pregnancy was fundamental in contributing to meeting the study objectives. Within this study, an inductive, thematic data analysis approach (Creswell, 2007) was used to structure the analysis and interpretation of all the data gathered. I interpreted these to give voice and meaning to drinking alcohol during pregnancy, and did so through the following processes:

- Familiarising myself with the data
- Generating initial codes

- Searching for themes
- Reviewing the themes
- Defining and naming themes
- Writing up the findings

3.10.1 Familiarising myself with the data

I immersed myself in the data to gain a comprehensive understanding of the phenomenon (Creswell, 2007) of drinking alcohol during pregnancy. I then familiarised myself with the data by listening to audio recordings, transcribing the data interpreting the artifacts, field notes, and diary notes to get a feel for the phenomenon as a whole (Finlay, 2011), and answering the research questions.

3.10.2 Generating the initial codes

I worked through the printed copies of the translated transcriptions, observation field notes, participants' diary notes, and artifact notes to begin forming the coding process. This required the transcriptions and translated data to be scanned, line by line, and sentence by sentence, breaking the description of the phenomenon down in its entirety into various units of meaning, to make the data more manageable (Finlay, 2011). These individual units of meaning were then recorded to form a list of codes and were then reflected upon with the purpose of extracting their implicit meaning to make it explicit.

3.10.3 Reviewing the themes

These subcategories, categories, and themes were further discussed and reviewed in relation to the factors contributing to the drinking of alcohol during pregnancy and re-arranged to describe the true essence of the experience.

3.10.4 Defining and naming the themes

The subcategories, categories, and themes were defined and given a name that best described their essence in relation to the drinking of alcohol during pregnancy. Quotes were used as appropriate to depict the essence of the experiences.

3.10.5 Writing up the findings

The sub-categories, categories, and themes were then written up, making use of relevant quotes that capture the factors that contribute to the drinking of alcohol during pregnancy.

3.11 Trustworthiness and Rigor

According to Lincoln and Guba (1985), researchers need to ensure the rigor and plausibility of the research findings to establish the trustworthiness of the findings. There are various criteria that determine trustworthiness within any research study, and there are specific strategies suited for each criterion to ensure trustworthiness. The following criteria determined trustworthiness within this study, along with the specific strategies.

3.12 Credibility

Credibility aims to make sure that the research findings are realistic and reliable (Lincoln & Guba, 1985), and is used to determine if the findings are an accurate representation of the data collected (Denzin & Lincoln, 2005). Credibility helped to clarify what the participants said by using member checking of the themes with the participants. The requirement of credibility was adhered to by clarifying what participants said through direct quotes.

3.13 Transferability

Transferability is the extent to which the findings of the study can be applied to other contexts (Creswell, 2007). Colorafi and Evans (2016) noted that qualitative descriptive research can draw generalisations about the phenomenon, while Stake (1995) argued that one cannot generalise the findings as all experiences are defined by the specific contexts in which a research study occurs.

This study applied thick descriptions to ensure transferability, and thus the study findings might be possibly applied to similar contexts and bounded within similar actions and situations. The factors which contribute to alcohol use during pregnancy can therefore possibly be applied to other villages in rural Tanzania.

3.14 Dependability

Dependability was ensured by using a process of peer debriefing between me and my research supervisor. The process of peer review/debriefing involves presenting the research findings and conclusions to one's peers for critical evaluation (Lincoln & Guba, 1985). I made use of peer debriefing by meeting with my supervisor on a regular basis to ensure a critical analysis and accurate interpretations of the findings, a process which required us both to take ourselves and our assumptions into cognisance and place them aside.

3.15 Confirmability

Confirmability ensures that all findings support the data collected through the use of direct quotes, member checking, peer debriefing, and reflexivity (Lincoln & Guba, 1985). The strategies below were applied.

3.16 Member checking

Creswell (2007) proposes that follow-up interviews should be conducted with participants, giving them an opportunity to comment on the researcher's findings to ensure the accuracy of the data analysis and interpretation. Member checking took place by revisiting the participants three months after data collection. I took the analysed data of the participants' information about factors which contribute to drinking alcohol during pregnancy (which consisted of the categories, and themes which was in kiswahili) to the member checking meeting with the participants. The name of each theme, which was in Swahili, was created using quotes from the transcripts. Each theme and category was systematically explained to and discussed with the participants, who were then given the opportunity to comment on the interpretation and make recommendations for adjustment.

The categories and themes were then given provisional English names which gave a qualitative understanding of the data.

3.17 Reflexivity

Reflexivity is particularly important to this research because I am a member of the community where the research was conducted. Reflexivity means that the researcher reflects on how her assumptions, values, and personal background, including her gender, history, culture, and SES, shaped her interpretations during a study (Creswell, 2013). According to Reardon (2012), self-reflexivity in research is very important and involves the researcher taking her own awareness into account. As a member of the community, I reflected on my relationship with the participants and how my emotional responses to them may have influenced my analysis of their narratives. Situating oneself socially and emotionally in relation to participants is a crucial part of reflexivity (Creswell, 2013), as is establishing and maintaining an appropriate degree of both social and emotional distance.

My interest in the study came from my experience as an occupational therapist watching my own relatives in Marangu drink alcohol during pregnancy. I introduced a journaling strategy for myself to reflect on the power relations between me and the participants. The strategy allowed me to reflect on professional and personal biases and experiences, particularly around personal intersubjectivities and positioning within the context. As a researcher, it was important for me to be aware of the assumptions and beliefs which I have and bring to the research setting, and I was able to hold these without allowing them to interfere with the research process. This required my deep reflection on and critical attention paid to the phenomenon in view, which was accomplished through researcher reflexivity (Finlay, 2011). I ensured reflexivity by making my experience and biases explicit before starting the research process. I identified my assumptions and biases regarding what I believed to be the factors contributing to drinking alcohol during pregnancy among women in Marangu. These assumptions were informed by my personal experiences of factors contributing to drinking of alcohol during pregnancy in rural Kilimanjaro as well as my previous interactions with relatives and people who had engaged in drinking alcohol during pregnancy.

Additional strategies that were used included consulting with my supervisor regarding these assumptions to reduce the risk of them interfering with the research process, documenting the research process, and making use of research journals.

3.18 Declaration of Helsinki

3.18.1 Ethical considerations

This research was conducted in an ethical manner following the ethical requirements set out by the research establishments' research policies. I was aware that the participants may have been vulnerable, and I negotiated with all of them to ensure their integrity. I followed the mandate of the Helsinki Declaration by providing evidence of understanding and following the declaration's ethical principles.

3.18.2 Autonomy and Informed Consent

The right of persons to exercise their agency to volunteer to participate in research was observed according to the Declaration of Helsinki, ensuring that participants have autonomy of thought, intention, and action when making decisions regarding the research procedures (WHO, 2013). The participants were able to make informed decisions as I explained all the risks and benefits of the research procedures and the likelihood of success were explained to them, and the decision-making process was free of coercion or coaxing.

The consent forms were explained after the participants had agreed to participate in the research process and had been fully informed about the research and participant requirements (Denzin & Lincoln, 2005). Informed consent was given voluntarily by the individuals, all of whom had the mental or decisional capacity to understand the information presented to them (see inclusion criteria). Additionally, the consent forms were verbally explained and pitched at the intellectual level and understanding of the participants using Swahili. The participants were informed about the title and purpose of the research and the process that needed to be followed. At the end of the research study, participants were reminded about confidentiality with regards to the raw data and

were assured that it would only be utilised for the purpose of this study. I was in charge of making sure that the informed consent of every participant was obtained.

The participants consented to have their interviews audio recorded. Prior to each interview, the researcher explained the study and purpose of the interview verbally along with the information letter, in Swahili. The participants were asked whether they had any questions, and these were answered in Swahili, which was the language that the participants preferred.

3.18.3 Confidentiality

The participants' right to both privacy and confidentiality were protected by ensuring that personal information about the research participants or a community was collected, stored, and used, and will be destroyed. Only I had access to the interview transcriptions after they had been translated by the research consultant, and they were kept in a locked cupboard. All digital recordings of the interviews were used only for transcription purposes. This was done to respect the privacy and confidentiality of the participants and the community, as per the agreements made with the participants. The anonymity of the participants was ensured throughout the research process by the use of pseudonyms. The protection of the participants' identities was paramount, as it reduces the complex measures of vulnerability.

3.18.4 Beneficence

The participants were informed of the benefits of participating and sharing their views, and that there was no direct benefit for them from participating in this study. They were informed that the study will help to enhance an understanding of what contributes to women drinking alcohol during pregnancy, and that it may provide valuable information for the communities in rural Kilimanjaro, which in the long term could contribute to improving the health of pregnant women and babies in the area. To uphold autonomy, the participants were given the freedom to withdraw from the study if they wanted to, although none of them chose to withdraw. The participants were also given the agency and freedom to decide not to answer certain questions if they were uncomfortable or

compromised by the questions. This minimised the risk of participating in the study and maximised the benefits.

3.18.5 Non-maleficence

The principle of non-maleficence requires that the researchers do not directly or indirectly cause harm to the participants (Van der Wal, 2005). The research participants were protected from any form of harm, be it physical, psychological, social, legal, or economic (National Institute of Health, 2008). All participants were informed about possible harm related to participation in this study.

3.18.6 Justice

I observed the power dynamics between the participants and me, and built a positive rapport to challenge issues of power that may have been apparent during the recruiting and data collection processes (Kumar, 2005). Justice imposes an ethical obligation to treat each person in accordance with what is right and proper (Declaration Of Helsinki, 2015). All participants were treated equally and given equal opportunities to participate in the study. The inclusion and exclusion criteria reflected a just and fair approach for all participants to benefit equally from the study.

3.19 Dissemination of findings

The dissemination of findings will be done through TOTA at meetings, through Kilema hospital's newsletter, and at the district journal club to share the findings of the study. One copy of the research report will be kept in the OT school library for future staff and students' reference. The findings will also be discussed with the Tanzania Ministry of Health and Social Welfare. The research will be abbreviated in layman's term so that it can be easily understood by community members and will be made available at Marangu study hall in rural Kilimanjaro via the community leaders, together with leaflets explaining the results which will be at Kilema hospital (district hospital) in the maternity and children's clinic targeting women in the community. The results will also be available at the regional level at Kilimanjaro Christian Centre and occupational therapy school.

CHAPTER 4: FINDINGS

4.1 Introduction

In this chapter, the findings of this study will be explained. Three themes emerged which relate to the study aim and objectives. Each theme will be elaborated on, along with the categories that make up each theme. In some instances, verbatim Swahili quotes are used as examples to substantiate the findings. The Swahili spoken by the participants was colloquial, and thus the translations of these quotes are not direct, but rather in comprehensive English sentences. This is to aid the reading of the findings chapter for the three themes corresponding to the data collection sessions. The data collection sessions were structured to explore the first three objectives of this research. Each interview was analysed separately so that each objective could be qualitatively explored.

4.2 Theme 1 – “Tangu enzi na enzi” (From decade to decade)

Figure 2 below provides an outline of the first theme and its categories related to objective one, which aims to identify the contextual factors that contribute to the drinking of alcohol during pregnancy among women in rural Kilimanjaro.

Theme: “Tangu enzi na enzi” (From decade to decade)

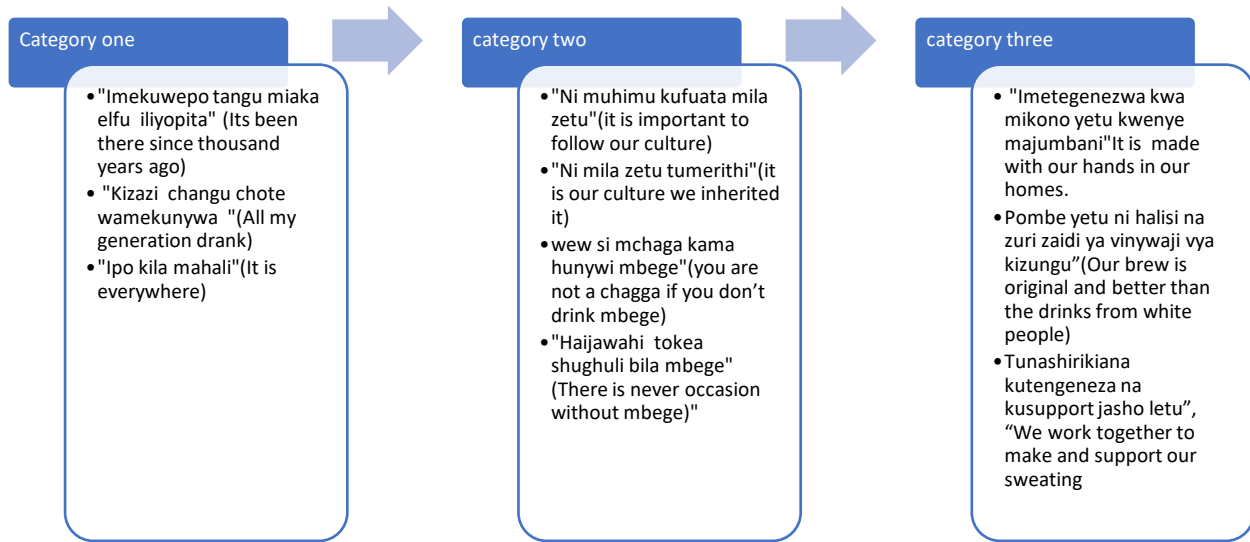


Figure 2: Theme one and its categories

The direct translation of this theme is ‘**From decade to decade**’, supported by its various categories which encapsulate the use of alcohol during pregnancy in rural Kilimanjaro. In this theme, the categories present the findings associated with the first study objective, namely ‘to identify the contextual factors that contribute to the drinking of alcohol during pregnancy among women in rural Kilimanjaro’. This will capture the contextual factors such as historical, cultural, physical, and social-political factors that contribute to women from rural Kilimanjaro drinking alcohol during pregnancy. This theme confirms the historical and pervasive presence of alcohol use during pregnancy by some of the women living in rural kilimanjaro, the impact of which is evident in the following categories.

