CENTRAL UNIVERSITY

SCHOOL OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF NURSING

INVESTIGATION OF MATERNAL AND INFANT MORTALITY AMONG PREGNANT WOMEN AT PRAMPRAM POLYCLINIC.

BY

HENRIETTA DWAMENA BAFFOUR

(201500612)

AND

HILDA FAVOUR OKYERE

(201501389)

A PROJECT WORK SUBMITTED TO CENTRAL UNIVERSITY, DEPARTMENT OF NURSING IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE (BSc) DEGREE IN NURSING.

AUGUST, 2019

DECLARATION

We hereby declare that this submission is our own work towards the BSc. degree and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of a degree of the university, except where due acknowledgement has been made in the text.

Henrietta Dwamena Baffour	……	……
Student.	Signature	Date

Hilda Favour Okyere	……	……
Student.	Signature	Date

Certified by:

Mrs. May Osae- Addae	……	……
(Supervisor)	Signature	Date

DEDICATION

To our Family and Friends

ACKNOWLEDGEMENTS

We are most grateful to the Lord Almighty God for His divine grace and protection that saw us through this study. Our sincere thanks go to our supervisor Mrs. May Osae- Addae for her advice, comments and corrections.

We are also grateful to all the lecturers of Department of Nursing for their support in diverse ways.

We would like to heartily thank the Administrator and staff as well as all pregnant women at Prampram Polyclinic.

God bless you all.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Poor maternal health and maternal mortality greatly influence perinatal, neonatal and infant health and mortality rates, as they are inextricably linked. The World Health Organization observed that, infants of mothers that die are between three and ten times more likely to die within two years of their mothers' deaths (World Health Organization, 2012). The purpose of the study was to investigate on maternal and infant mortality among pregnant women at Prampram Polyclinic. The descriptive research method was used for the study. A sample size of 80, was determined based on a 95% confidence level with a 5% allowable margin of error, and with the proportion of pregnant women awareness of maternal and infant mortality put at 10% (Sample size, $n=z^2\ pq/d^{2)}$. A researcher administered questionnaire in English language was administered to eligible participants. Data was analyzed with both Microsoft Excel and SPSS (Statistical Package for Social Sciences version 21) applications. The findings indicated that, the pregnant women have fair knowledge about maternal and infant mortality and its associated risk factors. They identified smoking, delay in seeking and accessing emergency obstetric care, late recognition of the obstetric problems, having children at older ages, place of delivery and source of water as risk factors of maternal and infant mortality. Frequent antenatal clinics, reliable and accessible health information, provision of drugs during pregnancy and providing accessible roads to health facilities are important preventive practices. The study recommended that, antenatal clinics should be made accessible to all pregnant women despite their location. Government should provide the antenatal units of the various hospitals with the needed facilities to enhance their work and also the media should join in the education of all women about maternal and infant mortality through their programs.

CHAPTER ONE

BACKGROUND AND LITERATURE REVIEW

1.0 Introduction to the Chapter

This chapter of the study presents the background of the study, problem statement, purpose of the study, research objectives, research questions, significance of the study, operational definition of terms and literature review.

1.1 Background of the Study

According to World Health Organization, UNICEF (United Nations International Children's Emergency Fund), UNFPA (United Nations Fund for Population Activities), World Bank (2012), 99% of maternal deaths occurred in developing countries in 2010. Half of all global maternal deaths occurred in Sub-Saharan Africa and a third in South Asia alone. Comparatively, developed countries attain just 1% of all maternal deaths. This shows a great disparity in maternal mortality across the globe.

Improving maternal health and reducing maternal mortality rates featured amongst the Millennium Development Goals which endeavored to improve maternal health by reducing maternal mortality by three quarters and achieve universal access to reproductive health services by 2015 (World Health Organization, 2012).

Poor maternal health and maternal mortality greatly influence perinatal, neonatal and infant health and mortality rates, as they are inextricably linked. The World Health Organization observed that, infants of mothers that die are between three and ten times more likely to die within two years of their mothers' deaths (World Health Organization, 2012).

This study defined **i**nfant mortality as the probability of the infant dying between birth and the first birthday. Maternal mortality is the death of a woman during pregnancy or within 42 days of its termination. Maternal and infant mortality is a global problem which has triggered several studies on the subject by researchers.

Sidahmed (2013) explored factors contributing to high maternal mortality in Sudan. The study found that, multiparous, poor, and rural women with low education level were at high risk of maternal death in Sudan. Direct obstetric causes were responsible for the majority of deaths. Health services related barriers were also significant in contributing to each phase of delay.

Dualle (2011) investigated birth attendants' perceptions of maternal mortality rate and the associated determinants in Abudwak district. The findings indicated that skilled birth attendants and trained traditional birth attendants have better pregnancy risk recognition and higher referrals than traditional birth attendants. All participants thought maternal mortality is high in Abudwak district and lack of competent health professionals and nutrition were identified as determinants for maternal mortality in Abudwak. The findings highlighted low awareness of maternal and infant mortality among the participants.

Creating awareness of maternal and infant mortality in Ghana is the first step in tackling the problem. Notwithstanding, the awareness level of pregnant women in Ghana are not known. We the researchers through our clinical observed that, most of the pregnant women who attended antenatal clinic had inadequate knowledge of maternal and infant mortality and their risk factors. This therefore, triggered a study into the awareness of maternal and infant mortality among pregnant women at Prampram Polyclinic.

1.2 Problem Statement

The World Health Organization and the United Nations Children's Fund (UNICEF) estimated Ghana's maternal mortality ratio in 1995 at 586 per 100,000 and 740 per 100,000 live births respectively. Other surveys by World Health Organization, United Nation Children's Fund and the United Nations Populations Fund in the year 2000 put the figure at 540 per 100,000 live births while a nationwide maternal health survey of 2007 in Ghana put the rate at 580 per 100,000 live births (Quansah, 2013). The pace of decline in maternal mortality has been slow and this led to Ghana's inability to achieve the millennium development goal target of 190 per 100,000 live births in 2015 (UNFPA 2015). It was observed that maternal deaths are usually directly related to causes such as hemorrhage, unsafe abortion, hypertensive disorders, infections and obstructed labor while indirect causes include malaria, HIV/AIDS and anaemia. (Abor, Nkrumah & Adjasi, 2011). Maternal and infant mortality is a worrying situation in Ghana. Families are left devastated and the country loses its productive work force to this situation. Most of the studies on the subject have been done in the developed countries against the developing countries. Meanwhile, not much attention has been paid to the subject in Ghana according to the knowledge of the researchers.

The researchers during one of their clinical attachment noticed a woman who came to the antenatal clinic with her husband. She was 28 weeks pregnant but according to her, she saw some 'fluid' in her panty that morning. On assessment, the nurse and doctor on duty said she had to deliver immediately because her amniotic fluid had ruptured. She delivered her baby only for him to die 3 hours later at NICU (neonatal intensive care unit). We were alarmed when we heard and felt sad at the same time.

Almost 66% of neonatal deaths occur in the first week of life. Of those who die within the first week, approximately 66% die in the first 24hours of life. (Maccormack & Murphy, 2001). Women

and infants need not to die during and after childbirth therefore, this study seeks to investigate on maternal and infant mortality among pregnant women at Prampram polyclinic.

1.3 Purpose of the study

The purpose of the study was to investigate on maternal and infant mortality among pregnant women at Prampram Polyclinic.

1.4 Research Objectives

The specific objectives of the study were:

- To assess the knowledge level of pregnant women at Prampram Polyclinic on maternal and infant mortality.
- To investigate the predisposing factors of maternal and infant mortality among pregnant women at Prampram Polyclinic.
- To find out the preventive measures of maternal and infant mortality among pregnant women at Prampram Polyclinic.

1.5 Research Questions

- What is the knowledge level of pregnant women at Prampram Polyclinic on maternal and infant mortality?
- What are the predisposing factors of maternal and infant mortality among pregnant women at Prampram Polyclinic?
- What are the preventive measures of maternal and infant mortality among pregnant women at Prampram Polyclinic?

