AFRICA UNIVERSITY
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DETERMINANTS OF PERINATAL MORTALIITY AT LUISA GUIDOTTI HOSPITAL, MUTOKO DISTRICT, MASHONALAND EAST PROVINCE 2021

BY

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Abstract

Luisa Guidotti Hospital experienced a perinatal ratio of 22/1000 live births and 41/1000 live births in 2019 and 2020 respectively. These ratios were higher than that of the national average which was 29/1000 live births in 2020. This research determines the factors contributing to perinatal mortality at Luisa Guidotti Hospital in Mutoko District in 2021. A sequential mixed method was used comprising a descriptive qualitative design and a quantitative survey. For the qualitative phase, 10 women who had lost their babies and six Midwives were purposively selected. Quantitative complete sampling was done on all women who attended ANC at Luisa from18 October to 30 November 2021. Data was presented in tables, graphs and pie charts for Quantitative and as was also analysed by thematic approach for qualitative. The researcher scheduled 10 interviews with mothers who had lost their babies and all of them were successful to achieve a 100% response rate. 46 questionnaires were distributed to all women who attended ANC from 18 October to 30 November 2021. Only 40 were returned to achieve an 87% response rate. Major findings proved that there was a significant association between the knowledge of women of child bearing age and perinatal mortality (p=0.001). The study concludes that the determinants of perinatal mortality at Luisa Guidotti included, cultural issues, knowledge deficit regarding pregnancy processes, attitudes of health care workers and shortage of resources. From the study it is recommended that nurses at LGH should intensify health education to all communities on the importance of early booking and hospital delivery. The DMO of Mutoko District should liase with the PMD, reproductive department to source food for pregnant mothers staying in the waiting mother's homes.

Keywords: Perinatal mortality. Determinants, women of child bearing age, contributing factors, health care worker.

Declaration page

I declare that this research study is my original work except where sources have been cited and acknowledged. The work has never been submitted nor will it ever be submitted to another university for the award of a degree.

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Copyright page

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Dedication

I dedicate this dissertation to my late sister Mrs. Eleonora Muchabaiwa. Thank you for your love, support and encouragement. You could not wait to see me graduate. Love you, my sister.

Abbreviations and acronyms

AUREC	Africa University Research, Ethics Committee
ANC	Antenatal care
BEmONC	Basic Emergency Obstetric and Newborn Care
CTG	Cardiotocography
DMO	District Medical Officer
LGH	Luisa Guidotti Hospital
HCW	Health Care Worker
MD	Maternal Death
MDGS	Millennium developmental goals
MRCZ	Medical Research Council of Zimbabwe
USS	Ultra Sound Scan
USDG	Universal Sustainable Development Goal
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Key definition of terms

Perinatal mortality:	Is the number of fetal deaths past 22 (or28) completed weeks of pregnancy plus the number of deaths among live born children up to 7 completed days of life, per 1000 total births (live births and still births)
Perinatal period:	This starts from 22 completed weeks (154 days) of gestation and ends at seven days after birth
Maternal mortality:	Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Perinatal mortality is a major public health problem, particularly in developing countries, and has a huge economic, social, and health implications for families and nations (Debelew, 2020). This is because more than 95% of perinatal deaths occur in developing countries with the largest numbers being in rural areas (Tachiwenyika, et al., 2011).

Worldwide more than 5 million perinatal deaths are recorded hence ending preventable perinatal deaths continues to be a significant part of global public health agenda beyond 2021 (Debelew, 2020). As a result, reducing stillbirths and early neonatal deaths continued to be an essential part of the third Sustainable Development Goal (SDG-3), to end preventable child deaths by 2030 (Ghimire, et al., 2019). In Zimbabwe, a study is conducted to determine the factors associated with perinatal mortality at Luisa Guidotti Hospital which has been recording significantly high perinatal deaths from 2018 to 2020.

1.2 Background of the study

Perinatal mortality remains globally unacceptably high up to 3 million stillbirths and 3 million neonatal deaths every year, half of which occur during labour and birth. (Roro, Sisay, & Sibley, 2018). Most of the perinatal deaths results from preventable conditions, such as maternal conditions and non-communicable diseases (WHO, UNICEF 2018).

Ending preventable perinatal deaths is of high priority on the international public health, even though there is slow progress in preventing perinatal deaths (Allanson, Muller, & Pattinson, 2015). However, improving people's health and equity of fair resources and addressing disparities of health inequities between regions especially in rural and urban areas is the key concern to end perinatal mortality (World Bank/UNICEF/WHO, 2018).

Perinatal mortality was defined as stillbirth or death of infant within its first week of life per 1000 live births. The perinatal period starts from 22 completed weeks (154 days) of gestation and ends at seven days after birth (Burns & Groove, 2020). According to WHO (2018), every year 6.3 million perinatal deaths occur globally. Developing countries contribute to 74% of these perinatal deaths. Fifty percent of these deaths occur during labour and about 75% can be preventable if the determinants are identified.

A child's greatest risk of dying is during the first 28 days of life, accounting for 40% of deaths among children under the age of five years. Half of newborn deaths occur during the first 24 hours of life and 75% during the first week of life, with asphyxia, preterm and infections being the main cause. In Sub Saharan Africa, neonatal mortality is among the highest in the world, standing at 28: 1000 live births. This is in comparison with European countries where there perinatal mortality stands at 2:1000 live births (World Bank/UNICEF/WHO, 2018).

1.3 Problem statement

The reduction of perinatal mortality continues to be a major challenge in Zimbabwe. The perinatal mortality rate in Zimbabwe now stands at 29/1000 live births. Positive birth outcomes are one of the priorities of the Zimbabwe government, however the

country still faces an increase in perinatal mortality, despite efforts made by the government to reduce perinatal mortality. The perinatal mortality for Zimbabwe stands at 29 /1000 live births. The main contributing factors being resource constraints and shortage of skilled personnel to attend to these pregnant women at all levels of health care

Table 1.1*:* Perinatal deaths as of 2018 to 2020 at Luisa Guidotti Hospital

Year	Perinatal mortality rate	Total number of deliveries
2018	25/1000	710
2019	22/1000	854
2020	41/1000	684

Source: Adapted from Luisa Guidotti Hospital statistics and DHIS2 2020

Table 1.1 above is showing the perinatal mortality rate as from January 2018 to 31 December 2020. The 2019 figure is shocking for it has doubled the national target. The figures are very worrisome, when compared against the national target of 20 per 1000 live births (National Health strategy for Zimbabwe 2016- 2020). Besides the various interventions and effort done to reduce the perinatal mortality at Luisa Guidotti hospital, perinatal continues to rise. Free Ultra sound scan (USS) services are being offered to those women who book in the first trimester for early identifications of complications during pregnancy (Adewuyi, Zhao, & Lamichhane, 2016).

Baseline cardio tocograph (CTG) for every woman in labour is being done for close monitoring of the fetal heart rate pattern and intervene appropriately if any abnormality is detected (Allanson, Muller, & Pattinson, 2015). The government's

intervention with the Result Based Financing to cover up maternity cost for all pregnant women within the catchment area is another intervention to reduce perinatal mortality, by attracting women to come and deliver at health facilities, still the hospital continues to see a high rise in the number of perinatal deaths (Haruyama, et al., 2018). To achieve the national target of reducing perinatal mortality to 20/1000 live births and contribute to the attainment of the global sustainable development goal number three, a clear knowledge of the determinants of perinatal mortality at a local context is very important. It is against this background that the researcher seeks to determine associated factors contributing to perinatal mortality (WorldBank, 2020).

1.5 Purpose of the study

Purpose of the study was to determine perceived factors associated with perinatal mortality during pregnancy, labour, delivery, and the puerperium. The recommendations that will be formulated will be communicated to the department of health in Mutoko District in order to assist in the reduction of the perinatal mortality rate in the district.

1.6 Objectives of the study

The objectives of this research study are subdivided into two categories that is broad and specific objectives.

1.6.1 Broad objectives

To determine perceived factors associated with perinatal mortality by post-natal woman attended at Luisa Guidotti Hospital 2021.

1.6.2 Specific objectives

The objectives of the study are:

- To determine perceived socio- demographic factors associated with perinatal mortality at Luisa Guidotti hospital 2021
- To explore knowledge of women of child bearing age on factors contributing to perinatal mortality at Luisa Guidotti Hospital 2021
- To explore perceived health services related factors contributing to perinatal mortality at LGH 2021

1.6.3 Research question

- What are the perceived socio-demographic factors associated with perinatal mortality at LGH 2021?
- What is the knowledge level of child bearing age women on factors contributing to perinatal mortality at LGH 2021?
- What are the perceived health related factors contributing to perinatal mortality at LGH 2021?

1.7 Significance of the study

The study provided informative knowledge, awareness and an understanding of the factors associated with perinatal mortality at LGH.

Recommended strategies can now be based on the findings to improve perinatal mortality

The study provided health care workers and women of childbearing age with informative knowledge, awareness and an understanding of the factors associated with perinatal mortality and its effects.

This helped in improvement in the management of patients having been clearly made aware of the factors associated with perinatal mortality.

1.8 **The information gathered was communicated to the Ministry of Health in Mutoko District, and hence come up with interventions to reduce the perinatal mortality. Furthermore, the information was added to already existing literatureDelimitations of the study**

i) The student was a full time employee in the ministry of health and child care, so she would do the project after hours, weekends and public holidays.

ii) The study took more than a year to be conducted and concluded due to busy schedules at the workplace, inter-departmental communication, power / electricity (ZESA) and network challenges.

iii) The study was carried out after the annual reports were published of LGH and the cases were being followed up. There is a possibility of recall bias.