The category “**Imekuwepo tangu miaka elfu iliyopita**” (**It has been there since thousands of years ago**) highlighted that pregnant woman have been involved in the process of brewing and consuming alcohol for thousands of years with no evident effects to them and their babies. It was noted that the use of alcoholic beverages during pregnancy, specifically traditional beer (mbege), has been an important aspect of Chagga traditions for thousands of years and forms a part of all aspects of the Chaggas’ social and family life. In everyday activities, its use is evident, from birth and baptism to weddings and funerals, and all other ritual activities.

The category “**Kizazi changu chote wamekunywa**” (**All my generation drunk**) showed that women in previous generations may have drunk while pregnant and not seen any harm in their children. The belief held throughout the years was that there was no risk to either mother or foetus from prenatal alcohol use, which was given as a factor for continuing to drink during pregnancy. Participants either knew someone in the family and community who drank during pregnancy and had a healthy baby or indicated that they had drunk alcohol during their previous pregnancies and had delivered healthy babies.

“From what I know, my great great grandmother drank while she was pregnant. For my grandmother, my grandmother also drank, my mother drank too, all of them drank and here we are healthy and functioning normally” (participant 7).

I drank with all my pregnancies, but all my babies are in high school and are doing so well (participant 5).

Even doctors and professors in our village drink, so you can see how good our alcohol is (participant 2).

The category “**ipo kila mahali**” (**It is everywhere**) indicated that the physical availability and affordability of alcohol influenced easy access to alcohol, and enabled pregnant women's alcohol usage. Through observation, it was noted that alcohol is available everywhere, from bars and restaurants to pregnant women's homes. It was also accessible due to its price and availability throughout the day. I observed how alcohol was sold and consumed everywhere in the village without restriction.

“I don't say no when they just say take and drink, it is not good to refuse you know they will think you are pretending also When people act or do something wrong to you, they must come to ask for forgiveness with one cup of mbege” (participant 5).

“You can just go to the club and sit with no cent.... You will drink to your limit” (participant 7).

“When it comes to the celebrations, you know when they see your stomach upfront, they just save you some beer and keep asking if I needed some more, so I kept drinking and drinking” (participant 1).

People keep drinking, especially pregnant women, from any time they wish, as long as they are finished with their family responsibilities (observation note day two).

The category **“Ni muhimu kufuata mila zetu” (It is important to follow our culture)** suggests that culture has a significant influence over decision-making about the use of alcohol during pregnancy among women from rural Kilimanjaro. Drinking alcohol is common and often reflects cultural practice. This category and its sub-categories show that culture influences by elders to encourage pregnant women to drink alcohol during pregnancy. In this community, the alcohol beverage mbege is a symbolic vehicle for identifying, describing, and influencing cultural systems, values, interpersonal relationships, behaviour norms, and expectations. Alcohol consumption during pregnancy forms part of Chagga cultural practices and is well integrated into their daily life activities.

The category **“Ni mila zetu tumerithi” (It is our culture we inherited it)** identifies that women witnessed or were exposed to alcoholic drinking behaviours and habits in the elderly members of the village, and thus saw it as a cultural norm. Women normalised drinking alcohol through observing others in the village and were influenced by what they had been exposed to within their environment. Drinking during pregnancy has thus become normalised within the community, particularly due to deeply rooted cultural values in rural Kilimanjaro.

“We have inherited it from our elderly and ancestors, drinking is normal here as every pregnant woman drinks” (participant 8).

“I was born with it, it is part of our life and our culture” (participant 5).

“It is normal here in our village” (participant 1).

“I was born and found it, so I continue using it, you know yourself from who it comes from” (participant 7).

“it is our custom as Chagga people our ancestors used alcohol in the past in their own rituals; they had no issues with it, this we all know” (participant 3).

Drinking during pregnancy is seen as a cultural norm and practice of women in rural Kilimanjaro. Drinking alcohol is common in this society and is often reflected during cultural practices, which further normalises drinking during pregnancy. Through observation, it was found that mbege is usually shared in one cup by a group of people who are sitting around. They usually order one “boora” (a special traditional cup used for drinking alcohol), which they drink from and pass around until another boora is needed. There are various norms for defining the appropriate use of alcohol during pregnancy. Thus, the culture of drinking alcohol during pregnancy is passed down from generation to generation and is a normative expectation.

The category **“wewe si mchaga kama hunywi mbege” (You are not a Chagga if you don’t drink mbege)** shows that brewing and drinking mbege among women serve as a marker of ethnic and cultural identity for which Chagga people are well known. Mbege has become a symbol of cultural identity, associated with values, attitudes, and beliefs for people from Kilimanjaro. Thus, drinking is associated with membership to this community and linked to participation in social activities. Social influence, the degree of interpersonal influence, and the social environment can all play a role in an individual's decision-making process. It is appropriate to drink mbege in all situations. During the observations, it was noted that pregnant women regularly met with friends and family to engage in social activities involving drinking alcohol. Most of them claim not to attempt to separate themselves from friends’ and family’s drinking habits and practices despite their pregnancy, as this is what keeps them together. Chagga women are expected to drink alcohol to show respect towards their pregnancies.

“Very good to share a kata of mbege by taking a sip ...” (participant 3)

“I am a chagga and I drink mbege, you know hahaha you can't be a complete chagga without it” (Participant 7)

“You have to drink you know all chagga drink mbege hahaha I am a chagga so drinking mbege is my choice to follow my tribe as every one drink mbege if I don’t they think I just change I want to be someone else” (Participant 2)

“If you don’t drink they will as you where are you from hahahaha so to you drink and they know ahh ha ahaaaa that is a chaga woman” (Participant 5)

The category **“Haijawahi tokea shughuli bila mbege”** (**There is never an occasion without mbege**) elaborates on how the local beer mbege is brewed for and seems to be a compulsory addition to all varieties of ceremonial, cultural, and religious occasions and gatherings, even playing a role in all kinds of family meetings to facilitate communication. Weddings or other celebratory occasions were examples given by the women of the kinds of occasions where they would have to drink a larger quantity, compared to other social settings. It was perceived as generous and ujamaa (familyhood) to offer alcohol for free during occasions and celebrations. In the village, all people are regarded as brothers and sisters, so sharing alcohol during different occasions symbolised unity and care.

It was noted that during labour, delivery, and after the birth of a baby, mbege was given to the mother as both a motivator and a reward. Alcohol was consumed in massive quantities over Christmas time, when most Chaggas returned home from other parts of the country to join their family. During Christmas time, mbege was available for free in almost all the households. At every meeting which I held with the participants, mbege was used, and I was politely welcomed to drink mbege. being told, “ria ooh ndao (ree-ah) mae” (which means “drink ma’am”). As it is impolite to decline mbege, it was necessary for me to accept the offer, despite my desire not to drink alcohol during my research. I politely held the kata of mbege as a symbol of acceptance then gave it back, explaining that I did not want to drink to be able fulfil my research responsibilities.

“You cannot go to the funeral without mbege. Bringing them mbege shows them that you are together in that particular situation. When I gave birth to my first born everyone brought me some mbege and we shared what we have” (Participant 8)

“When I go to them I bring them mbege and banana, you know the whole big basket full, and mkungu of banana, this shows unity for our family to that person’s family” (Participant 6)

“No mbege no function, people will talk if there is no mbege, mbege makes the whole party or that occasion meaningful. Even at the funeral, people cry from being sad but drinking, you know, to help them during that time” (Participant 1)

The category **“Imetegenezwa kwa mikono yetu majumbani” (It is made with our hands in our homes)** explains how mbege is traditionally brewed by hand in homes, an activity which is mainly supervised by women. The women interviewed expressed that they make mbege through a long process, taking up to five days for it to be fermented, and then straining it. They claimed that it was important for them to make a quality local beer, as those producers who make good quality *mbege* are well known and their product is in high demand. The women of rural Kilimanjaro value producing mbege and they produce it in large quantities. Several participants mentioned knowing and believing in the benefits of their local handmade mbege. They also claimed that it is important to support their own efforts, and this made them choose to drink mbege, rather than other alcohols, during pregnancy. The Chagga community believe that they produce good quality local beer, but they also consume industrial products, such as European-influenced beer and spirits. Mbege is still very popular and known for its quality in the Kilimanjaro region, and it is valued and consumed in most parts of Tanzania.

The category **“Pombe yetu ni halisi na zuri zaidi ya vinywaji vya kizungu” (Our brew is original and better than the drinks from white people)** discusses the “drinks from white people” I reference to European-influenced drinks, including both soft drinks such as Coca-Cola and alcoholic drinks such as Safari and Amarula. These are advertised daily and are available to the community in large quantities. Most women claimed to drink only mbege during pregnancy as its ingredients are familiar, locally cultivated, and available within their context. They understand the brewing process involved, and hence they trust mbege’s quality compared to other drinks that are ready made, packed, and served in European packaging. During the interviews and observations, women claimed that the quality of their local handmade mbege is better than that of industrially

made or modernised drinks. They explained that the indigenous local beer mbege is produced by using locally available food ingredients, such as banana and germinated finger millet powder, as well as the stem bark of *Rauvolfia Caffra* (*msesewe* in Chagga) and served in a kata (a traditional pumpkin cup) which is used specifically for serving mbege. They insisted that, when making mbege, they use clean water, and all ingredients are cooked in a clean environment. Thus, it is believed to be nutritious and that its consumption is very good for women because it promotes their health, especially during pregnancy and breastfeeding, which makes it culturally appropriate for them to drink during this time. The contents of the mbege are generally believed to be cooked fermented food products. Thus, it is believed to be healthy and can be used to substitute food. Women reported that mbege differed from liquor or other types of alcohol, and it was perceived as being safer to drink during pregnancy. Mbege is always stored in a traditional way and consumed while fresh. Young women in the community consume mbege in large quantities at any time during the day. which normalises drinking during pregnancy in the community.

“Our alcohol is better bwana, it is better jamanii compared with that of white people you know, I like drinking mbege during pregnancy more as it is good for me and my baby.”
(Participant 4)

“The problem is they came and now brought us their alcohol, which I personally drink but don't trust it that much, I tell you Though sometimes when I get it, I do drink it but mbege is healthier than those chemicals from white people.” (Participant 2)

“I personally drink mbege more during all my pregnancies because it is ours, we know how we made it, and serve it fresh. You can't drink it after a while. You know yourself, they say alcohol like wine is even better when it is old, for me I don't trust the process that much for my health and my baby so I drink it much less compared to our mbege, which I drink anytime I wish to.” (Participant 7)

The category **“Tunashirikiana kutengeneza na kusupport jasho letu” (We work together to make and support our sweating)** is about sweating or *jasho letu*, which refers to a lot of hard work. Making traditional beer mbege involves a lot of energy and time. During observation, I

noted some complex processes involved in making mbege. The process took up to five days, and it involved cooking the ripened bananas and finger millet in a hot wood fire. Although women are the ones who are known to brew mbege, men also helped whenever possible. It was observed how women supported each other to produce and market their product. Usually, they painted and decorated the main entrance kichumi with white material, indicating the availability of mbege, so it would be known to the community and their brewing efforts could be supported. The community tended to support one another in consuming the available alcohol nearby. Women claimed that it was difficult to brew alcohol without testing its quality, and hence they found themselves drinking a larger amount of mbege during this process.

“You know also when making it you must also drink it to taste its quality, how will you know that what you make is actually nice if you don’t even taste it? You have to, even when pregnant.” (Participant 4)

“After mbege is brewed we take some for our family in our homes and we drink it with them to support our hard work (jasho letu).” (Participant 1)

“After we are done making it we sit and drink all together as we say well done to each other.” (Participant 7)

We take tremendous pride in making our brew . And we couldn’t do any of it without our great unity, we work hard to maintain a reliable status in this community.” (Participant 8)

While brewing mbege, women expressed that committing to helping one another was the way to show ujamaa (familyhood/unity).

4.3 Theme 2 – “Kua na muda mzuri” (To have a quality moment)

Figure 3 below provides an outline of the second theme and its categories related to second research objective two which aims ‘to identify the personal factors that facilitate drinking among pregnant women in rural Kilimanjaro’.

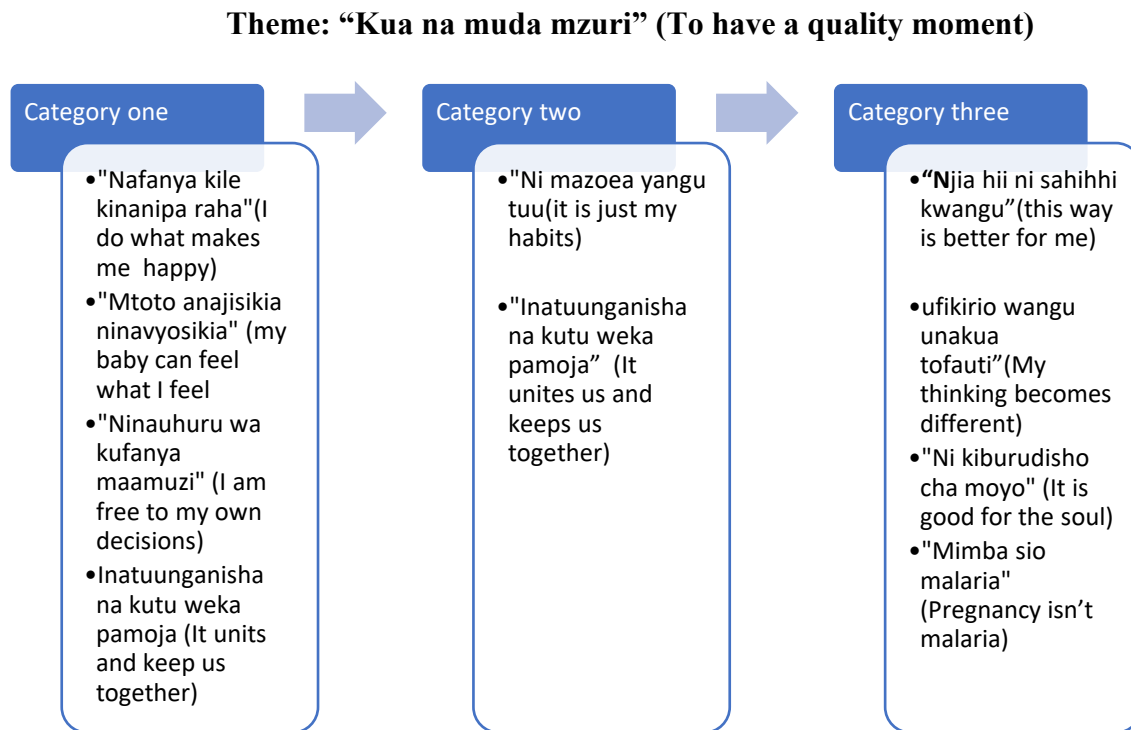


Figure 3: Theme two and its categories

The theme “**kua na muda mzuri**” (to have a quality moment) and its subcategories highlight the importance of pregnant women making their own decisions and choices to engage in what is meaningful to them. Wanting social interaction and to feel happy were shown to be the personal factors influencing participants to drink alcohol during pregnancy, particularly due to deeply rooted cultural values of ujamaa (familyhood/unity) in the community. Women also highlighted the importance of pleasure and opportunities for socialisation, such as maintaining affective bonds through in-group alcohol consumption. During the interviews, participants expressed that the need for freedom, socialisation, and escaping situations that trigger their anxieties perpetuates their alcohol consumption during pregnancy. It has been noted that most women who were interviewed

during the participatory observation indicated that alcohol can help ease their negative emotions about unpleasant situations and cope with stressors.

