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**KENYA MEDICAL TRAINING COLLEGE GARISSA**

**FACULTY OF NURSING SCIENCES**

**DEPARTMENT OF COMMUNITY HEALTH NURSING**

**RESEARCH; TO DETERMINE CAUSES OF ANAEMIA AMONG PREGNANT WOMEN AT GARISSA COUNTY REFERRAL HOSPITAL ANTENTAL WARD**

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**KRCHN SEPTEMBER 2017**

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**A DISSERTATION SUBMITTED TO THE FACULTY NURSING FOR AWARD OF DIPLOMA IN KENYA REGISTERED COMMUNITY HEALTH NURSING.**

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**GARISSA**

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**CERTIFICATION**

I certify that this research was ‘undertaken recommended and submitted by me for examination with my approval as undersigned for the Kenya medical training college Garissacommunity health nursing the research project is entitled.

To determine causes of anaemia among pregnant women at Garssa GneralHospital Antenatal ward

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**ACKNOWLEDGEMENT**

I acknowledge the almighty God for the strength and knowledge he gave me through the research time. My special thanks goes to all that made my project a success and also extend my special gratitude to Mr.Mburu ,my supervisor who tirelessly guided me through the research period. My special gratitude to my parents and siblings.

Special dedication to my fellow colleague who directly and indirectly assisted me during the study period.

**LIST OF ABBREVIATIONS**

CDC – Centre for disease control

KRCHN- Kenya registered community health nurse

MCH/FP-Maternal, Child Health and Family Planning

MOH- Ministry of Health

UNICEF – United Nations International for Children Education Funds

USA – United States of America

WHO – World Health Organization

HOD-Head of Department

ANC-Antenatal Clinic

**ABSTRACT**

The main objective of the study was to determine causes of anaemia among pregnant women in Garissa township This was a cross sectional descriptive study describing the situation at a given period of time.The structured and semi structured questionnaire was used to collect data. Fifty respondents participated,68% were primary school drop-outs ,20% had achieved secondary school education,they basically heard about anaemia through hospital and radio health messages.(16%) lived very far from the health facility,considering their low socio-economic status ,accessing or being in better position to prevent anaemia was a serious problem.The study recommends development of various newer approaches to curb problems arising in relation to the lack of efficient anaemia prevention and uptake of ANC clinic services all in the direction of prevention of anaemia among pregnant women.

**CHAPTER ONE**

1. **BACKGROUND INTRODUCTION**

Anaemia in pregnancy is when haemoglobin levels are below 10g/dl at any time during pregnancy(WHO,2012;CDC 2009).Anaemia in pregnancy is an important public health problem worldwide.World health organization estimates that more than half of the pregnant women in the world have haemoglobin levels less than 11.0g/dl,indicative of anaemia.Prevalence may be as high as 56-61%,this is especially in developing countries(WHO,2012;CDC 2008)

WHO found out that women become anaemic during pregnancy because f the demand for iron and other minerals that are increased due to physiological burden during pregnancy.In Africa studies in Nigeria have shown that Malaria endemic areas are highly affected with anaemia during pregnancy(WHO<2012,UNICEF 2014)

In pregnancy anaemia has significantly impacted on the health of the fetus as well as that of the mother.20% of ,maternal deaths in Africa have been contributed to by anaemia.The management and control of Anaemia in pregnancy is enhanced by the availability of local statistics that are not adequately provided in Kenya(NASCOP et,al 2015)

In Kenya Anaemia is common in primigravida,multiparous and among women of low socio-economic status are at a high risk of having anaemia during pregnancy .This is a research project conduct in 2012 by author to look at the determinants of maternal and prenatal health in Kisumu district of Kenya. Data was collected from four health facilities within the district which were selected through purposive sampling act as sentinel centre.The results revealed that poor pregnancy care, malaria and anaemia during pregnancy led to risk complications like still births,low birth weight children and early maternal morbidity(WHO 2013)

**1.1 PROBLEM STATEMENT**

Anaemia in pregnancy is an important public health problem worldwide.WHO estimates that more than half of the pregnant women in the world have haemoglobin level indicative of anaemia.However,the prevalence may be as high as 56% or 61% in developing countries.Women often become anaemic during pregnancy because the demand of iron and other vitamins are increased due to physiological burden of pregnancy (WHO 2015)

**1.2. PURPOSE OF THE STUDY**

The study aimed at identifying the causes of anaemia in pregnant women attending Mwingi District Hospital in the municipality of Mwingi Central District.