1.7 Summary

This chapter looked at the perinatal mortality globally, regionally, nationally and locally, highlighted 2018 to 2020 perinatal mortality statistics, problem statement, and objectives of the study, research questions, significance and limitations of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Literature review is a written summary of the state of existing knowledge on a research problem (Polit and Beck 2017). Polit and Beck gave the advantages of reviewing literature as to determine research ideas, determine knowledge on a topic of interest and justify the need for a study. Burns and Groove (2020) gave the purpose of literature review as to determine already known information about the topic being studied, hence assisting the researcher in refining parts of the study. (Chaibva et al., 2019). Literature reviews are important because new insights are developed by reviewing all previous research materials, to know if there are any gaps in knowledge and to inspect different theoretical positions used in interpreting research results. (Kargbo et al (2015).

2.2 Conceptual framework

The health belief model was used as the conceptual framework in this study. Its constructs were explored for potential influence on infant mortality. The constructs of the health belief model hold promise for the development of effective interventions to affect the behaviour that will reduce infant mortality. To achieve our study aim, we adapted the CSDH framework to maternal health (Figure 2.1) by integrating two widely used frameworks on factors of maternal health, namely the 1994 Thaddeus and Maine's "three-delay model" (initially published in 1990) and the 1992 McCarthy and Maine's framework on distant and immediate determinants of maternal death.

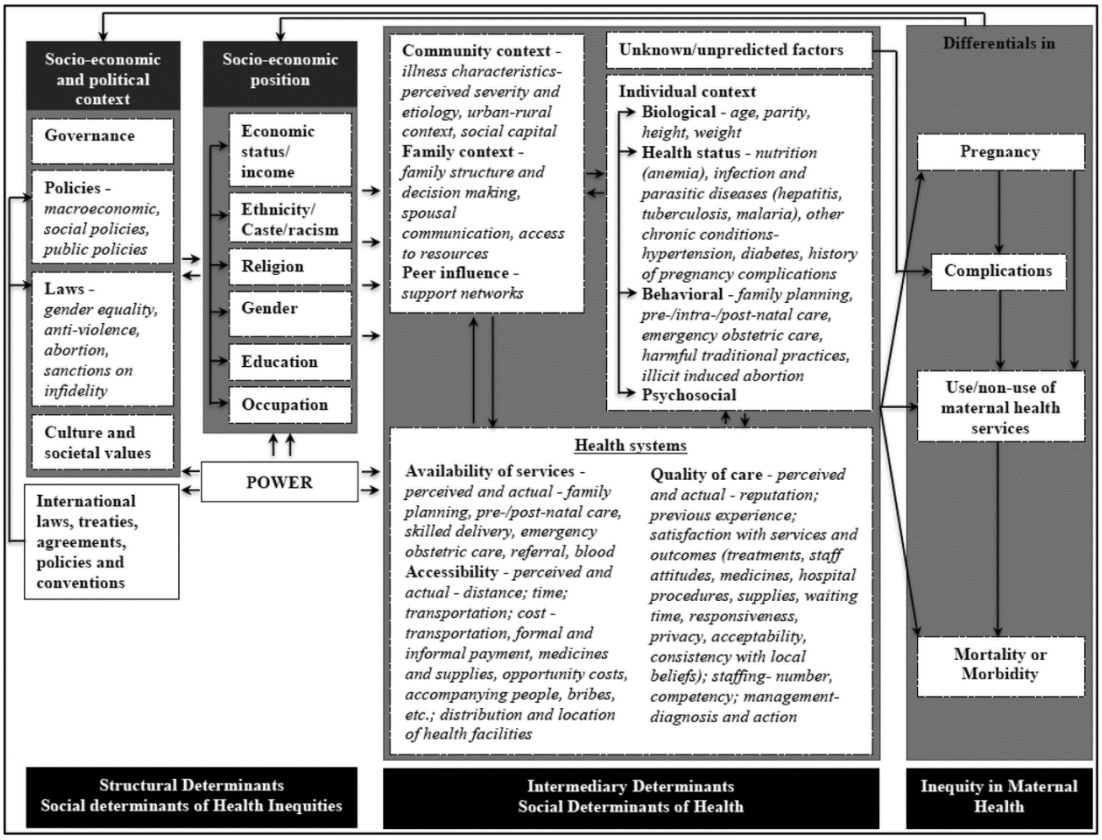


Figure 2.1: Adapting the CSDH's social determinants framework to maternal health

In this integrated framework (Fig. 2.1), we identify maternal health as a social phenomenon with outcomes that are influenced by contextual factors. The contextual factors that create social hierarchies or stratifications in societies produce maternal health inequities. We further identify governance, policies and laws (national), cultural and social values, and international laws, policies, treaties, and conventions as the socioeconomic and political contexts that create socioeconomic hierarchies in societies in terms of social class, ethnicity/racism, gender, education, occupation, and income (McCarthy and Maine's, 1992). This socioeconomic position operates through a set of intermediate factors that can broadly be categorized into individual-level factors (biological, health status, behavioral, and psychosocial), environmental factors (community, family, and peer influences), and health system factors to produce differentials in maternal health outcomes.

2.3 Knowledge

In Zimbabwe, 500 women die each year from pregnancy and childbirth complications with much more maternal morbidity (The Zimbabwe Independent, 2019). Among the different strategies which can increase the use of skilled health professionals during pregnancy, labor and delivery and the post-partum period is improving the knowledge level of reproductive age women towards the obstetric danger signs. Women and their families should have knowledge of obstetric mortality during pregnancy, delivery and the postpartum period because of the fact that every pregnancy faces risks (Jones et al, 2019).

A community-based study conducted on knowledge about obstetric danger signs among mothers in Luisa Guidotti Hospital showed that the most commonly mentioned danger sign during pregnancy and childbirth was vaginal bleeding. In addition, the study also found that 35.1% and 31.8% of respondents didn't know any danger signs of pregnancy and childbirth (Moyo, 2018). Awareness of obstetric causes of maternal mortality in women of reproductive age is a bottleneck to reduce maternal mortality and to achieve sustainable development goals.

A study carried out in Nigeria amongst pregnant women, showed that some proportion of pregnant women (made less than four antenatal visits which is very dangerous with respect to poor knowledge of pregnancy complications, disease prevention and poor health seeking behaviours. (Fagbeminiyi et al 2020) Another study carried again in Nigeria by Adewuyi et al, (2016) revealed that education has a pivotal function with respect to women independence and improved status. They also revealed that poor quality education affects maternal-related issues leading to deaths among neonates as confirmed by similar other studies (ALRC, 2001).

A study which was carried out by Maesela in South Africa, highlighted that the increase in perinatal mortality rates has affected the clinics and community health centres that refer high risk patients to the hospitals. These institutions should be empowered to prevent pregnancy problems and to prevent delays in accessing health care services when problems occur. In a study carried out in Marondera District by Tachiwenyika et al (2011), highlighted that the benefits of treating medical problems and complications of pregnancy are greatest when there is a continuum of care throughout pregnancy, child birth and immediate postpartum period. Although care during childbirth is most critical, antenatal care plays an important role, primarily because it provides an important means of addressing other health care needs, such as prevention and treatment of HIV, other sexually transmitted infections and malaria (Tachiwenyika, et al., 2011).

2.4 Socio -economic factors

Azuh et al (2017) stated that poor status of respondents is worrisome in in a place like Nigeria, where it retards access to healthcare services among these categories of women and promotes dependency syndrome leading to increase in the chance of neonatal and maternal mortality. In low- and medium- income countries, women may prefer to deliver in the community without skilled assistance because they are afraid of financial costs, low quality of care healthy facilities and disrespectful treatment. The first priority for preventing poor outcomes is to create the demand for skilled birth assistance, equipment like USS and CTGs for early identification of complications. (Stenberg et al 2019)

Distance naturally prevents them from doing so even if they are knowledgeable of the benefits of ANC but deprives them the opportunity for early identification and management of pregnancy related problems and may further influence their choice

of where to deliver. Because of poverty, women are less likely to afford a nutritious diet to take care of their needs and those of the growing foetus which in turn leads to low birth weight (LBW). Malnutrition increases risk of infection which leads to LBW babies with greater probability for mortality (Azuh, et al., 2017). Residents living in regions with more poverty, more unemployment, and more income inequality are more likely to report poor health. This is true of most rural areas in developing countries (Adewuyi, Zhao, & Lamichhane, 2016).

2.5 Cultural factors

Studies carried out in Ethiopia, Tanzania, Uganda and Ghana by Paudel et al (2018) alluded that pregnancy and childbirth are socio-culturally constructed and therefore we need to understand tradition, society and culture and to examine the cultural context of pregnancy and childbirth (Debelew, 2020). They also revealed that traditions, social values and culture shape pregnancy and childbirth experiences and have a strong impact on women's choice and control over both maternal and child health. Perinatal deaths are linked to social, cultural and religious beliefs and values. For example, they believe that disharmony in personal health as well as in the supernatural world causes miscarriage, stillbirths and neonatal deaths (Chaibva, Olurunju, Nyadundu, & Beke, 2014).

Lay beliefs and lay knowledge have proven crucial to understanding and addressing the social determinants of health. Lay beliefs offer an explanation on what people do and why (Fasina, Oni, Azuh, & Oduaran, 2020). They went on to say, medical interventions alone are not sufficient to prevent perinatal deaths and that broader social determinants which are highly in local life must be considered in policy making and programming. This study revealed that in Ethiopia, Uganda and Ghana,

it is not allowed to mourn a perinatal death as it is against God's will and will cause death of the next child (Sobhy, et al., 2019).