The category “**nafanya kile kinanipa raha**” (**I do what makes me happy**) speaks to the ways that pregnant women's choice to drink alcohol is influenced by their social situations and wanting to connect and feel happy. Despite cultural influences, drinking alcohol among pregnant women has become a personal choice. Women highlighted that drinking alcohol, especially during pregnancy, makes them happy and enhances their pleasure and opportunities for socialisation. Spending time drinking in the kilabuni (venue) served as an established way for the women to experience refreshment outside their homes. Most women reported that they drink with friends either in the kilabuni or someone's house, retaining this connection with friends during and after pregnancy. Most women indicated that they drank more in the kilabuni as the chosen drinking environment as it is a place to meet people and be happy. During observations, I met participants while they were drinking with friends both in their homes and the kilabuni. They expressed that both environments serve them socially while drinking with family or friends as it enhanced their feelings of happiness.

The category “**mtoto anajisikia ninavyosikia**” (**my baby can feel what I feel**) showed that women believed when they are happy, their unborn babies are happy too. The women expressed how not being happy can affect their pregnancies. They expressed that being sad can cause major problems to their health and the health of their babies. It is believed that when a person is happy during pregnancy, they will give birth to a happy baby, and if they are sad, the baby will always be sad, as the baby can feel while still in the womb. Thus, women chose to engage in drinking to feel happy, make their baby happy, and generate a happy generation.

“We should talk about how being not happy during pregnancy affects your baby, when you are unhappy your baby is unhappy too. Enjoying life makes it better for you and your baby. Which one is better, suffering depression and letting your baby suffer or enjoying your moment and letting your baby enjoy it?” (Participant 7)

The category “**Ninauhuru wa kufanya maamuzi**” (**I am free to my own decisions**) highlights that women are not forced to drink alcohol. Drinking is optional and nobody is forbidden from drinking. It seems that the culture you are brought up in may determine your views on drinking and pregnancy. The belief and expectancies of the women’s drinking culture is that drinking during pregnancy is normal behaviour. Women also expressed that, as adults, they should know what is better for them. However, they also expressed that drinking is a norm and sometimes pregnancy comes with its own needs and cravings. Some women do make the decision, for personal reasons, not to drink due to their pregnancy. Some women shared that they drink more during pregnancy due to different reasons. Some expressed that they drink in certain stages of their pregnancies more than other stages for several reasons, such as automatically not wanting to have a drink in the beginning, to drinking more when the pregnancy is visible to others. They expressed the following:

“In the beginning I couldn’t drink anything, even water, even mbege, but after three months I was drinking like it was not me.” (Participant 4)

“I was drinking all the time but after I was a bit tired, let’s say 9 months I couldn’t handle it any more.” (Participant 7)

I couldn’t drink when I was about 8 weeks, it was general hard to drink or eat but after that period did drink all the time up to now as we speak I still drink whenever I feel like drinking (participant 7)

The category “**Inatuunganisha na kutu weka pamoja**” (**It unites us and keeps us together**) means that the drinking of alcohol maintains communal livelihoods because drinking mbege ties the women together and rituals are practiced communally. It maintains “Ujamaa” (working together) between the women help each other with problems as they brew beer together.

“You know it is very nice to meet and talk while drinking, this keeps us more together (participant 6), drinking unites us together since the time of ujamaa we have to keep it up. It connects us together in the “ujamaa” way.” (Participant 3)

It was generally believed that drinking together strengthens ujamaa during pregnancy. Friends and family form part of the social environment in which pregnant women engage in drinking alcohol together. Sharing a cup (boora) of mbege was believed to lead to unity and belonging, because while sharing the cup/boora, one is asked for kind words that enhance unity, friendship, and peace.

“First you must drink and then pass it to the next person by telling her ria (take a sip) which is a way of accepting the person and keeping them in your heart. Coming together and sharing a “cata” of mbege is the most important as it keeps us together as sisters.” (Participant 4).

Regarding the women’s drinking habits and attitudes toward alcohol consumption, it is generally believed that sharing a drink with a friend is true love. When someone visits your home, they must be welcomed with a kata of mbege. Drinking from one cup/kata was a way to be able to share and maintain their culture and heritage and nourish their relationships in the community.

“Being able to meet and share a cata of mbege with people of the same situation is the best concept because it’s at the root of our survival. We all have to drink and being able to share what we have is one of the oldest traditions in our community.” (Participant 1).

“This tradition of carrying on the legacy and sharing a cup of mbege has been in our family for generations and is something that is so special as it unites us.” (Participant 3).

“Mbege makes us meet, as it is our custom to meet after our chores. Traditionally we share it and that shows that we love and care for each other.” (Participant 5)

“When there is a new child in a house, we bring mbege and drink together. So, you see you have to drink out there too. When there is anything, we gather and try to help.” (Participant 3).

The category **“ni mazoea yangu tuu” (It is just my habits)** provided the insight that drinking alcohol during pregnancy did not start because of the women’s pregnancies, but rather alcohol

drinking was already part of their daily routine and hence it became difficult not to drink. The participants identified a tendency to drink alcohol both during and after their daily routines.

When I asked the women to quantify how much they drank before they were pregnant, some said they drank regularly while others said they consumed alcohol daily and could not identify the amount. They said they found it particularly challenging to stop or cut down their drinking due to their habits. For some, this was because they had drunk large quantities before becoming pregnant, and for others it was because they did not feel like stopping drinking when pregnant. They expressed the following:

“If I go to the butchery I must pass to there I must have my kata of mbege followed up with one beer, then the day is good for me” (Participant 7).

“I tell you it is difficult for me because I am so used to drinking mbege. If I can just smell it, I must drink it, even in the middle of my work, I just ask my children to go buy it for me, you know.” (Participant 6).

“I started drinking when I was a baby, now I am older, it is difficult to stop because of pregnancy you know... ..it is you drink and you drink, you won't stop it for no reasons.” (Participant 2).

The category **“njia hii ni sahihi kwangu” (this way is better for me)** elaborates on how pregnant women consume alcohol as a way of handling difficult situations. In these types of circumstances, alcohol is often used to suppress emotions caused by pain and hardship that some women face in their daily lives. Some participants also identified that they think more logically about solutions to their problems while relaxed and having a kata of mbege. This indicates how drinking alcohol during pregnancy is seen as a form of stress release in social culture. The importance of being relaxed rather than overly strict, to the extent that it could have detrimental effects on the pregnancy, was often referenced in these discussions. There was no guilt among these women about having to drink because they were doing so based on taking care of themselves.

The category “**ufikirio wangu unakua tofauti**” (**My thinking becomes different**) emphasises the fact that women drink to feel good after experiencing difficult situations and in order to avoid uncomfortable emotions. During the interviews, women expressed that when they experience difficult situations, their alcohol consumption increases so they can escape the feelings associated with that unpleasant situation. Thus, alcohol is used to calm their worries and anxieties. Pregnant women explained that they chose to drink alcohol at these times not only because it helped them relax and enhance their baby's wellbeing, but also as a way to enhance their thinking in a productive way.

“To me drinking is like having yoga and a massage. You know if you want those you have to drive far to town but by drinking alcohol I can have the same relaxation as with the massage. I know what I am talking about because I have experience and I watch that on TV, so I can see how impactful it is.” Also that alcohol makes me relax after fulfilling responsibilities for my family.” (Participant 8).

“It is sometimes not so easy to deal with some situations, it is better to drink than to cause stress to your baby. Stress causes a lot of problems especially when the pregnancy is still young, so to avoid such problems it is better to drink and relax, then you are fine and you know your baby is well too.” (Participant 4)

The category “**ni kiburudisho cha moyo**” (**It is good for the soul**) emphasised the importance of the women listening to their own bodies and not denying themselves certain cravings, particularly if doing so added to their stress levels. Alcohol is a specific drink that calms their nerves and uplifts their spirits.

Unlike experiences of unwittingly consuming alcohol in early pregnancy, women described making a conscious decision to have a drink and feeling comfortable that drinking mbege would not be harmful. In accounts such as these, women could be seen to be adopting the idea that alcohol is healthy and contributes to the health of babies.

Three women expressed that they drink alcohol specifically when pregnant to calm their emotions and to make them feel good around everyone in the house. They explained that sometimes pregnancy leads to a bad mood, and they prefer drinking to uplift their mood to be able to cope with everyone, as sometimes they feel emotionally depleted for various reasons and at times experienced mood changes. They identified it was better to uplift their mood with alcohol than to affect others with a bad mood, and that they felt good in their hearts and souls about this decision. Alcohol was used as fuel to increase their energy and create a good atmosphere and spirit for everyone.

“Sometimes if you have a bad feeling and don’t drink you end up shouting at people. I tell myself, no, calm down, I take a cup of mbege and one beer, then all is fine, I feel good and my spirit is good for everyone.” (Participant 3)

“When I was pregnant, if I want to talk to someone in a calm way I take my sips then I am good for the day.” (Participant 1)

“You don’t want everyone to experience what you are feeling because you know because when they talk to you and you are not feeling good in your soul they will feel not good too, I drink so my soul is happy and everyone is happy too.” (Participant 4)

The category **“Mimba sio malaria” (Pregnancy isn’t malaria)** explored how the women viewed being pregnant: that it is a normal and natural thing that every human must embrace and be proud of, and that it is not like malaria that restricts them from drinking alcohol. They claimed that, when they had malaria, the doctors and nurses advised them not to drink any alcohol as compared to during pregnancy. They expressed that pregnancy is the time to be happy and do what makes them and the baby happy and healthy, and to enjoy the moment of being pregnant, as it is not a sickness where you are automatically unable to be happy due to pains and suffering.

“Women are so special and it is better to enjoy the moment than having restrictions like having malaria you know also sister who is a doctor at kcmc advised me not to drink

konyagi while pregnant but I said to her, do I have malaria? Chaaa I do drink naiyooo”
(Participant 2).

“I am telling you, we women are strong when it comes to pregnancy but not malaria.”
(Participant 4)

“When pregnant, I can drink alcohol but not when I am sick and on medication... that is not correct.” (Participant 8)

They claimed that, during pregnancy, they can carry all of their daily responsibilities with no problems as they perceive it to be a norm for women, as compared to having malaria when they do not have the ability to carry on with their responsibilities due to their sickness and weakness. They claimed that, when pregnant, it is better to eat and drink whatever is good for their health if they can manage their daily responsibilities. They expressed the following:

“The only restrictions and inability comes from having a sickness, such as malaria, that causes body weakness.” (Participant 3)

“Being pregnant isn’t malaria.... That you can't drink alcohol? It is natural for all women, we must be proud of it, you know bwana..” (Participant 5)

“As long as I can fulfil all my responsibilities and I am not feeling sick, drinking does well for me. I enjoy my alcohol, especially if I am not feeling any pain or issues that bothers my health.” (Participant 4)

“I do drink, you know it, it is not like you can't drink but you can work the whole day then you drink after you work if you are not sick or having malaria. You know that, we are only advised not to drink alcohol while on medication. I am not on any medication and I drink from time to time, you know it is good that way (participant 6)

4.4 Theme 3 – “Mimi ni binadamu kama wengine” (I am a human like others)

Figure 4 below provides an outline of the third theme and its categories related to objective three, which aims describes the factors that facilitate the choices of women in rural Kilimanjaro to drink alcohol.

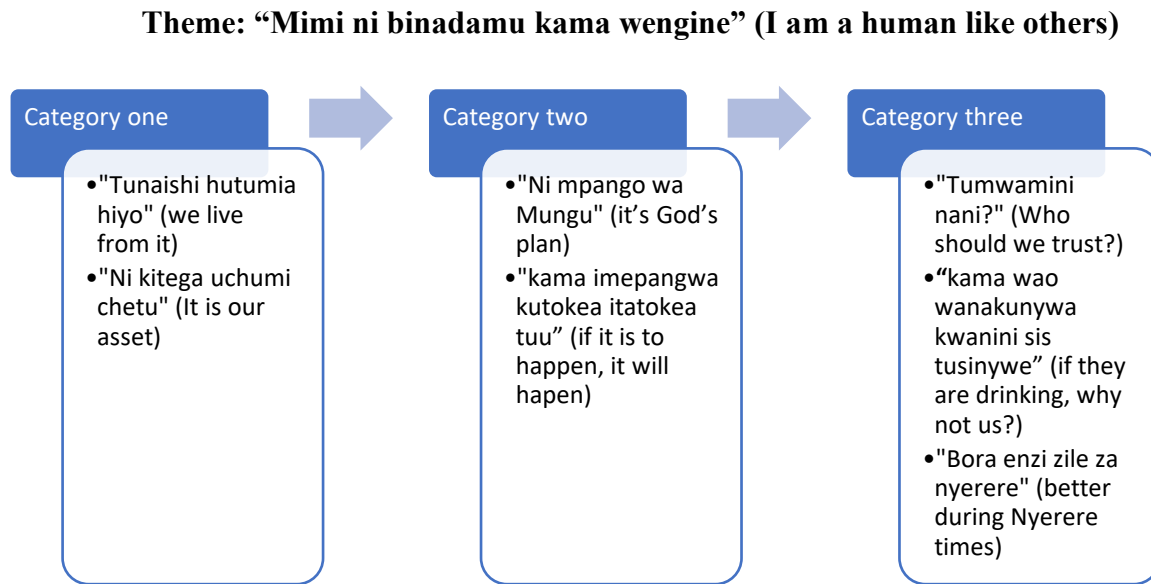


Figure 4: Theme three and its categories

The theme “I am a human like others” explored the feelings pregnant women expressed around having their own needs, including the need to fulfil their desires, like other women who are not pregnant. They considered themselves humans striving to survive in their own environment, like other humans. They expressed the view that the pregnancy period should not be a barrier for them to live and enjoy their normal lives like others were able to. They expressed that it is important for them not to let life circumstances, including pregnancy, impact their drinking and enjoyment of normal life. Despite some women’s awareness that drinking alcohol during pregnancy can lead to lifelong disabilities in their unborn babies, it appears that an awareness alone does not discourage them from drinking. There are some factors such as economic and religious beliefs that lead them to continue drinking during pregnancy. They emphasised the benefits which alcohol brings to them and their community and explained that they believe in God rather than any information they receive regarding the effects of alcohol. They claimed that despite all the information received, as

a human, drinking alcohol during pregnancy was part of their habits and they found it challenging to control their drinking and avoid it during pregnancy.