**1.3 OBJECTIVES OF THE STUDY**

**1.3.1 BROAD OBJECTIVE**

1. To assess causes of anaemia among pregnant women attending Garissa general hospital

**1.3.2 SPECIFIC OBJECTIVES**

1. To assess the socio-economic status of pregnant women with Anaemia.
2. To assess the knowledge of women on anaemia in pregnancy.
3. To establish dietary practices of the pregnant mothers

**1.4 RESEARCH QUESTIONS**

1. What is the socio-economic status of pregnant women with anaemia?
2. What is the knowledge of women on anaemia in pregnancy?
3. What are the dietary practices of pregnant women?
4. What is the attitude ofGarissa District women towards anemia prevention?

**1.5 HYPOTHESES**

Socio-economic status, knowledge and dietary practices of pregnant women influences on anaemia in Garissa general Hospital Antenatal ward.

**1.6 JUSTIFICATION OF THE STUDY**

Anaemia has serious effect on both pregnant women and their children and therefore the study on causes of anaemia during pregnancy is locally important to assist in discovery of new knowledge and plan for the effective measures in order to reduce the incidence of mortality caused by anaemia in pregnancy.

This research is also undertaken in partial fulfillment for the award of Diploma in Community Health Nursing. It helps the researcher to acquire knowledge and skills in conducting research especially in areas of data collection, analysis, presentation and interpretation (WHO 2015, FRANERNAL 2015)

**CHAPTER 2 : LITERATURE REVIEW**

**INTRODUCTION**

This chapter will examine the factors that influence the trends of anaemia causes among pregnant women.The factors consists of knowledge,socio-economic status,attitude and dietary practices in relation to anaemia.

**KNOWLEDGE**

Globally(WHO 2010) organized regionally dialogues on health education programs in relation to Anaemia.The regions were based on where knowledge needed to be improved on Anaemia.

In West Africa,Anaemia health education ventures were undertaken due to the low levels of anaemia prevention know-how(WHO 2010)

In India a large number population 89% had knowledge about anaemia and the government established many centers and outreach clinics for empowering communities in anaemia prevention. (Aggarwal et al, 2005).

In Kenya rural areas pregnant mothers education levels are at a comparatively low percentage 28%.This poor knowledge levels led to increased anaemia cases in pregnancy(Maldren ,2013-2014)

Most(60%) of mothers in Nairobi have knowledge about anaemia and the prevalence rate is low,(KEPI 2010-2011)

In Mwingi district,the number of mothers pregnant and diagnosed with Anaemia showed a good relation between the lack of knowledge and anaemia(MCH/FP clinic Mwingi District Hospital 201

**ATTITUDE**

Worldwide in developed countries,accurate recording of maternal and child health clinics service uptake is considerably low,this showed a negative attitude towards anemia prevention practices(Kembich et al,2013)

In Kenya attitude and perception contribute great towards uptake of maternal and child health clinics that are all aimed at prevention of anaemia (the journals of anaemia in pregnancy ,2011)Many mothers seek traditional health care and also traditional birth attendant services.This reduces the uptake of MCH services and putting anaemia prevalence rate at a high percentage(KERI 2011)

In Garissa district mothers have a negative attitude toward anaemia prevention services in the maternal and child health clinics(MCH/FP clinic Garissa general Hospital,2013-2014)

**SOCIO-ECONOMIC STATUS**

Globally,many pregnant women living in rural areas in many of developed countries live in poverty,they do not get basic things or items they need to assist them uptake or rather consume the MCH services which would in turn prevent them from being anaemia exposed.(Royal Health Institute of public health,2011)

In Canada, Burkina Faso is remote area who has low social economic status;Maternal and child clinic health services were introduced in the remote areas to provide greater opportunity for children to access anaemia prevention services [Aboubakary et al, 2013-2014].