2.6 Health facility factors

A study which was carried out in South Africa, Pretoria showed that the main cause of perinatal deaths is intrapartum asphyxia, hypertensive disorders, preterm labour, shortage of resources and health care attitudes (Allanson et al 2015). Women experiencing perinatal deaths are most likely to come from poor background. They may have to travel long distance on poor roads either on foot or rarely by vehicles for antenatal booking and care at a health care facility. Where health facilities exist and are accessible, the quality of health care offered may be poor, due to understaffing or de-motivated health personnel. (Machiwenyika et al 2019)

2.7 Interventions

In a study carried out in Uganda and Tanzania, it was found out that there is need for maternity waiting homes that is within reach of a health facility that provides antenatal care (ANC) and emergency obstetric care. (Lonkhuijzen et al 2012). There is also need for skilled personnel who can perform obstetric emergencies when need arises, for example vacuum extraction, caesarean section, symphysiotomy, manoeuvres for shoulder dystocia (ALRC, 2001). A study which was carried out in India showed that home screenings has increased in the development of a blood pressure monitor suitable for settings without medically trained health care workers, such monitors should be automated, validated for accuracy in pregnancy, affordable, hardwearing and should have a reliable power supply like solar power or mobile phone charging technology. (Metin et al 2015).

Application of literature review to the study

The literature review sought to shape the research questions and provide insight and reflective focus to the study. It also highlight any gaps that may exist in research to date (Rudestan, K.E at el 1992). Ongoing literature was engaged as data analysis started. This was to obtain literature that clarified or disapproved the developing groups and themes, to maximise precision and value of the scrutiny leading to factors contributing to perinatal mortality.

2.8 Summary

Perinatal mortality globally has been clearly highlighted to be a burden and there is need to action on prevention and meet the SDG goal number 3 by 2030. Generally the chapter gave an overview of the contributing factors, risk factors associated perinatal mortality in relation to the research project.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Methodology is a blue print for action, which describes the conditions under which the data will be collected and analyzed to accomplish the purpose of the study (Brink & Wood; 1994). In this study, we described the study design, study setting, sampling, study population, data collection, data analysis, ethical consideration and permission.

3.2 Study Design

A study design is the overall plan to questions being studied for handling some difficulties that will be encountered during the process (Polit & Beck, 2008). A variety of study designs are available and in this study the researcher used the descriptive qualitative design and quantitative research survey to explore the women's perception on factors contributing to perinatal mortality at Luisa Guidotti Hospital. Quantitative research design was used to complete sampling on all the women attending ANC at LGH from 18 October 2021 to 30 November 2021, because of accessibility during Covid 19 pandemic. Qualitative research design was used to draw the 10 women and six health care workers who were purposively selected for in-depth interviews and complete sampling for quantitative design, which aimed at assessing the knowledge level of women on factors contributing to perinatal mortality.

3.3 Study Setting

The study was conducted at Luisa Guidotti Hospital, in Mutoko district, Mashonaland East Province. Luisa Guidotti is in Mutoko district 170 kilometers away from the capital city of Harare. It is 13 kilometers off Nyamapanda highway at Lot business to the right. Luisa Guidotti is a mission hospital with a bed capacity of 120 for the whole hospital. Maternity department has a bed capacity of 25. Maternity department offers free ultra sound for those women who book at 17 weeks and below. They also offer free full blood count testing for pregnant women and when the woman is in labour, a free CTG monitoring is done for baseline purposes. The researcher selected Luisa since she is experiencing the sad scenario in her daily work there. She also felt that there is need to understand why this increase in perinatal deaths at Luisa Guidotti Hospital (LGH).

3.4 Study population

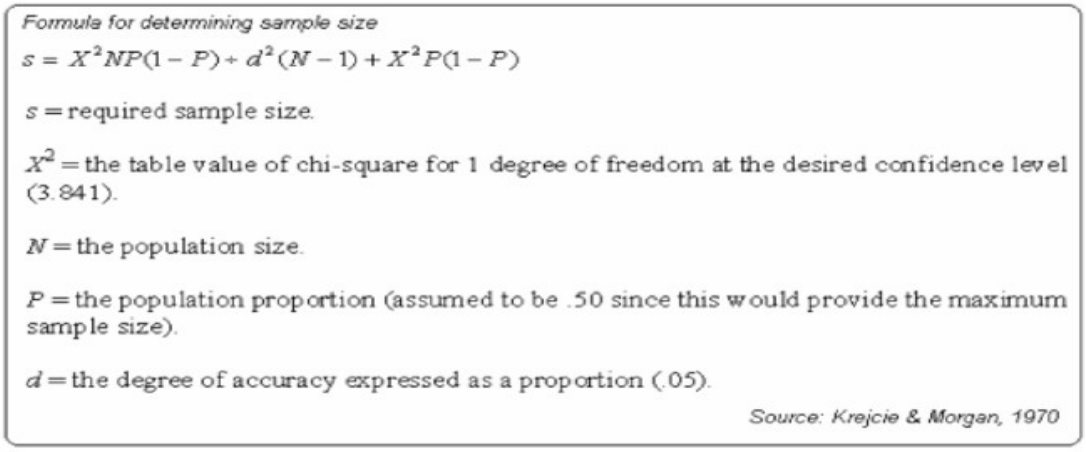
Population refers to all elements that meet the sample criteria for inclusion in the study. It is also the source of data for the study. (Brink and wood 1994) The target population was drawn from 10 mothers who lost their babies and 6 healthcare workers at Luisa Guidotti Maternity from 1 January 2021 to July 31, 2021 for qualitative research design and 46 ANC mothers for quantitative research survey. Table 3.1 illustrates target population

Table 3.1: Target population for quantitative

Description	Target population
Mothers	46
Total	46

Source: Luisa Guidotti Maternity 2021

3.5 Sampling technique and sample size. The purposive sampling technique was used to select mothers who had perinatal deaths and midwives working in maternity department at the time of data collection. Sample size was determined by data saturation. The researcher adopted Krejcie and Morgan 1970 model cited in (Saunders and Lewis, 2019) a for sample size determination on selecting the respondent of this study. The calculation of the model are as below:



Formula for determining sample size

$$s = X^2NP(1-P) + d^2(N-1) + X^2P(1-P)$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Source: Krejcie & Morgan, 1970

$S= 3.841^2 *65 * 0.50(1-65) / 0.05^2 (65-1) + 3.841^2 * (1-0.50)$

=56

Table 3.2: Sample size

Description	Sample size
Mothers	56
Healthcare workers	6
Total	52

Source: Krejcie and Morgan 1970

3.6 Reliability and validity

Validity and reliability were tested by pretesting the instrument. (Andrade. 2018)

3.7 Pretesting of the instrument

Pretesting of instrument involves a trial run of the research before the major study is done. It helps to alert unforeseen problems and weaknesses especially on the research instrument/data collection tools. (Burns & Groove2020) In this study the pretesting of the instrument was conducted at Luisa Guidotti Mission Hospital on two purposively selected midwives and one mother who had a perinatal death who were conveniently selected.

3.8 Data collection procedure

Data collection is a process that requires systematic detailed record keeping using field observation, Transcribed interviews and tapes. (Wood & Haber, 1993). Two separate guides were used on the HCW and the mothers. The women were interviewed at the hospital in a private room to maintain confidentiality. A face-to-face interview was done in the participant's language, Shona and was translated into English by the researcher. The midwives who were on duty during the time of data collection were interviewed in English

3.9 Data analysis and organisation of data

Information from key informant interviews was transcribed, coded and then grouped in themes.

3.13 Ethical consideration

Ethics is any accumulation of values and principles that address questions of what is good or bad in human affairs. Ethics searches for reasons for acting or refraining from acting, for believing or denying something about virtuous or vicious conduct or

good value or evil route (ALRC, 2001). Polit and Beck refers ethics as a system of moral values that is concerned with the degrees to which research procedures adhere to the professional, legal and social obligations of the study participants. A detailed explanation of the study was given to participants for informed decision making to participate in the study. The data collecting tools did not have participant's names for anonymity.

Informed written consent was sought from all the interviewees after a detailed explanation on the purpose of the study.

- Participants were told that there are no monetary benefits for participating.
- If the results of the research are published no names of the participants will be published

The ethical principles were respected:

3.13.1 Confidentiality and anonymity

Confidentiality is a pledge that any information which the participants have provided will not be publicly reported in a manner that identifies the participants and will not be accessible to anyone. The key informant's identity was maintained by keeping records anonymously by ensuring that the participant's identity was not be linked to the participants' response. Any information that was obtained from this study was not be linked to the participant. Participant's identity was kept confidentially, hence the participants were not be required to put their names on the questionnaire. Records of the data and the consent forms were kept under lock and key all the times for confidentiality purposes. The information can only be released to the Supervisor and the Research Department of Africa University when need arises.

3.13.2 Justice

The principle of justice refers to participants having the right to fair selection and treatment during the study. It also includes the principle of fairness and the right to privacy. Participants will be told that participation is voluntary, and they can withdraw from the study anytime during the study.

3.13.3 Beneficence

Risks and benefits were explained to the participants.