1.6 Significance of the Study

We the researchers hoped that, the study will be useful in the ways listed below:

- The burden on families as a result of maternal and infant mortality will be reduced. This is because the pregnant women will become aware of the predisposing factors of maternal and infant mortality and as a result try to prevent them.

- Hospitals and healthcare workers will find the study useful by knowing the awareness level among pregnant women on maternal and infant mortality and organizing proper educational programs for them.

- Policy makers will use the findings to develop policies in curbing maternal and infant mortality in the country.

- The media will also know the right information to disseminate concerning maternal and infant mortality in the country.

- Findings of the research will add to studies done on maternal and infant mortality and become reference material for future students.

1.7 Operational Definition of terms

- Infant Mortality: Infant mortality is the probability of the infant dying between birth and their first birthday, deaths of infants at 12 months and younger.
- Maternal Mortality: The death of a woman during pregnancy or within 42 days of its termination.
- Awareness: Knowledge and perception about infant and maternal mortality.
- Investigation: To study or examine in detail about infant and maternal mortality

- Pregnancy: The period in which an offspring develops in a woman or the period in which a woman carries a baby in her womb.

1.8 Literature Review

1.8.0 Introduction

The aim of a literature review is to critically analyze and carry out an in-depth evaluation of previous research. This section empirically reviewed literatures on investigation of maternal and infant mortality among pregnant women.

1.8.1 Knowledge level of pregnant women on maternal and infant mortality.

A study in Ghana by Kwarteng (2015) on "Maternal mortality in Ghana: Prospects of meeting the UN Millennium Development Goals", employed qualitative research approach with a case study design, conducted in Asante Akim Central Municipality (AACM). Purposive sample technique was used which involved pregnant women, midwives, Physician assistant (PA), health personnel, Municipal Health Directorate (MHD), Municipal Development Planning Coordinator (MDPC) and representatives of NGOs. These entities were as key informants. However, pregnant women were used in the focus group discussions. Secondary data included research conducted, policy documents and articles related to the research interest area. It was found that most pregnant women residing in the rural areas have difficulty in accessing skilled health care. They were unable to enroll on the National Health Insurance Scheme (NHIS) and those who were already enrolled found it difficult to renew their NHIS cards when they expired due to financial constraints. This group of women failed to attend antenatal care (ANC) regularly which made it difficult for them to receive education on their health. Moreover, they were not able to detect pregnancy related complications due to the inadequate education and most of them depend on traditional birth attendants who sometimes do not handle complications efficiently.

Adetunji (2015) studied "Infant mortality and mother's education in Ondo State, Nigeria". The results suggested that data errors, use of health services and quality of maternal care were not

enough to explain the relationship. Rather, results of a logistic regression analysis showed that breastfeeding duration and maternal age at childbirth were statistically the most significant variables for predicting infant survival in Ondo State. The inverse relationship between mother's education and infant mortality rates that was not shown by bivariate analysis came out clearly only after controlling for the effect of breastfeeding duration. The linkage between these findings and broader social and economic realities of Nigeria was provided through reviews of available information. The conclusion from the study was that, although breastfeeding and maternal age showed up as the most statistically significant variables, they apparently are just the variables that effectively captured the effects of the harsh economic conditions, especially among secondary school graduates, that prevent most young mothers from translating their child-rearing ideals into reality.

Dualle (2014) investigated birth attendants' perceptions of maternal mortality rate and the associated determinants in Abudwak District. A mixed method approach was employed. Purposive sampling was utilized to recruit participants. Observation, closed-ended questionnaires and in-depth semi-structured interview data collection tools were used. Data were analyzed with statistical package for social sciences data analysis software and manual content analysis. The results indicated that, majority of the birth attendants in the study were older females, illiterate (76.2%), lived in the community over 10 years (81%), have > 10 years of experience (81%), assisted > 10 births in 2013 (90.5%), have > 5 children (95.2%) and referred (71.4%) complicated pregnancies to a higher level of care. Skilled birth attendants (SBAs) and trained traditional birth attendants (TTBAs) have better pregnancy risk recognition and higher referrals than traditional birth attendants (TBAs). All participants thought maternal mortality is high in Abudwak district and lack of competent health professionals and nutrition has been identified as the top determinants for

maternal mortality in Abudwak. These findings of the study highlighted low awareness of maternal and infant mortality among the pregnant participants.

1.8.2 Predisposing factors of maternal and infant mortality among pregnant women.

Sidahmed (2013) exploring factors contributing to high maternal mortality in Sudan. Analysis of literature was done by using a modified version of the Three Phases of Delay Model developed by Thaddeus and Maine's in 1994. The study found that, multiparous, poor and rural women with low education level are at high risk of maternal death in Sudan. Direct obstetric causes are responsible for the majority of deaths. Factors related to late recognition of the obstetric problems, delay in seeking and accessing emergency obstetric care were found to play a paramount role in maternal mortality. Health services related barriers were significantly contributing to each phase of delay.

Research conducted by Sohail (2017) studied "Prevalence and risk factors associated with under-mortality: a multi-country comparative study in South Asia. The study was based on Demographic and Health Survey (DHS), data collected from five South Asian countries (Bangladesh, India, Maladies, Nepal and Pakistan). Data was obtained from the most recent live under-5 births from mothers within five years prior to the survey (n=570676). Association of under-5 mortality with risk factors including socio-demographic variables was studied using Cox Proportional hazard method. The estimates were presented as hazard ratio (HR) and their 95% confidence interval (CI). Survival Curves were used to explain the difference in survival of under-5 children in each country. Overall prevalence of under-5 mortality in South Asian countries according to pooled data was 10%. Country-specific results showed that Nepal having the highest prevalence (11.1%) of under-5 mortality followed by India (10.3%) and Pakistan (10.2%) in South Asia. In a multivariable model in pooled data, older age of the women (HR 0.70, 95% CI 0.68-

0.72), being employed (HR 1.09, 95% CI 1.07-1.12), having husband with higher education (HR 0.74, 95% CI 0.70-0.78) and having higher education (HR 0.36, 95% 0.32- 0.40) were significantly associated with under-5 mortality. Among other maternal and child factors, being female child (HR 0.95, 95% CI 0.93-0.97), wanted no children (HR 0.92, 95% CI 0.87-0.97), no contraceptive use (HR 0.95, 95% CI 1.30-1.37), currently pregnant (HR 1.17, 95% CI 1.17-1.23), no smoking (HR 0.85, 95% CI 0.83-0.87), male sex of children was associated with under-5 mortality. Most of the studied risk factors were common across the countries, but some difference in the factors associated with under-5 were country specific. The prevalence of under-5 mortality is still high in South Asia

Nutiye (2009) examined determinants of maternal mortality in Turkey. Regional, household and individual level characteristics that are associated with infant mortality was examined. For this purpose survival analysis was used in this analysis. The data come from 2003-2004 Turkey Demographic and Health Survey that includes detailed information of 8,075 ever married women between the ages 15-49. 7,360 mothers of these women gave birth to 22,443 children. The results of the logistic regression show that intervals between the births of the infants were associated with infant mortality at lower levels of wealth index. Children from poorer families with preceding birth interval shorter than 14 months or children whose mothers experience a subsequent birth fare badly. Breastfeeding is important for the survival chance of the infants under the age 3 months. Place of delivery and source of water the family uses are also found to be correlated with infant mortality risk. Curvilinear relation between maternal age at birth and infant mortality risk was observed, indicating higher risk for teenage mothers and mothers having children at older ages.

Uddin and Hossain (2008) also studied "Predictors of Infant Mortality in a Developing Country". In the study the Cross-tabulation analysis revealed that infant mortality varied significantly by several variables. Among the variables, parent's education had significant negative effect on infant mortality, while occupation of parents had significant influence on post-neonatal mortality only. The infant mortality was found higher in small families, while low for the children whose mothers were currently breastfed and it decreased significantly with the increase of mothers' standard of living index. Mother's age at birth of child and birth order had significant influence on infant mortality and it was lowest for the children having birth interval over 30 months. It was also found that timing of first antenatal check, Tetanus Toxoid (TT) during pregnancy and numbers of antenatal visit had significant influence for both mortality cohorts. Multiple logistic regression analysis, carried out by using the significant variables found in cross tabulation analysis, revealed that mother's education, family size, breastfeeding status, mother's age at birth, birth spacing, complication during birth, type of birth, timing of first antenatal check and TT during pregnancy had significant effect on neonatal mortality. Further, post-neonatal mortality varied significantly by education and occupation of father, family size, breastfeeding status, and mother's age at birth, type of birth and TT during pregnancy.

1.8.3 Preventive measures of maternal and infant mortality among pregnant women.

A study in United Kingdom by Mwangakala (2014) on pregnant women's access to maternal health information and its impact on healthcare utilization behavior in rural Tanzania A qualitative study involving twenty five (25) pregnant women, five (5) Skilled healthcare providers and five (5) Traditional Birth Attendants (TBAs) was conducted in Chamwino District in Dodoma Region, Tanzania for a period of six months. Two selected wards, Msanga and Buigiri were used. The researcher used The Health Belief Model and Theory of Planned Behaviour to develop

interview questions and focus group guides as well as the interpretation of the findings. The researcher examined how variable factors e.g. maternal health literacy, individual perceptions, local knowledge and care provider-related factors affect pregnant women's health behaviours and utilization of skilled maternal services. The Data was analyzed thematically using the 6-stage guide to thematic data analysis with the help of NVIvo Software. The inadequate conditions of the health facilities and the poor working conditions of the care providers affected the provision of quality of maternal services and health information to pregnant women in the study area. The limited access to skilled maternal health information from skilled healthcare providers and lack of alternative sources of reliable health information led pregnant women to seek health information from their Mothers-in-laws, TBAs and other women in the society.

Scheper-Hughes (2014) studied "Infant mortality and infant care: Cultural and economic constraints on nurturing in Northeast Brazil". An analysis of the reproductive histories of 72 marginally employed residents of a Northeast Brazilian rural shantytown explores the economic and cultural context that inhibits these mother's abilities to rear healthy, living children and which forces them to devise 'ethno eugenic' childrearing strategies that prejudice the life chances of those offspring judged 'less fit' for survival under the pernicious conditions of life on the Alto. It is suggested that the selective neglect of children is a direct consequence of the selective neglect of their mothers who have been excluded from participating in the national economy. The links between economic exploitation and maternal deprivation are further discussed with reference to the social causes of the 'insufficient breast milk syndrome' and the commercial powdered milk dependency of these women.

Issah (2017) examined the effect of Ghana's free maternal health care policy on maternal mortality using yearly records of deliveries, maternal mortality, postnatal and antenatal attendance

and the amount spent on the policy. The data was obtained from the Department of the Obstetrics & Gynecology of the Nsawam Government Hospital. T-test and correlation coefficient were used for the research. Trend analysis showed a reduction in maternal mortality however, there was an insignificant difference in the means of maternal mortality before and after the policy. The research showed a significant increase in antenatal and postnatal attendance at the hospital. Also, there was a negative relationship between maternal mortality and antenatal and postnatal attendance which shows that increase in antenatal and postnatal attendance reduces maternal mortality at the hospital. However, there was a decrease in the number of deliveries after the policy.

CHAPTER TWO

RESEARCH METHOD

2.0 Introduction to the Chapter

The purpose of this study was to investigate on maternal and infant mortality among pregnant women at Prampram Polyclinic. This chapter presents the study design, research setting, target population, sampling method and sample size, data collection tool, data collection procedure, validity and reliability of the study, pre-testing, ethical considerations and limitation of the study.

2.1 Research Design

The descriptive research method was used for the study. Under the descriptive study, quantitative data was collected. A quantitative study is a structured investigation of event(s) or interest that yields numerical information. Therefore, in this research, the quantitative study was the most appropriate paradigm in which to study variables such as awareness of maternal and infant mortality among pregnant women.

2.2 Research Setting

Prampram Polyclinic is located at the Ningo-Prampram District in the Greater Accra Region of Ghana. According the 2010 population and housing census, Ningo-Prampram District covers a total land area of about 622.2 square kilometers. The district is located about 15 km to the east of Tema and about 40 km from Accra, the capital of Ghana. The district is bounded in the north by Shai-Osudoku district, south by the Gulf of Guinea, in the east by the Ada East district and to the west by Kpone-Katamanso district. Prampram polyclinic was instituted in the Kotoka

regime formally known as Kotoka Memorial Hospital. It was later named as Prampram Health Centre. Prampram Health Centre became Prampram Polyclinic in December 2015. It is a clinic that caters for patients within the community with minor diseases. The Polyclinic has a 15 bed capacity for both male and female wards and the services rendered are dependent on the department available. The departments of the Polyclinic are; Out-patient department, Pharmacy, Laboratories, Diagnostic Center, Family Planning Unit, Antenatal and Postnatal unit, Maternity, Counselling and Adolescent Health Corner, Eye clinic, Recovery wards and Ambulance department. The Polyclinic operates a 24hour service. The following depicts the staff category of the polyclinic; Medical officer-1

Physician Assistant-1

Professional nurses-20

Auxiliary nurses-36

Community health officers-3

Accountants-3

Technical officers (disease control)-4

Pharmacists-2

Dispensing assistants-2

Biomedical scientists-3

Biostatistics officer-1

Drivers-2

Mission

A preferred provider of high quality health care at an affordable cost to the community and client we serve.

Vision

To become a major player in the delivery of quality health care at an affordable cost for the community we serve by contracting the best and dedicated team of health care professionals (Source: Field Survey, 2018)

2.3 Target Population

The target population of the research consisted of pregnant women attending antenatal clinic at Prampram Polyclinic. The target population constituted about 259 pregnant women.

Inclusion Criteria

- Pregnant women who were present during data collection
- Pregnant women who were able to read or write at least basic English.
- Pregnant women who were of good health to answer the questionnaires.
- Pregnant women who were willing to participate in the study

Exclusion Criteria

- Pregnant women who were not present at the time of data collection.
- Pregnant women were unable to read or write basic English were excluded.
- Pregnant women who were sick and for that matter were not be able to answer the questionnaires were excluded.
- Pregnant women who disagreed to participate in the study

2.4 Sampling method and Sample size

Sampling method is the identification of the specific process by which the entities of the sample have been selected (Sekaran & Bougie, 2009). A convenient sampling technique was employed to select pregnant women to be included in the study. This technique was preferable since it gave each pregnant woman a fair chance to participate in the study. A sample size of 80, was determined based on a 95% confidence level with a 5% allowable margin of error, and with the proportion of pregnant women awareness of maternal and infant mortality put at 10% (Sample size, $n=z^2\ pq/d^{2)}$, where z is the reliability co-efficient (1.96) at 95% confidence level, d is the allowable error margin, p is the proportion of pregnant women awareness on maternal and infant mortality, q=1-p). The sample size was therefore determined as $n=0.10(0.90)\ (1.96^2)/.05^2=69.14$. This figure was adjusted to 80 to cater for non-response or incomplete questionnaire.

2.5 Data Collection Tool

The study used primary data to answer the research questions. A researcher administered questionnaire in English language was administered to eligible participants. The questionnaire was designed by we the researchers based on literature review.

2.6 Data Collection Procedure

A formal letter of introduction from Central University Nursing Department was sent to the Administrator of Prampram Polyclinic to seek ethical consent. After permission for data collection was granted, a date was scheduled for data collection. The respondents filled the questionnaires at the Outpatient department (OPD) and anyone who found it difficult to understand anything, was assisted with explanations in order to provide relevant answers.

2.7 Validity and Reliability of the study

A research instrument is reliable when it can measure a variable accurately and constantly and obtain the same results under the same conditions of a period of time (Creswel & Clark, 2011). Validity of the study ensures that data collected is of value (Creswel & Clark, 2011). The test-retest technique of assessing validity and reliability of data was used, and it involved administering the same instrument (questionnaires) twice to the same group of respondents, usually with a time lapse between the first test and the second test. The scores from both testing period was correlated and the correlation coefficient obtained. A high correlation coefficient indicates a high test-retest reliability and validity. Content validity was established through consultation with experts in research and medical field.

Pretesting of Tool

10% of the participants representing 8 pregnant women were engaged in a pre-test study at Kaneshie polyclinic under conditions and in an environment similar to that which was encountered during the full scale study.

2.8 Ethical Consideration

Authority to undertake the study was obtained from the following authorities:

a) Department of Nursing, Central University.

b) Hospital Administration, Prampram Polyclinic.

c) Informed consent from respondents where privacy and confidentiality of information given was assured.

Overall principles and foundations of research ethics in human research were strictly observed throughout the study period. Participants were informed about their right not to participate, not to

disclose a certain information if they did not want to or even to withdraw without being denied from any possible benefit of the study.

2.9 Limitations of the study

We the researchers had the following limitations:

- Financial constraints due to transportation cost, printing, binding etc.
- Limited time allotted for the study.
- Busy schedule of the researchers because the study was done together with other course works.

2.10 Statistical Analysis of Data

Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 21 supported with Microsoft excel. The various variables under study were coded for recognition in SPSS. The output of the SPSS was presented using frequency distribution, tables and charts (pie and bar), hence the use of descriptive data analysis.

CHAPTER THREE

STUDY FINDINGS AND DISCUSSIONS

3.1 Introduction

This is the last chapter of the study. The data is presented in response to the research questions as presented in chapter one. However, the findings are presented and analyzed in the light of the research objectives. The chapter covers the analysis and discussion of the results. Conclusions and recommendations form the last part of the study.

3.2 Approach to Data Analysis

Questionnaires were collected and coded for easy identification. Data was analyzed with both Microsoft Excel and SPSS (Statistical Package for Social Sciences version 21) applications. Data was presented in frequency counts, percentages, pie charts and bar charts.

3.3 Findings

3.3.1 Background Information

Table 1: Age of Respondent

Response	Frequency	Percent
18 – 25 years	12	15.0
26 – 39 years	43	54.0
Above 39 years	26	31.0
Total	80	100.0

Source: Field Survey (2019)

From the results presented in Table 1 above, majority 43 (54%) of the pregnant women were between the ages of 26 to 39 years. 26 (31%) were above 39 years of age whiles 12 (15%) were between the ages of 18 to 25 years.

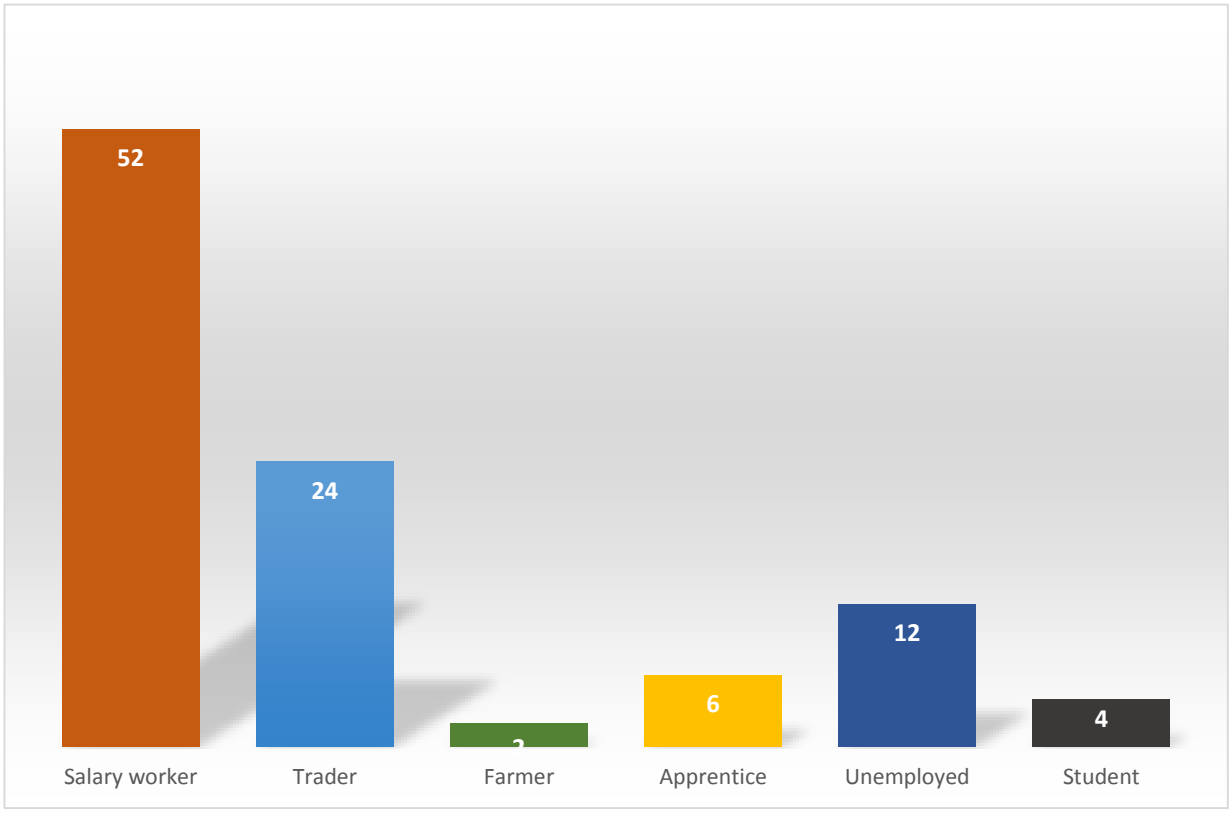
Table 2: Level of Education

Response	Frequency	Percent
Basic Education	9	11.0
SHS	20	25.0
Tertiary	47	59.0
No Education	4	5.0
Total	80	100.0

Source: Field Survey (2019)

Analysis from table 2 indicates that, 47 (59%) of the respondents have tertiary level education as their highest education. 20 (25%) of them have Senior High School education as their highest educational level. 9 (11%) of them have basic education whiles 4 (5%) have no formal Education.

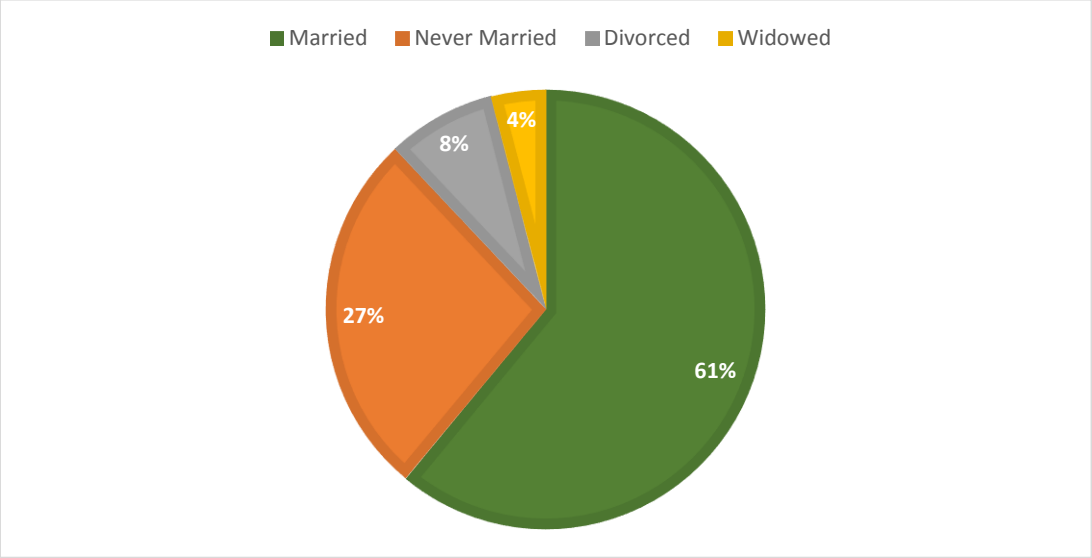
Figure 1: What is your occupation?



Source: Field Survey (2019)

In obtaining the occupation of the pregnant women, majority (52%) of them indicated they are salary workers. 24% of them showed they were traders whiles 12% indicated they were unemployed. 4% were students with 2% being farmers.

Figure 2: What is your marital status?



Source: Field Survey (2019)

According to figure 2 above, 61% of the respondents were married whiles 27% were never married. 8% had divorced whiles 4% were widowed.

3.3.2 Knowledge Level of Pregnant Women on Maternal and Infant Mortality.

Table 3: Maternal mortality is the death of a woman during pregnancy or within 42 days of its termination.

Response	Frequency	Percent
Yes	65	81.0
No	9	11.0
Not Sure	6	8.0
Total	80	100.0

Source: Field Survey (2019

Table 3 shows that, most of the pregnant women (81%) identified that, maternal mortality is the death of a woman during pregnancy or within 42 days of its termination. 11% of them responded otherwise whiles 8% were not sure about the response to the statement.

Table 4: Infant mortality is the probability of the infant dying between birth and the first birthday.

Response	Frequency	Percent
Yes	72	90.0
No	4	5.0
Not Sure	4	5.0
Total	80	100.0

Source: Field Survey (2019

Responses from 90% of the respondents indicated that, infant mortality is the probability of the infant dying between birth and the first birthday. 5% of the pregnant women responded otherwise whiles another 5% did not provide any response.

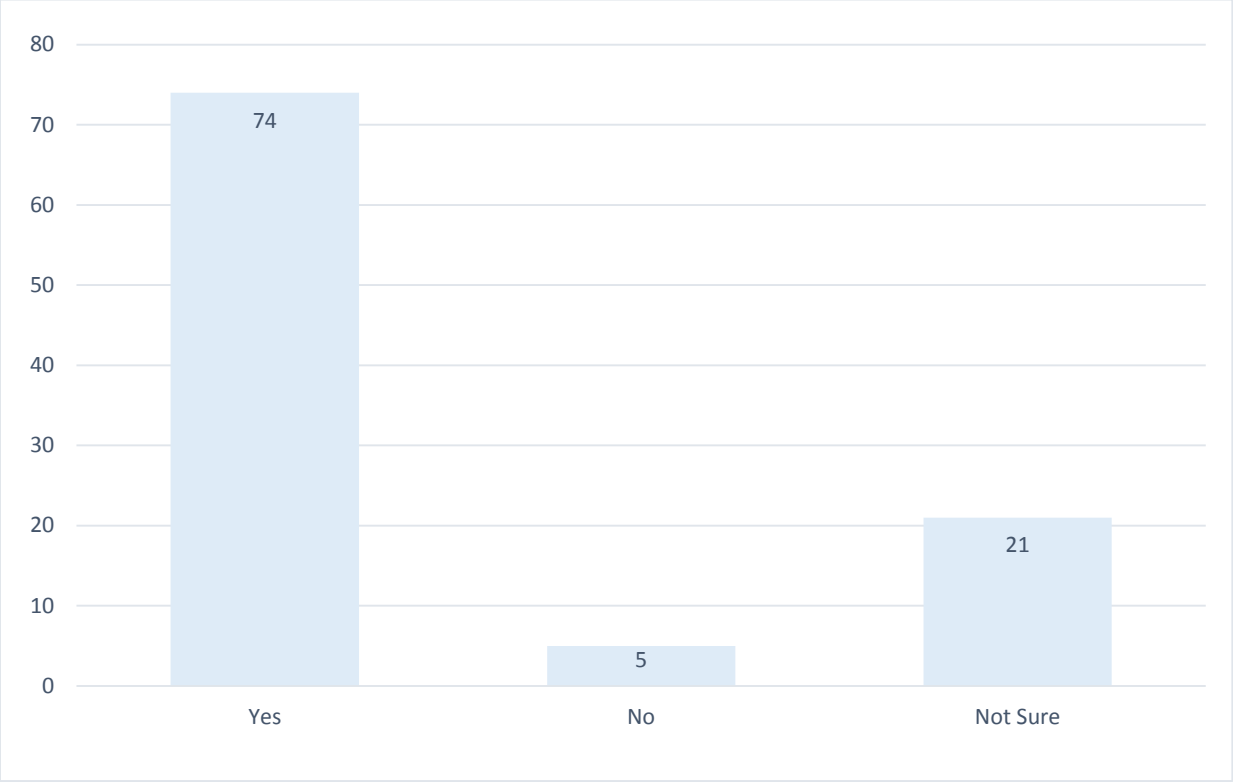
Table 5: Low education level is a risk to maternal death.

Response	Frequency	Percent
Yes	52	65.0
No	18	22.0
Not Sure	10	13.0
Total	80	100.0

Source: Field Survey (2019)

65% of the pregnant women responded in the affirmative that, low education level is a risk to maternal death. 22% responded otherwise whiles 13% were not sure about the response.

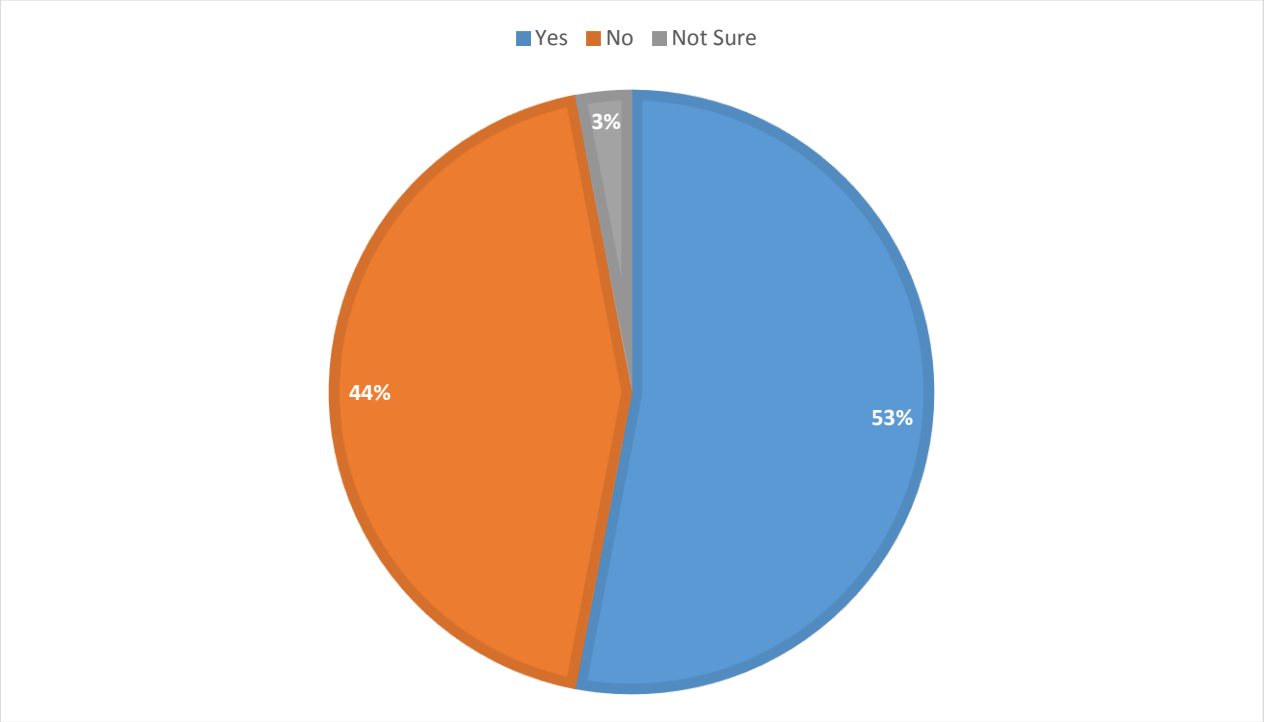
Figure 3: Traditional birth attendants mostly cause maternal and infant mortality.



Source: Field Survey (2019)

Analysis from figure 3 reveals that, 74% of the pregnant women responded in affirmative that, traditional birth attendants mostly cause maternal and infant mortality. 21% were not sure whiles 5% responded 'No'.

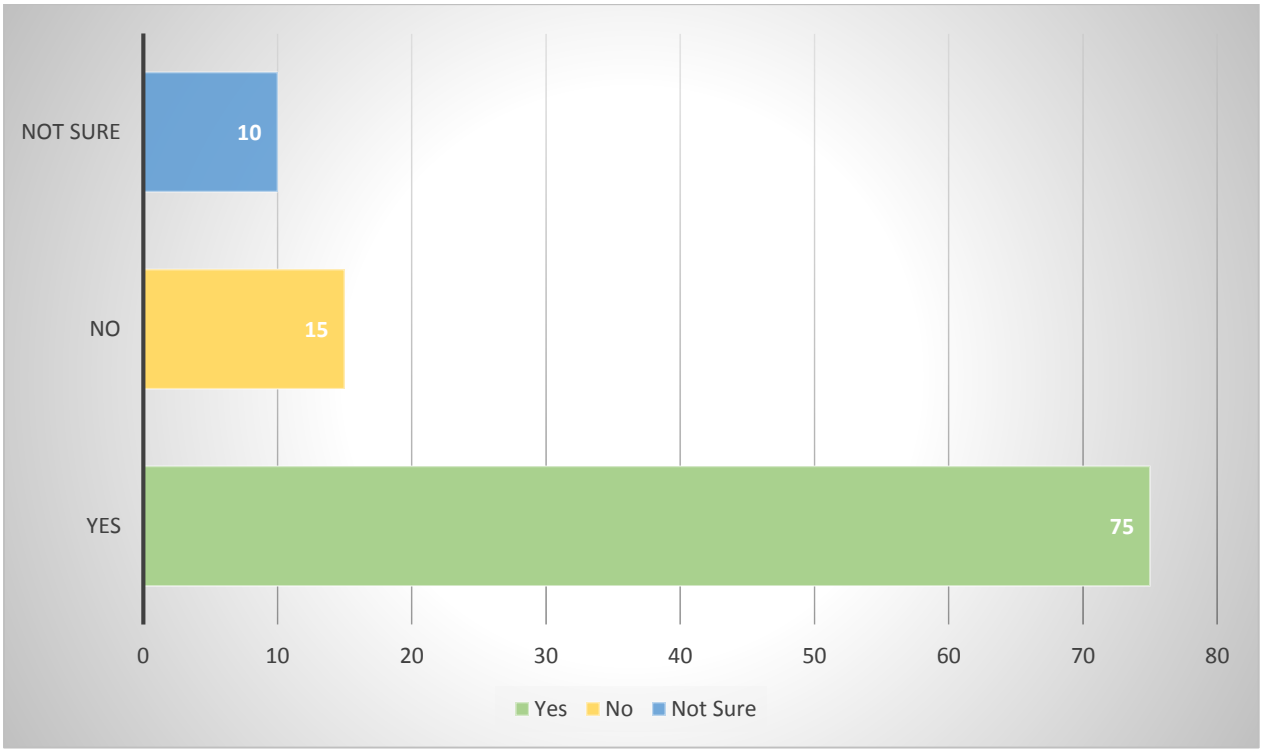
Figure 4: Health Service providers sometimes cause maternal and infant mortality.



Source: Field Survey (2019)

From figure 4 above, 53% of the pregnant women responded in affirmative that, health service providers sometimes cause maternal and infant mortality. 44% responded otherwise whiles 3% did not know the response to give.

Figure 5: Direct obstetric causes are also responsible for the majority of maternal and infant mortality.



Source: Field Survey (2019)

Figure 5 shows that, a great majority (75%) of the pregnant women responded in affirmative that, direct obstetric causes is also responsible for the majority of maternal and infant mortality. 15% indicated otherwise whiles 10% did not know the response to the statement.

3.3.3 Predisposing Factors of Maternal and Infant Mortality among Pregnant Women

Table 6: To identify the predisposing factors of maternal and infant mortality, series of questions were asked the pregnant women. The responses were tabulated below:

	True	False	Don't Know
Smoking is a predisposing factor for maternal and infant mortality.	65(81%)	12(15%)	3(4%)
Delay in seeking and accessing emergency obstetric care is a risk factor for maternal and infant mortality.	72(90%)	4(5%)	4(5%)
Late recognition of the obstetric problems is a predisposing factor of maternal and infant mortality.	75(94%)	3(4%)	2(2%)
Having children at older ages is a risk factor of maternal and infant mortality.	80(100%)	0(0%)	0(0%)
Place of delivery and source of water is a risk factor of maternal and infant mortality.	52(65%)	12(15%)	16(20%)
Birth spacing and complications are predisposing factors of maternal and infant mortality.	77(96%)	0(0%)	3(4%)

Source: Field Survey (2019)

Analysis from table 6 shows that, 81% of the pregnant women affirmed smoking as a predisposing factor for maternal and infant mortality. 15% responded otherwise whiles 4% did not know the response to the statement.

Further analysis showed that 90% of the pregnant women responded in affirmative that, delay in seeking and accessing emergency obstetric care is a risk factor for maternal and infant mortality. 5% responded otherwise whiles another 5% did not know the response.

96% of the pregnant women affirmed that late recognition of the obstetric problems is a predisposing factor of maternal and infant mortality. 3% indicated otherwise whiles 2% did not know the response.

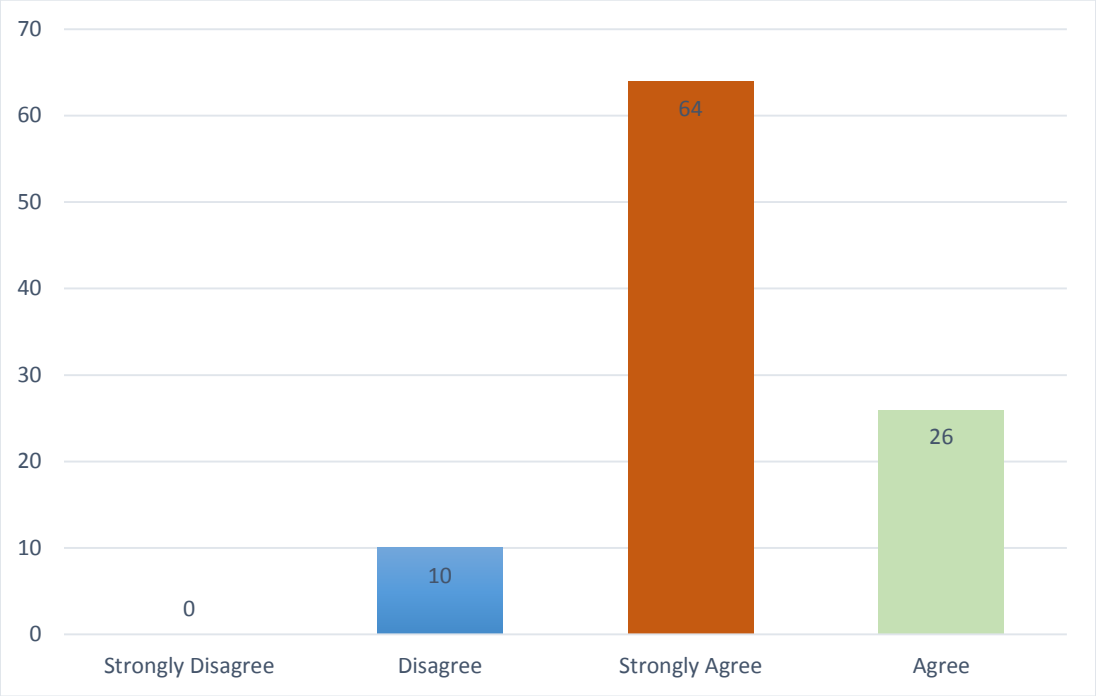
From table 6, 80% of the pregnant women affirmed that, having children at older ages is a risk factor of maternal and infant mortality.

According to 65% of the pregnant women, place of delivery and source of water is a risk factor of maternal and infant mortality. 15% did not think so whiles 20% did not know the response.

96% of the respondents affirmed that, birth spacing and complications are predisposing factors of maternal and infant mortality. 4% of them did not know the response to the statement.

3.3.4 Preventive Measures of Maternal and Infant Mortality among Pregnant Women.

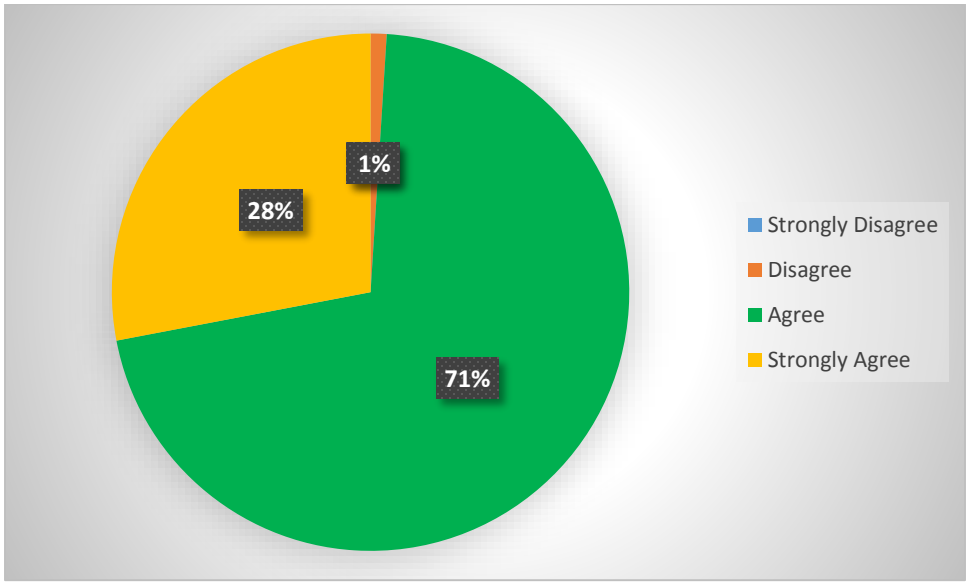
Figure 6: Frequent antenatal care is necessary for preventing maternal and infant mortality.



Source: Field Survey (2019)

Figure 6 shows that, 64% of the pregnant women strongly agreed that, frequent antenatal care is necessary for preventing maternal and infant mortality. 26% agreed whiles 10% disagreed to the statement.

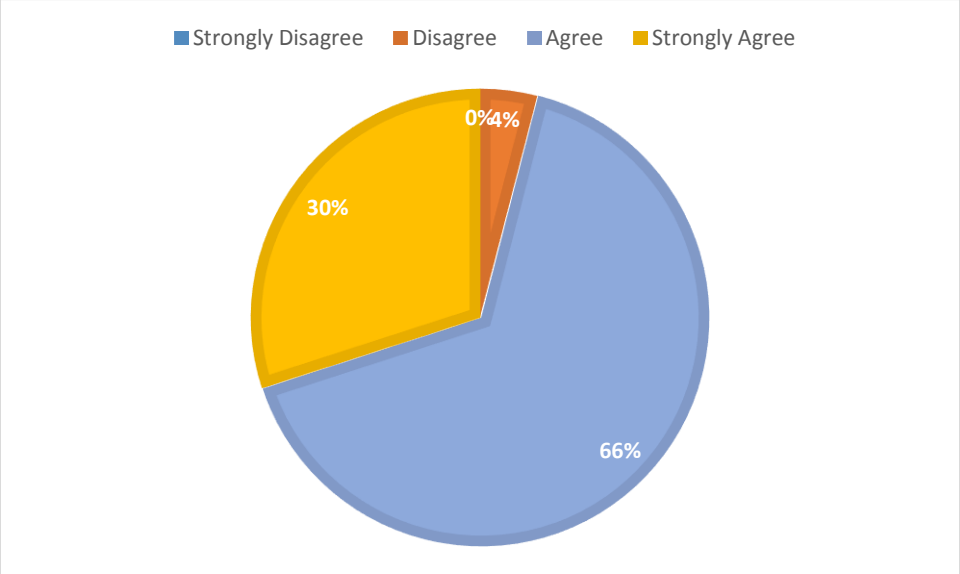
Figure 7: Reliable and accessible health information is necessary for preventing maternal and infant mortality.



Source: Field Survey (2019)

From figure 7 above, 71% of the pregnant women agreed that, reliable and accessible health information is necessary for preventing maternal and infant mortality. 28% percent strongly agreed whiles 1% disagreed.

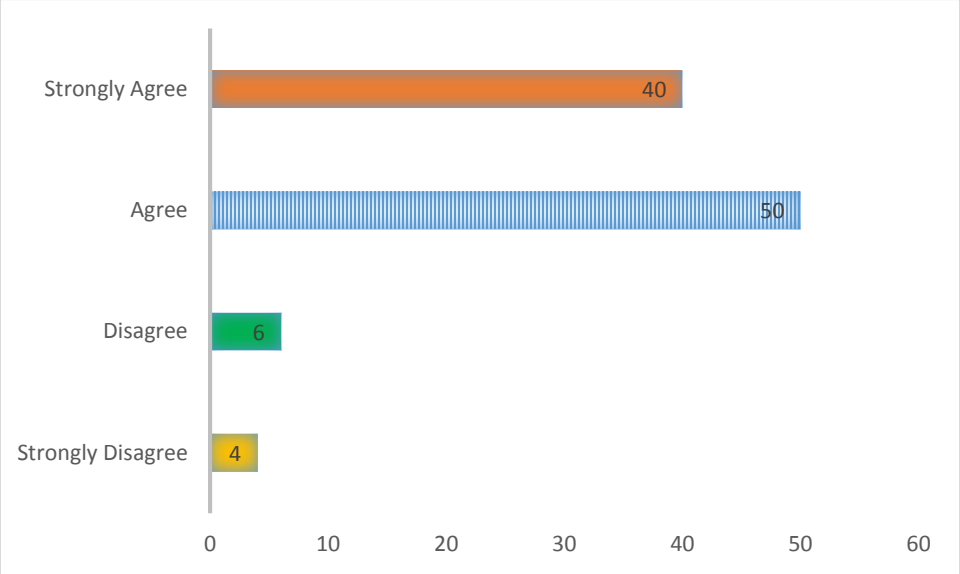
Figure 8: Provision of drugs during pregnancy is crucial for preventing maternal and infant mortality



Source: Field Survey (2019)

Figure 8 depicts that, 66% of the pregnant women agreed that, provision of drugs during pregnancy is crucial for preventing maternal and infant mortality. 30% strongly agreed whiles 4% disagreed.

Figure 9: Providing accessible roads to health facilities is important for preventing maternal and infant mortality.



Source: Field Survey (2019)

Figure 9 shows that, half of the pregnant women (50 %) agreed that, providing accessible roads to health facilities is important for preventing maternal and infant mortality. Meanwhile, 40% strongly agreed whiles 6% disagreed. Only 4% strongly disagreed to the statement.

3.4 Discussions

3.4.1 Demographic Information

Majority i.e. 43 (54%) of the pregnant women were between the ages of 26 to 39 years. Most of these women i.e. 47 (59%) have had their education up to tertiary level. Majority (52%) of them were salary workers and most of them (61%) were married.

3.4.2 Knowledge Level of Pregnant Women on Maternal and Infant Mortality.

Most of the pregnant women (81%) identified that, maternal mortality is the death of a woman during pregnancy or within 42 days of its termination. Responses from 90% of the respondents indicate that, infant mortality is the probability of the infant dying between birth and the first birthday. 65% of the pregnant women responded in the affirmative that, low education level is a risk to maternal death. Further 74% of the pregnant women responded in affirmative that, traditional birth attendants mostly cause maternal and infant mortality. 53% of the pregnant women responded in affirmative that, health service providers sometimes cause maternal and infant mortality. A great majority (75%) of the pregnant women responded in affirmative that, direct obstetric causes are also responsible for the majority of maternal and infant mortality.

3.4.3 Predisposing Factors of Maternal and Infant Mortality among Pregnant Women

Findings show that, 81% of the pregnant women affirmed that, smoking is a predisposing factor for maternal and infant mortality. 9% of the pregnant women responded in affirmative that, delay in seeking and accessing emergency obstetric care is a risk factor for maternal and infant mortality. 94% of the pregnant women affirmed that late recognition of the obstetric problems is a predisposing factor of maternal and infant mortality.80% of the pregnant women affirmed that, having children at older ages is a risk factor of maternal and infant mortality. Findings also show that, 65% of the pregnant women indicated that, place of delivery and source of water is a risk

factor of maternal and infant mortality. 96% of the respondents affirmed that, birth spacing and complications are predisposing factors of maternal and infant mortality.

3.4.4 Preventive Measures of Maternal and Infant Mortality among Pregnant Women.

Findings show that, 64% of the pregnant women strongly agreed that, frequent antenatal care is necessary for preventing maternal and infant mortality. Further, 71% of the pregnant women agreed that, reliable and accessible health information is necessary for preventing maternal and infant mortality. 66% of the pregnant women agreed that, provision of drugs during pregnancy is crucial for preventing maternal and infant mortality. Findings indicated that, half of the pregnant women agreed that providing accessible roads to health facilities is important for preventing maternal and infant mortality.

3.5 Conclusion

The study has clearly revealed that, knowledge and attitude of pregnant women affect maternal and infant mortality in the studied hospital. The following conclusions have been drawn from the findings of the study. The pregnant women have fair knowledge about maternal and infant mortality and its associated risk factors. They identified smoking, delay in seeking and accessing emergency obstetric care, late recognition of the obstetric problems, having children at older ages, place of delivery and source of water as risk factors of maternal and infant mortality. Frequent antenatal care, reliable and accessible health information, provision of drugs during pregnancy and providing accessible roads to health facilities are important preventive practices.

3.6 Recommendations

The following recommendations have been made following the findings of the study.

1. Pregnant women should be educated about maternal and infant mortality through seminars, fora, antenatal clinics and other public places.
2. Antenatal clinics should be made accessible to all pregnant women despite their location.
3. Antenatal clinics should be covered by the National Health Insurance Scheme in order to grant pregnant women affordability and increase patronage.
4. The Government should provide the antenatal units of hospitals with the needed facilities to enhance their work.
5. The media should join in the education of all women about maternal and infant mortality through their programs.
6. Non-governmental organizations should join in providing support to hospitals and pregnant women in the communities.
7. The Government should provide accessible roads to Hospitals and all health facilities to prevent delay in reaching the hospital during childbirth and receiving adequate care.

REFERENCES

Adetunji (2015). Infant mortality and mother's education in Ondo State, Nigeria. *40*(2), 253-263.

Dualle, M. A. (2014). Perceptions of birth attendants, in Abudwak district, Galgudud Region Central Somalia. *Emory University*.

Kwarteng (2015). Maternal mortality in Ghana: *Prospects of meeting the UN Millennium Development Goals*. Norwegian University of Life Sciences.

Issah, R. (2017). The Effect of Ghana's Free Maternal Health Care Policy on Maternal Mortality: A case study of the Nsawam Government Hospital. Ashesi University.

Quansah, A. (2013). The impacts of free maternal delivery policy on maternal mortality in Ghana; A case study of Kumasi metropolis. Kwame Nkrumah University of Science and Technology.

Mwangakala (2014). Pregnant women's access to maternal health information and its impact on healthcare utilization behaviour in rural Tanzania. *Loughborough University, UK*.

Nutiye, S. (2009). *Determinants of maternal mortality in Turkey*. Regional, household and Individual level characteristics that are associated with infant mortality were examined.

Scheper-Hughes (2014) studied "Infant mortality and infant care: Cultural and economic Constraints on nurturing in Northeast Brazil". *Social Science & Medicine*. *19* (5): 535-546.

Sohail, S. (2017) "Prevalence and risk factors associated with under-mortality: *a multi-country comparative study in South Asia*.

Uddin, J. & Hossain, Z. (2008). Predictors of Infant Mortality in a Developing Country. *Asian Journal of Epidemiology*. *1* (1): 1-16.

World Health Organization (2012). *The World Health Report*: Make every mother and child count.

World Health Organization, UNICEF, UNFPA, World Bank (2012). Trends in maternal mortality 1990-2010. Geneva.

Abor P, Nkrumah G, Sakyi K, Adjasi C, Ale J. (2011). *The socio-economic determination of maternal healthcare utilization in Ghana.* Int J Soc Econ (2011) 38(7):628-48.10.1108/03068291111139258.

APPENDIX A

Questionnaire

CENTRAL UNIVERSITY

DEPARTMENT OF NURSING

INVESTIGATION OF MATERNAL AND INFANT MORTALITY AMONG PREGNANT WOMEN AT PRAMPRAM POLYCLINIC.

Dear participant, we are final year nursing students of Central University conducting a research on the above topic. This questionnaire is purely for academic purposes for the reward of a degree of Nursing in the named university. Information given would be kept confidential.

Questionnaire: Please tick the most appropriate response.

Section A: Background Information

1. Age: (a) 18-25yrs [ ] (b) 26-39yrs [ ] (c) above 39yrs [ ]

2. Level of education: (a) Basic Education [ ] (b) SHS [ ] (c) Tertiary [ ]

(d) No formal education [ ]

3. Occupation: (a) Salary worker [ ] (b) Trader [ ] (c) Farmer [ ]

(d) Artisan [ ] (e) Apprentice [ ] (f) unemployed [ ]

(g) Other(s) [ ] please specify…….

4. Marital Status: (a) Married [ ] (b) Unmarried [ ] (c) Divorced [ ]

(d) Cohabiting [ ]

SECTION B: KNOWLEDGE LEVEL OF PREGNANT WOMEN ON MATERNAL AND INFANT MORTALITY.

Please tick [√] the appropriate answers

	YES	**NO**	**NOT SURE**
5. Maternal mortality is the death of a woman during pregnancy or within 42 days of its termination.			
6. Infant mortality is the probability of the infant dying between birth and the first birthday.			
7. Low education level is a risk to maternal death.			
8. Traditional birth attendants mostly causes maternal and infant mortality.			
9. Health Service providers sometimes cause maternal and infant mortality.			
10. Direct obstetric causes is also responsible for the majority of maternal and infant mortality.			

SECTION C: PREDISPOSING FACTORS OF MATERNAL AND INFANT MORTALITY AMONG PREGNANT WOMEN.

Please tick [√] the appropriate answers

	TRUE	**FALSE**	**DON'T KNOW**
11. Smoking.			
12. Delay in seeking and accessing emergency obstetric care.			
13. Late recognition of the obstetric problems.			
14. Having children at older ages.			
15. Place of delivery and source of water.			
16. Birth spacing and complications.			

SECTION D: PREVENTIVE MEASURES OF MATERNAL AND INFANT MORTALITY AMONG PREGNANT WOMEN.

Please tick [√] the appropriate answers

	STRONGLY AGREE	**AGREE**	**DISAGREE**	**STRONGLY DISAGREE**
17. Frequent antenatal care.				
18. Reliable and accessible health information.				
19. Provision of drugs during pregnancy.				
20. Providing accessible roads to health facilities.				

End of Questionnaire **Thank you!**