**KENYA MEDICAL TRAINING COLLEGE**

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**A STUDY ON FACTORS CONTRIBUTING TO DIARRHEA IN CHILDREN AGED UNDER FIVE YEARS IN VIHIGA COUNTY REFERRAL HOSPITAL.**

**BY**

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**A RESEARCH SUBMITTED TO THE DEPARTMENT OF NURSING FOR THE PARTIAL FULFILMENT OF THE AWARD OF DIPLOMA IN NURSING**

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# DECLARATION

I the undersigned, declare that this is my original work achieved through my personal reading and research and has not been presented for the award of Diploma in the same way in any institution or of academic qualification purpose

Author: ………………………………….

Signature…………………………………..

Date………………………………………….

Supervisor…………………………………..

Signature…………………………………….

Date ……………………………………………

# DEDICATION

I would like to dedicate this study to Bor's family for the support they offered to me through the entire project special dedication to my supervisor Mr. James Sure for his guidance throughout the study.

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# CERFITICATION

The undersigned supervisor that he has read this research project and has therefore given recommendations to certifies faculty of nursing to accept it as a partial fulfillment for the award of Diploma in Kenya Registered poison and pharmacy board ,PPM

Supervisor: ……………………………

Signature…………………………………

Date ……………………………………….

# ACKNOWLEDGEMENT

Sincere thanks to almighty God for the grace bestowed on me fill completion of this study. Special thanks to my supervisor Mr. Andrew Malit for his support and guidance through the study. Lastly, I acknowledge the tireless effort my father Abdi Hassan for aiding me financially and physiologically that ensured the success of this study.

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# LIST OF ABBREVIATIONS

**E.coli**  : Eschericha Coli

**F.P**  : Family Planning

**G.E** : Gastro enteritis

**JOOTRH** : Jaramogi Oginga Odinga Teaching and Referral Hospital

**KNBS**  : Kenya National Bureau of Statistics

**O.R.S**  : Oral Rehydration Salt

**O.R.T** : Oral Rehydration Therapy

**SSA** : Sub Sahara Africa

**WHO** : World Health Organization

# ABSTRACT

The topic study is factors contributing to diarrhea in small children aged less than five years in Manyatta B sub location Kisumu east sub County. The diarrhea problem in children under five years was not only the problem in Kenya but also globally. This makes the researcher to carry out the above.

Cluster sampling technique and purposive sampling used in sampling method for chooser subject, this involve the selection of group and cluster of the study participant in such a way that you only chosen specific group of parents and guidance who have children under five years old. Purposive sampling technique allowed the researcher to use cases that have required information with the respect of the objectives.

On the justification since the incidence of diarrhea has been year in year out mostly in children below five years, there has been very little change in annual diarrhea hospitalization rate. This is due to despite massive education given to caretaker on way and prevention of diarrhea from health workers. This lead to shifting of moved funds to children suffering from diarrhea.

The study will be useful to health sector, the government, non-governmental organization and donors on formulating and designing the strategies that could alleviate the suffering those children undergoes.

The study area which is Manyatta “B” Sub location Kisumu East Sub county with the population of 8900 as per record of chief the area, targeted subject is parents and guidance who are in productive age, The researcher target is 137 parents and guidance.

To determine the sample size the researcher used fishers et al formulae [1998] to get the target respondent which was 101 and all were given the sample questioners.

The instrument validity was enhanced through a pilot study at Manyatta B sublocation Kisumu East, Kisumu County. The questionnaires were distributed to the respondents by the research. Data obtained was coded and analysed. Key findings showed that diarrhoea is caused by poor hygiene practice, germs and ignorance about diarrhoea and the main symptom of diarrhpoea is loose stool dehydration, sunken eye, fatigue, anxiety and lack of appetite. The study recommends that measures should be put in place to help in reduce of diarrhoea in children, these measures include practice good hygiene such as hand washing, early treatment of diarrhoea and health educate the parents/guardians on the cause of diarhoea and late complications.

# CHAPTER ONE

# 1.0 Introduction

Diarrhea is usually a symptom of bowel infection [garstroeneiritis] which can be caused by a virus such as provirus or rotavirus. Bacteria such as compylobacteria, clostridiumdifficile [c.difficile],E.coli,salmonella or hegella they can all cause food poisoning.

According to WHO is defined as the passage of three or more loose or liquid stool pre day [more frequent passage than is normal for individual].

Diarrhea is a major health problem globally, this is in agreement with the statement of world health organization [WHO] 2014 that diarrhea is the second leading cause of death in children under five years old and it’s responsible for killing around 760000 children every year. According to findings of center of disease control and prevention [CDCD][2011] diarrhea account for 1 in 9 death worldwide, making diarrhea the second leading cause of death among children under five years old and for children with HIV ,diarrhea is more deadly, the rate for children is 11 times higher than the rate of children without.