3.11 Permission

Permission to carry out this study was sought from the medical superintendent for LGH, DMO for Mutoko District and AUREC

3.12 Summary

This chapter discussed the introduction to and background of the study. The objectives and the purposes of the study were discussed. Problem statement was identified. Literature was reviewed from journals, magazines, research projects and textbooks. Research designs, methodology and ethical consideration were discussed.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The aim of this chapter was to present the data as well as analysis with regards to determinants of perinatal mortality. The chapter started by showing questionnaire and interview response rate. The researcher scheduled 10 interviews with mothers who had lost their babies. Thematic approach was adopted in the analysis of data, descriptive statistics and regression analysis. The chapter was then concluded by a chapter summary.

4.2 Interview response rate for qualitative Research design

Table 4.1 illustrates interview response rate. The researcher had scheduled 10 interviews with mothers who had lost their babies and all of them were successful to achieve a 100% response rate.. According to Saunders and Lewis (2019) interviews as well as questionnaires are effective way of gathering primary data in the view that they allow the researcher to get in-depth analysis on the respondents, clarity and facilitates probing unlike other data collecting methods. Data was collected over a period of 20 weeks. In depth face-to-face interviews were conducted on 10 mothers who had lost their babies during delivery or as early neonatal deaths. A private room was used for the interviews to maintain confidentiality. The interviews were conducted in the participant's language, which is Shona and was later translated into English by the researcher. All the interviews were audio taped with permission from

the participant

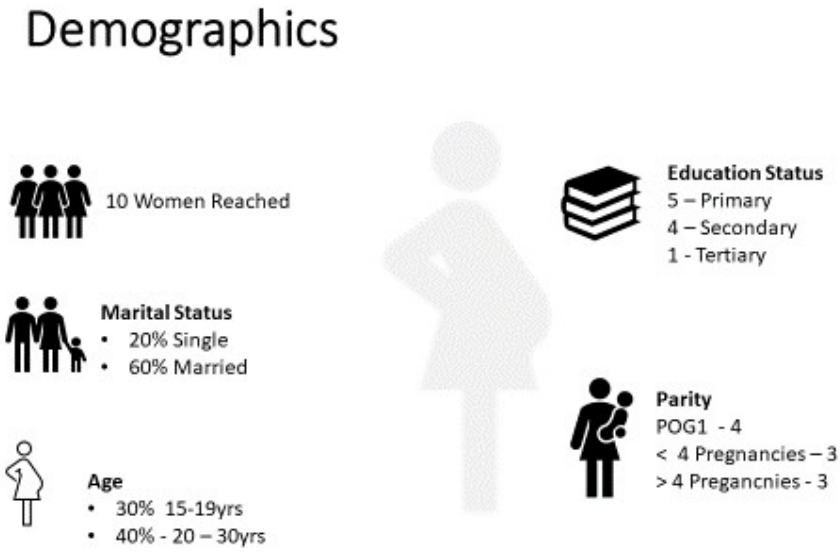


Figure 4.3 Demographics for qualitative studyTen women were reached, and out of these 10 women, 3(30%) were aged between 15 to 19 years, 4 (40%) were aged between 20 to 40 years and the other 3(30%) were 30 years and above. Being a teenage mother also poses a great risk of pregnancy complications. This could be due to under developed reproductive organs, and poor decision-making skills.

As for marital status 2(20%) were single and 6(60%) were married. These findings may imply that these women may have partner support during pregnancy, labour, delivery, and the puerperium.

As for the educational background of the respondents, 5(50%) went to school up to primary level only. 4(40%) 0f the respondents went up to secondary level and one(10%) managed to go up to tertiary level. The findings implied that the primary level education was over represented. This may influence the results due to lack decision-making skills.

On parity 4(40%) of the respondents were prim gravidas, a group which is at high risk of pregnancy complications due to their knowledge deficit regarding pregnancy processes and lack of decision making skills

4.5 Analysis of interviews (Qualitative data)

Analysis of the results of this study was guided by the interviews that were conducted being guided by the research objectives. Thematic approach was used to analyse the interview questions:

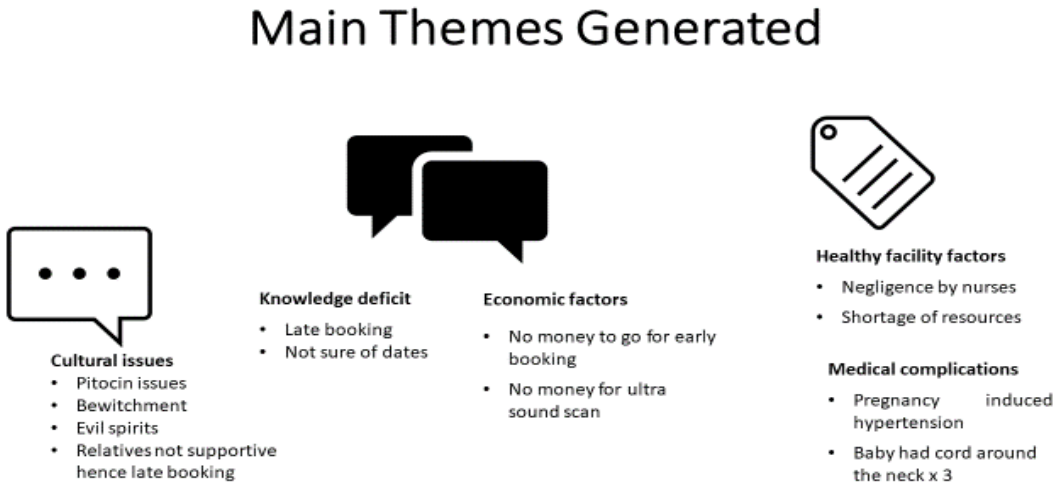


Figure 4.4 Themes generated from qualitative study

4.5.1 Main Theme- Perceived socio- demographic factors associated with perinatal mortality

4.5.1.1 Sub theme 1-cultural issues

Cultural issues emerged as a theme contributing to increased perinatal mortality. The extracts below testify cultural factors.

"I was given Pitocin to accelerate labour since I had experienced delayed first stage with my first and second pregnancy. Little did I know that my baby will distress and pass meconium in utero which caused her to aspirate". African tradition at times misleads people.

"I believe the baby was not mine, because if it was mine, it should have not died. Evil spirits also contribute to such mi

-happenings"

"I delayed coming to the hospital because of two things, I had no one to leave the children with since my mother-in-law and other family members had gone to attend a close relative funeral some 10 kilometres away. I also could not leave for the hospital without my mother-in-law or sister-in-law accompanying me as that is what they believed in, that no daughter in law will go to the hospital without the in laws. The time they arrived, I was already in advanced stage of labour and upon reaching the hospital, the baby was said to be in severe distress and was delivered very flat. They tried to resuscitate with little effect. After six hours my baby died'

"I also have a strong feeling that I was bewitched; because my mother-in-law was not supportive from the time, she knew I was pregnant. She could quarrel with my

supportive husband indicating that he was allowing his wife to fall pregnant again especially when he does not allow his wife to stay at the village helping others in the fields the moment, he notices that his wife is pregnant."

4.5.1.2 Sub theme 2- Socio economic

Socio – economic disparity remains a significant barrier to the utilisation of Maternal Child Health services. The burden of economic disparities is confirmed in the following extracts.

"The nurses had told me during my previous pregnancy that with the next pregnancy I should go to the Hospital as soon as I notice that I am pregnant because of the complications I had experienced with that pregnancy. Unfortunately, I could not book early because I had no money to come to the hospital. I went to the local clinic but they could not attend to me because I was a high-risk case. The time I booked, I was almost 34 weeks and was experiencing lower abdominal pains. When the nurses examined me, they confirmed that I was having preterm labour, which I ended up delivering a preterm baby. Unfortunately, the baby could not make it. My baby was delivered with a birth weight of 1050 grams and he died on day four due to respiratory distress"

"My husband is not employed, which made it difficult for me to get money for ultra sound scan. The nurses at the local clinic had referred me for ultra sound scan because they could not feel the baby's head. I felt it was not necessary because with my second pregnancy, I experienced the same problem but I finally had an uncomplicated breech delivery. This time I was not all that luck because the day of delivery that is when the nurses felt that my baby was in breech presentation, which

ended up as a difficulty breech. My baby survived for just three days and he passed on due to convulsions. I am now regretting that if I had worked hard to raise money for ultra sound scan, I could have saved my baby." Attitude of health care workers was perceived as another important determination of perinatal mortality. Some interviewees recounted in the following extracts.

"The attitude of the health care workers during my third pregnancy shunned me from going to the hospital early. I only reported to the hospital when I was in advanced second stage of labour and I then delivered a flat baby in less than 10 minutes after arriving at the health facility. The nurses tried to run around helping the baby to breathe but my baby did not respond. I blamed myself for the delay. I felt for myself not for the welfare of my baby and surprisingly the nurses who were on duty that day were very friendly. Had I known I should have reported into labour ward earlier and my baby could have been saved."

"I feel the government should increase nurses' salaries so that they can focus on patient care rather than focusing on selling their products during working hours."

"I started bleeding intrapartum, I then called the nurses who ignored me, calling me names like "fundi" meaning learned, Matron and Doctor. I kept on calling but they ignored me, only to rush when I called telling them that the baby is out. I delivered on the floor and I lost a lot of blood which was later identified as abruption placenta"

"Nurses behave as if they were born from same parents; they have no urgency when patient calls for help.

"Nurses differ in different settings. At Mshimbo Rural health centre, the nurses were supportive and they did not delay in every action they did. I only felt neglected when I arrived at Luisa Guidotti hospital."

4.5.2 Main Theme- explore knowledge of women of child bearing age on factors contributing to perinatal mortality

Knowledge deficit among the pregnant women is a major drawback in managing health issues. This is evidenced by number of the respondents, four (40%) who were not sure of their dates at booking. They revealed that they could not remember the last normal menstrual period.