In East Africa many people live in rural areas where poverty is so rampant,this represents 60% of the population showing socio-economic status thus hindering people prevention of anaemia in pregnancy(Gerald Rukunga,AMREF KENYA 2010)

**PRACTISES**

Worldwide,dietary practices among women of reproductive age ,more-so pregnant women contribute to or relate to prevention of anaemia in pregnancy(Public health Agency,Canada 2011)

In Europe (CDC 2013) established an advisory committee on anaemia.This was to empower women with know-how on how to prevent anaemia in pregnancy.

Nigeria is strengthening the MCH system to assist in impacting knowledge to pregnant women on dietary practices in prevention of anaemia in pregnancy.(Adenyika et al,2011)

Kenya launched many programs related to improve maternal and child health clinic services together with integrated outreaches aimed at changing dietary practices of the mothers.(WHO 2012)in Garissa district dietary factors with evidence of predisposing to anaemia has led to the initiation of community nutrition dialogues by the conjunction of the chief and the hospital together with clinics and dispensaries.(MCH/FP clinic Garissa general Hospital ,2013-2014)

**CHAPTER THREE**

* 1. **RESEARCH METHODOLOGY**
  2. **STUDY AREA**

The study was carried out on pregnant women residing within Garissa town at Garissa general Hospital antenatal ward.The area has a population of 60720 who are mainly small scale business people and Animals keeping .There are several institutions around the area eg Garissa KMTC and many administrative offices like county offices,police offices .The area is serve by Garissa general Hospita ,10 dispensaries,several nursing homes and clinics e. Garissa nursing home.There are many secondary schools which production to the students around eg Garissa Seccondary School and County Boys Secondary School

The study area is composed of a flat land surrounded by river tana.it experiences short rains.The area has a population of 24% of total population.The crude birth rate of 47.6% per 1000 births,crude rate is 11.3 per 1000 population ,fertility rate stands at 5.0.Infant mortality rate of 82 per 1000 births and crude death rate is 14.3 per population,life expectancy of 55years(UNICEF,2012)

**3.2STUDY DESIGN**

This is the procedure under which a study is carried out.It is a descriptive study.It describes the predisposing factors to anaemia during pregnancy in women of reproductive age from Garissa town

**3.3STUDY POPULATION**

The study population is women of reproductive age who are pregnant and residing within Garissa town.It was a projected population of 120,672 women.

**3.4INCLUSION CRITERIA**

Pregnant women in antenatal ward at Garissa general hospital.

**3.5 EXCLUSION CRITERIA**

All women who did not present with anaemia in pregnancy i Garissa generalHospital.

**3.6 SAMPLING TECHNIQUE**

The study sampling technique used is simple random sampling.This is to ensure that each member of the study population is given a chance to participate in the study and eliminate the biasness among the accessible population.

**3.7 SAMPLE SIZE**

The study population is greater than 10,000 hence Fishers et al 1998 formula is used:

n=Z2PQ

dz

n=the desired sample size if the population is greater than 10,000.

Z=the standard normal deviation all the required confidence level at 1.96 which correspond to 95 %

P=the proportion in the target population estimated to have a part of characteristics .If there is no reasonable estimate thus 50 % [0.05]

Q=1-P

d=the degree of accuracy desired usually set at 0.05 or occasionally at0.02 but for this study is 0.1

n=1.96\*1.96\*0.5\*0.5

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_=96 persons

0.1\*0.1

Enhanced formula of fshers et al,in population of the study

Nf= \_n\_\_\_ N

1+n

Nf = 96.04\_\_\_\_\_\_

1+96.04

105

= 50 persons

**3.8DATA COLLECTION METHOD**

This is going to be done by visiting pregnant women with anaemia in the antenatal ward a Garissa general Hospital.

Questionnaires will be self administered to those who can read and a researcher will be allocated to those who cannot.

Explanations will be given to aid understanding.

**3.9INSTRUMENTS FOR DATA COLLECTION**

Questionnaires will be the instrument used to collect data as it is more appropriate in terms of being economical easy to analyze and be administered to respondents.

**3.10DATA ANALYSIS,PRESENTATION AND INTERPRETATION**

Collected data will be presented in terms of pie charts,bar graphs,tables and narratives.Percentages will be calculated and the description of the study findings will be given for each question with objective presented as an entity.

**3.11ETHICAL CONSIDERATION**

The researcher will guarantee confidentiality of the information given by he subjects by ensuring anonymity.

Permission to carry out the research study was sought at Garissa K.M.T.C to Medical supritendant to allow the study in Garissa general hospital antenatal ward.Cultural considerations were factored in the research.

**3.12ASSUMPTIONS OF THE STUDY**

Every pregnant woman with anaemia in the antenatal ward is from Garissa town

**CHAPTER FOUR : DATA ANALYSIS AND PRESENTATION**

**INTRODUCTION**

This deals with data analysis and results based on objective of the reseach variables.50 questionnaire were processed and administered.

The data was collected,computed and analyzed and the information is presented in pie charts,bar graphs,tables and histograms for easier data interpretation.

**SOCIO-ECONOMIC**

**EDUCATION LEVEL**

Table 1.

|  |  |  |
| --- | --- | --- |
| Education level | No. of respondents | Percentages |
| Primary | 34 | 68% |
| Secondary | 10 | 20% |
| Tertiary | 6 | 12% |
| Total | 50 | 100% |

Figure 1a

Most of the subjects(68%-34respondents) had primary education,secondary level(20% -secondary 10respondents )and tertiary(12%-6respondents)

**MARITAL STATUS**

Table 2

|  |  |  |
| --- | --- | --- |
| Marital status | No.of respondents | Percentages |
| Married | 36 | 72% |
| Single | 12 | 24% |
| Separated | 2 | 4% |
| Total | 50 | 100% |

Figure 2a

Majority of the respondents (72%-36subjects)were married,(24%-12respondents) were single and (4%-2subjects)were separated.

**AGE DISTRIBUTION**

Table 3

|  |  |  |
| --- | --- | --- |
| Age distribution | No.of respondents | Percentage |
| 0-15years | 1 | 2% |
| 15-20years | 10 | 20% |
| 20-25years | 34 | 68% |
| 25-30years | 3 | 6% |
| 30-35years | 2 | 4% |
| Total | 50 | 100% |

Figure3a

Majorly 68% of the subjects were aged 20-25years ,20% were between 15-20years,6% were between 25-30years ,4% were aged 30-35years and 0-15years had a 2% coverage.

**EMPLOYMENT**

Table 4

|  |  |  |
| --- | --- | --- |
| Employment status | No.of respondents | Percentages |
| Yes | 6 | 12% |
| No | 44 | 88% |
| Total | 50 | 100% |

Figure 4a

A large number of people (72%-36),of the total subjects were unemployed compared to the employed (28%-14)

**INCOME PER MONTH**

Table 5

|  |  |  |
| --- | --- | --- |
| Income | No. of respondents | Percentages |
| 0-1000 | 20 | 40% |
| 1001-2000 | 10 | 20% |
| 2001-3000 | 2 | 4% |
| 3001-4000 | 2 | 4% |
| 4001-5000 | 10 | 20% |
| 5001-6000 | 6 | 12% |
| 6000 and above | 0 | 0% |
| Total | 50 | 100% |

Figure 5a

Majorly(0-1000) had 40% of the respondents wih (1001-2000)and (4001—5000)having both 20% and (2001-3000) plus (3001-4000) standing at 4% and the (5001-6000) braet having 12% of the subjects.

**NUMBER OF CHILDREN**

Table 6

|  |  |  |
| --- | --- | --- |
| No. of children | No. of respondents | Percentages |
| One | 10 | 20% |
| Two | 20 | 40% |
| Three | 3 | 6% |
| Four | 10 | 20% |
| Five | 4 | 8% |
| Six and above | 3 | 6% |
| Total | 50 | 100% |

Figure 6a

Majorly 40% had two children,20% had one child,6% had three children,20% had four children ,five children belonged to 8% of the respondents and 6% had 6children and above.