The category “**Tunaishi hutumia hiyo**” (**We live from it**) highlights that, although the participants' livelihood activities were farming and livestock rearing, the production and sale of locally made beer mbege was identified as the most important source of women's income in the community. Although pregnancy can have its own challenges, this does not end the women's role in brewing and selling mbege in the village. In fact, many of the venues (vilabu) that serve as important places for socialising are owned by women and enable them to make an income to meet the financial needs of their families.

The category “**ni kitega uchumi chetu**” (**it is our asset**) speaks to the opportunity that women have in this way of earning income. The consumption of mbege keeps income circulating not only throughout the nation and region but also in the local community. Mbege has a positive economic impact for women in the village, as the income from mbege is controlled by women and is meant to assist them in fulfilling their domestic needs. Usually, men do not have access to the money earned from selling mbege. During the interview, women expressed the following:

“Mbege is the only source of cash money to us, we have no other opportunity, it is our employment, we have to work on it.” (Participant 6)

“If I don't brew and sell mbege I will be ashamed, as I will have to ask my husband even for small needs, no I have to work. To make mbege is to me more than employment.” (Participant 3)

“It gives me and my children our day-to-day needs. I am a single mother, so I have to work hard to help my children get a good education.” (Participant 8)

“I sent ... to university because of mbege, I have sold enough to help them all to be what they wanted to be but still working on it” (Participant 2)

The category “**Ni mpango wa Mungu**” (**It is God’s plan**) due to the deep-rooted religious beliefs of some women in the village, it was believed that if something is planned, it will happen, as God is the only one who creates humans. Even though some of the participants agreed that alcohol can be harmful, they showed and expressed that it is not only alcohol that can cause disability, as a lot of factors can lead to disabilities if it is planned by God and therefore humans cannot avoid it. They expressed that, if God wants something to happen to humans, it will inevitably happen whether they drink alcohol or not. During the interview, they indicated that even a woman who does not drink alcohol during pregnancy can have babies with disabilities. They made mention of some children who were born with disabilities in their community and had a belief that it was a plan from God and could not be avoided. They believed that God is the only one who plans for the children and who they will be in their future. This was evident from the three participants who, despite having knowledge about the effect of alcohol on an unborn baby, still strongly believed that disability could happen in any case if it is meant to happen.

The category “**kama imepangwa kutokea itatokea tuu**” (**if it is to happen, it will happen**) explored the participants' beliefs that, despite some children in the village having mental and physical disabilities, if it is to happen it will happen at any time. They indicated that children could get disabilities before and after birth, and they could do whatever is best for the baby, but it will happen if God wishes it. They claimed that even women who do not consume any alcohol still have children with disabilities. The belief was held that no human can avoid things that are due to happen if it is planned by God. They stated the following:

“My neighbour ... doesn’t drink alcohol at all, since when she was young, but look she is having a child with a disability you know, so you know, I am not God to say this and that will happen if you do this or that, only God can....” (Participant 3)

“Aaah I tell you, it will happen if you think more how many people I know don’t even drink anything but look they have babies with disabilities so ask why no alcohol but disability, you know it is only God who can plan what is to happen and it will happen.” (Participant 4).

“Sometimes there are some things we just need to leave in God’s hands, let them in his hands, that’s important, he is our creator, no one else, he is the one who knows what child you will be getting and the future of your baby.” (Participant 1)

The category **“Tumwamini nani?” (Who should we trust?)** found that there are dilemmas regarding the information received from varying sources. Two women claimed to have received confusing information regarding drinking alcohol during pregnancy. They received this information from different sources, including medical doctors, midwives, friends, and family members, some indicating that alcohol, especially mbege, was healthy to consume while pregnant, while other sources indicated that any drink with alcohol, including mbege, may be dangerous to their unborn babies. Five women claimed to have only received information about the positive effects of mbege during pregnancy. They received information that drinking mbege is healthy for both the mother and the baby. They were told that only some alcohol such as *gongo* (a local gin, an illegal liquor which is banned by the government that some people consume illicitly) can be dangerous as it contains dangerous chemicals that are not good for pregnant women. They also explained that some medical professionals informed them that mbege and beer is good but not *gongo*. This information led them to perceive that only those alcohols that have been banned by the government are not good for their health. They expressed that they are confused and in a dilemma regarding who to trust and what advice to follow. One woman shared that there is no written warning on the beer bottles indicating that alcohol is dangerous for pregnant women, even though there is a warning that it is not to be consumed by people under the legal age of alcohol consumption. The women insisted that even famous and educated people drink beer and *mbege* during pregnancy. They claimed to trust more what was done in the olden times, where the villagers only had access to very few types of alcohol, including mbege, and they received minimal information on alcohol via the village chairperson, such as on safe alcohol use. These women’s comments also reveal the variability of advice that is provided by health professionals and friends, and the confusion this can generate.

The category **“kama wao wanakunywa kwanini sis tusinywe” (if they are drinking, why not us?)** refers to famous and educated people, such as doctors, teachers, and leaders, who the participants saw drinking during their pregnancies. Seeing them drinking during pregnancy is

linked to the development of pregnant women's positive views of their own consumption of alcohol during pregnancy. Professionals and people with high levels of education, some of whom work in the medical field, are the most respected people within the community and act as role models. This reassures the women that drinking during pregnancy is a common practice and okay to do. Two participants' comments revealed that, despite being told alcohol can be harmful to their unborn babies, they think alcohol is good as they see people who they respect and consider to be famous female community members drinking during pregnancy, hence increasing the women's positive perception and chances of drinking while pregnant. They elaborated as follows:

"I was with Dr In our meeting I saw her drinking. She was pregnant and I was too, so we shared our drinks together Also when I was pregnant with ... I was drinking together with Mr ... you know, he even offered me some more alcohol, we drank together." (Participant 3)

"They do drink and they tell us not to drink, I don't understand. It is sometimes better to do what is good for you, not for someone else." (Participant 4)

"My midwife is drinking too, I saw her and she offered me some to drink with. I couldn't say no, so I had some drinks with her... She always comes to our bar and drinks some mbege mixing with konyagi and that time when she was pregnant too." (Participant 1)

The category "**bora enzi zile za Nyerere**" (**better during Nyerere times**) indicated that during the late Mwalimu Julius Nyerere's period in governance, the women had only one source of information which was reliable and trustful, and it was better that way, compared to now when they receive information from different sources with opposing views. They claimed that computers and technology have an impact on the information they receive, and that they tended to use online platforms such as Google to search for information regarding their pregnancies, or to clarify or learn more about what the midwives told them. Participants claimed that during the period of the first Tanzanian president, Nyerere, people were used to drinking only alcohol that was available in the community, which was mbege. Since the leadership has changed, many different brands of alcohol have become available in the community. The women are confused by the information

regarding which alcohol is better for pregnant women; however, they trust that mbege has nothing to do with other types of alcohol and that it is safe. Conflicting advice and uncertainty prompted some women to opt for mbege and the factory-produced beers (Kilimanjaro and Serengeti) that are seen as safer than other alcohols.

“I gave birth while drinking mbege during the old days, when everything was nice and quiet, we could follow orders and respect all information and advice from our leaders, you know, these days we hear so much information from here and there, we are not sure which one is correct or truth. During my pregnancy I could only drink mbege because that was what we had in our community, nowadays mwanagu we have so much Safarii, kiliii Serengetiiii and many others .” (Participant 2)

“I can’t remember well but we had only information from local radio and from our community leaders, we had so few doctors, but when they tell you something we believe them. These days’s very young doctors, they don’t know what they are talking about, these days.” (Participant 4)

4.5 Conclusion

The findings demonstrate three themes: “**Tangu enzi na enzi**” (from generation to generation), “**kua na muda mzuri**” (to have a quality moment), and “**mimi ni binadamu kama wengine**” (I am a human like others). The first theme affirmed the contextual factors such as historical, cultural, physical, and social-political factors that contribute to women from rural Kilimanjaro drinking alcohol during pregnancy. This theme confirms the historical and pervasive presence of alcohol use during pregnancy. The second theme revealed social engagement and interactions, particularly due to deeply-rooted values of ujamaa (familyhood/unity), in the community as factors which influence the drinking of alcohol among women during pregnancy. The third theme gave an insight into how the economic situation, conflicting knowledge, religion, and spirituality contributed to women’s decision to drink alcohol during pregnancy.

A discussion of the themes in relation to the research question and relevant literature follows in the next chapter.

CHAPTER 5: DISCUSSION

5.1 Introduction

In this chapter, the complex nature of the factors contributing to women drinking alcohol during pregnancy in rural Kilimanjaro will be discussed by highlighting the multifaceted nature of drinking alcohol during pregnancy at both a micro and macro level. Furthermore, the chapter will outline how findings from this research add to knowledge about the implications of drinking alcohol during pregnancy, where FASD is prevalent, and will advocate for action to be taken to minimise the impact of FASD and improve the health of pregnant women and their unborn babies in rural Kilimanjaro.

5.2 Personal choice as a factor influencing drinking during pregnancy

The theme “**to have a quality moment**” and its categories highlighted how the freedom to make choices, socialisation, and stress perpetuated the participants’ consumption of alcohol during pregnancy. This speaks to the ways that pregnant women's choice of drinking alcohol was influenced by their social situations and wanting to connect and feel happy. During the interviews, it was found that drinking alcohol during pregnancy was a personal choice for the participants, that they are free to make their own decisions and are not forced to drink alcohol, and that they made the decision to drink. It was surprising that they could also make decisions based on their health. They highlighted how being sick, such as having malaria, would enhance their decision not to drink alcohol, and they also know that when they have malaria, they are advised not to drink any kind of alcohol. They therefore make informed choices to not drink when presenting with malaria symptoms, but not during pregnancy.

Galvaan (2012) describes how personal and socio-historical contexts interact to determine the type of choices people make and what they end up engaging in. Exposure to opportunities within the environment only matter in so far as they influence a person’s choice (Kielhofner, 2008) to drink during pregnancy. While it is a personal right to choose and engage in drinking during pregnancy, controversies persist about the rights and wishes of pregnant women versus the interests of their foetuses, as it is the unborn baby who will be most affected by the choice to drink during

pregnancy, and babies have no say in their mother's choice to drink (Crawford-Williams et al., 2015). For health professionals, conflict arises when the pregnant woman chooses behaviours that have the potential to harm the developing foetus. Delivery of health care is grounded in the ethical principles of respect for the individual's autonomy and beneficence (Lambert et al., 2010). It has been suggested that the ethical responsibilities of health professionals require that the best interests of the unborn babies be served. Despite the ethical dilemma this presents, research from the United States has found that 95% (n = 847) of physicians felt that pregnant women also have a moral responsibility to ensure the health of their unborn babies (Abel & Kruger, 2002). It has also been recommended that pregnant women have the right and responsibility to make informed choices for themselves and their unborn babies (Lambert et al., 2010). Therefore, the complexity of this issue highlights and emphasises a need for accurate and comprehensive information about alcohol consumption during pregnancy for women to be empowered to make healthy choices and experience the best health care possible (Crawford-Williams et al., 2015). Having the option to engage in a variety of social activities in the context one resides in contributed to people choosing to engage in certain activities (Galvaan, 2015), such as women choosing to drink alcohol. Within the context of rural Kilimanjaro, the factors influencing occupational choice included the social, peer, and societal influence on occupational choice, in a composite manner, and interplayed with one another. Thus, it is suggested that insight into the relationship between (social) structure and (human) agency in shaping social action is helpful to shed light on the reasons for drinking during pregnancy. Enabling meaningful participation is needed as this allows individuals to make healthy choices despite their social group influencing these choices (Potalajko, 2007) around drinking alcohol during pregnancy. For residents of Marangu village, engagement in the occupation of drinking alcohol is associated with their cultural beliefs and provides them with a sense of 'belonging'.

Another finding that facilitated drinking during pregnancy was the idea that alcohol can be used to relieve stress for the mother, and this might outweigh the risk of harm to the foetus. Women expressed that stress has the potential to damage their foetus, and thus, to avoid stress and damage, it is better for them to drink to cope with daily stress. There is no evidence indicating that alcohol can reduce stress levels during pregnancy, however evidence from prospective studies shows the link between antenatal maternal anxiety/stress and cognitive, behavioural, emotional, and

neurological problems in the child (Glover, 2011; Van den Bergh et al., 2005). Meijer et al. (2014) suggested that stress in pregnancy has been related to different physical, emotional, and social adaptations in a woman's life during the period of pregnancy. Although stress is a common occurrence in pregnancy, studies indicate that high levels of stressful life events are a predisposing factor to alcohol consumption in pregnant women (Esper & Furtado, 2019).