Five (50%) of the women who booked late verbalised that they did not know that early booking and frequent antenatal contacts were important for both mother and baby. This concur with Fagbeminiyi et al in their study which highlighted that some proportion of pregnant women made less than four antenatal visits which is very dangerous with respect to poor knowledge of pregnancy complications, disease prevention and poor health seeking behaviour.

Three (30%) of the midwives who responded indicated that ignorance played a crucial role in factors contributing to perinatal mortality. They highlighted that most women do not even know when they fell pregnant, this will result in late booking, and complications were missed due to delay in booking.

They also raised an alarming issue, when they said pregnant women ignored Midwives and Doctor's orders, for example mothers are given a review date but they don't show up. They only come when they are having complications. Some ignore to take prescribed medicines, for example, some women ignore to take ferrous sulphate

citing that it has many side effects. As a result, these women will show up with severe anaemia resulting in preterm deliveries. This concurs with Adewuyi et al when they also revealed that education has a pivotal function with respect to women independence and improved status. They also revealed that poor quality education affects maternal related issues leading to deaths among neonates.

4.5.3 Main Theme- Perceived health services related factors contributing to perinatal mortality

Six Midwives were interviewed. Four major themes that emerged from the Midwives transcribed interviews on perceived health services related factors contributing to perinatal mortality

4.5.3.1 Sub theme 1- Ignorance of patients

Three out of six Midwives indicated that ignorance played a crucial role in factors contributing to perinatal mortality.

"Most women don't even know when they fell pregnant, this will result in late booking, hence complications being missed due to delay in booking."

"Some women ignore Midwives and Doctor's orders, for example mothers are given a review date but they don't show up. They only come when they are having complications. Some ignore to take prescribed medicines, for example, some women ignore to take ferrous sulphate citing that it has many side effects. As a result, these women will show up with severe anaemia resulting in preterm deliveries."

4.5.3.2 Sub theme 2- Negligence by health care workers

"Nurses at Rural health centres are turning away patients, resulting in patients delivering at home or on the way to hospital". This has put many children to hypothermia and infections complications due to poor environmental conditions.

"At times we may blame the mothers for the complications, but I feel as health care workers, we are also to blame. We are not treating emergencies as emergency, for example, Doctor when called to attend to a patient with eclampsia, only to come after one and half hours when the baby will have already died in utero or baby will be delivered with a low Apgar score."

4.5.3.3 Sub theme 3- Shortage of human and material resources

"Rural health centre nurses are not doing proper antenatal care to pregnant women. Some health facilities do not have enough resources, for example, blood pressure machines, urine sticks to do urinalysis. As a result, many abnormalities will be missed at an early stage, with no management implemented. They will surface up with complications which at times are beyond management."

"One time a woman came in with severe eclampsia, on checking the blood pressure record it was noticed that the woman never had any blood pressure checked since booking."

"Nurses are complaining that there is too much paper work in maternity. This leaves the nurses with no choice except concentrating on the paper work for fear of victimisation from the superiors. This has resulted in less or no monitoring of patients in labour, only to be called by the mother when the head is on the perineum or when baby is already out. Only the lucky ones have their live babies but with

some, complications are likely to happen which will eventually lead to early neonatal deaths."

One of the pillars of safe mother hood is to have safe and clean deliveries. This is not being met in most health facilities. Due to shortage of linen, women end up delivering on a mattress without linen predisposing these women to infection.

"Conditions like pregnancy induced hypertension has resulted in perinatal deaths. This is due to many factors. Mothers are booking late and no foetal monitoring will have happened. When they report for late booking their blood pressure will be too high and after a few weeks before stabilisation, the woman is in labour. These same people will end up having intrauterine deaths due to placental insufficiency or foetal hypoxia.

" One woman came for booking when she was already in labour. On auscultation, no foetal heart was heard. At delivery it was noticed that the baby had tight cord around the neck twice. If the woman had come early, an ultra sound scan could have picked the cord around the neck and death could have been avoided".

4.6 Mixed

After the analysis of the qualitative data the researcher felt that the data which was collected was not enough to completely analyse the results, especially on knowledge levels of the mother. There was still a gap in the information required. The researcher then decided to do a quantitative survey research in an effort to try gather more information to assess levels of mothers on factors contributing to perinatal mortality.

This time the researcher targeted women coming for ANC services at LGH as from September to November 2021.

4.7 Summary

The aim of this chapter was to present the data as well as analysis with regards to determinants of perinatal mortality. The chapter started by showing interview response for qualitative research design.

The researcher scheduled 10 interviews with mothers who had lost their babies. The researcher had scheduled 10 interviews with mothers who had lost their babies and all of them were successful to achieve a 100% response rate. Thematic approach was adopted in the analysis of data.

4.2 Interview response rate for quantitative Research design

The researcher had distributed 46 questionnaires to ANC mothers to assess knowledge level on factors contributing to perinatal mortality. Table 4.1 illustrates questionnaire and interview response rate.

Table 4. Interview **and questionnaire** response rate

Description	Distributed/ Planned	Returned/ Successful	Percentage
Mothers	56	50	89.3
Total	56	50	89.3

Source: *Raw data 2022*

Table 4.1 illustrates interview response rate. The researcher distributed 56 questionnaires to mothers attending ANC at LGH, and only 50 were returned to achieve an 89.3% response rate. According to Saunders and Lewis (2019) interviews

as well as questionnaires are effective way of gathering primary data in the view that they allow the researcher to get in-depth analysis on the respondents, clarity and facilitates probing unlike other data collecting methods. Data was collected over a period of 24 weeks.

4.3 Demographic profile for mothers attending ANC at LGH

The researcher had to collect demographic data from the 10 mothers on their age, marital status, parity and employment status. Table 4.2 illustrates demographic response rate:

Table 4.2: Demographic profile for quantitative

Item Number	Demographic Variable	Distribution Criterion	Actual Number of Respondents	Percentage Distribution
1	Age	15 – 19	20	40
		20 – 25	10	20
		26 – 30	10	20
		31 – 40	5	10
		41 – 50	5	10
		Total	**50**	**100**
2	Marital status	Single	10	20
		Married	30	60
		Divorce	5	10
		Co-habituating	5	10
		Total	**50**	**100**

3	Parity	POG1	30	60
		< 4 Pregnancies	10	20
		2 > 4 pregnancies	10	20
		Total	**50**	**100**
4	Employment	Employed	40	**80**
		Unemployed	10	**20**
		Total	**50**	**100**

Source: *Primary data 2022*

Table 4.2 shows demographic response rate from the mothers attending ANC at LGH. Twenty (20) out of fifty (50) (40%) were aged 15 – 19, ten (10) out of fifty (50) (20%) were aged 20 – 25, ten (10) out of fifty (50) (20%) were also aged 26 – 30, five (5) out of fifty (50) (10%) was aged 31– 40 and the remaining five (5) out of fifty (50) (10%) were aged 41 – 50. Majority of the mothers are aged 15 to 25 due to issues related to early marriages in developing countries especially in Africa and this is the ages most women are expected to settle down to be able to give birth without any challenges (Adewuyi, Zhao and Lamichhane, 2016).

On marital status ten (10) out of fifty (50) (20%) were single, thirty (30) out of fifty (50) (60%) were married, five (5) out of fifty (50) (10%) was a divorce and the remaining five (5) out of fifty (50) (10%) was co-habituating. Majority of women in Africa are married as they seek to spend their life time looking after their families and taking care of their children in a proper family setup (Azuh, Azuh and Iweala, 2017).

On parity thirty (30) out of fifty (50) (60%) being the highest frequency stated POG1, ten (10) out of fifty (50) (20%) stated < 4 Pregnancies and the remaining ten (10) out of fifty (50) (20%) stated more than 4 pregnancies. Polyneuritis during pregnancy being the highest frequents is in pregnancy relatively rare; including our present case, there have been only 58 cases described in medical literature altogether. The disease is very dangerous both for the mother and for the child (Popay, Williams and Gatrell, 2003).

On employment status forty (40) out of fifty (50) (80%) were employed being the dominant group of this stydy and the remaining ten (10) out of fifty (50) (20%) being the least group were not employed. Majority of women in the healthcare of Africa go to work despite their gender roles and social beliefs from different cultures that women should always stay at home doing the household duties as well as taking care of their families (Chaibva, Nyadundu & Beke, 2019).

4.4 Descriptive statistics and regression analysis (Quantitative data)

The researcher performed a linear regression to test the relationship existing between knowledge of women of child bearing age and perinatal mortality. Null hypothesis (*H0*) testing was rejected while accepting Alternative hypothesis (*H1*) as illustrated in Table 4.3

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.909[a]	.827	.824	.637

a. Predictors: (Constant), knowledge of women of child bearing age

Table 4.3 illustrates model summary. R-squared of 0.827 proves that a stronger relationship was achieved in this study. According to Burns and Groove (2018) an R-squared that is above 0.7 is recommended in a study for improving the reliability of the study findings. The researcher of this study managed to achieve an R-squared of 0.827 which was higher enough for the purposes of this study.

Table 4.4 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.641	1	112.641	277.502	.001[b]
	Residual	23.543	58	.406		
	Total	136.183	59			

a. Dependent Variable: Perinatal mortality

b. Predictors: (Constant), knowledge of women of child bearing age

Table 4.4 shows analysis of variance (ANOVA). The ANOVA table above demonstrates that the statistics used to test hypotheses about the knowledge of women of child bearing age means. When the null hypothesis of equal means is true, the two mean squares estimate the same quantity (error variance), and should be of approximately equal magnitude. In other words, their ratio should be close to 1 hence the p-value of this study was 0.001 significant at 5%.