**KNOWLEDGE**

Table 7 Heard about anaemia?

|  |  |  |
| --- | --- | --- |
| State | No. of respondents | Percentages |
| Yes | 41 | 82% |
| No | 9 | 18% |
| Total | 50 | 100% |

Figure 7a

Most of the subjects(82%) had heard about anaemia but 18% had not.

Figure 7b

Most of the subjects got information from hospital 40%,34% from radio,20% from television and 6% from their churches.

**IS ANAEMIA A COMMON PROBLEM?**

Table 8

|  |  |  |
| --- | --- | --- |
| Responses | No.of respondents | Percentages |
| Very common | 20 | 40% |
| Common | 15 | 30% |
| Not very common | 10 | 20% |
| Don’t know | 5 | 10% |
| Total | 50 | 100% |

Figure 8a

Most subjects responded that anaemia is a very common disease (40%), some said it is common (15subjects-30%),20% of respondents said it is not very common and 10% said they do not know anything about the disease incidence.

**EVER SEEN A PERSON SUFFERING FROM ANAEMIA?**

Table 9

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentage |
| Yes | 36 | 72% |
| No | 14 | 28% |
| Total | 50 | 100 |

Figure 9a

(72%-36)respondents said they had seen a person suffering from anaemia and 28% said they had not.

Figure 9b

62% said they saw patients suffering from anaemia present with exertion ,26% said they saw fatigue symptoms, and 12% said they saw breathlessness.

**IS ANAEMIA PREVENTABLE?**

Table 10

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 41 | 82% |
| No | 9 | 18% |
| Total | 50 | 100% |

Figure 10.

82% of the respondents said anaemia is preventable and the 18% said it is not preventable.

**OTHER DISEASES PREVENTABLE BY MCH/FP CLINIC**

72% of the respondents said poliomyelitis is preventable,14% said tetanus,42% said tuberculosis ,12% supported pneumonia,hepatitis B got 16% and typhoid had 16%.\

**ATTITUDE**

Table 11.IMPORTANCE OF MATERNAL AND CHILD HEALTH CARE CLINIC

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 38 | 76% |
| No | 12 | 24% |
| Total | 50 | 100% |

Figure 11a

Figure 11b

Most respondents 60% supported the importance based on prevention of diseases and the 40% said it is for curative services.

**ATTENDING ANTENATAL CLINIC PREVIOUSLY**

**Table 12**

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 26 | 52% |
| No | 24 | 48% |
| Total | 50 | 100% |

**Figure 12a**

Majorly 52% said they had attended clinic for the previous pregnancies while 48% said they had not attended the mch clinic.

**Figure 12b**

Most (52%) said they attended to get the drugs,(32%) said to get medical help and 16% said they did routinely.

**TAKING HEALTH CARE WORKERS ADVICES**

Table 13

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 50 | 100% |
| No | 0 | 0% |
| Total | 50 | 100% |

Table 13b

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| I trust them | 26 | 52% |
| I depend on it | 16 | 32% |
| Routine | 8 | 16% |
| Total | 50 | 100% |

Figure 13c

52% respondents said they trusted the health care workers,32% said they depend on their advice and 16% said it was just routine.

**PRACTISES**

Table 14 HEALTH FACILITY AVAILABILITY WHERE YOU STAY?

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 46 | 92% |
| No | 4 | 8% |
| Total | 50 | 100% |

Figure 14a

Majorly 92% said they have a health facility where they stay and 8% said they don’t .

**DISTANCE FROM HOME**

Table 15

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Near | 23 | 46% |
| Far | 17 | 34% |
| Very far | 8 | 16% |
| Too far | 2 | 4% |
| Total | 50 | 100% |

Figure 15a

Majorly 46% said the facility is near,34% said the facility is far ,16% said it is very far and 4% respondents said it is too far.

**DID YOU VISIT THE CLINIC FOR THIS PREGNANCY?**

Table 16a

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 47 | 94% |
| No | 3 | 6% |
| Total | 50 | 100% |

Figure 16b

94% said they visited the clinic but 3 respondents(6%) said they did not.

Figure 16c

80% of the respondents said they attended the clinic 4 times and above while 20% said they attended the clinic less than twice.

The three who said they did not attend the clinic for the pregnancy cited reasons of being busy.

**DID YOU GET THE SERVICES YOU NEEDED?**

Table 17

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 48 | 96% |
| No | 2 | 4% |
| Total | 50 | 100% |

Figure 17a

96% said they got the services they needed and two respondents said no.The group that said yes reported to have received drugs among other services.

**DID YOU COMPLY WITH WHAT THE HEALTH CARE WORKERS ADVISED YOU?**

Table 18

|  |  |  |
| --- | --- | --- |
| Response | No.of respondents | Percentages |
| Yes | 50 | 100% |
| No | 0 | 0% |
| Total | 50 | 100% |

All the respondents said they complied with what the health care workers advised you?

**CHAPTER 5 ;DISCUSSION**

**INTRODUCTION**

This chapter discusses the findings in the study according to the study objectives in comparison with findings with various researchers.

**KNOWLEDGE**

According to the researcher finding 82% of the subjects are aware of anaemia and 72% had seen somebody suffer from the disease before,82% said the disease is preventable and also 20% said it is not a common disease though fatal when complications arise in an individual or the similar features of anaemia.The sources of information were from hospitals 40% and 34% from radio.

The data agrees with Indians study that 89% of population had knowledge about anaemia.The government established centers to empower women and community in anaemia prevention (Aggarwal et al,2010)

KEPI(2012) agrees that 95% of Nairobi women have knowledge about anaemia .

However it disagrees with (Knowaja et al,2012) in Pakistan study that 28% of the subjects knew about anaemia.This was a considerable low number.

It disagrees with Canadians study that knowledge about anaemia was a problem because they considered many to have been affected(Kaaber and Peterson,2008)

In Kenya anaemia prevalence was dueto poor parental education ,28% of the population with low education were rual area residents ,this lead to inadequate accessibility to knowledge about anaemia.This lead to increased cases of anaemia.(Carine ,2013-2014)

**SOCIO-ECONOMIC FACTORS**

The researcher findings shows that 40% of the subject had low income of less than 1000 per month ,this clearly showed their low-economic status ,while the higher income group was 20% who earned between 4001-5000 and above per month which is still low.A large number 72% of the subjects were unemployed.A good number 34% live far from their facility ,they are more likely to earn low so this leads to inaccessibility to the facility due to their low socio-economic status in terms of fare and some service payment in case they are needed.

The findings agree with (Gerald Rukunga,AMREF KENYA 2010) that many people live in rural areas where poverty is rampant hindering anaemia prevention in pregnancy.

The findings disagrees with (WHO, 2013-2014).In Europe due to their favorable socio-economic status.

**ATTITUDE**

The researcher find out that 76% of the respondents found it important to attend the mch/fp clinic but a good number 24% fund no need.This shows the importance of MCH/FP clinic towards anaemia prevention among others still needs a push due to the numbers recorded regarding its importance.

In the number of those who found it important to visit the clinic,60% said it was becaused it helped prevent diseases and 40% said it helped cure diseases.

The finding agrees with (KERI,2011) stating that attitude and perception contributes greatly towards uptake of maternal and child health clinic services

A low number of 48% were found to have attended the clinic for the pregnancy they held at the time .

This finding agrees with (Mwingi MCH/FP clinic district hospital 2013-2014)that mothers have a negative attitude towards anaem ia prevention services in MCH/FP clinic.

**PRACTISES**

Majority of the respondents 92 % said they were near a health facility where they lived.94% agreed that they visited the clinic for this pregnancy ,that’s the majority.The finding agrees (WHO 2012 ) stating that MCH/FP programs strengthening programs changed the sensitization of women in dietary practices to prevent anaemia.

However,the finding disagrees with (Durrehim,2013) in Australia,Rukunga(2014) in East Africa and (WHO 2012)where health facilities aren’t accessible to the mothers and caregivers leading to high incidences of anemia since many of them don’t go to seek services.

The researcher did not specify whether being inaccessible did not refer to distance to the health facilities or affordability of services if at all they paid for .

**CHAPTER SIX:CONCLUSION**

**INTRODUCTION**

**SOCIO-ECONOMIC**

The researcher finding show that the subjects had low socioeconomic status A large number of subject are primary school drop also who unemployed this makes poverty stands out as a contributing factor of high incidence of anaemia .Majority of the subject have a low income per month which can not satisfy their basic needs among things to do with dietary modification in aim to prevent anaemia.

**KNOWLEDGE**

According to the study finding majority had heard about anaemia before,their main source of information was from hospital and radio with the least from television and from their church.Eighty two percent believed anaemia is preventable.This indicated the importance of maternal and child health clinic services.this showed that despite a large number,(68%) being primary school drop-outs,the clinic was stepping up it’s hard work of health promotion.The clinic health promotion services were showing positive results in relation to awareness impact.

**ATTITUDE**

According to the researcher,all the subjects showed a positive attitude towards taking health care workers advice.However a good number (24%), did not see the importance of visiting the MCH clinic.

This clearly showed itself in the (48%) of respondents who said they did not attend the clinic for previous pregnancies.

**PRACTICES**

Majority of the respondents had facilities where they lived and others a bit distant with encounters of poor transport networks.(94%) a big majority said they visited the clinic for this pregnancy but still (20%) said they visited the clinic less than two times showing the reason for anaemia cases still being at a constant level.

**RECOMMENDATION**

In this area of study the researcher found out that anaemia is common problem among pregnant women in the community.Most causes are preventable and the researcher recommends more creation of awareness or rather sensitization of community towards ANC clinic services.All mothers and guardians will always be educated about anaemia prevention in relation to predisposes by the community health nurses in the clinic.Those from pediatrics and maternity unit.They should be taught on importance of attending the clinic and being involved in anaemia prevention services in health care centers.

There is need of provision of health education at the ANC clinic on lifestyle ways of preventing anaemia among services incorporated in the ANC clinic.This should be all in bid to prevent anaemia in pregnancy

The East African countries should incorporate and form strategies on improving uptake of ANC clinic services by developing newer approaches to tackle various mishaps like the poor transport network.

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**APPENDIX I**

**RESEARCH WORKPLAN 2019-2020**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Activities | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb |
| Identifying research topic |  |  |  |  |  |  |  |  |  |  |  |
| Formulating research objective |  |  |  |  |  |  |  |  |  |  |  |
| Justification of study |  |  |  |  |  |  |  |  |  |  |  |
| Literature review |  |  |  |  |  |  |  |  |  |  |  |
| Research methodology |  |  |  |  |  |  |  |  |  |  |  |
| Method of data collection |  |  |  |  |  |  |  |  |  |  |  |
| Conducting a pre-test |  |  |  |  |  |  |  |  |  |  |  |
| Data collection/ presentation |  |  |  |  |  |  |  |  |  |  |  |
| Data analysis and interpretation |  |  |  |  |  |  |  |  |  |  |  |
| Report preparation / typing |  |  |  |  |  |  |  |  |  |  |  |

**APPENDIX II**

**RESEARCH PROJECT EXPENSES**

|  |  |  |  |
| --- | --- | --- | --- |
| **ITEM** | **QUANTITY** | **PRICE PER UNIT** | **TOTAL COST** |
| Foolscaps | 1 | 500 | 500 |
| Pens | 5 | 20 | 100 |
| Binding | 2 | 100 | 200 |
| Calculator | 1 | 500 | 500 |
| Typing and printing | 45 | 80 | 3,600 |
| Rubber | 1 | 50 | 50 |
| Data bundles | 1GB | 1000 | 1,000 |
| Transport |  |  | 1,000 |
| Miscellaneous |  |  | 1,550 |
| TOTAL |  |  | 8,500 |

**APPENDIX III**

**RESEARCH PROJECT TO DETERMINE CAUSES OF ANAEMIA AMONG PREGNANT WOMEN AT MWINGI DISTRICT HOSPITAL ANTENATAL WARD**

**QUESTIONAIRE**

***INTRODUCTION***

This information is highly confidential used for study purposes only. Answer questions with sincerity.