The experience of stressful life events also seems to impair other aspects of the mental health of pregnant women, such as the increase of psychiatric symptoms of anxiety and depression during pregnancy (Meijer et al., 2014). Since both stress and drinking alcohol can cause harm to the women's physical and mental health and the development of the foetus, this study proposes alternative measures to be taken to ensure the wellbeing of pregnant women and their unborn babies. The data points to the importance of evaluating these events during gestation, and therefore appropriate supports are considered protective factors to deal with stressful life events for women (Hicks & Diamond, 2008) during pregnancy. Current research indicates that there are benefits to both the mother and the baby to reducing stress during pregnancy (Calumet, 2013). It is motivating that the benefits of stress management have been thoroughly researched and demonstrated as being effective in reducing stress in many events (Calumet, 2013).

Recent research points to the positive realisation that stress management can alleviate the burden of life stressors and provide for a healthier, more positive outcome for pregnancy. Current research indicates the benefit to both the mother and baby of reducing stress in pregnancy (Calumet, 2013). Screening women's stress levels was found to promote the health and wellbeing of pregnant women and their unborn babies. The data points to the importance of evaluating stressful events during gestation. Thus, the evaluation of stressful life events by health professionals such as occupational therapists is useful for treatment, education, and health promotion. This assessment and professional support could help women identify positive coping styles. It is also advised and emphasised that pregnant women get family and social support during pregnancy to enhance their social skills and ability to cope with stressful life events (Esper & Furtado, 2019).

5.3 Social interactions, sense of kindness, and ‘umoja’ as factors influencing drinking during pregnancy

The influence of cultural factors such as the expression of kindness have significant effects on wellbeing (Gherghel & Hashimoto, 2020). Binfet (2020) revealed that kindness is mostly understood as helping, showing respect, giving, and encouragement. With reference to this, “umoja” (unity) is a sense of interaction that brings people together. Kindness and umoja are two facets of a process of giving and receiving social support and are saturated with moral meanings. In this study, it was found that participation in a social environment that dictates kindness and the sense of umoja enabled the appropriateness of drinking during pregnancy. The term umoja does not escape the connotation and associations of bonds, tribal hospitality, and welfare obligations of extended family in the village. In this study, umoja is based on concepts of mutual respect, sharing, and working together as one family and a community. Mugumbate and Nyanguru (2013) explained that a sense of togetherness points towards a strong constructivist ontology, in which a person’s sense of being and belonging cannot be detached from the social context in which they live.

Evidence shows that the importance women attach to what they do is found in the interface between self and context and is affected by an interplay between their social experiences and shared meanings (Reed^[1]_{SEP} et al., 2010) regarding drinking alcohol during pregnancy. There are sayings such as “Umoja ni nguvu” which means “unity is strength”. From this vantage point, the motivation and reason to engage in drinking alcohol during pregnancy is found to be influenced by a common set of values, beliefs, and situated conditions shared by women in the village. It was found that drinking alcohol during pregnancy was heavily shaped by the immediate social contexts in which women are located and their shared values (Cloete & Ramugondo, 2015).

Drinking is tied to the needs of greater social groups, be it family or community (Reed^[1]_{SEP} et al., 2010). Due to the great sense of umoja, as women work together to help each other in different situations, including brewing alcohol for different occasions, they also engage in drinking alcohol while tasting the quality of the mbege. Thus, pregnant women find themselves in this position and cannot separate from it. In the community, brewing is never a secret, as women work together and foster a sense of umoja to support the brewing process, making everyone aware of where the fresh

mbege is being brewed. This attracts women who know the brewer to offer their help, which is perceived as a common and normal way to engage with one another.

As a sign of kindness, the brew is also served to pregnant women for free. This serves as an opportunity for women to drink. Women expressed how they have access to free alcohol due to their pregnancy. It is regarded as disrespectful to say no when offered something, including alcohol, in a private setting. It was found that refusing to have alcohol at social functions was regarded as unusual behaviour which led people to think one is not well or that something is wrong. Participants pointed out that the only time when it is acceptable not to drink alcohol is when one is ill and on strong medication, such as with malaria, when it is dangerous to combine alcohol and medicine. Offerings of alcohol are perceived as a normative way of showing support for others, and therefore increase the use of alcohol among women (Clapp & MacDonnel, 2000; Wood et al., 2001). This influences and further perpetuates drinking habits among women. This kind of influence on drinking behaviours may provide valuable information about what behaviour is considered acceptable and appropriate in the given social context, and therefore what behaviours are likely to lead to social acceptance and be reinforced within a social context.

In this study, it was also found that pregnant women drink in groups by sharing one cup of alcohol, measuring one litre, which is passed around until finished, and then continuing with the same process, thus leading to patterns of binge drinking. This can occur at any time during the day, especially during the evenings after work, and forms part of umoja as a means of social and recreational activity. This kind of practice further perpetuates drinking norms during pregnancy. There is evidence that pregnant women may be more motivated to drink when it is supported by their social network (Testa & Leonard, 1995).

In this study, it is suggested that performing acts of kindness may be used with the aim to reduce ill-health and improve the wellbeing of pregnant women in the village. There is a need to raise consciousness regarding the impact of drinking during pregnancy, and kindness should be offered by supporting women in not drinking while pregnant. There is the potential for women to use umoja to capacitate themselves to help each other to avoid alcohol during pregnancy.

5.4 Historical and cultural beliefs and practices as factors influencing drinking during pregnancy

In this study, it was found that drinking alcohol during pregnancy is common and often reflects historical and cultural practices. The women claimed to have used alcohol since colonial times, when alcohol called mbege was domestically made from fermented bananas mixed with sprouted millet. During that time, mbege was the only alcohol, and it was made during rites and celebrations in the community and consumed within people's homes rather than at the event venue. Mbege became popular and was only referred to by Chagga people, which gave the Chagga people a sense of identity. These days, mbege is used on many occasions to symbolise Chagga identity. However, currently in the village, mbege is made in homes not only for private consumption but also for commercial use. Women indicated that they consumed other available types of alcohol such as local gin and vodka which are now available to them. Surprisingly, mbege was never initially made for commercial use, but rather for home consumption. These findings highlight how cultural practices influence the tradition of drinking during pregnancy being passed down from one generation to another as the community members are exposed to this behaviour within their environment and have observed their elders drinking since their childhood. Hence, drinking behaviours are internalised and normalised as a cultural practice. Participants indicated that there is no cultural guideline regarding drinking; it is only by observing their elders and role models within the village that enhances their drinking behaviour. This finding is supported by Frank et al. (2000), who found that culture supports attitudes about drinking alcohol through normative guidelines concerning acceptable drinking behaviour. Their study also found that normative behaviour was powerful as the women were influenced by role models within the village who they witnessed drinking during pregnancy. Drinking alcohol with health professionals during pregnancy ensured the participants that alcohol is good for you during pregnancy. This drinking behaviour is supported by current research based on social learning theory and the modeling of drinking behaviour. According to Jans-Beken et al.'s (2020) rituals of sociability, women engaged more in drinking alcohol by observing and learning from the people in their environment.

It is ironic that mbege is shaped by cultural supposition as it came to be believed and defined as a healthy beverage. Mbege is considered a necessary nutrient as it is made from staple foods such as bananas and finger millet and is therefore regarded as a health drink. Participants spoke words of reassurance such as “mbege is better than other beverages”. The discourse that mbege is made with nutritious food materials implies it is full of nutrients needing no further investigation. There is no study to prove the nutritional benefit of mbege. It was observed how mbege is promoted by emphasising its nutrient value. People obtain their essential nutrients from a limited variety of foods using various food-processing techniques, including alcoholic beverage production as a means of consuming staple foods (Kubo & Kilasara, 2016). In Tanzania, alcoholic drinks have traditionally been brewed by women to be used for recreational or special occasions at home (Nyuur & Sobiesuo, 2016). Historically confined to the home, mbege is now consumed in designated public spaces where it is sold as a commodity and is easily accessed by women (Nyuur & Sobiesuo, 2016). Myhre (2015) explored the ritualistic role of mbege as a vital part of a bride's wealth. This study suggests that a deeper understanding of history will enhance efforts to address the public health challenge of drinking during pregnancy and that strong normative prescriptions against alcohol can paradoxically lead to increased arrest and convictions for alcohol-related behaviours during pregnancy (Frank et al., 2000). Role models for behaviour change regarding drinking during pregnancy will be a vehicle for helping women to change their drinking behaviour.

Furthermore, the findings of this study highlight how drinking alcohol during pregnancy has been passed from generation to generation, and that women in previous generations may have drunk while pregnant and not seen any harm in their children. The notion that participants either knew someone in their family and community who drank during pregnancy and had a healthy baby or had drunk alcohol themselves during their previous pregnancies and had delivered healthy babies is a concern. This is because it may indicate a key issue of under recognition and underdiagnosis of FAS, which may also relate to a lack in knowledge among health workers regarding the diagnosis of FAS. There is a failure to ask pregnant women about their alcohol consumption during screening, and thus no appropriate actions are being taken by healthcare workers to mitigate against an FAS diagnosis (Payne et al., 2011). Coles (2011) found that identifying the effect of alcohol exposure in practice is not simple and requires knowledge among health professionals.

However, these conditions are rarely identified in general clinical settings, where children are referred for diagnosis and treatment of developmental and behavioural problems. For this reason, infants may not be accurately identified as alcohol affected (Coles, 2011).

5.5 Spiritual and religious beliefs and practices as factors influencing drinking during pregnancy

In the context of this research, participants' beliefs are dominated by the Catholic faith. Participants identify as religious and attend church services every Sunday. They believe and practice by praying to God in all situations. I have witnessed some participants making a sign of a cross before they drink alcohol as a means of obtaining blessings from God. Religion and spirituality are two cultural elements that give meaning to human conduct, values, and experiences (Ramezani et al., 2016). Spiritual and religious beliefs and practices shape an individual's self- and world-view (Schneider, 2012). Studies show that Catholic believers drink alcohol the most frequently compared to other religions, as the "Catholic religion doesn't forbid alcohol use" (Baena et al., 2019, p. 1483).

The spiritual themes identified through the analyses in this study included were as follows: "Mungu pekee ndio Muumbaji wa binadamu jinsi walivyo" (God is a main provider and creator of humans as they are) and "kama umepangiwa upate mtoto tofauti utampata tuu maana imepangwa" (if something is meant to happen, it will happen). Five out of the eight participants did not believe that drinking alcohol during pregnancy might have health consequences and cause permanent disabilities for their unborn babies. They expressed faith that God is the only one who can make a human through a man and a woman, that God's responsibility is caring for the baby, and that God (as the primary care provider of children) influences who they will become. One of the participants in this study acknowledged that she has a child with a disability and that she drank during the pregnancy, while insisting that she received the child as a gift from God in the condition the baby was in at birth. She stated that no human can predict or oppose God's plan, that what is planned by God will happen in any case. This world-view of God's plan is a complex sphere that cannot be changed (Nwoye, 2011; Okeke et al., 2017). Such beliefs encourage women to continue drinking during pregnancy. Religious beliefs result in many health care beliefs and practices which are significantly different based on a person's religion. This study recommends that

spirituality and religion be incorporated into health promotion strategies to enhance education by engaging with and listening to service users, and thus gaining a deeper understanding (Rumun, 2014) of how the service user understands the impact of alcohol on their unborn babies and God's work of creation.

The perception of God in creation and predicting future outcomes of pregnancy is a primary influence of drinking during pregnancy. Rumun (2014) claimed that the perception of the role of God in illness and recovery is a primary influence on the behaviour of people regarding the health care system. Alcohol use among pregnant women in the village is a significant health problem and there is an urgent need for intervention to reduce the effects of alcohol on mothers and their unborn children. Some studies show that religious practices and spirituality are associated with a decreased risk of alcohol use during pregnancy (Nasim et al., 2011). Based on the findings of these researchers, incorporating religious and spiritual practice is important when designing risk prevention programmes for pregnant women to enable them to cope with pregnancy by avoiding alcohol.

5.6 Local policies and economy systems as factors influencing drinking during pregnancy

The production and sale of alcohol is an important aspect of the economy in many countries, and developing countries are no different. The theme that supported this finding was related to how alcohol was comparatively inexpensive and affordable, even for mothers who had no reliable cash income. The finding of this study highlighted how the availability of alcohol increased the likelihood that expecting mothers would drink during pregnancy. It was observed that, due to the nature of the local economy, much alcohol production and sale in the community takes place informally on a daily basis and at all hours, with nothing to regulate and tax consumers, which also enhances the likelihood of pregnant women drinking. Governments in many countries have developed guidelines to encourage people to reduce and help them to monitor their alcohol intake (Furtwängler & de Visser, 2013). Cultural and family factors play a role in alcohol consumption among pregnant women. Most participants expressed that they are exposed to alcohol in their daily environment and alcohol is always available and offered to them for free. It was observed that, despite the existence of mbege, other alcoholic beverages such as beer, wine, cider, and spirits are

fast increasing in demand within the village. Thus, although national policies regarding alcohol control are legislated, those policies are not adhered to in this village.

The lack of alcohol control policy implementation and little restriction on the production and sale of alcohol in the community have been shown to expand pregnant women's involvement in the informal manufacture and consumption of alcoholic beverages. Authorities need to know the burden that this lack of policy implementation causes, in terms of increased alcohol-related consequences, for pregnant women and their unborn babies. In addition to considering individuals' willingness or readiness to change, it is important to note that behaviour change messages can be presented with different emphases. Taking the economic reality and the cultural importance given to alcohol during all social engagements and traditional rituals (e.g., marriage ceremonies, funerals, and religious celebrations such as Christmas) into account, the potential value of introducing alcohol-related intervention measures during pregnancy is a primary health care concern. Interventions need to target the clinics, venues where alcohol is served, and communities. Advocacy is needed for public health service providers to implement local policies that can help reduce the burden that alcohol has on the community. The World Health Organization (WHO) sees a key role for community involvement in reducing harm at local level (WHO, 2014). Evidence suggests that local policies need to be implemented to reduce alcohol availability and access, and that this can reduce alcohol harm (Coomber et al., 2021) in rural Kilimanjaro.

5.7 Entrenched mindset and knowledge regarding drinking during pregnancy

In this study, all the women reported that they had never received information or advice from health professionals, and that the information received from other sources was confusing. Problems associated with the brain development of a foetus, such behavioural issues, and learning difficulties, were mentioned by some participants. It is important that women and their partners are aware of the initially invisible damages that can occur due to prenatal alcohol consumption (Crawford-Williams et al., 2015). It is therefore of utmost importance that pregnant women are fully aware of the effects of alcohol consumption throughout pregnancy (Crawford-Williams, 2015). Previous research has determined that health professionals often do not ask pregnant

women about their alcohol consumption as they believe that most women already know not to drink alcohol during pregnancy, or they believe that the information is not relevant for the individual women in their practice (Crawford-Williams et al., 2015). According to Corrales-Guitierrez et al. (2020), alcohol consumption prior to pregnancy predicts a high risk of alcohol consumption during pregnancy. This highlights the importance of providing education and promoting a healthy lifestyle among women of childbearing age, specifically those trying to conceive, by implementing community-level prevention strategies. It has been shown that adopting government policies in response to alcohol use during pregnancy has reduced its harmful effects (Drabble et al., 2014). Some pregnancy policy approaches rely on providing warnings to the public about the harm of alcohol use during pregnancy. Some examples of this include posting warning messages at venues where alcohol is sold and consumed, and by labelling the alcohol with a warning that alcohol is harmful to pregnant women and should not be consumed while pregnant. In this study, all the women claimed not to have received any advice or education from health care worker during their antenatal visits regarding alcohol use. It is advised that information and education be provided throughout the antenatal visits and that health services in rural Kilimanjaro enhance these women's level of knowledge and awareness of the risks of drinking alcohol during pregnancy. This finding is further reinforced by Corrales-Guitierrez et al., (2020) who suggested that health care professionals need to adequately inform pregnant women about the harmful effects of alcohol consumption during pregnancy.

5.8 Conclusion

This discussion concludes that alcohol use is common among pregnant women in rural Tanzania, and that it is associated with several factors influencing how personal and socio-historical contexts interact, which determine the type of choices women make and what occupations they engage in. Cultural beliefs and practices influence cultural norms such as the expression of kindness, which have significant effects on the wellbeing of individuals. Social interactions promote a sense of kindness and spiritual-religious beliefs and practices referred to as 'umoja'.

The lack of implementation of local policies and economic systems influences drinking alcohol during pregnancy. Deprived and conflicting knowledge regarding drinking during pregnancy influenced the women's occupational engagement surrounding drinking during pregnancy.

Alcohol use among pregnant women is a significant public health problem in rural Kilimanjaro. There is an urgent need for implementation of interventions to reduce dangerous alcohol use among young people, and such interventions should aim to address individual, social, cultural, economic, and political factors.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

This chapter discusses the various limitations that arose in this study and the recommendations for future research in a similar context. It concludes on the findings from the study and how these link to the intended purpose and OT practice.

6.2 Strengths and limitations of the study

6.2.1 Strengths of the study

- This study is of great contextual relevance in rural Kilimanjaro as alcohol use during pregnancy is documented to be a primary health care concern.
- The method of inquiry was well-suited to achieving the research purpose and aim. The number and diversity of participants ensured that the findings generated were credible and information rich.
- I continuously strove to ensure that rigorous methods were employed throughout the research process, which assisted in ensuring the veracity of the data. I also remained reflexive and focused on the key research question throughout the research process.

6.2.2 Limitations

Several limitations were experienced during the different phases of the study process, namely, entering the community, data collection, and data analysis. These were as follows:

- The raw data was collected in Kiswahili and translated into English during the transcription process. In some instances, it was difficult to translate some words into English because there were no English words or phrases to properly express the participants' experience. Even though the findings' themes were provided in both original language (Swahili) and directly translated quotes (English) to represent the original voices from the participants, the precise meaning of the research findings may get lost or changed because readers from

different backgrounds may have no clear information on the specific context of the findings.

- Due to my insider status in the community, some participants made assumptions that I already knew their answer to one of the questions, “Do you know if there are any advantages or disadvantages when using alcohol during pregnancy?”. I was aware that I had asked the participants to give detailed answers, and yet they answered with examples related to my own views, and kept their own opinions withheld, which might have affected their answers and hence the quality of the findings.
- Another limitation that occurred during the data collection process was the confusion regarding my role as both a researcher and a member of the community. Initially, not every participant made the distinction between these roles, despite my having re-clarified my role as a researcher, and they referred to me as a sister. This led to some participants talking off topic during the interview, speaking about issues and politics in the community that were unrelated to the questions being asked. In this case, the participants were asked to discuss the political issues with community leaders.

6.3 Recommendations

The following recommendations have been identified from the findings of this study.

6.3.1 For the Ministry of Health and public health care Tanzania

Alcohol use among pregnant women in this village is a significant health concern. There is an urgent need for interventions to be identified and implemented to reduce the effect of alcohol on mothers and their unborn babies. There is a clear need for delivering accurate and culturally relevant information about drinking during pregnancy. It is important that such public health campaigns not only target antenatal clinics but also reach the broader community, including families and social networks, where norms are established and enacted. In particular, settings where individuals purchase, produce, and consume alcohol are important targets so that women can make informed choices.

6.3.2 For further research

The lack of evidence as to whether mbege intake during pregnancy poses a risk to the foetus may be part of what is influencing the culture of drinking. Unfortunately, there is currently no scientific evidence indicating the impact that mbege has in terms of nutritional qualities, nor the effect of this alcohol on pregnant women and their unborn babies. There is a need for further research to be done to investigate the nutritional contents of mbege and to identify the impact of the alcohol on children to enhance the accuracy of FASD diagnoses.

As the researcher of this study, I suggest that a follow-up ethnographic study be undertaken to assist in understanding the ‘culture’ of drinking alcohol among pregnant women in rural Kilimanjaro.

6.3.3 For occupational therapy practice

There is a need for intervention to be derived from the Occupational based Community Development framework (ObCD framework by Galvaan & Peters, 2013). This framework is effective for interventions regarding women drinking alcohol during pregnancy as it allows for feedback from community members, developing their consciousness about the consequences of drinking alcohol during pregnancy. It allows for people to receive advice regarding the identification of risk situations and acts to promote this study’s aim of reducing alcohol consumption. The ObCD framework assists with formulating goals aimed at reducing alcohol consumption before conception by challenging and changing mindsets. It is important to examine what role the community can play in influencing the decision-making process regarding controlling alcohol availability (Reynolds et al., 2020), such as engaging the community in actions targeting alcohol use during pregnancy and reflecting commitments to promote their contribution to improving health among pregnant women and their unborn babies, as a way of working towards the sustainable development goals (World Health Organization, 2019). A lack of information regarding the extent of the effects of alcohol, as well as the underdiagnosis of alcohol-related conditions, makes it difficult for action to be taken. There is a need to facilitate referral to specialised programmes and screening to identify children who have been affected by alcohol use during pregnancy.

6.3.4 For policy makers and community leaders

This study advocates for public health stakeholders to implement local policies that can help reduce the burden alcohol has to the community. It is important to examine what role the community can play in influencing the decision-making process regarding controlling alcohol availability (Reynolds et al., 2020). Engaging the community in actions targeting alcohol use during pregnancy reflects their commitment to improving health (World Health Organization, 2017) among pregnant women and their unborn babies.

6.4 Conclusion to this study

This study utilised a qualitative descriptive design approach located within the social constructivist theoretical framework to explore factors contributing to drinking alcohol during pregnancy in rural Kilimanjaro. The purpose of this study was framed around previous international and Tanzanian literature, as well as OT literature regarding the factors that contribute to the drinking of alcohol among pregnant women. The aim was to inform the Tanzanian government, health systems, and TOTA so that they can take the necessary actions to engage in health promotion for women who drink alcohol during pregnancy. Three themes and seven categories emerged from the findings of this study, describing the contextual individual, social, political, economic, religious, and cultural factors that contribute to women drinking alcohol during pregnancy. This informed the discussion, which examined how personal and different environmental and contextual factors interact to determine the choices women make in drinking alcohol during pregnancy. This might influence the prevalence of FASD and FAS, and hence contribute to and perpetuate the cycle of poverty due to illness and diseases caused by alcohol harm. Furthermore, the discussion advocated for collective and collaborative actions that community leaders and members, health professionals, religious leaders, and policy makers can take to minimise the impact of FASD and improve the health of pregnant women and their unborn babies in communities where FASD is prevalent. Therefore, this study provided insight into the ways in which personal, historical, economic, religious, spiritual, and cultural beliefs and factors shape the drinking of alcohol during pregnancy.

The Alma Ata Declaration on Primary Health Care (United Nations, 2014) calls for preventative approaches which involve the integration and collaboration of all sectors of community development to eradicate issues promoting unhealthy conditions such as FASD. As stated in the literature review, no amount of alcohol consumption during pregnancy is safe, as it contributes to the high prevalence of FASD (Cloete, 2005). Therefore, this study has met its purpose by informing the Tanzanian Government through the Ministry of Health as well as occupational therapists so that they can take a preventative approach towards the high prevalence of FASD in rural Kilimanjaro.

6.5 Dissemination of study findings

The finding will be shared by the Ministry of Health in Tanzania, and through TOTA at meetings that have arranged to take place in March 2022. A copy of the findings in Swahili will be shared in Kilema hospital's newsletter and through leaflets targeting the maternity and paediatric clinic for women in the village. The findings will also be shared at the district journal club, and one copy of the research report will be kept in the OT school library in KCMCo for future staff and students' reference. One copy of the research will be abbreviated in layman's terms so that it is easily understood by community members and will be made available at the Marangu study hall in rural Kilimanjaro via the community leaders. This research will be written up for publication in the Occupational Therapy International journal.

CHAPTER 7: REFERENCES

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CHAPTER 8: APPENDICES

Appendix A: Ethical approval letter UCT

Appendix B: Ethical approval letter Tanzania



THE UNITED REPUBLIC OF TANZANIA



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NIMR/HQ/R.8a/Vol. IX/3709

01st July 2021

Bertha Mbuya
University of Cape Town
Cape Town, W Cape, 7925
C/o Dominick Mshanga
Kilimanjaro Christian Medical University College
P O Box 2240
Moshi

RE: ETHICAL CLEARANCE CERTIFICATE FOR CONDUCTING MEDICAL RESEARCH IN TANZANIA

This is to certify that the research entitled: **Factors contributing to the drinking of alcohol during pregnancy in rural Kilimanjaro Tanzania (Mbuya B. et al.)**, has been granted ethical clearance to be conducted in Tanzania.

The Principal Investigator of the study must ensure that the following conditions are fulfilled:

1. Progress report is submitted to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research, Regional and District Medical Officers after every six months.
2. Permission to publish the results is obtained from National Institute for Medical Research.
3. Copies of final publications are made available to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research.
4. Any researcher, who contravenes or fails to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III Section 10(2).
5. Sites: Kilimanjaro region.

Approval is valid for one year: 01st July 2021 to 30th June 2022.

Name: Prof. Yunus Daud Mgaya

Signature
CHAIR PERSON
MEDICAL RESEARCH
COORDINATING COMMITTEE

Name: Dr. Aifello Wedson Sicalwe

Signature
CHIEF MEDICAL OFFICER
MINISTRY OF HEALTH, COMMUNITY
DEVELOPMENT, GENDER, ELDERLY &
CHILDREN

CC: Director, Health Services-TAMISEMI, Dodoma.
RMO of Kilimanjaro region.
DMO/DED of Moshi district.

Appendix C: Participant Information Letter(English)



UNIVERSITY OF CAPE TOWN

Faculty of Health Sciences

Department of Health and Rehabilitation Sciences



Divisions of Communication Sciences and Disorders, Nursing and Midwifery, Occupational Therapy, Physiotherapy; and Disability Studies

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20th May 2021

Dear Sir/ Madam

My name is Bertha Kanuth Mbuya. I am a Tanzania citizen born in Kilema Kilimanjaro, I am doing my studies at the University of Capetown in South Africa. This letter is to inform you about my study and to ask for your participation in my research study. I am conducting a research study and I am looking for women who are currently drinking alcohol or drank alcohol while pregnant. Must be between the age of 18 and above who are able to discuss about drinking alcohol during pregnancy. Please read the content of this letter carefully it important that you have a good understanding of what the study is about and how it will be done before deciding to participate in this study or not. Your participation in this research study is voluntary and you can withdrawal from the study at any point when you wish to do so. If you need help with reading this letter then please ask someone of your choice to help you or alternatively, I can provide you with someone to help if you opt so.

Description of research

The purpose of this research study is to explore the factors that facilitate drinking of alcohol during pregnancy in Kilema Kilimanjaro rural. This will help the researcher to understand what causes and support women to drink during pregnancy. For the purpose of this research, a qualitative research design will be used in this study. You will be interviewed and observed by the researcher while you engage in drinking of alcohol.

Selection of participants The researcher would like to get information from women aged between 18 years and above who are currently engaging or have engaged in drinking of alcohol during

pregnancy. Who can read and write in Kiswahili. The researcher would like to ask you to participate in the study.

Reason for the study

This study forms part of my Master's study at the University of Cape Town, under the guidance of my supervisor Dr. Amshuda Sunday. With this study, I aim to find out the reason why women drinking alcohol during pregnancy.

Where will the study take place?

The study will be conducted at Kilema village in Moshi rural Kilimanjaro.

For how long will I be in the study?

You will be in the study for four weeks two days per week and will take about one hour in a day.

What will be required for you to participate?

If you are female and have been drinking alcohol while pregnant, or you drink alcohol at least every day, you live in Marangu Kilema rural, you are above 18 years old may be pregnant or not, able to write and communicate in basic Swahili

What will you be required to do?

You will be asked to participate in two interviews (face- to- face discussion between you and the researcher), which will be no longer than one hour each. During these interviews, you and the researcher will be talking about your engagement in drinking of alcohol during pregnancy. The discussion will only be between you and the research. The discussion will take place in a quiet and private place where the conversation will not be heard by other people. The interviews will be audio-taped and thereafter transcribed. The data will also be analysed in an attempt to summarize the main points. The data/discussion you shared will be kept in a private place locked in a computer with only access to the researcher and will be destroyed soon after the completion of this research study.

The second interview/discussion will be the follow-up interview will which will be no longer than one hour. You will be presented with the main findings from the interview and will be allowed to comment on what you have said and discuss the researchers' interpretation. This interview aims to clarify that we have interpreted your words correctly. All the conversation will be in Kiswahili. All the interviews will be conducted at a time and place that is most convenient for you. These interviews will take place between April and May 2021 (date and time to be confirmed after ethical clearance from Tanzania)

You will participate in two observations where you will be observed while engaging in drinking of alcohol in your normal engagements. The researcher may participate with you in drinking of alcohol in your normal routine and in a normal place where the drinking usually happens. The researcher might engage in your normal conversation and discussion while engaging in alcohol drinking. The researcher may be writing down what is happening during this period and this will be only read by the researcher.

You will also be required to write and keep a journal /diary for about two weeks in every day. (To get lived experience and to share what you want where and when). The researcher will give you a little diary or exercise book and a pen to write in and record on regular basis any aspect of your

day that is relevant to the engagement of drinking alcohol during pregnancy. You will record at the end of each day how you engage and what motivated you to engage in drinking of alcohol and what was your experience. The research will collect your exercise/diary and return them to you if you wish so. The researcher will use the information from your exercise/diaries for the research purpose only. Only the researcher will have access to your diaries/exercise book and it will be destroyed soon after the researcher is being done. You will also be asked to create anonymized entries, with pseudo-names and places as you write. The researcher will be getting in touch with you every week to make a follow up of the writing process. You can write as much as you can.

Are there any risks involved to participating in the study?

There will be questions and discussions involved thus great care will be taken to ensure that no harm will be done during this process. This study contained minimal risk. The risk for the participants can be the possibility of discussing sensitive issues of drinking alcohol during pregnancy. All the research activities (discussion, observation, and diary/journal writing) will be confidential and will take place in your preferable normal living place and time.

Are there any benefits?

Should you participate in this study there will be no personal benefit to you directly. No payment will be given. However, this study will help to enhance an understanding of what contributes to women continuing to drink alcohol during pregnancy. The study may provide valuable information for the communities in rural Kilimanjaro which in the long term could contribute to improving the health of pregnant women and babies in rural Kilimanjaro.

Confidentiality

All information gathered from you will be kept confidential. Your name and personal details will not be revealed in the study and any articles that might be published in the future. You will be required NOT TO write your real names in all of the written materials.

Approvals for this study has been obtained from the Human Research Ethics Committee (HREC) of the Faculty of Health Sciences at the University of Cape Town. The HREC number is 358/208 and from the National institute for medical research.

Please do not hesitate to contact me or any of the bellow contacts if you have any questions or need further clarifications with regards to this study. This study is supervised by Dr. Amshuda Sunday from the University of Cape town together with Mr. Dominick Mshanga from Tomain University in Tanzania.

I would be very grateful if you would support this study. If you are prepared to participate in the study, please sign the attached consent form.

Thank you for your time and consideration.

Who do I contact if I have any questions?

We hope that this is clear, but if there are any further questions or problems that should come up, please feel free to get in touch with the following individuals:

1. Mr. Dominick Mshanga (Tanzanian Researcher co-supervisor)

Cell: +255754671846

Email: dominiquetz@yahoo.com

Or

Professor Yunus Daud Mgya

The Director General National Institute for Medical Research (NIMR) 2448, Ocean Road,
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2121400 Fax: +255-22-2121360 Email address : ethics@nimr.or.tz

Yours sincerely,

Bertha Mbuya

Appendix D: Participant Information Letter (Kiswaili)

KIAMBATISHO D: BARUA YA MAELEZO KUHUSIANA NA USHIRIKI



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20TH May 2021

Mpendwa mshiriki mtarajiwa,

Kwa majina naitwa Bertha Kanuth Mbuya, ni mzaliwa wa Tanzania katika kijiji cha Kilema kilimanjaro. Nafanya mafunzo ya juu katika chuo kikuu cha Capetown kilichopo nchini Afrika kusini. Barua hii ina dhumuni la kutaka kukujulisha kuhusu utafiti na kukuomba kushiriki kwa hiari. Katika masomo yangu ninafanya utafiti kuhusiana na unywaji wa pombe wakati wa ujauzito. Hivyo nina tafuta wanawake ambao wana kunywa pombe wakiwa wajawazito au walikunywa kipindi cha ujauzito huko nyuma. Wenye umri kuanzia miaka kumi na nane (18) na kuendelea wenye uwezo wa kufanya majadiliano kuhusiana na suala la unywaji wa pombe kipindi cha ujauzito, wenye kujua kuandika na kusoma kwa kiswahili. Tafadhali soma barua na maelezo katika barua hii kwa umakini ni muhimu saana kuelewa kuhusiana na utafiti huu jinsi utakavyo fanyika kabla ya kufikia muafaka wa kushiriki. Ushiriki wako katika utafiti huu ni wa kujitolea na unao uwezo wa kujiondoa wakati wowote ule unotaka bila kua na makwazo au vitisho vya aina yeyote. Kama utahitaji msaada wa kusomewa barua hii tafadhali omba msaada kutoka kwa mtu unaye mwamini kukusaidia au pia mtafiti anaweza kukusaidia kama utapendelea hivyo.

Maelezo kuhusiana na utafiti.

Dhumuni la utafiti huu ni kutaka kufanya utafiti kuhusiana na sababu ambazo zinapelekea/sababisha unywaji wa pombe kipindi cha ujauzito hapa kijijini Kilema. Hii itasaidia mtafiti kugundua na kuelewa sababu zinazo chochea wanawake wajawazito kunywa pombe. Katika utafiti huu, ukishiriki utaombwa kushiriki katika majadiliano na mtafiti, kushiriki

kwa vitendo pamoja na mtafiti katika shuguli za kila siku za unywaji wa pombe kama kawaida yako, pia kuandika uzoefu wa unywaji pombe.

Uchaguzi wa washiriki

Mtafiti atapenda kupata maelezo kutoka kwa wanawake wenye umri kuanzia miaka kumi na nane (18) na kuendelea ambao kwa sasa au kipindi cha nyuma wali/wana kunywa pombe wakati wa ujauzito. Mtafiti anakuomba kushiriki kwa hiyari yako kama umekithi vigezo vya ushiriki.

Sababu za utafiti

Huu utafiti ni moja ya masomo ya mtafiti katika elimu ya juu katika chuo kikuu cha Capetown chini ya uangalizi wa Dkt. Amshuda Sunday wa chuo kikuu cha Cape Town pamoja na ndugu Dominick Mshanga kutoka chuo kikuu cha Tumain Tanzania.

Utafiti utafanyika wapi?

Utafiti utafanyika katika kijiji cha Kilema vijijini Moshi Kilimanjaro.

Je ushiriki wako utachukua muda gani?

Utaombwa kushiriki kwa wiki nne (4) katika utafiti huu ambapo uta shiriki mara mbili (2) kwa kila wiki kwa muda wa lisaa limoja na kwa makubaliano yatakayo kufaa wewe zaidi.

Je ni vigezo gani vinahitajika ili kuweza kushiriki katika utafiti huu?

Ili kuweza kushiriki ni lazima kua mwanamke mwenye umri kuanzia miaka kumi na nane (18) na kuendelea ambae anakunywa pombe na alikunywa kipindi cha ujauzito au ni mjamzito na anakunywa pombe. Ni muhimu kujua kuandika na kusoma Kiswahili.

Je utahitajika kufanya nini kipindi cha utafiti?

Utaombwa kushiriki mara mbili katika majadiliano ya uso kwa uso baina yako na mtafiti ambapo kila mjadala utachukua sio zaidi ya lisaa limoja. Majadiliano yatahusu ushiriki wako katika unywaji wa pombe kipindi cha ujauzito. Majadiliano yatakua ni baina yako wewe na mtafiti pekee na yatafanyika kwa siri mahali tulivu ambapo hakuna mtu yeyote atakaye weza kusikia mazungumzo yatakayo fanyika. Majadiliano yatarekodiwa kama utakubaliana iwe hivyo na baadae kuchapishwa. Majadiliano yatakayo rekodiwa yatahifadhiwa kwa utaalumu wa kutumia kompyuta ambapo hakuna mtu yeyote zaidi ya mtafiti atakaye weza kusoma au kusikiliza majadiliano yaliyofanyika baina yako na mtafiti. Baada ya utafiti kukamilika na ripoti kutolewa nakala zote zilizo hifadhiwa kutelekezwa bila uvujaji.

Majadiliano ya pili yatakua ni ya kuhakiki mazungumzo yote yaliyo fanyika baina yako na mtafiti ambayo yatachukua muda sio zaidi ya lisaa limoja. Majadiliano yatahusisha wewe kusoma mjadala wa nyuma na kuhakiki kama yaliyo andikwa ni sahihi kutokana na maelezo uliyotoa. Nia kuu ni kusaidia kuhakiki maelezo yote uliyotoa awali kama yameandikwa sawia. Majadiliano yote yatafanyika kwa Kiswahili, na katika muda na mahali ambapo utapendekeza wewe kutokana na nafasi uliyonayo na uchaguzi wako. Utafiti utafanyika kati ya wezi wa sita 2021(Tarehe kamili kuwekwa baada ya kupata kibali kutoka NIMR)

Utashiriki katika utafiti wa kuangaliwa jinsi unavyoshiriki kwenye unywaji wa pombe ndani ya ratiba yako ya kila siku. Mtafiti ataweza pia kujumuika pamoja nawe wakati wa unywaji pombe katika mazingira yako ya kawaida ya kila siku unywaji pombe unapofanyikia. Mtafiti ataweza kua anakuuliza maswali au kuwa na majadiliano wakati wa ushiriki huo. Pia atakua anaandika atakacho kua anaona na kusikia ili kumsaidia kutunza kumbukumbu ambazo zitakua ni siri ya mtafiti pekee. Hakuna jina lolote la ukweli litakalotumika ili kufanya hii kua ni siri kati wewe na mtafiti.

Utaombwa kuandika na kutunza kumbukumbu ya matukio, kuhusu ujuzi nini unapendelea na wapi unapendelea kuhusiana na unywaji wa pombe wa kila siku. Mtafiti atakupa, daftari dogo

pamoja na kalamu kuandika kila wakati kuhusiana na shughuli zako za kila siku za unywaji wa pombe. Utaweza kuandika matukio ya uzoefu na jinsi unavyo jisikia kutokana na unywaji pombe. Inapendekezwa kunukuu na kuandika yaliyojiri kuhusiana na unywaji pombe kila siku jioni kwa muda wa wiki mbili. Mtafiti ata kusanya daftari lenye nukuu na kisha kutumia nukuu hizo katika taarifa yake ya utafiti, nukuu zitakazo tolewa zitakua ni za siri kubwa na zitatumika kwenye shughuli hii ya utafiti tuu, hakuna mtu yeyote atakayeweza kuzifikia zaidi ya mtafiti pekee. Wewe pia utaombwa kutokuandika jina la mtu au mahali badala yake utatumia majina ya bandia ili kufanya taarifa kua za siri. Utaweza kurudishiwa daftari baada ya ripoti kukamilika kama utapenda iwe hivyo au kutelekezwa mara ripoti itakapo kamilika. Mtafiti atakua ana fuatilia kila wiki ili kujua maendeleo ya uandikaji na utunzaji kumbukumbu ya daftari. Unaruhusiwa kuandika utakavyo bila kushurutishwa na mtu yeyote.

Je kuna adhari zozote unapojiunga kushiriki katika utafiti huu?

Kutakua na maswali na majadiliano, mtafiti atachukua tahadhari ya hali ya juu ku hakikisha maswali hayata kua na madhara. Utafiti huu una madhara madogo ambapo tutazungumzia maswala ya kiuchochezi kisaikolojia kuhusianan na unywaji wa pombe kipindi cha ujauzito. Pia utaruhusiwa kutokujibu swali lolote kama litakua na kikwazo kwako, hautashurutishwa kujibu swali kama utapendelea hivyo. Shughuli zote zitakazo fanyika za utafiti zitakua ni kwa siri kubwa baina ya mtafiti na wewe tuu. Jina lako halitatumika mahali popote pale, badala yake mtafiti atatumia jina bandia.

Je kuna faida yeyote kushiriki katika utafiti huu?

Ukiamua kushiriki katika utafiti huu hakuta kua na faida binafsi yeyote, hakuta kua na malipo ya aina yeyote yale. Ingawa utafiti huu utasaidia uelewa wa vitu vinavyo chochea au kusababisha unywaji wa pombe kwa wanawake wakati wa ujauzito hivyo kutoa maelezo kwa jamii ya Moshi vijijini ambapo kwa baadae inaweza kusaidia kuboresha afya ya mama mjanzito na mtoto.

Usiri mkuu

Maelezo yote yatakayo tolewa kwako yatahifadhiwa kwa siri. Jina lako na taarifa zako binafsi hazitaonyeshwa kwenye utafiti huu na makala yeyote itakayochapishwa baadae. Utatakiwa USI andike jina lako halisi kwenye nakala zote andishi. Badala yake utatakiwa utumie majina bandia.

Vibali vya utafiti huu vimetolewa na kudhibitishwa na chuo kikuu cha utafiti wa binaamu cha Capetown chenye kumbukumbu namba HREC **358/208** pia kutoka kwa Taasisi ya Taifa ya Utafiti wa Magonjwa ya Binadamu (namba au barua kuwekwa hapa baada ya upatikanaji) Nitashukuru saana kama uta shiriki katika utafiti huu. Kama utakubali ushiriki wako kwa hiyari tafadhali weka saini kwenye **fomu ya idhini** iliyo ambatana na barua hii.

Asante kwa muda wako na majitoleo

MUHIMU

Ikiwa una maswali au malalamiko yoyote kuhusiana na utafiti huu, unaweza kuwasiliana na wafuatao:

Bwana Dominick Mshanga (msimamizi wa utafiti)

Simu: +255754671846

Barua pepe: dominiquetz@yahoo.com

Au

Profesa Yunus Daud Mgaya

Mkurugenzi mkuu, Taasisi ya Taifa ya Utafiti wa Magonjwa ya Binadamu 3 Barabara ya Baraka Obama/
barabara ya Sokoine S.L.P. 9653 Dar es salaam, Tanzania Simu: +255-22-2121400 Fax: +255-
22-2121360 barua pepe : ethics@nimr.or.tz

Wako mtiifu

Bertha Mbuya

Appendix E: Consent Form (English)

	<p style="text-align: center;">UNIVERSITY OF CAPE TOWN</p> <p style="text-align: center;">Faculty of Health Sciences</p> <p style="text-align: center;">Department of Health and Rehabilitation Sciences</p> <p style="text-align: center;"><small>Divisions of Communication Sciences and Disorders, Nursing and Midwifery, Occupational Therapy, Physiotherapy; and Disability Studies</small></p> <p style="text-align: right;"><small>F45 Old Main Building, Groote Schuur Hospital Observatory, Cape Town, W Cape, 7925 Tel.: +27 (0) 21 406 6628/ 6428/ 6534 Fax: +27 (0) 21 406 6323 www.dhrs.uct.ac.za</small></p>
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Dear participant,

Thank you for expressing interest in participating in this study. Please read and sign this form before progressing to the research study.

I understand that, by signing this form/letter I am agree to volunteer in taking part in this study.

I have read or was read to me /hear from the researcher in personal the information provided in the letter about the research study aiming at exploring the factors that contribute to drinking of alcohol during pregnancy in Kilema rural Kilimanjaro Tanzania. I have had an opportunity to ask questions and my questions have been answered satisfactorily.

I understand that all information will be treated confidentially and if reference is made to my name or something that is said in the interview, my real name will not be used. I understand that a final research report will be available for me to access in Kilema Village and at Kilema hospital in the maternity and children's clinic.

I understand that I have chosen to participate in this study voluntarily with no personal benefit and that I can at any time withdraw from the study should I wish to, without negative consequences to myself.

I agree / disagree for my interviews to be recorded (Please tick ONE of the boxes)

Name:.....

Signature:.....

Date:.....

Contact number:.....

Witness:.....

NB: Please do not hesitate to contact the following people if you have any questions or need further clarification.

- Mr. Dominick Mshanga (Tanzanian Researcher co-supervisor)

Cell: +255754671846

Email: dominiquetz@yahoo.com

Or

Professor Yunus Daud Mgaya

The Director General National Institute for Medical Research 2448, Ocean Road, Junction of Luthuli / Sokoine Drive P.O.BOX 9653 Dar es salaam, Tanzania Tel: +255-22-2121400 Fax: +255-22-2121360 Email address : ethics@nimr.or.tz

Appendix F: Consent Form (Kiswahili)

KIAMBATISHO E : FOMU YA IDHINI



UNIVERSITY OF CAPE TOWN

Faculty of Health Sciences

Department of Health and Rehabilitation Sciences



Divisions of Communication Sciences and Disorders, Nursing and Midwifery, Occupational Therapy, Physiotherapy; and Disability Studies

F45 Old Main Building, Groote Schuur Hospital
Observatory, Cape Town, W Cape, 7925
Tel.: +27 (0) 21 406 6628/ 6428/ 6534
Fax: +27 (0) 21 406 6323
www.dhrs.uct.ac.za

Mpendwa mshiriki mtarajiwa,

Asante kwa kuonyesha nia ya kujitolea kushiriki katika utafiti huu. Tafadhali soma na uweke saine kwenye fomu hii kabwa ya kuanza kushiriki katika utafiti huu.

Kwa kuwaka saine kwenye fomu/barua hii inamaanisha kua nimekubali kwa hiyari yangu kushiriki katika utafiti huu.

Nimesoma au kusomewa kutoka kwa mtafiti wa utafiti barua /fomu kuhusiana na maelezo ya utafiti utakaofanyika kuhusu vichochzi vinavyo sababisha wanawake wajawazito kunywa pombe wakati wa ujauzito.

Na hakikisha kua nimepewa nafasi ya kutosha kuuliza maswali na nimejibiwa maswali yote kwa kuridhika.

Naelewa kwamba taarifa zote zitakazo tokana na utafiti huu zitakua ni za siri, jina langu halisi halitatumika mahali popote kwenye huu utafiti. Pia baada ya utafiti kukamilika nakala ya ripoti ya mwisho nitaweza kuipata na itatolewa na kuachwa kwenye kijiji serikali ya mtaa na katika hospital ya Kilema kitengo cha kliniki ya uzazi na watoto.

Naelewa na kuhakiki kwamba kwa akili zangu timamu nimechagua kushiriki katika utafiti huu bila kushurutishwa na mtu yeyote na nitaweza kujiondoa muda wowote nitakapo jisikia kujiondoa katika utafiti huu bila vipingamizi au adhabu yeyote kutolewa kwangu.

Ndio / hapana Kurekodiwa kwa majadiliano baina yangu na mtafiti. (Tafadhali tia tiki mojawapo katika kisanduku)

Jina:.....

Saini:.....

Tarehe:.....

Namba ya simu/kwa mawasiliano:.....

Shahidi:.....

MUHIMU

Ikiwa una maswali au malalamiko yoyote kuhusiana na utafiti huu, unaweza kuwasiliana na wafuatao:

Bwana Dominick Mshanga (msimamizi wa utafiti Tanzania)

Simu: +255754671846

Barua pepe: dominiquetz@yahoo.com

Au

Profesa Yunus Daud Mgya

Mkurugenzi mkuu, Taasisi ya Taifa ya Utafiti wa Magonjwa ya Binadamu^[SEP]3 Barabara ya Baraka Obama/
barabara ya Sokoine S.L.P. 9653 Dar es salaam, Tanzania^[SEP]Simu: +255-22-2121400^[SEP]Fax:
+255-22-2121360^[SEP]barua pepe : ethics@nimr.or.tz

Appendix G: Pilot Study Information Letter

UNIVERSITY OF CAPE TOWN



Faculty of Health Sciences



Department of Health and Rehabilitation Sciences

Divisions of Communication Sciences and Disorders, Nursing and Midwifery,
Occupational Therapy, Physiotherapy; and Disability Studies

F45 Old Main Building, Groote Schuur Hospital
Observatory, Cape Town, W Cape, 7925
Tel.: +27 (0) 21 406 6628/ 6428/ 6534
Fax: +27 (0) 21 406 6323
www.dhrs.uct.ac.za

20th May 2021

Dear Sir/Madam

Participation in a pilot research project about the factors that contribute to drinking of alcohol during pregnancy.

My name is Bertha Mbuya a Tanzanian female from Marangu rural, I am conducting a study as part of my Master degree in Occupational therapy to investigate the factors that contribute to women from rural kilimanjaro drinking alcohol during pregnancy. You will be required to participate in one interview which will serve the purpose of testing the proposed interview questions in order to make changes accordingly. This will enable the researchers to evaluate whether the questions posed elicited the data required to answer the research question effectively. The researchers, thereafter, will restructure the initial interview question(s) if necessary. Approval for the study has been obtained from the Human Research Ethics Committee (HREC) of the Faculty of Health Sciences at the University of Cape Town, HREC number(HREC 358/2018). And from National Institute for Medical Research (NIMR) (number will be included here)

Participation in the interview will entail the following:

Participation in this pilot interview is voluntary. You have the right not to participate.

Should you participate in this pilot interview there will be no personal benefit to you no any payment. You will be asked to participate in one pilot interview which will be no longer than one hour. During this interview, we will be talking about the factors that contribute to drinking alcohol

during pregnancy. The interviews will not be used as data generation audio-taped and will not be recorded, transcribed neither analysed therefore will not be included in the research study.

The interviews will be conducted at a time and place that is most convenient for you. These interviews will take place between June 2021 (to be confirmed after ethical approval).

You will be asked for feedback to identify ambiguities and difficult questions

If you are willing to participate please contact me via my cell phone number + 255743024228 or Email berthambuya@hotmail.com

For any other inquiries please do not hesitate to contact the following people:

1. Mr. Dominick Mshanga (Tanzanian Researcher co-supervisor)

Cell: +255754671846

Email: dominiquetz@yahoo.com

Or

Professor Yunus Daud Mgaya

The Director General National Institute for Medical Research 2448, Ocean Road, Junction of Luthuli / Sokoine Drive P.O.BOX 9653 Dar es salaam, Tanzania Tel: +255-22-2121400 Fax: +255-22-2121360 Email address : ethics@nimr.or.tz

I would be very grateful if you would support this research study by participating in the pilot interview.

Thank you for your time and consideration.

Sincerely,

Bertha Mbuya

Appendix H: Semi-Structured Interview Guide (English)

Please tell me about your family, how many children do you have and did you drink during all your pregnancy? How long have you been drinking alcohol and how often?

Prompting Questions:

When did you start drinking alcohol/How long have you been using alcohol, how many times in a day and in what quantity?

What make it easy or difficult to access alcohol and what is the recommendation of drinking while pregnancy?

Do you know if there is any advantages or disadvantages of using alcohol during pregnancy?

Prompting Questions:

Is there any benefits or effects to you and your baby while drinking during pregnancy? Please elaborate the benefits and effects for drinking alcohol during pregnancy.

Where and how did you obtain/reach the information regarding benefits and effects of alcohol use during pregnancy?

When did you obtain the information regarding benefits and effects of alcohol use during pregnancy? How did you obtain the information and what was the content?

How did information/other believes/attitudes influence you to drink during pregnancy? (What makes you drink alcohol during pregnancy?)

Prompting Questions:

Please elaborate more, on What influence your drinking habits

Are there any influences from your family, husband, friends and environmental factors, customs and traditions or economic etc. influences you to drink? please elaborate how?

What type of alcohol is better or dangerous during pregnancy and what quantity is advise to consume?

When do you think it is the good time or dangerous to drink alcohol during pregnancy? Example during first trimester, close to the due date or anytime and why? certain circumstances please explain? Are there any traditions how, where, and how for drinking alcohol during pregnancy?).

Prompting Questions:

Is there any traditions and customs that directs on how to use alcohol? Example it is important to drink while in certain place to drink while pregnancy.

NB: Together with these guiding questions, there will be a following probing question such as explain more, what do you mean by that. Youth will be given more time to explain without interruption.

Appendix I: Semi-Structured Interview Guide (Kiswahili)

Tafadhali nieleze kuhusu familia yako Je una watoto wangapi? Ulikunywa pombe kipindi cha ujauzito wa watoto wote na ulikuywa au unakuywa kiasi gani?

Maswali vichochezi

Je ulianza kutumia pombe tangu lini/ ni muda gani umekua ukitumia pombe, mara ngapi kwa siku na kiasi gani?

Je kitu gani kinakwamisha au kurahisisha upatikanaji wa bombe na ni Kiasi gani, nikiwango sawa cha unywaji kipindi cha ujauzito?

Je unafahamu kama kuna faida au madhara ya kunywa pombe kipindi cha ujauzito?

Maswali chochezi

Je kuna faida au hasara yeyete ya unywaji pombe kwako na kwa mtoto ambaye hajazaliwa kipindi cha ujauzito? Tafadhali eleza kwa kina ni faida gani au madhara gani yanatokana na unywaji pombe kipindi cha ujauzito.

Je umefahamu na umepata wapi maelezo/ taarifa kuhusiana na faida au madhara ya unywaji wa pombe wakati wa ujauzito?

Ni lini ulipata hizo taarifa kuhusiana na faida ,madhara ya unywaji pombe kipindi cha ujauzito? Maelezo au taarifa zilikufikiaje na maelezo yake yalisemaje?

Je ni jinsi gani maelezo au imani au matendo ya wengine yanakusababishia kukuchochea wewe kunywa pombe kipindi cha ujauzito(nini kinakusababishia kunywa pombe kipindi cha ujauzito?)

Maswali chochezi:

Tafadhali eleza kwa kina, Je ni kitu au vitu gani vinaku chochea kunywa pombe wakati wa ujauzito

Je kuna vichochezi vyovyote kama vile kwenye familia, mme, marafiki, mazingira unayo ishi, mila, desturi au uchumi n.k vinasababisha unywaji pombe kipindi cha ujauzito? tafadhali eleza kwa kina vichochezi hivyo na vinakuchocheaje?

Ni aina gani ya pombe ni nzuri au hatari kipindi cha ujauzito na inashauriwa au kupendelea kunywa kiasi gani kwa siku?

Unafikiri ni wakati gani ni mzuri au hatarishi kunywa pombe wakati wa ujauzito? Mfano wakati wa mimba changa, karibia na kujifungua, wakati fulani wa mila au matukio fulani au ni wakati wowote na ni kwa nin? Tafadhali elezea kwa kina.

Maswali chochezi

Je kuna mila na desturi yeyote inaelekeza jinsi ya kunywa pombe? Mfano ni lazima uwe mahali fulani ili kunywa pombe kipindi cha ujauzito ?

Muhimu: Maswali haya kwa pamoja yataambatana na maswali vichocheo kama vile tafadhali fafania zaidi, unamaanisha nini kuhusu jambo hilo, mshiriki atapewa muda wa kutosha kutoa maelezo yake bila kukatishwa au kushurutishwa. Pia baadhi ya maswali yata boreshwa zaidi baada ya majadiliano wa (majaribio pilot interview).

Appendix J: Observation Protocol/Guide

	<p>UNIVERSITY OF CAPE TOWN</p> <p>School of Health and Rehabilitation Sciences Division of Occupational Therapy</p>
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Initials (pseudal): _____

Date: _____

Time: _____

Place: _____

Observation examples	Description & Reflection
Surroundings, the community archives such posters, alcohol fields, alcohol club and structures, policy documents.	
Physical environment: tools and materials to facilitate easy access for alcohol	
<p>Personal factors:</p> <p>The person, age, gender, number of children, drinking habits, duration of drinking, frequency, amount of alcohol, cost of alcohol, accessibility of alcohol, interactions/communications (non verbal and verbal, physical clues). How women and pregnant women are engaging in the drinking of alcohol during pregnancy.</p>	
Cultural factors: Context of the society that play a role in the alcohol, the cultural norms and values that community members engage in different activities such as making alcohol.	
Temporal aspects : the time drinking starts, the duration of each drinking per participants, amount of alcohol taken, other	

<p>activities that take place during drinking alcohol as well as the values attributed to them.</p>	
<p>How the participants relates to the cultural universality of their drinking to the outside world.</p>	
<p>Name of Activity:</p> <p>Participants:</p> <p>Resources utilised:</p>	

Occupational Analysis (Nelson, 1988)