Table 4.5: Relationship between knowledge of women of child bearing age and perinatal mortality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.177	.192		.919	.362

knowledge of women of child bearing age	1.197	.072	.909	16.658	.001

a. Dependent Variable: Perinatal mortality

Table 4.5 illustrates the relationship between knowledge of women of child bearing age and perinatal mortality. Null hypotheses was accepted while rejecting alternative proving a positive relationship between knowledge of women of child bearing age and perinatal mortality as indicated by a p-value of 0.001 significant at 5%. According to Kumar (2019) knowledge is very important to women as it emancipate them pertaining the issues to do as well as to handle perinatal mortality.

4.4.1 I have access to information that is fruitful on perinatal mortality

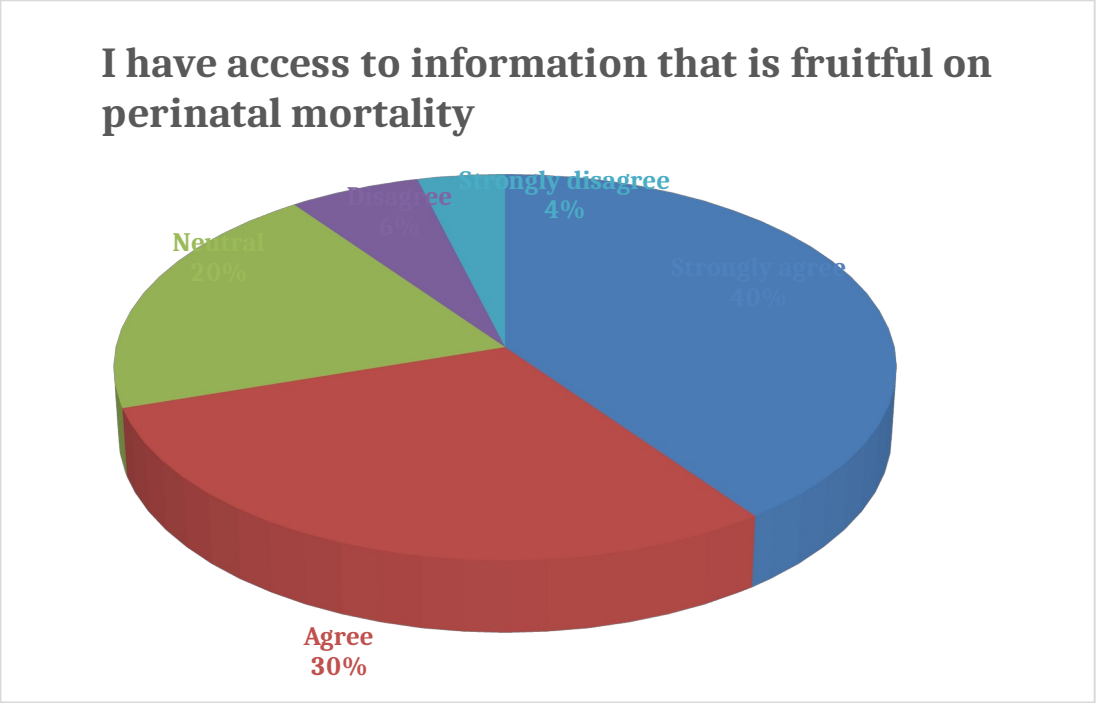


Figure 4.5: I have access to information that is fruitful on perinatal mortality
Source: Primary data 2022

Figure 4.5 illustrates response on I have access to information that is fruitful on perinatal mortality. 40% of the respondents strongly agree, 30% were in agree, 20% were neutral, 6% disagree and the other 4% strongly disagree. According to Keller (2018) allowing the employees to have access to knowledge of information is essential for handling perinatal mortality.

Y

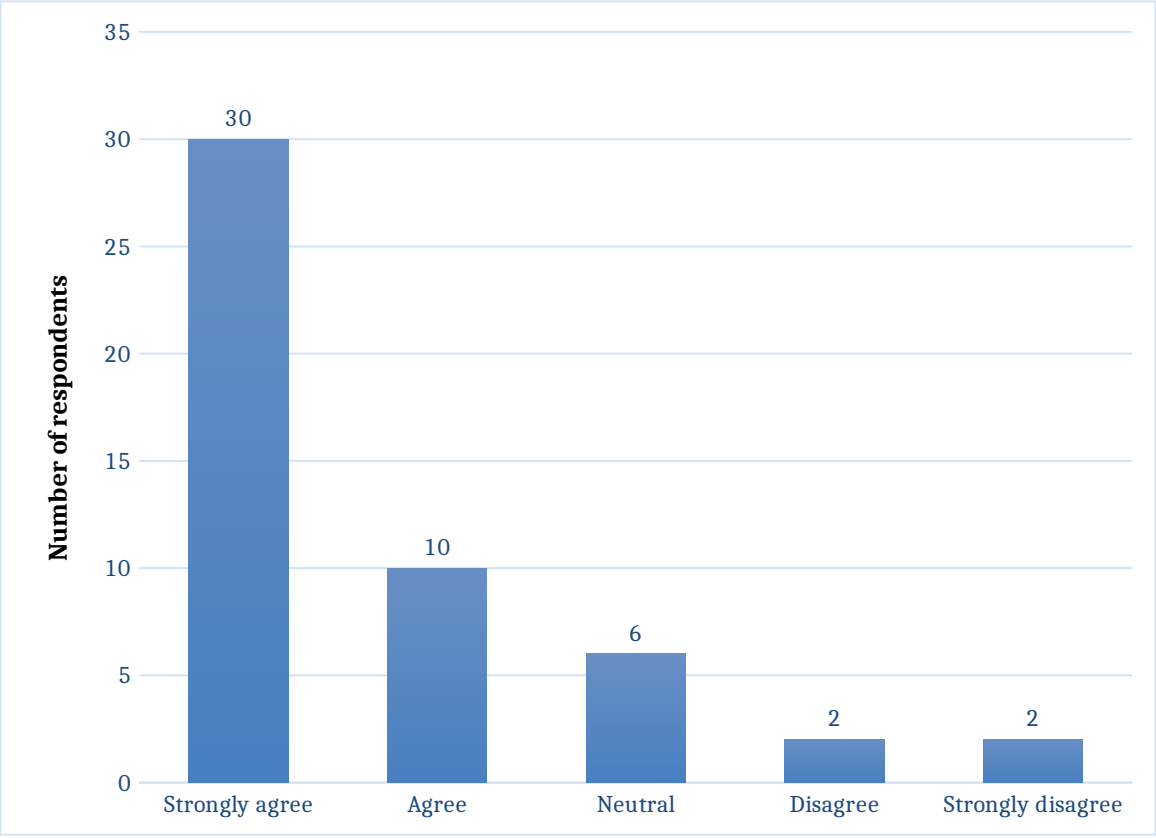


Figure 4.6 I share the information that access pertaining perinatal mortality to others.

Source: Primary data

Figure 4.2 shows response to I share the information that access pertaining perinatal mortality to others. 30 out of 50 strongly agree, 10 out of 50 were in agree, 6 out of 50 were neutral, 2 out of 50 disagree and the remaining 2 out of 50 strongly disagree. Sharing of vital information is key for purposes of helping others to understand perinatal mortality (Reign, 2018).

4.4.3 Do you think knowledge level of reproductive age women towards the obstetric danger signs is important?

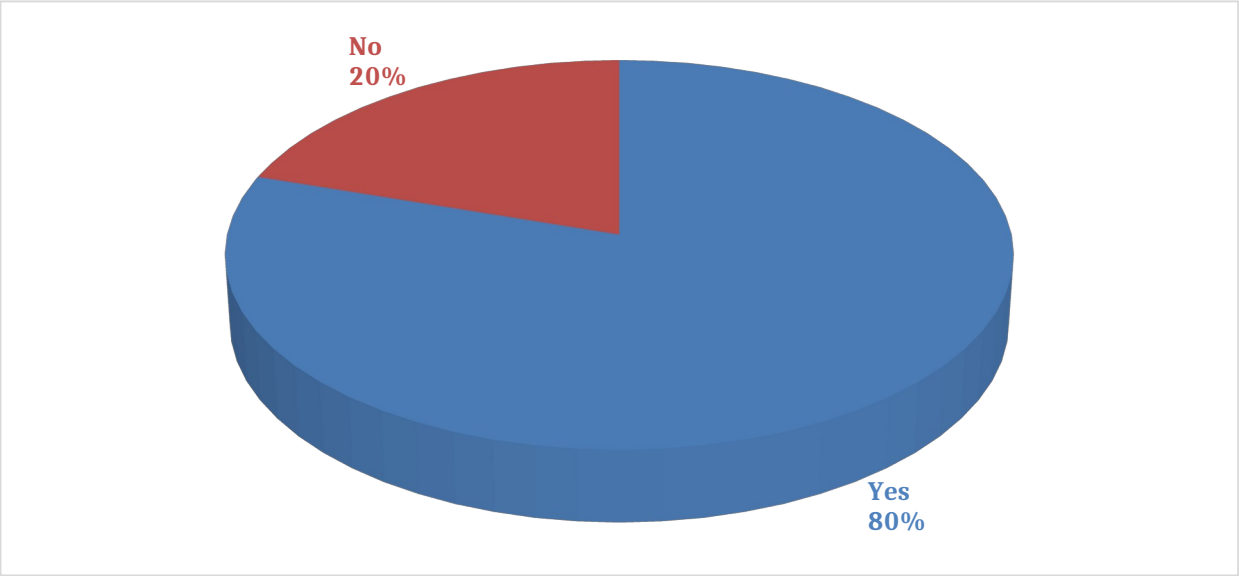


Figure 4.7: Do you think knowledge level of reproductive age women towards the obstetric danger signs is important
Source: Primary data 2019

Figure 4.3 shows respondents to do you think knowledge level of reproductive age women towards the obstetric danger signs is important. 40 out of 50 (80%) stated yes while the others 10 out of 50 (20%) stated no. Knowledge pertaining level of reproductive age women towards the obstetric danger signs is very important when it comes to educating the people of the likelihood of risk when giving birth (Pillar, 2019).

CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter of the project that aims to provide with summary of the findings from the previous chapter, conclusions and recommendations. The chapter was concluded by a recommended area of further research. The objectives addressed were:

a) To determine perceived factors associated with perinatal mortality.
b) To explore knowledge on women of child bearing age on contributing factors to perinatal mortality

To explore perceived health services related factors contributing to perinatal mortality5.2.1 Perceived factors associated with perinatal mortality.

The four major themes that emerged from the women's' transcribed interviews as factors contributing to perinatal mortality were, cultural factors, economic factors, knowledge factors and healthy facility factors. The highest number of the respondents 3 (30%) were in the age group of 15 to 19 years. This is the most

vulnerable group due to tender age. They are flanked by knowledge deficit and under developed reproductive organs, making them at high risk of complicated pregnancy outcome, this concurs with World health organisation, Global health estimates 2015 article which highlighted that adolescent mothers aged between 10 to 19 face high risk of eclampsia, endometritis and systemic infections than women aged 20 to 24 years. Babies of adolescent mothers face higher risk of low birth weight, preterm delivery and infant mortality.

Six (60 %) of the respondents are married women, which gives hope that they are well supported by their partners, but unfortunately the married where the ones who verbalised less support from their husbands and in laws. The issue of culture and religious beliefs still dominate as the contributing factor to perinatal mortality. This concur with a study which was carried by Paudel et al which they highlighted those lay beliefs and lay knowledge have proven crucial to understanding and addressing the social determinants of health. They also said perinatal deaths were linked to social, cultural and religious beliefs and values. For example, they believe that disharmony in personal health, family as well as supernatural world causes miscarriage, stillbirths and neonatal deaths.

These beliefs make it very difficult to give effective health education because the woman will be having her own understanding of the cause of death. This information correlates again with Paudel et al which states that it is not permitted to mourn a perinatal death as it is against god's will and will cause death again with the next pregnancy. Instead of concentrating on the death findings from the nurse, they dwell on what they believe in. Lack of employment and finances is a biggest hindrance to health especially maternal and neonatal health. Eight (80%) of the respondents cited they never had an ultra sound scan done on them due to lack of money. As a result,

complications went unnoticed up to the time of delivery. Five (50%) cited that they booked late due to financial problems again. All the first two delays in maternal care are directed to lack of finance and socio-cultural issues. This concur with Azuh et al who states that poor status of women is worrisome especially in places where it retards access to healthcare services among these categories of women and promotes dependency syndrome leading to the chance of neonatal and maternal mortality.

Women have resorted to booking late to avoid frequency visit to the health facility. Most of them just book and deliver the following week, a practice, which has put many pregnancies to danger. Three (30%) of the respondents had home deliveries, two preterm delivery and one was a term pregnancy. They gave reasons of financial constraints. Unfortunately, their babies could not make it because of the poor hygienic environment where the babies were delivered. This concur with Stenberg et al who also states that in low- and medium-income countries, women prefer to deliver in the community without skilled assistance and poor hygienic conditions because they are afraid of financial costs.

Almost all the women interviewed came and are still living in an environment, which could be described as high risk for perinatal death. I feel the trend of these type of complications will continue to be there until the contributing factors are addressed.

5.2.2 Knowledge on women of child bearing age on contributing factors to perinatal mortality

Knowledge deficit among the pregnant women is a major drawback in managing health issues. This is evidenced by number of the respondents, four (40%) who were not sure of their dates at booking. They revealed that they could not remember the last normal menstrual period. Five (50%) of the women who booked late verbalised

that they did not know that early booking and frequent antenatal contacts were important for both mother and baby. This concur with Fagbeminiyi et al in their study which highlighted that some proportion of pregnant women made less than four antenatal visits which is very dangerous with respect to poor knowledge of pregnancy complications, disease prevention and poor health seeking behaviour.

Three (50%) of the midwives who responded indicated that ignorance played a crucial role in factors contributing to perinatal mortality. They highlighted that most women do not even know when they fell pregnant, this will result in late booking, and complications will be missed due to delay in booking.

They also raised an alarming issue, when they said pregnant women ignored Midwives and Doctor's orders, for example mothers are given a review date but they don't show up. They only come when they are having complications. Some ignore to take prescribed medicines, for example, some women ignore to take ferrous sulphate citing that it has many side effects. As a result, these women will show up with severe anaemia resulting in preterm deliveries. This concurs with Adewuyi et al when they also revealed that education has a pivotal function with respect to women independence and improved status. They also revealed that poor quality education affects maternal related issues leading to deaths among neonates.

5.2.3 Perceived health services related factors contributing to perinatal mortality

These negatively affect the outcomes of pregnancy. Health factors that came out during the interview included negligence by nurses, shortage of material and human resources maternal and foetal causes. Five (50%) of the women respondent that nurses ignored them during labour leading to complications which led to the death of

their babies. Some even highlighted that they called the nurses and they ignored them, to an extend of mothers delivering alone without assistance.

Four (67%) of the Midwives who respondent indicated that nurses at Rural health centres were turning away patients because they are over whelmed. This has resulted in women delivering at home or on the way to hospital, predisposing these babies to hypothermia and infections complications due to poor environmental conditions. This concur with Tachiwenyika E at el, 2009 who highlighted that women who delivered at home were more likely to experience perinatal mortality than those who delivered in health institutions. They said home deliveries were often conducted by untrained birth attendants and in unsanitary conditions, they also highlighted that asphyxiated babies would not be resuscitated because of lack of equipment and the knowledge to do so.

Two (33%) of the responding Midwives said, we may blame the mothers for the complications, but I feel as health care workers, we are also to blame. They said emergencies are not being treated as emergencies, for example, Doctor is called to attend to a patient with eclampsia, only to come after one and half hours when the baby will have already died in utero or baby will be delivered with a low Apgar score. This concur with Machiwenyika at el 2009, who stated that women experiencing perinatal deaths are most likely to come from poor background. They may have to travel long distance on poor roads either on foot or rarely by vehicles for antenatal booking and care at a health care facility. Where health facilities exist and are accessible, the quality of health care offered may be poor, due to understaffing or de-motivated health personnel. (Machiwenyika et al 2009).

Waiting mother's homes that were built at the health facilities have proven to be an important intervention in reducing perinatal mortality especially while addressing the

issue of the first and second delays. This concur with a study which was carried out by lonkhuijzen et al in Uganda and Tanzania, which stated that there is need for maternity waiting homes that are within reach of a health facility that provides antenatal care (ANC) and emergency obstetric care as a measure to reduce pregnancy complications.

However, these maternity homes are at times not fully functional for different reasons. Some women indicated that they could not stay in the mother's homes because of different reasons. Some women verbalised ignorance of the existence of the mother's homes. Some women said they were very eager to come but could not do so because of resource constraints. They could not share the little food and bed linen, which they had as a result they ended up coming with an urge to push, or they will deliver on their way to hospital.

Women's views about negative staff attitudes and the lack of attention given to them in public hospitals highlighted a lack of quality and respectful antenatal care, which is very worrisome.

5.3 Conclusions

The study concludes that the determinants of perinatal mortality at Luisa Guidotti included, cultural issues, knowledge deficit regarding pregnancy processes, attitudes of health care workers and shortage of resources. The following conclusions were made; to increase awareness in the communities on importance of early booking, staying at the waiting mothers' homes, importance of hospital deliveries and there is also need for the government to avail human and material resources in the health facilities**.**

5.4 Recommendations

The hospital executive at LGH should ensure there is adequate provision of human resources at the hospital.

The matron, LGH should make sure that the midwives give daily health education on the importance of early booking and hospital deliveries.

The DNO and DMO should make sure that perinatal mortality audits are timeously done in all health facilities and at the District in order to improve and correct the managements of these mothers early

The DMO should make sure that all nurses in all Rural Health Centres be trained in managing emergency obstetric cases. This should be ongoing so that the nurses become competent enough to handle such cases, in emergencies.

The DNO should ensure that all babies are discharged from hospital on day three post delivery in order to monitor for any complications.

The government should help their citizens by giving food to those mothers who will be staying at the waiting mothers' homes (WMH), because some of the reasons why mothers do not come to stay in the WMS, is they do not have food to share amongst themselves and the family remaining behind. This should be done as soon as possible

The DMO and DNO should ensure that Ultra sound scan is available to all clinics for easy access, early identification of complications and address the issues of the three delays. All healthy facilities to have suggestion boxes where community members can air their views on nurses' attitude towards them during their hospital visits for antenatal care, labour and delivery

The DMO of Mutoko District should liase with the PMD, reproductive department to source food for pregnant mothers staying in the waiting mother's homes.