The problem still burden sub-Sahara [SSA] even though effort have been made according to the United Nation Children Fund [UNICEF]that children are given high quality care for diarrhea in 11 of the 12 countries [range17% to38% with median of 27% Serra Leone is the exception with the highest level of good management, about two third of children[67%]with diarrhea provide good management and only about 10% of the children provided with poor management.

In Africa diarrhea is a serious killer disease in children according to finding of center of disease control[CDC][2015]diarrhea kills 2195 children every day more than AIDS, Malaria and Measles combined, the death rate for these children is 11 times higher than the rate for children with HIV.

Diarrhea problem in East Africa this is evidence according to findings of Othero et al[2008]that almost 42 million people in Kenya, Uganda and Tanzania do not have access to improved water supply and 13million do not have improved sanitation facilities and evidence indicate that the primary cause of many childhood illness in three countries are water related and diarrhea remains one of the most important environment problem.

In Kenya just like other developing countries,diarrhea is among the major causes of death, according to the findings of Kenya demographic and health survey.[KDHS][2014] carried out the findings that much was been done where 7 in 10 households have improved sources of drinking water compared to 59% of households in rural areas,less than one quarter of Kenyan households have an improved and not shared toilet facility while almost half [47%]have not improved facility or no facility at all.

In Kisumu County Sub Location, diarrhea is a serious and major health problem according to the findings of J.Njuguna et al [2016]open defecation was the major cause of diarrhea and contributed to 46% of child mortality in the study region.

# 1.2 Problem Statement

The increase in occurrence of diarrhea disease among the children under five years has affected the growth alteration to diet is essential part of management of child with persistent diarrhea disease [wood et al 2010],Kleigman et al [2011] in the study reported that diarrhea have significant impact on psychomotor and cognitive development in young

et al [2013]further added that early and repeated episode of childhood diarrhea during period of critical development especially when associated with malnutrition, co-infection and anemia may have long term effect on the linear growth as well as physical and cognitive function.

With proper prevention and control of diarrhea in children under five years, many premature death, disability and health abnormality can be managed well.

# 1.3 Purpose of the Study

The aim is to investigate and explore on factors contributing to case of diarrhea among children less than five years.

# 1.4 Broad Objective

To determine factors contributing to diarrhea in children under five years in Vihiga County Referral Hospital.

# 1.5 Specific Objective

* To determine the knowledge of parents and guardians on diarrhea.
* To investigate on contributing factors to diarrhea.
* To asses on practices and attitude take by parents and guardian on treatment and prevention of diarrhea.

# 1.6 Hypothesis

The Demographic socio-economic factors, sanitation water and food hygiene related overcrowdings waste disposal.

# 1.7 Rational and Justification

Incidence of diarrhea has been year in year out mostly in children below five years. There has been very little change in the annual diarrhea hospitalization rate. This is due despite massive education given to caretakers on ways and prevention of diarrhea from health workers; this has led to shifting of more funds to children suffering from diarrhea.

The study will be useful to the health sector, government, non-governmental organization and donors in formulating and designing strategies that could alleviate the suffering that children under five years undergo during this diarrhea period. Health research institution could also base on findings of the study to institute measures which will improve the living condition of the under five years to prevent lifelong abnormalities.

# 1.8 Definition of Variable

Dependent Variable: sometimes called criteria variable attempt to indicate the total influence arising from the effect of independent variable. It therefore various as function of the independent variable they can include knowledge.

Diarrhea: This is where an individual had loose stool for more than or equal to three times within 24 hours.

Independent Variable: These are variables that the researcher manipulates in order to determine its effect or influence on another variable they can include age, gender, race,color and geographical location.

The operational definitions are,

Model Family: Household head or caregiver which had taken basic training for 96 hours and graduated on 16 health extension package.

Non Model family: households head or caregiver which had not taken basic training on The 16 health extension package.

Proper Refuse Disposal: A way of disposal refuse which include burning, buried in pit or store in container, compost and disposed in design site.

Improper Refuse Disposal: It is disposing in open fields

Diarrhea: This is where individual has loose stools for more than or equal to 3 times within 24 hours (dependent variable)

# CHAPTER TWO

# 2.0 Literature Review

Preliminary literature review based on 5 articles

According to Tambe et al [2012] while investigating on prevalence and factors associated with diarrhea etdisease in children under five years came up with findings that the prevalence of diarrhea was 23.8% and children under 24 months were highly affected the study also find that children using bushes as their toilet and drink water that source from stream suffer from diarrhea.

The study also found out that the best primary intervention of diarrhea is oral rehydration salt [ORS],zinc tablet vitamin A supplement, safe water good sanitation and use of anti-biotic drugs. However,Orelly et al (2012) while investigating etiology of diarrhea in children found that salmonella and shigella species id the causative agent in the area, therefore this lack of information warrants further research.

According to Woldu et al (2005-2007) while investigating on socio-economic factors associated with diarrhea in children under five years old found that the vast majority of these deaths are among children who live in low and middle in some countries. The study found the findings the main cause of diarrhea in children has poor water storage ,impropriate waste disposal and living in un hygienic environment However O’Relly et at (2012)come up with the main cause of diarrhea disease in children is salmonella and shigella species. Therefore this lack of information warrants further research.

Gorge et at(2009) reports that rotavirus was the most common cause of moderate to severe diarrhea in children 0-23 months of age .However,Tambe et al (2012) found that having three or more episode loose stool in any 24 hours with the past (28days) four weeks before interviews. The definition excluded any type of chronic diarrhea already experienced by the respondent as results of underlying disease, Cronh’s disease, colitis,and irritable bowel syndrome, therefore this lack of information warrants further research.

According to Taha et al (2013) investigating a risk factor in diarrheal disease in under five years among health extension model and non-model families found that children whose mothers cannot read and write were more likely to have diarrhea when compared with children whose mothers were literate.

The study also reports that the diarrheal prevalence of children whose mothers doesn’t know how to write and read was 25.5%which is much more common than children’s whose families were literate which is 6.4%.HoweverWoldu et at (2005-2009),Orelly et al (2012) did not report on education level of caregivers in diarrhea disease in children age under five years .Therefore the lack of information warrants further research.

Orelly et al (2012) discovered that children who died while hospitalized for diarrhea were vulnerable for several reasons they had a significant longer duration of diarrhea before reaching the hospital and were more likely to be to be returning to the hospital and premature discharge on previous admission; however; Tambeet al (2012),Woldu et al (2005-2007) and Gorge et al (2009)did not report this, therefore this lack of information warrants further research.

Woldu et al (2007-2007) did investigations on socio-economic factors associated with diarrhea disease among under five children of nomadic population, found that families who had two under five years children or above were more likely to have diarrhea than those who had only one child. This can be justifies by the facts that when the number of children in the house hold increased, it’s expected that children could be m more vulnerable to contamination, because the quality of care from mothers decreases. However, Orelly et al (2012), Taha et al (2013) and Tambe et al (2012) did not come up with these findings, therefore this lack of information warrant further research.

Orelly et al (2012) carried out the study on risk factors for childhood diarrheal mortality including the etiology in setting of high infant and child mortality and found that high malaria, HIV prevalence and Rota virus was the most common etiology of diarrhea in hospitalized children. In these rural areas, children who die were more likely to have had non typhoidal (Salmonella or Shigella) infection than children who survived. However, Gorge et al (2009) reported that only rotavirus was the most common cause of moderate to severe diarrhea in children 0-23 month of age. Therefore, this lack of information warrants further research.

# 2.1 The weakness and strength of various method used in article reviewed

Woldu et al (2007) do investigation on socio-economic factors associated with diarrhoea disease among under five years. Children of nomadic population employed sampling techniques. The strength of using this method are:-

* Less time consuming
* The scope is high
* The accuracy of the data is high
* It create better report between the research and respondents
* Its suitable in limited resource

The weakness of sampling technique are:-

* The process of selection can be interact with hidden periodic tract within the population
* If the sampling technique coincides with the periodicity of the tract the sampling technique will no longer be random and representatives of the sample will be compromised

According to Taha et al (2013 investigating on risk factors in diarhoea disease in children age under 5 years and Woldu et al (2017) used questionnaire method to collect data from respondents

The strength of this method used are:-

* Large amount of information can be collected from large number of people in short period of time and in relatively cost effective way
* The result of questionnaire can be usually be quickly and easily identified by either researcher or through the use of software package
* When data has been qualified, it can be used to compare and contrast other researcher and may be used to measure changes

# 2.2 Summary

The variables which have featured in the concluded literature review and which have been useful to current research are lack of toilets, poor waste disposal, treatment of drinking water, illiteracy about the care given to the children by care givers (mothers) and laxity about therapeutic management in diarrheal disease

# CHAPTER THREE

# 3.0 Methodology

# 3.1 Background Information of the Study Area

Kisumu is one of the 47 counties In Kenya.it is located between latitude 0.15N and 1 455 longitude 35 15E and 34W it is boarded by western county to the North,Rift valley to the East it’s the Republic of Tanzania to the south, the Republic of Uganda to the west.The county is divided into seven sub county which were created in 2007 namely; Gucha,Bondo,Kisii,Homabay,KisumuEast,Kunawest,Migori,Malaba,Nyamira,Nyabondo,Rachingo,Rarienda,Rongo,Siaya and Suba district.

Kisumu east is one of the seventeen administrative sub counties in Nyanza,its head quarter of newly created Kisumu County, Kisumu geographical coordinate 0.65 and 340 45E. It covers actual area of 47sq/km in a total population of 968,909 that was in 2009 according to national census, it’s the third largest city in Kenya. The port city is located in the shores of Lake Victoria

The main economic activities in Kisumu are; fishing and rice irrigation, Kisumu has fertile land and variation in temperature, it has two rainy seasons per year across the region which provides suitable environment, broad range of agricultural products. Currently crop fields are considered to be significantly lower than the expected due to lower utilization of land, this is driven by low prices of buying farm products hence low of market.

Livestock farming is also as the cattle are indigenous breeds with low milk output. Majority of farming in lake basin region is subsistence driven by water and sanitation, housing, population density, access to health care services and poverty leading to low production, Services such juakali sector contribute to the economy of the district as well as banking.

Kisumu County is well served with educational facilities starting from primary level, secondary level and tertiary level and even universities. It has airport with regular daily flight to Nairobi and other places. It’s not affordable to many residents as poor level is high, it also has railway that link to Uganda but nor it does not function.

Health care facilities are relatively adequate but are only distributed in Kisumu town but evenly distributed in the rural area with poor road there are private and public hospitals in the city. The major disease includes HIV and AIDS, malaria, tuberculosis and diarrhea disease. The entire is upheld especially in the rural areas. The town has quite number of clubs and bars which are easily accessible to the people.

# 3.2 Study Population

This is a study of group of individuals taken form general population who have common characteristics such as age and sex

The area is Manyatta ‘B’ sub location, Kisumu East with the population of parent/guardian ranging about 6,900 according to the National Census (2009)

The researcher targeted population of 70 parents who have children of below five years of age

# 3.3 Research Design

The research came up the quantitative approach in the study. This aimed at easy management and collection of data with regard to dependent and independent variable which are collected con currently and saves time.

It is also aimed at providing the hard data needed to meet the required objectives and test hypothesis. This is in agreement with statements of Mugenda and Mugenda (2003), Kothari (2004) that qualitative approach uses technique such as questionnaires and also record in quantitative records given researcher limited time frame, there is no need for utilization of the time available.

# 3.4 Sampling Procedure

Cluster sampling technique and purposive was used for chosen subject. The cluster sampling technique involves selection of a group/cluster of study participant in such a ways that you only choose a specific group of parent/guardian who has children aged less than five years.

Purposive sampling technique allowed the researcher to use cases that have required information with respect to the objective of the study. This is in agreement with Mugenda and Mugenda (2003)

# 3.5 Data collection method

The researcher used questionnaire in collecting data, because questionnaires are easy to administer since the targeted respondent can fill in the categories in the absence of the researcher. This is in agreement with the report of Mugenda and Mugenda that use of questionnaires is free from buyers, accords respondent’s adequate time to go through and give answers, respondents who are not easily approachable can be reached conveniently and it can be used with wide range of different research design, hence low cost even when the geographical area of the study is broad.

It also aim to determining the contributing factors to diarrheal among under five years children in Manyatta ‘B’

# 3.6 Ethical Consideration

This is a system of moral principles that direct action as being either right or wrong.

A letter if authorization to carry out the research was obtained from the head of Nursing Department and also from DC, DEO and DMOH after obtaining a letter of approval from the National Council for Science and Technology office through the college, Mugenda and Mugenda (2003) stated its advisable to be carried in the study area selected.

Confidentiality and privacy will be maintained by keeping information confidential because lack of confidentiality and mishandling the information provided may cause respondent physical and psychological harm, Mugenda and Mugenda (2003)

The respondent was educated on the research nature and informed consent was obtained. The identity of the respondent was protected by not disclosing the name of the individual who provided information.

The research did all the preliminary text and obtained background information in an effort to avoid impacting any harm to subject which was either physical or psychological. The activity was voluntary. This is in agreement with Mugenda and Mugenda (2003)

# 3.7 Limitation of the study

The challenges that researcher went through includes during the study some of the respondent were suspicious despite the researcher’s explanation on what the study was about and its importance, some of the respondents refused to be interviewed, insecurity and inadequate funds also limited the study.

Questionnaire were used for data collection according to Mugenda and Mugenda (2003) and this could be challenging since questionnaire are hard to formulate and respondent may give different opinions or fail to understand the question

# 3.8 Inclusive Criteria

All parents/guardian who have children age less than 5 years

# 3.9 Exclusive Criteria

All parents/guardians who have children of above 5 years of age

# 3.10 Data analysis technique

Data analysis was calculated in percentage form, degree and tabulating them, the data was presented using tables, pie charts, graphs. The information was systematically organized and synthesized to help reduce mistakes and give meaning to the data collected. This is in agreement with Mugenda and Mugenda (2003)

# 3.11 Sampling Size Determination

To determine the sample size, the researcher used Fishers et al formula (1998) which is method for use in social science research according to Mugenda and Mugenda (2003)

n = Z2Pz

d2

**Where**

n = the described sample size (of the target population is greater than 10,000)

Z = the standard normal deviation at the required confidence level

P = the proportion in the target population estimated to have characteristics being measured

q = I-P

d = the level of statistical significance set

z = 1.96, p = 0.05, z = 1-0.050 = 0.5 d = 0.05

n = (1.96)2 x (0.5) x (1-0.5)

(0.05)2

N = 0.9604

0.0025

n = 384

Since the population of the study is less than 10,000 then the formula used was

Nf = n\_\_\_

1 + n/N

Where;

nf = the desired sample size (where population is less than 10,000)

n = the desired sample size (where population is more than 10,000)

N = the estimate of the population size

nf = (384)\_\_

1 + 384/137

nf= (384)\_\_

10.6

nf = 101 respondents

# 3.12 Pretest Report

Pretesting was done at Obunga Sub Location, Kisumu County, 10 questionnaires with 10 respondents. The aim of pretesting is to assist in determining the accuracy, clarity and the suitability of the research instrument before actual data collection. This is also done to ensure all errors associated with the instrument are reduced thus improving the quality of data collection and check the validity and reliability.

The respondents were chosen using convenient sampling technique in accordance to recommendation of Mugenda and Mugenda (2003) who state that to avoid all of above problems, a researcher should develop accurate measures and standardize data collection procedure. Pretesting report should be made because it’s vital and this is in agreement with the emphasis of Kothari (1990)

From the piloting, the researcher noted that all items in the questionnaire were found to be useful and suitable for the study. The questions were easily understood and answered by the respondent

# CHAPTER FOUR

# 4.0 Data Presentation and Analysis

# 4.1 Study Findings

This chapter includes the analysis of the study and presented in the form of tables, graphs, figures, pie charts and texts.

**A) Demographic Characteristics of the Respondents**

This section deals with the questions aimed at establishing the respondent’s background information such as age, gender, relationship, occupation and level of education.

**Table 1: Age of the Respondents**

|  |  |  |
| --- | --- | --- |
| **Age (Years)** | **Frequency** | **Percentage (%)** |
| 15-25 | 25 | 50% |
| 25-35 | 15 | 30% |
| Above 40 years | 10 | 20% |
| **Total** | **50** | **100%** |

According to the findings above majority of the respondents were aged between 15-25 years while the least were aged 40 years and above which is 20% of the respondents, 30% of the respondents were aged between 25-35 years.

**Figure 1: Age of the Youngest Child**

According to the figure above 48% of the children are aged between 0-1 year, 27% of the children are aged between 2-3 years and 25% of the children are aged between 4-5 years.

**Figure 2: Relation to the Child**

This show that majority; 60% of the respondents were mothers and 40% of the respondents were fathers.

**Figure 3: Sex of the Child**

This shows that majority 55% of the children whose parents/guardians interviewed were female and the 45% were male.

**Table 2: Level of Education**

|  |  |  |
| --- | --- | --- |
| **Level of education** | **frequency** | **Percentage (%)** |
| Non-formal | **5** | **10%** |
| Primary | **9** | **18%** |
| Secondary | **16** | **32%** |
| Tertiary | **20** | **40%** |
| **Total** | **50** | **100%** |

Majority 40% of the respondents attained tertiary level of education, 32% of respondents attained secondary level of education, 18% attained primary level and 10% had non-formal level of education.

**Figure 4: Occupation**

This figure shows that the majority 60% of the respondent were employed followed by 30% of the respondents which were civil servants and the least 10% were of respondents were students.

**Figure 5: Knowledge of respondents on diarrhoea**

Majority 90% indicate that they have heard about diarrhea and the least 10% of the respondents indicate that they never heard about diarrhea.

**Table 3: Signs and symptoms of diarrhea**

|  |  |  |
| --- | --- | --- |
| **Response** | **frequency** | **Percentage (%)** |
| Abdominal pain | 15 | 30% |
| Fever | 4 | 8% |
| weak | 6 | 12% |
| Passing loose stool | 25 | 50% |
| **Total** | **50** | **100%** |

Majority 50% of the respondents indicated that their children presented with passing loose stool, 30% of respondents indicated that their children manifested with abdominal pain, 12% of the respondents indicated that their children presented with general body weakness and the 8% indicated that their children manifested with fever.

**Table 4:Cause of Diarrhea**

|  |  |  |
| --- | --- | --- |
| **Response** | **Frequency** | **Percentage (%)** |
| Germ infection | 30 | 60% |
| Not washing hands | 15 | 30% |
| Excess thirst | 2 | 4% |
| Mixed diet | 3 | 6% |
| **Total** | **50** | **100%** |

Majority 60% of the respondents indicate that the germ infection, 30% of the respondents indicate that not washing hands, 6% of the respondents indicate mixed diet and 4% of the respondents indicate excessive thirst as the cause of diarrhea.

**Figure 6: Is diarrhea dangerous to child health?**

92% of the respondents indicate that diarrhea is dangerous to child’s health and 8% indicate it’s not dangerous to child’s health.

**Figure 7: Why does diarrhea dangerous to child health**

Majority 55% of respondents indicated that diarrhea is dangerous to health because it leads to dehydration, 35% of respondents indicate that it can lead to death and 10% OF respondents indicate it can lead to weakness.

**PRACTICES RELATED TO DIARRHEA**

**Table 5: What was done was child was suffering of diarrhea?**

|  |  |  |
| --- | --- | --- |
| **Response** | **Frequency** | **Percentage (%)** |
| Took child to hospital | 45 | 90% |
| Took child to witch doctor | 3 | 6% |
| Kept the child at home | 2 | 4% |
| others | 0 | 0% |
| **Total** | **50** | **100%** |

Majority 90% of the respondents indicated that when their children had diarrhea they took them to the hospital and at least 4 indicate that they stayed at home.

**Figure 8: What period was the baby exclusively breastfed?**

Majority 48% of the respondents indicated that they breastfed their children for 1-6 months exclusively, 29% of the respondents indicated they breastfed their children for 3-18 months and least 23% of responds indicate they breastfed for 7-12 months

**Table 6: Methods used when feeding**

|  |  |  |
| --- | --- | --- |
| **Response** | **Frequency** | **Percentage** |
| Hands | 2 | 4% |
| Feeding bottle | 10 | 20% |
| Cup and spoon | 38 | 60% |
| OTHERS | 0 | - |
| **Total** | **50** | **100%** |

Majority 66% of the respondents indicated that they used a cup and a spoon to feed the children and that at least 4% of the respondents indicated that they used hands during feeding.

**C. RESPONDENTS ATTITUDE ON DIARRHEA**

**Table 7: Respondents opinion on if hand washing help in prevention of diarrhea**

|  |  |  |
| --- | --- | --- |
| Response | Frequency | Percentage |
| Strongly disagree | 0 | 0 |
| Disagree | 1 | 2% |
| Neither agree nor disagree | 0 | 0 |
| Agree | 8 | 16% |
| Strongly agree | 40 | 80% |
| Total | 50 | 100% |

Majority 80% of the respondents indicated that they strongly agree with hand washing as a preventive measure in diarrhea, followed by 16% of respondents agrees with hand washing as a preventive measure of diarrhea while 2% of respondents disagree with concept.

**Table 8: Respondents opinion on if exclusive breastfeeding up to 6 months help in prevention of diarrhea**

|  |  |  |
| --- | --- | --- |
| Response | Frequency | Percentage |
| Strongly disagree | 5 | 10% |
| Disagree | 15 | 30% |
| Neither agree nor disagree | 0 | 0% |
| Strongly agree | 30 | 60% |
| Total | 50 | 100% |

Majority 60% of the respondents agreed that exclusive breastfeeding up to 6 months help in prevention of diarrhea and least 10 of respondents agreed that exclusively breastfeeding up to 6 months help in prevention.

**Table 9: Respondents opinion on if children born later after first born are more likely to suffer from diarrhea**

|  |  |  |
| --- | --- | --- |
| **Response** | **Frequency** | **Percentage** |
| Strongly disagree | 40 | 80% |
| Disagree | 8 | 16% |
| Neither agree nor disagree | 0 | 0 |
| Agree | 2 | 4% |
| Strongly agree | 0 | 0 |
| **Total** | **50** | **100%** |

Majority 80% of the respondents strongly disagreed that children born after the first born are more likely to suffer from diarrhea.

# CHAPTER FIVE

# 5.0 Discussion and Interpretation

Majority 50% of the respondents were aged between 15-25 years; there was no evidence of such findings by available researcher in the previous literature used. They never gave any relationship between ages of parents/guardians with diarrhea. Majority 48% of the children whose parent/guardians were interviewed aged between 0-1 years. There was no evidence of such findings reported by previous available researcher in literature used.

Most of the respondents 60% were mothers and there was no evidence of such finding repeated by previous available researcher on literature review. Majority 55% of the children were female and no evidence was found before this study. Majority of the respondents 40% attained tertiary level of education. This is in agreement with Taha et-al (2013) that low educational level had an effect on diarrhea. Majority of the 60% respondents, were unemployed. There was no evidence of such findings reported by researcher in previous literature.

Majority, 90% of the respondents had knowledge about diarrhea; there is no evidence of such findings reported by researcher in previous literature. Majority 30% of the respondents indicated that their children presented with passing loose stool. This is in agreement with findings Taha et-al (2012) that diarrhea presents with passing loose stool. Majority 60% of the respondents indicated that the cause of diarrhea is germs. Majority 55% of the respondents indicated that diarrhea is dangerous because it can lead dehydration which can cause death. There was no evidence of such findings reported by previous researcher in literature review.

Majority 90% of the respondents indicated that when their children had diarrhea they took them to hospital, this is in agreement with findings of O’Relly et al (2012) that when children had diarrhea they took them to a hospital for treatment.

Majority 48% of the respondents indicated that they breastfeed their children excessively for period between 1-6 months and gives other feeds only after weaning, there is no evidence of such findings by the researcher in available previous literature used. Majority 60% of respondents indicated that they used cup and spoon during feeding; there is no evidence of such findings reported in available literature by previous researcher

Majority 80% of the respondents indicated that they strongly agreed hand washing as a preventive measure in diarrhea. Majority 60% of the respondents strongly agreed that exclusive breastfeeding up to 6 months helps in prevention of diarrhea. Majority 80% of the respondents strongly disagree that children born after first born are more likely to suffer from diarrhea; there is no evidence of such findings reported by available researchers in literature used.

# 5.1Conclusion

The researcher concluded that majority of respondents were aware of diarrhea because they were able to give its characterization as passing of loose stool. The researcher concluding that leading factors to diarrhea are environmental hygiene, hand washing, source of drinking water and weaning at young age of children between 1-6 months, level of education of parents/guardians, occupation of parent/guardian, ability to identify the presentation of diarrhea and willingness to take children to hospital

# 5.2 Recommendation

Advice should be given to community on environmental hygiene and hand washing so as to make environment safe and prevent diarrhea.

Advice should be given to antenatal and postnatal mothers on exclusive breast feeding and weaning processes so as to prevent diarrhea

Health education should be done in the community on diarrhea causes, symptoms management and follow up so as to recognize and prevent diarrhea complication

Health education should be given to the community members on safe water for drinking, so as to prevent diarrhea

# REFERENCES

1. Basavanthapa BT (2007) Nursing Research 2nd edition, India Jaypee Brothers Medical Publisher Limited
2. Center for Disease Control and Prevention (CDC) 2013, Global water sanitation and hygiene, Clifton road Atlanta USA
3. Jhon Hopkins (2014) IRB Review of Research project closed to accrual in data analysis only or terminated Jhin Hopkins medicine (online) available from mr.hopkinsmedicine.org.com
4. Kothari CR (2004), Research Methodology method and technique, second edition, new Delhi, New Age International Publisher
5. Kumar CR (2005) Research Methodology – a step by step guide for beginners 2nd edition, Singapore Pearson education
6. Likert R (1952) A technique for measurement of attitude, achieves of Psychology (online) available from http/www.wikipedia/org/likertscale accessed 12th June 2014
7. Lo B (2014) Ethical Issues in clinical research. A practical guide (Lippincote Williams and Wilkins)
8. Lwanga S.K (1991) sample size determination on health studies Geneva Switzerland WHO publications
9. Moris J (2000) appropriate procedure for developing sampling strategy, Azips West Bristol
10. Mugenda O.M and Mugenda A.G (2003) Research quantitative and qualitative approach 2nd edition, Nairobi Africa Centre for technology study press
11. Nguhiu P.N (2009) animal health and industry training institute volume 86 number 6 Nairobi Kenya
12. Pinto, B.C et al (2005) Disease and Mortality in Sub Saharan Africa 2nd Edition, Rockvile Pike, Bethesda USA

# APPENDIX I: RESEARCH BUDGET

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Quantity** | **Unit** | **Amount** |
| Spring file | 1 | 150 | 140 |
| Fullscap | 1 ream | 620 | 620 |
| Pens | 10 | 30 | 300 |
| Pencils | 5 | 25 | 125 |
| Rubber | 2 | 25 | 50 |
| Ruler | 1 | 40 | 40 |
| Printing paper | 1 ream | 500 | 500 |
| Photocopying of questionnaire |  |  | 900 |
| Typing and printing |  |  | 700 |
| Binding | 4 copies | 200 | 800 |
| Miscellaneous |  |  | 450 |
| **Total** |  |  | **4,625** |

# APPENDIX II: RESEARCH SCHEDULE

|  |  |
| --- | --- |
| **Activity** | **Duration** |
| Selection of research topic | 7 days |
| Introduction | 5 days |
| Problem statement, purpose of the study, objectives, hypothesis, operational definition of variables, conceptual frame work, theoretical framework, significance and assumption | 30 days |
| Literature review | 30 days |
| Research methodology | 15 days |
| Formulation of questionnaire and pretesting | 10 days |
| Data collection | 20 days |
| Data analysis and interpretation | 20 days |
| Discussion of findings | 8 days |
| Summary, conclusion and recommendation | 7 days |
| Typing and printing of final research report | 10 days |
| Handing over |  |
| **Total** | **143 days** |

# APPENDIX III: QUESTIONNAIRE

**SAMPLE OF QUESTIONNARE FORMULATED TOPIC: FACTORS LEADING TO ACUTE GASTROENTERITIS IN CHILDREN UNDER 5 YEARS IN VCRH.**

**TARGET GROUP: PARENTS/GURDIAN OF CHILDREN UNDER FIVE YEARS**

Dear Respondent, your contributing as parents/guardian is considered important in helping to determine factors leading to diarrhea. It is for this reason that you are kindly requested to respond to the questionnaires. Your name will not be used and your participation will be voluntary. The information collected will be treated as strictly confidential and will be used for purpose of the research only.

**SECTION A: DEMOGRAPHIC FACTORS**

**1. What is your age? (parent /guardian.)**

**15 – 25 years [ ]**

**25 – 35 years [ ]**

**Above 40 years [ ]**

**2. What is the age of the child?**

**0 -1 years [ ]**

**2 – 3 years [ ]**

**4 – 5 years [ ]**

**3. What is your relationship with the child?**

**Mother [ ]**

**Father [ ]**

**Sister [ ]**

**Others specify………………………………………**

4. What is the sex of the child?

Male [ ]

Female [ ]

5. What is your level of education?

Primary [ ]

Secondary [ ]

Tertiary [ ]

6. What is your occupation?

Student [ ]

Unemployed [ ]

Civil servant [ ]

Others specify……………………………………………

**SECTION B: KNOWLEDGE ON DIARHEA**

Have you ever heard about diarrhea?

Yes [ ]

No [ ]

If yes explain the complication……………………………………………………………………

Has your child ever had diarrhea?

Yes [ ]

No [ ]

Signs and symptoms of diarrhea

Abdominal pain [ ]

Fever [ ]

Weak [ ]

Passing less stool [ ]

What do you think is the commonest cause of diarrhea in young children?

Germ infection [ ]

Not washing hand [ ]

Excess thirsty [ ]

Mixed diet [ ]

Do you think diarrhea is dangerous to child health?

Yes [ ]

No [ ]

If yes, what is the immediate treatment you give to your child………………………………..

**SECTION C: PRACTICES RELATED TO DIARHEA**

What did you do when the child diarhoea?

Took the child to hospital [ ]

Took the child to witch doctor [ ]

Stayed with the child at home [ ]

Others specify……………………………………………………………..

How long did you breast feed your child?

1 – 6 months [ ]

7 – 12 months [ ]

13 – 18 months [ ]

Do you give other feeds in 1st 6 months of breast feeding?

Yes [ ]

No [ ]

Explain your answer …………………………………………….

Which method do you use when feeding your child?

Hands [ ]

Feeding bottle [ ]

Cup and spoon [ ]

Others specify………………………………………………..

**SECTION D: ATTITUDE ON DIARHEA**

What is your opinion regarding the following statements

Hand washing help to prevent diarrhea

Strongly disagree [ ]

Disagree [ ]

Neither agree nor disagree [ ]

Agree [ ]

Strongly agree [ ]

Exclusive breastfeeding up to 6 months helps in prevention of diarrhea

Strongly disagree [ ]

Disagree [ ]

Neither agree nor disagree [ ]

Agree [ ]

Strongly agree [ ]

Children born later after first born are more likely to suffer from diarrhea

Strongly disagree [ ]

Disagree [ ]

Neither agree nor disagree [ ]

Agree [ ]

Strongly agree [ ]

Please provide any other information you think is useful concerning diarrhea in children age under five years …………………………………………………………………………………….

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

***Thank you for your participation***