Tick within box provided and where possible fill the blank spaces.

**SOCIO- ECONOMIC**

1. What is your level of education?

* Primary
* Secondary
* Tertiary
* Others specify........................................................

2. What is your marital status?

* Married
* Single
* Separated
* Others specify...............................................................

3. How old are you?

* 0 – 15 years
* 15 – 20 years
* 20 – 25 years
* 25 – 30 years
* 30 – 35 years
* Others specify.......................................

4. Are you employed?

* Yes
* No

If yes what do you do?...................................................................................

5. What is your average income in a month?

* 0 – 1,000
* 1,001 – 2,000
* 2,001 – 3,000
* 3,001 – 4,000
* 4,001 – 5,000
* 5,001 – 6,000
* 6,001 and above

6. How many children do you have?

* One
* Two
* Three
* Four
* Five
* Six and above

**KNOWLEDGE**

1. Have you ever heard of anaemia?

* Yes
* No

If yes, which source of information?

* Radio
* Television
* Church
* Hospital
* Others specify.....................................................................................

2. Is anaemia a common problem?

* Very common
* Common
* Not very common
* Don’t know

3. Have you ever seen a person suffering from anaemia?

* Yes
* No

If yes how did they present?

* Fatigue
* Exertion
* Breathlessness

Others specify...............................................................................................

4. Is anaemia disease preventable?

* Yes
* No

5. Which are other diseases that can be prevented through maternal child health clinic services ?.........................................................................................................................

**ATTITUDE**

1. Are the maternal child health clinic services important?

* Yes
* No
* If yes why?............................................................................

If No why?............................................................................

2. Did you attend antenatal clinic in previous pregnancies?

* Yes
* No
* If yes why?............................................................................

If No why?............................................................................

3. Is it necessary to take the health care workers advice?

* Yes
* No
* If yes why? ........................................................................................

If no why? ..........................................................................................

**PRACTICES**

1. Is there health facility where you stay?

* Yes
* No

2. How far is it from your home?

* Near
* Far
* Very far
* Too far

3. Did you visit the maternal and child health clinic for this pregnancy?

* Yes
* No
* If yes, how many times?.................................................................
* If no, why?.............................................................................

4. Were you offered the services you needed?

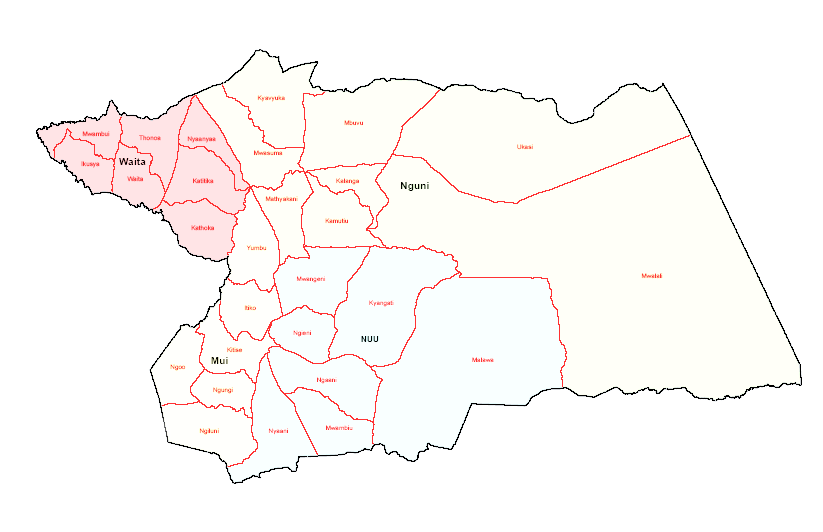
* Yes
* No
* If yes, which services?........................................................................

5. Did you comply with what the health care workers told you?

* Yes
* No
* If no,why?............................................................................

**APPENDIX IV**

**MAP OF MWINGI CENTRAL**

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