The MOHCC Reproductive health department to come up with strategies to improve in women's access to essential care during pregnancy and around birth, availability of emergency obstetric and new-born care, improving the quality of maternal and new-born care in both public and private health facilities through quality control measures and increase in human and material resources.

Communities to sit down as a matter of urgency and devise a strategy on how best they can deal with those families who do not encourage their family member to book early and deliver at a health facility.

5.5 Study limitations

Some records of labour were not fully completed, making it difficult for the midwives to get some information to support their points.

The midwives and the mothers were not very comfortable to give the full information on factors contributing to perinatal deaths. Despite having assured confidentiality to the respondents, I felt lack of opening up was due to fear of victimisation

. 5.2.13 Dissemination of Results

The researcher will send a written report to the Medical superintendent of LGH, the DMO and DMO of Mutoko District immediately after release of the final Dissertation by Africa University Research Committee. The results will also be communicated with the local leadership so that reinforcements are made on early booking, staying at the WMH and to deliver at the hospital.

5.6 Summary

The determinants of perinatal mortality at LGH were highlighted as cultural issues, knowledge deficit regarding pregnancy processes of the mothers. Attitudes of health care workers was also highlighted as the major cause of perinatal mortality.

5.7 Suggestion for further study

The study unearthed many hidden issues happening in institutions and going unnoticed. Since the study was limited to LGH only the researcher feels there is need to further explore any linkages in the findings by extending the study to the whole District.

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7.0 APPENDIXES

ANNEX 1: CONSENT FORM

INFORMED CONSENT FOR MIDWIVES

TITLE: PERCIEVED FACTORS CONTRIBUTING TO PERINATAL MORTALITY

PRINCIPAL INVESTIGATOR: PUBLIC HEALTH OFFICER IRENE CHIPURIRO

PHONE NUMBER: 0778311411

GENERAL INFORMATION.

- You are being requested to read and understand this form about the purpose, risks and benefits of this study
- Participants have the right to refuse to take part in this study, withdraw from participating without being affected in their future relations with the personnel.
- Your participation is voluntary

PURPOSE

The purpose of the study is to explore factors you perceive as contributing to perinatal mortality. You were selected as a participant in this study because you are a midwife working in maternity department where you are involved in attending to pregnant women during pregnancy, labour and puerperium.

PROCEDURES AND DURATION

If you decide to participate, you will be asked to sign a consent form. The interview will be recorded but you will not say your name or anyone you may be linked to during the interview

Before you sign this form, please ask any question you might feel the information provided is unclear to you. You may take as much time as necessary to think it over.

The interview is going to take ± 30 minutes of your time.

RISKS AND DISCOMFORTS

There may be emotional risks and discomforts associated with the study, but no physical harm will be experienced, since nothing is going to be introduced in your body. You may be reminded of your past experience. If you feel you cannot continue please let us know.

BENEFITS

The study will come up with recommendations to improve the service provision in Mutoko District. We cannot assure or guarantee that you will receive any personal benefits from this study.

CONFIDENTIALITY.

If you indicate your willingness to participate in this study by signing this document, any information that is obtained in connection with this study cannot be identified with you and will remain confidential and will only be disclosed with your

permission. The information might be shared with the District Medical Officer and the health studies office.

AUTHORISATION

You are making a decision whether or not to participate in this study. Your signature indicates

That you have read and understood the information provided above and have decided to participate in this study.

Name of participant. (Print please)

Date

Name of Researcher Signature

Date

ANNEX 2: INTERVIEW GUIDE FOR MOTHERS

My name is Irene Chipuriro, a Public Health Officer carrying out research to determine factors contributing to perinatal mortality and the different interventions at Luisa Guidotti Hospital. The guide will focus on the knowledge of the health care workers and knowledge of the women of child bearing age, economic factors and cultural factors and health related factors associated with perinatal mortality. The information obtained will be used to improve on addressing the adverse outcomes of pregnancy, perinatal mortality at our hospital Luisa.

The interview will take about 30 minutes of your time.

Section A: Demographic profile

Please show by a tick below:

Item Number	Demographic Variable	Distribution Criterion	Please show by a tick below
1	Age	15 – 19	

		20 – 25	
		26 – 30	
		31 – 40	
		41 – 50	
2	Marital status	Single	
		Married	
		Divorce	
		Co-habituating	
3	Parity	POG1	
		< 4 Pregnancies	
		4 pregnancies	
4	Employment	Employed	
		Unemployed	

Perceived questions

1. What do you think will have contributed to your loss?
2. What do you think about the economy of the country in relation to perinatal deaths?
3. How do you think culture contributes to perinatal deaths?

4. What do you think about health issues contributions to perinatal deaths?
5. What then do you recommend as a way of reducing perinatal deaths?

ANNEX 3: GWARO REBVUMIRANO

MUSORO: TSVAGIRIDZO YEKUONGORORA ZVIKONZERO ZVIRI KUITA KUTI VACHECHE VAFIRE MUDUMBU KANA KUTI VAFE MAZUVA MASHOMA VACHANGOZVARWA.

Zita rangu ndinonzi Irene Chipuriro. Ndiri mudzidzi pa Africa University.Ndiri kudzidza nezvekuongorora nezvehutano nemagariro akanaka evanhu munharaunda (Public Health).

Ndiri kuitawo tsvagiridzo yekuongorora zvikonzero zviri kuita kuti vana vacheche vafire mudumbu kana kuti vafe mazuva mashoma shoma vachangozvarwa.

Ndiri kukumbira kuti muve mumwe vevanhu vandichashanda nawo kuita tvsagiridzo iyi. Munobvumidzwa kuramba kana kupinda mutsvagiridzo iyi

Ndichakuvhunzai mivhunzo yekuti tinzwe zvikonzero zvamunofunga kuti ndizvo zvingadai zvakaita kuti mwana afe.

Mhinduro dzandichawana kubva kwamuri dzichabatsira nharaunda nenyika kudzikisa dambudziko rekufirwa netucheche iri.

Ndinogona kutora nguva inokwana maminitsi makumi matatu tichikurukura. Zvese zvatichataura pano ndinokuvimbisai kutizvinoperera pano. Hakuna munhu anotenderwa kuzvitaura kunze uko. Ndinokuvimbisai kuti zita renyu harina kana

parichanyorwa pamapepa aya, kuitira kuti kana mumwe munhu akapaza kuti aone mapepa aya haafe akaziwa kuti ndeaani.

Mivhunzo

1. Munofungidzira kuti chiiko chakaita kuti mwana ashaye?
2. Munofungeiko nezveupfumi hwenyika maringe nekufa kwevana vacheche?
3. Munofungeiko netsika dzichivanhu maringe nekufa kwevana vacheche?
4. Mune here zvamungade kutizivisa pamusoro pekubatwa kwamakitwa kuchipatara huye pamusoro pekuwanikwa kwezvekushandisa kuchipatara?
5. Mungafunge kuti dambudziko rekufa kwetucheche ringapedwe seiko?

ANNEX 4: QUESTIONNAIRE FOR MOTHERS ATTENDING ANC AT LGH.

My name is Irene Chipuriro, a Public Health Officer carrying out research to determine factors contributing to perinatal mortality and the different interventions at Luisa Guidotti Hospital. The guide will focus on the knowledge of women of childbearing age related factors associated with perinatal mortality. The information obtained will be used to improve on addressing the adverse outcomes of pregnancy, perinatal mortality at our hospital Luisa.

Thank you

Section A: Demographic profile

Please show by a tick below:

Item Number	Demographic Variable	Distribution Criterion	Please show by a tick below
1	Age	15 – 19	
		20 – 25	
		26 – 30	
		31 – 40	
		41 – 50	
2	Marital status	Single	
		Married	
		Divorce	
		Co-habituating	
3	Parity	POG1	
		< 4 Pregnancies	
		4 pregnancies	
4	Employment	Employed	

		Unemployed	

Section B: Knowledge of women of child bearing age on perinatal mortality

1. **What effect does knowledge of women of child bearing age have on perinatal mortality?**

Please respond to these questions by showing a tick being guided by the following likert scale. 1-strongly agree, 2- Agree, 3- Neutral, 4-Disagree and 5-Strongly disagree

Statement	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
I have access to information that is fruitful on perinatal mortality					
I share the information that access pertaining perinatal mortality to others					

2. **Do you think knowledge level of reproductive age women towards the obstetric danger signs is important or not?**

Yes

No

3. **Women and their families should have knowledge of obstetric mortality during pregnancy**

Agree

Disagree

Not sure

THANK YOU FOR TAKING PART

ANNEX 5: AUREC APPROVAL LETTER

Investing in Africa's future

AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2119/21 16 June 2021

Irene Chipuriro

C/O CHANS

Africa University

Box 1320

Mutare

RE: DETERMINANTS OF PERINATAL MORTALITY AT LUISA GUITOTTI HOSPITAL MUTOKO DISTRICT 2021

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

a) Research proposal
b) Data collection instruments
c) Informed consent guide

· **APPROVAL NUMBER** AUREC 2119/21

This number should be used on all correspondences, consent forms, and appropriate documents.

AUREC MEETING

· **DATE** **NA**

· **APPROVAL DATE** June 16, 2021

· **EXPIRATION DATE** June 16, 2022

· **TYPE OF MEETING** Expedited

After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.

SERIOUS ADVERSE EVENTS All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.

MODIFICATIONS Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)

TERMINATION OF STUDY Upon termination of the study a report has to be submitted to **AUREC. Yours Faithfully**

MARY CHINZOU – A/AUREC ADMINISTRATORFOR CHAIRPERSON, AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE