DIPLOMA IN PUBLIC HEALTH

REASEARCH PAPER ON THE EFFECTS OF POOR HYGIENE IN TIAP- TIAP IN LAKES, BHAR EL GAZAL REGION- SOUTH SUDAN UPON COMMUNITY HEALTH IN GOK STATE.

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**Dedication:**

I dedicate this research project to my lovely wife **Priscilla Nyandeng Ayur Toupiny**, and not forgetting my dearest Dad **William Manyuon Wantok** and Mum **Ayuik Mathiang Akec** not forgetting my brothers and sisters **Deng Amakou Wantok**, **Arop Manyuon Wantok, Monyping** **Manyuon Wantok**, **Wantok Manyuon Wantok**, **Apande Manyuon Wantok**, **Ayen Manyuon Wantok**, **Aweng Manyuon Wantok**, **Wantok Det Wantok**, **Mabor Det** **Wantok and Jacob Marual Mador** for their warmly financial support and encouragements during my studies. May almighty God protect their lives and remains until I refunded back their financial supports and encouragements upon my studies

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**Abstract:**

The purpose of this research project is to identify the effects of poor hygiene which may include resulted into poor healthy community of Tiap Tiap and how they can change the health of the community through their knowledge affect the community in relation to health. The research further focused on how these professionals can be helping in the community. In this case, the researcher targeted population of one hundred thousand respondents from Cueibet town and they were comprised of people of different education background, race, age groups, religion and social status. The target population was chosen at random, some were gotten in the shops, at tea place, at school, hospital and in public clinic.

The sampling technique used was stratified random sampling method. The researcher used this method because it is free from biasness of population; it considered all levels of population, yet Sample size was100 respondents representing fifty percent of the population.

The study was carried out in Tiap Tiap town located at the centre of South Sudan, on the main road connecting Rumbek and Wau in an area formerly known as Lakes State of Bhar el ghazal region. The main aim was to aware the community of common diseases caused by poor hygiene practices and management in urban areas, the effects of poor hygiene to the people and how to prevent them and the importance of good hygiene practice to urban residents. The study was undertaken within a period of one month that is September 2019. The approach used in this study is mixed methods research approach for collecting, analyzing and presenting data using tables, pie charts, graphs and figures. Because the assumption of the mixed methods research approach is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. As per recommendations ,there needs to educate the community on the basic ways of managing and preventing poor hygiene-related diseases among people living in Tiap Tiap e.g. hand washing at five critical moments as well as campaigning for safe drinking water and increase improve sanitation facilities. In summary, the researcher confirmed the causes of poor hygiene in Tiap Tiap, identified common diseases caused by poor hygiene as well as the effects and the ways of preventing them which are all important in dealing with improvement of public’s health in town

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**Chapter one:**

1.1 Introduction:

According to USLEGAL, (1997-2019) hygiene refers to a set of practices associated with keeping things clean in order to fight against illness and disease. The term hygiene is derived from the Greek word 'Hygeia', which means goddess of health, cleanliness and sanitation. It also refers to actions and practices that ensure health and healthy living. Though the term hygiene is most commonly associated with cleanliness, it is originally an old concept closely

Related to medicine, person and professional care practices. It can also refer to body hygiene, mental hygiene, domestic hygiene, dental hygiene, and occupational hygiene among others.

The term hygiene also refers to the name of a branch of science called hygienic that study about health promotion and health preservation.

Good hygiene practice is an important barrier to many infectious diseases, including the faecaloral diseases, and it promotes better health and well-being. And to achieve the greatest health benefits, improvements then hygiene should be made concurrently with improvement in the water supply and sanitation and also to be integrated with other interventions such as improving nutrition. Poor hygiene is a major public health challenge, not only globally but also in South Sudan. If one of the WASH components like improved sanitation is not given priority, diseases like acute diarrhea both watery and bloody, cholera and acute respiratory infections are highly spread especially among children which at times lead to death.

In South Sudan, the official statistics indicate that only 15% of household use sanitary means of excreta disposal, and 55% has access to improved drinking water. It is poorer in rural areas of the South Sudan as well as in the overcrowded urban areas of South Sudan like Juba, Wau and Rumbek among others (South Sudan Household Survey).

The preface of Feachem et al. (1983) cited a 1975 statistic from the World Health Organization (WHO) that: “…75% of urban dwellers did not have sewerage….and 25% had no disposal system of any kind. “ Feachem et al. (1983) called for “major national and international initiatives” if any “substantial improvement in sanitation systems in the developing world is to be made in the next few decades” (Feachem et al., 1983). Several decades later there have been many national and global initiatives to reduce the number of people in the world without access to basic sanitation. Unfortunately, 2.4 billion people still lack access to adequate sanitation (WHO/UNICEF JMP, 2015).

South Sudan is and has been characterized by poor hygiene and sanitation conditions; open urination and defecation are the common practices, improved sanitation rates is between 6 and 15 percent. Almost two thirds of households in towns of South Sudan do not have access to clean and improved sanitation facilities, and as a result, open defecation is the habit in practice. Only 10% of people have access to both improved water and sanitation facilities, thus perpetuating cycles of venerable people ( children, old people, pregnant mothers people living with diseases such as HIV/AIDS etc) suffering from diarrhea, other water borne diseases and pneumonia (South Sudan Household Survey).

Diarrhea still remained among the top five causes of mortality and morbidity in South Sudan, particularly in infants and children aged below five years – among whom the death rate is 104/1000 live births. The prevalence of diarrhea among children aged less than five years is 42.9% in South Sudan, compared to Kenya where it is 17.0%. In addition 202 medical records of children admitted with acute diarrhea in Juba Teaching hospital between March and June 2014 were examined, the majority being children between 6-24 months old with (75.74%); the commonest sign assessed was sunken eyes (75.12%) as the results of dehydration and the least assessed was ability to drink/breastfeed (34.32%).According to report made by the Cueibet state hospital (2018), 10%-25% of infant death in rural and pre-urban centers was associated with diarrheal diseases. Although CLTS and hygiene promotion campaign which is being funded by Water for Lakes project under USAID and sub-contracted World Vision, VSF, Nile Hope and very many other humanitarian organizations in south Sudan in the first place and later taken over by GARD in Anyar Nguan County (a county in Gok) still impact was very low because there were more pit latrines being dug but people were not using them due to the bad approach of subsidy used by GARD. For hygiene campaign targeted parts of Cueibet town and some rural areas with beneficiaries being mothers and care givers in their households and later equipped them with quality training using PHAST methodology approach where they gained new knowledge and skills on how to prevent diarrheal disease at their households, like safe water handling that is right from the source by washing and covering fetching drinking water container and to consumption by using two cups, one for drawing water and the one for drinking in order to prevent contamination, washing hands at critical moments; (after cleaning child’s bottom, after defecation, before eating, before feeding the child and before preparing food) using good hand washing facility with soap for example Jerri- cane or bucket with tap and other hand washing facilities which doesn’t contaminate hands during hand washing practice like tippy-tap and finally construction and proper use of pit latrines but it was not enough because it did not cover the whole town of Cueibet and the time was very short.

**1.2** **Profile of Tiap Tiap town-Lakes Region, South Sudan**

Tiap Tiap is the capital town of Anyar Nguan County in Gok State which make up 33 states of South Sudan. It is located in the central Bahr el Ghazal region, on the main road connecting Rumbek and Wau; from the northern part of Cueibet centre, it is therefore 60km distance from Cueibet to Tiap Tiap it was formerly part of Lakes state. Tiap Tiap border Tonj state to the west and Western Lakes to the east. The state had a population of 117755 according to 2008 censes. Before the creation of Gok as a state, Tiap Tiap was a paym under former Lakes state headed by a commissioner as the highest authority of the government in a county (Paanluel wel media.Ltd, 2017).

With the regard to Administrive division, Gok state is currently consisting of nine counties Cueibet county the capital of the state, Abiriu county, Duony county, Anyar-nguan county,Waatadol county, Malou-pech county, Joth-mayar county, Ngap county and Cueibet county and at the same time, the capital of the state (Gok) and it is where am conducting this research.

**1.3 Problem statement:**

Identification of common diseases caused by poor hygiene practices and access to enough and improved sanitation facilities as a way to prevent common diseases caused by poor hygiene practices as well as to make awareness to public on hygiene issues actually lead to good health in venerable and entire public of Tiap Tiap. Base on hygiene campaign conducted by Water for Lakes programme in some parts of the state, there is very clear evidence showing the importance of good hygiene behavior, especially hand-washing with soap at five critical moments( after defecation, before eating food, before preparing food, after cleaning baby’s bottom and before feeding the baby) reduce faeco- oral diseases like dysentery and diarrhea which is the leading cause of death amongst children under five years old in the world and South oblem statement: Sudan particularly. In fact, studies suggest that regular hand-washing with soap at critical times can reduce the number of diarrheal diseases by almost 50 %. It is also true that without good hygiene and sanitation there is no good health. In order for the unhygienic situations like ours to become normal the following measures have to be taken; 1. To educate the community on the basic ways of managing and preventing poor hygiene related diseases as well as campaigning for safe drinking water and increase improve sanitation facilities.

2. Town council headed by town clerk should prioritize hygiene in Tiap Tiap concurrently with improvement in the water supply and sanitation and also to be integrated with other interventions such as improving nutrition.

3. Enough public toilet/pit latrines to be constructed in the market in order to minimize open defecation and the spread of fecal-oral diseases because human faeces are the primary transmission route of many waterborne diseases. Latrine design should be according to the space and material available, the culture and traditions of the beneficiaries and urgency

**1.4 Objective:**

The main objective of the study was to investigate the effects of poor hygiene to urban residents: Case Study of Cueibet town, South Sudan. 1.5 Specific Objectives:

 To identify common diseases caused by poor hygiene among children and adult in urban areas.

 To define the effects of common diseases caused by poor hygiene to residents of Tiap Tiap

 To determine prevention measures of common diseases related to poor hygiene in town.

**1.6 Research Questions:**

1. What are the causes of poor hygiene in town of Tiap Tiap today?

2. Mention some common diseases caused by poor hygiene to urban residents of Tiap Tiap.

3. In your opinion suggest ways in which common diseases caused by poor hygiene can be prevented from urban residents.

4. What Can be done by Tiap Tiap Health Sector to improves the issues of poor hygiene in the town

**1.7 Research hypotheses:**

The null hypotheses for this study is to identify causes of poor hygiene in Tiap Tiap, it does not life-saving intervention and lives can be saved as long when there is good hygiene practices, clean and safe water for drinking and bathing and improved sanitation facilities. They will be tested against the alternative hypotheses for these study i.e. water, hygiene and sanitation is an important life-saving intervention contributes to poor hygiene prevention, improved sanitation facilities and access to clean and safe water consumption.

**1.8 Justification of the Study:**

This research will benefit Tiap Tiap, Lakes and South Sudan Departments of health in general by getting awareness of common diseases caused by poor hygiene to people living in town, causes of poor hygiene in towns and how good hygiene and sanitation practices can improve the lives of the community and how these diseases related to poor hygiene can be managed and prevented in urban areas. It will also assist government when prioritizing humanitarian intervention and humanitarian organizations dealing in water safety and aquatic rescue, ice rescue, flood and river rescue, swimming pool rescue among others in third world count

**1.9 Scope and Limitation.**

During survey, one of the limitations was that some respondents reluctant to bring back questionnaires and others demanded cash from the researcher in exchange of information. And as a researcher I managed these challenges by convincing them through a letter of introduction which was attached to the questionnaires. This assured them the purpose of the study and that the information they give shall be considered confidential.

Another limitation was that the respondents were not cooperative because they restricted themselves to their responsibilities and duties. This led the researcher to be ignored when getting relevant information; however, the researcher informed the respondents on the importance of the study and cited the top beneficiaries. The study was carried out in Cueibet town located at the centre of South Sudan, on the main road connecting Rumbek and Wau in an area formerly known as Lakes State. The main aim was to aware the community of common diseases caused by poor hygiene in urban areas, the effects of poor hygiene to the people and how to prevent them and the importance of good hygiene practice to urban residents. The study was undertaken within a period of one month that is September 2019.

**CHAPTER TWO: LITERATURE REVIEW**

**2.1 Introduction.**

In all fields of enquiry the important part of the objective approach is the review. It aims at identifying the research gaps to the existing literature and emphasizing on the need to carry out this study which is concerned with examining the importance of preventing common diseases caused by poor hygiene in urban areas. The purpose of this literature review is to provide the researcher with means of getting knowledge of the issue under investigation. To this point, the chapter covers a review of theoretical literature, review of analytical literature of analysis, gaps to be filled, a summary of the chapter and the conceptual framework.

**2.2 General effects of poor hygiene**

According to Perkins (2018) many viruses and bacteria infect people only when they enter the nose or mouth. People with diseases transmitted via the fecal-oral route can spread the disease to nearby objects or food if they don’t wash their hands well after using the toilet. Airborne illnesses spread through droplets in the air, which land on nearby objects. Touching an infected object transmits germs to your hands; touching your nose or mouth with your unwashed hand infects you with the virus or bacteria.

Poor hygiene and sanitation may be associated with a number of diseases e.g. Diarrheal diseases, causing an estimated 1.4 million deaths annually in the World (Lozano et al., 2012; Pruss-Ustun et al., 2014) or 19% of all under-five deaths in low-income countries (Boschi-Pinto et al., 2008).

Also diseases linked to poor hygiene and sanitation has a significant impact on children’s health and education. 38% of school children are infected with parasitic worms (Mahmud et al. 2015). These infections contribute to malnutrition because the parasites prevent the child’s body from absorbing nutrients from the food that they eat. Long-term malnutrition retards children's physical and intellectual development. The Young Lives survey (2014) reported that around 30% of children are stunted, which is a sign of long-term malnutrition. (Stunted means that a child’s height is less than expected for their age) Children are frequently ill as a result of parasites and other infections, which leads to poor school attendance and performance. Furthermore, if the school attended by an infected child does not have good sanitation and hand washing facilities as good hygiene practice the infections are likely to spread to healthy children.

There are social impacts of poor hygiene and sanitation provision in schools and public places. An absence of latrines with separate facilities for girls and boys for instance in schools means that post-pubescent girls are more likely to stop attending schools, especially when menstruating. When healthy children attend a school with well segregated sanitation facilities, they are present more regularly and are better learners. This, in turn, makes them better able to find jobs that demand.

According to other reviews, sanitation has been found to be protective against diarrhea (PrussUstun et al., 2014). Thevos et al. (2000) found an increase in knowledge that contaminated water causes diarrhea (factual knowledge) and knowledge that diarrhea can be avoided by boiling or treating water (action knowledge)

The studies included in these reviews were mainly observational or small-scale trials, most of which combined sanitation with water supplies or hygiene. While some of these reviews assess the methodological quality or risk of bias of the included studies, none seek to assess the quality of the overall body of evidence. Moreover, several of the more rigorous trials to assess the impact of sanitation on diarrhea, Many of the more recent, rigorous trials have found more effect, or mixed effects for these outcomes, and so the research explore in this review the role of sanitation coverage and use across this study.

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Because many of the outcomes of this review share transmission mechanisms, there is merit in assessing and reporting on these out comes together. This study updated several previously published systematic reviews and conducted additional sub-group analyses including assessing the health impact of different levels of sanitation services as defined by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) (WHO/UNICEF, 2015).

2.3 Conceptual framework. This section prospects a schematic interpretation of the conceptual framework as shown in the figure below.

Independent variables.

Dependent variables.

Source; researcher 2019

2.4 The gap to be filled. The study therefore aimed at filling the gaps identified in identifying common diseases caused by poor hygiene in urban areas and how they affect urban residents by investigating a very concept through creating problems, while explaining the effects of poor hygiene in urban areas

Identification of common diseases caused by poor hygiene in town. Effects of diseases caused by poor hygiene to people living in town. Prevention of diseases caused by poor hygiene in town people.

Common diseases caused poor hygiene practices in town.

**2.3 Conceptual framework.**

**2.4 The gap to be filled.**

The study therefore aimed at filling the gaps identified in identifying common diseases caused by poor hygiene in urban areas and how they affect urban residents by investigating a very concept through creating problems, while explaining the effects of poor hygiene in urban areas

Identification of common diseases caused by poor hygiene in town. Effects of diseases caused by poor hygiene to people living in town. Prevention of diseases caused by poor hygiene in town people.

Common diseases caused poor hygiene practices in town.

Good hygiene and sanitation leads to improved health standard of people because nobody will be left behind during cultivation or any other field work and even there will be no waste of property or wealth which could be used in treating the family members

**CHAPTER THREE: METHODOLOGY.**

**3.1** The methodology used in the research study includes research design, target population, sampling design and data collection and analysis procedures review.

**3.2 Study Design**

The research design used during conducting the study was descriptive research. It (descriptive research) was used to obtain information concerning the current status of the phenomena Tiap Tiap area to describe "what exists" with respect to variables or conditions in This method involved range from the survey which describes the state of things, the comparable study which investigates the relationship between variables. Descriptive studies are not only restricted to fact finding but may often result in the formation of important principles of knowledge and solution to significant problems. They are more than just a collection of data since they involve measurement, classification, analysis and interpretation (David, 2005).

**3.3 Study Site**

The study was conducted in Cueibet town the capital of Gok states which is located in central Bahr el Ghazal region, Cueibet has covered an area of 4866 km2 it is on the main road connecting Rumbek and Wau it was formerly part of Lakes state. According to South Sudan National Bureau of Statistics (C 2008)Tiap Tiap under cueibet has a population of 20,919.Also the population projection in 2017 which does not consider migration and displacement stated that Cueibet as a population of 177,987 (South Sudan National Bureau of Statistics,2017

**3.4 Research Approach**

The approach used in this study is mixed methods research approach for collecting, analyzing and presenting data using tables, pie charts, graphs and figures. Because the assumption of the mixed methods research approach is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone (Patton ,1990).

Qualitative research approach in this study has been used for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. Meanwhile quantitative approach in this the same study has been used for testing objective theories by examining the relationship among variables and in turn, these variables can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and discussion (Morgan, 2007).

**3.5 Research Method and Analysis:**

Data analysis step is the process of packaging the collected information putting in order and structuring its main components in a way that the findings can be easily and effectively communicated, Kothari (2004. After the fieldwork, before analysis, all questionnaires were given enough time for proper checking for reliability and verification. Editing, coding and tabulation were carried out. The data collected will be analyzed using simple qualitative and quantitative methods and presented using tables, figures and charts.

**3.6 Data needs types and sources:**

During study, questionnaires were used to collect the data and they were structured in a way that it obtained both qualitative and quantitative data

**3.6.1 Primary Data**

According to Webfinance Inc (2019), primary data is the data observed or collected directly from firsthand experience. Therefore in this study Questionnaires were sent to a number of persons seeking their responses that can be tabulated and treated statistically. It is a form for securing answers to questions from respondents. The researcher used both structured and unstructured questionnaire which have both structured and semi-structured questions. There was a pre-determined question whereby respondents were served with the questionnaire and are given a chance to fill. The types of questions used were both open and closed ended. Closed ended questions were used to ensure that the given answers were relevant. The researcher phrased questions clearly to make dimensions along which respondents were analyzed. In open-ended questions, space shall be provided by the respondent, thus giving him/her freedom to express their feeling.

**3.6.2 Secondary Data:**

Secondary data is the published data and data collected from other parties or in the past (Webfinance Inc (2019).

Materials available in Tiap Tiap under Gok State like magazines, newspapers, journals and World Wide Web in relation to this study were used. And before the use of available materials the researcher wrote a letter of permission to the administration concern such as South Sudan National Bureau of Statistics (SSNBS) asking for permission to have access to their published data

**3.8 Population, sampling procedure and Data collection:**

3.8.1 Target Population: Schindlers (2003), define target population as the complete set of individual’s area of objects with some common characteristics to which the researcher wants to generalize the result of the study. Target population is a universal set of the study of all members of real or hypothetical set of people, events or objects to which an investigator wishes to generalize the result, Kothari (2004). In this case, the researcher targeted population of one hundred (100) respondents from Tiap Tiap town. They were comprised of people of different education background, race, age groups, religion and social status. The target population was chosen at random, some were gotten in the shops, at tea place, at school, hospital and in public clinic. The sampling technique used was stratified random sampling method. The researcher used this method because it is r free from biasness of population; it considered all levels of population. The sample size was100 respondents, representing fifty percent of the population.

**3.8.2 Data analysis.**

Quantitative data questionnaires were transferred from manual form to a central system at the end of each day of data collection. The files were verified and checked for errors before being encoded and transferred to Microsoft Excel data Analysis software. The analyzed data were letter presented in form of tables and graphs to make interpretation and comparison easier. And for qualitative data was analyzed by coding and shifting into themes before inferences are drawn. Results within and across different groups of people interviewed and from various methods will be collated and Triangulated.

**3.9. Data Presentation**

**3.9.1 Validity and Reliability**

According to Kothari (2004), validity is the accuracy and meaningfulness of inferences which are based on the research results. It is the degree through which results obtained from the analysis of data represent the phenomenon under study while reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials. It involved administering the same instrument a number of times to the same group of subject. The researcher gets authorization from relevant departments of theTiap Tiap town to circulate questionnaires. To ensure reliability and validity questionnaires were pre-tested on 45 respondents. These respondents were included in the final study. The questionnaires were then corrected before the final distribution is done.

**3.9.2 Ethics.**

The researcher wrote an introduction Letter to the town authority which gave permission and wrote back acceptance letter to the researcher in order to get relevant information needed in the available materials such as magazines, newspapers, journals and World Wide Web. The respondents also accepted and participated fully in data collection

**CHAPTER 4: PRESENTATIONS OF FINDINGS, ANALYSIS AND INTERPRETATION:**

**4.1 introductions:**

To complete this study properly, it is necessary to analyze the data collected in order to test the hypothesis and answer the research questions. As already indicated in the preceding chapter, data is interpreted in a descriptive form. This chapter comprises the analysis, presentation and interpretation of the findings resulting from this study. The analysis and interpretation of data is carried out in two phases. The first part, which is based on the results of the questionnaire, deals with a quantitative analysis of data. The second, which is based on the results of the interview and focus group discussions, is a qualitative interpretation.

**4.2 PHASE ONE: QUANTITATIVE INTERPRETATION OF RESULTS**

Analysis of Questionnaires

Of a total of 400 questionnaires distributed, only 380 completed questionnaires were the base for computing the results. Four (4) questionnaires completed by those who never had the chance to attend workshops, three (3) non-responses and thirteen (13) with a lot of missing data were subtracted from the total sample size. This means that 20 questionnaires, out of 400 questionnaires distributed, were completely discarded from the analysis. The rest, (380 questionnaires) were used to interpret the results. 43 Data gathered through the questionnaire was subjected to frequency counts. In other words, the subjects’ responses for each individual question were added together to find the highest frequency of occurrence (i.e. the number of times that a particular response occurs). These responses to the questions, which are quantified, are then presented in percentage forms. This analysis is presented in tabular form. The researcher uses tables containing a variable and in some cases, combines two or more variables in a single table. This first section of the questionnaire sought to identify the subjects who had the opportunity to attend workshops on HIV/AIDS campaigns. It enabled the researcher to identify the responses of those subjects who had never attended such workshops and exclude them from the analysis. It is the researcher’s conviction that to obtain reliable results, only the responses of subjects who had the chance to attend workshops should be analyzed since most of the questions are based on what transpired in such workshops. The responses to the questions are summarized in the tables below, of which some consist of a maximum of 380 responses and others depended on the responses subjects gave in the preceding question. For example, subjects who chose, for instance, (C) in a particular question may not be required to answer the next question. This made the total number of responses for each individual

4.2.1 How many times did you attend workshops on AIDS education? (Excluding this one)

|  |  |  |
| --- | --- | --- |
| **VARIABLES** | **FREG** | **PERC** |
| A = Never attended | 4 | 1,0 |
| B = Once only | 156 | 40,6 |
| C = More than once but less than 5 times | 207 | 53,9 |
| D = More than 5 but less than 10 times | 14 | 3,6 |
| E = More than 10 times | 3 | 0,7 |

Table No. 1 no. of times of attendance of aids workshops

This table shows that only 4 (1,0%) of the subjects had not attended any workshop on AIDS education campaigns. The rest (i.e. 380 or 98, 9%) of the population had the opportunity to attend such workshops although there is a vast difference in the number of times of their attendance. The total number of those who attended workshops will be used as a total sample size. The results are based on the subjects’ experiences and not on speculation or what they believe or think, and should therefore be reliable. It is also interesting to note the high number of subjects who attended these workshops more than once.

**Using quantitative and qualitative data in health services research**

**Background**

In this methodological paper we document the interpretation of a mixed methods study and outline an approach to dealing with apparent discrepancies between qualitative and quantitative research data in a pilot study evaluating whether welfare for 60% of them. A range of demographic, health and social outcome measures were assessed at baseline, 6, 12 and 24 month follow up. Qualitative data were collected from a sub-sample of 25 participants purposively selected to take part in individual interviews to examine the perceived impact of welfare rights advice.

**Results**

Separate analysis of the quantitative and qualitative data revealed discrepant findings. The quantitative data showed little evidence of significant differences of a size that would be of practical or clinical interest, suggesting that the intervention had no impact on these outcome measures. The qualitative data suggested wide-ranging impacts, indicating that the intervention had a positive effect. Six ways of further exploring these data were considered:

1. treating the methods as fundamentally different;
2. exploring the methodological rigour of each component;
3. exploring dataset comparability;
4. collecting further data and making further comparisons;
5. exploring the process of the intervention; and
6. Exploring whether the outcomes of the two components match.

### **Methods**

Quantitative and qualitative data were collected contemporaneously. Quantitative data were collected from 126 men and women aged over 60 within a randomized controlled trial. Participants received a full welfare benefits assessment which successfully identified additional financial and non-financial resources

**4.3 Quantitative and qualitative data**

**4.3.1 Quantitative data**

As you might already know there is software like Microsoft Excel, Google Drive and SPSS programs and others that help you get the graphs you need in your research work. The most common graphic forms you might consider using are:

1. Tables; used in giving quality data collected from various areas focusing specific surveillance in accordance to time interval.
2. Graphs: this are also used in surveillance in collecting data in correspondent to time of infection at that particular Season.
3. Pie Chart: shows and summaries the trend on high cases affection for certain outbreak

**CHAPTER FIVE**: **DISCUSSION, LIMMITAIONS OF THE STUDY, RECOMMENDATIONS AND CONCLUSIONS**.

The aim of this chapter is to discussion on the relationship between the objectives of the study and whatever that is found out incorporating the literature reviewed. From our literature review, we seriously focused on our areas of concern in WASH, we will therefore talk about and oversee the questions based on our review.

5.1 **Discussion:**

1. What is WASH and why is it important?

Adequate water, sanitation and hygiene are **essential** components of providing basic health services. The provision of **WASH** in health care facilities serves to prevent infections and spread of disease, protect staff and patients, and uphold the dignity of vulnerable populations including pregnant women and the disabled.

1. What was the goal of WASH?

The study has three primary scientific objectives:

* Measure the impact of sanitation, water quality, handwashing, and nutrition interventions on child health and development after 2 years of intervention.
* Determine whether there are larger reductions in diarrhea when providing a combined water, sanitation and handwashing intervention compared to each component alone.
* Determine whether there are larger effects on growth and development from combining a) daily supplemental nutrition with b) a combined water, sanitation and handwashing intervention compared to each component alone.

The study has three secondary scientific objectives:

* Measure the impact of nutritional supplements and household environmental interventions on environmental enteropathy biomarkers, and more clearly elucidate this potential pathway between environmental interventions and child growth and development.
* Measure the impact of sanitation, water quality, handwashing and nutritional interventions on intestinal parasitic infection prevalence and intensity.
* Measure the association between parasitic infection and other measures of enteric health, including acute diarrhea and environmental enteropathy biomarkers.

1. Mention some common diseases caused by poor hygiene to urban residents of Tiap Tiap

The response for diarrhea was 30%, malaria was 25%, typhoid was 22%, cholera was 21% while the response for others diseases was 2%, From the analysis, it can be concluded that most respondents mentioned Diarrhea with big percentage while the 2% mentioned other diseases like Bilharza,Schistasomiasis and so many others. Therefore the first and most common disease found to be caused by the poor hygiene to people living in town according to respondents is diarrhea, seconded by typhoid and follow by others as indicated above.

5.2 **Limitations of the study**

The hiccups that were encountered when doing the research were as follows, firstly delay of questionnaires because most of respondents were working class who got little time to work on questionnaires. Secondly some people were thinking that the researcher was taking information from them (respondents) and to be given to water for lakes technical team who are hygiene implementers in the part of Tiap Tiap town as a part of betrayal.

This problem was addressed by showing the letter of declaration which stated that, information that is going to be obtained from you (participants) will be kept confidential. Your name will not be mentioned or identified in any report”

5.3**Recommendations**

Based on evidence founded to be the cause and effects of poor hygiene-related diseases, the following are the recommendation given by the researcher: There needs to educate the community on the basic ways of managing and preventing poor hygiene-related diseases among people living in Tiap Tiap town as well as campaigning for safe drinking water and increase improve sanitation facilities. State government should prioritize hygiene in Tiap Tiap town concurrently with improvement in the water supply and sanitation and also to be integrated with other interventions such as improving nutrition. Inadequate water supply and inadequate sanitation, together with poor personal and domestic hygiene are the cause of hygiene-related disease, therefore both water and sanitation facilities should be increased for the people to have access to adequate water for personal and domestic hygiene as well as sanitation facilities. There need to construct latrine in the market in order to minimize open defecation and the spread of fecal-oral diseases because human faeces are the primary transmission route of many waterborne diseases. Latrine design should be according to the space and material available, the culture and traditions of the beneficiaries and urgency. In high-density low income urban area like Tiap Tiap town, often the only viable sanitation system is community managed sanitation block of the type promoted by the Society for Promotion of Area Resource Centre (SPARC) it is an Indian organization. These sanitation blocks are designed, built, owned and managed by the community themselves. They are in no sense public facilities although casual use may be allowed on payment of per-use fee for its upkeep.

5.4. **Conclusion**

The effects of poor hygiene to urban residents. Based on the findings, the researcher confirmed the causes of poor hygiene in Tiap Tiap town, identified common diseases caused by poor hygiene as well as the effects and the ways of preventing them which are all important in dealing with improvement of public’s health in town

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**APPENDIX:**

RESEARCH QUESTIONNAIRES.

My name is **Agok Manyuon Wantok Akol** pursuing a **Diploma in Public Health at Strategia Netherlands** .Am undertaking a study on **an investigation on the effects of poor hygiene to urban residents of Tiap Tiap town**. Intellectuals and business people in town of Tiap Tiap have been chosen to participate in this research study to give their opinion on matters of poor hygiene to urban residents.

Am requesting you to participate in the study and If you kindly agree to participate than any information that is going to be obtained from you will be kept confidential. Your name will not be mentioned or identified in any report.

Also you are free to withdraw at any time if you feel uncomfortable with the questions. I there appreciated you on spending time on my WASH questionnaires.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interviewed by:

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature/ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Contact: 0926699112

**General information**

* 1. Gender (tick around your choice)
     1. Male
     2. Female
  2. Age
     1. 15-25
     2. 25-45
     3. 45-above
  3. Level of Education
     1. Primary Leaver
     2. Secondary Leaver
     3. Diploma
     4. Post Graduate
     5. Degree Holder.

Section A: WASH

Kindly answer the questions by putting a tick in the appropriate box or by writing in the space provided.

1. Briefly Narrate according to your own perception and understanding, what are the most disadvantages of poor General Hygiene to tiap tiap community residents?

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1. Give some common diseases caused by poor hygiene and How the transmit to entire community population.

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1. According to your observation as resident of Tiap Tiap Town, How do you rate the Hyiene Satus of the town?
2. Excellent
3. Good
4. Poor
5. Very Bad
6. Kindly Explains How poor hygiene affect and threat the lives of residing population in TiapTiap.

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1. Do people residing in Tiap Tiap knows how to prevent Common Disease Caused by poor hygiene? If Yes, Which method do the used?

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1. As Specialist, how should this people prevent themselves from this common disease above?

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**Section B: Sanitation**

1. Do majority of the population has toilet or latrine?
2. Yes
3. No
4. How you rate the usage of latrine or toilet in your Resident?
5. Very high
6. High
7. Fair
8. Don’t Even Use
9. Explain the why for your answer in question (8).

---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. Why do majority of the population like or deserves to defecate in bushes or other open places in your resident? Is it because that
2. No toilet.
3. Toilets Are Dirty
4. Toilet smells bad
5. Long Waiting Time
6. Other (specify):

If your answer is 2 E explain what could be that--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. What happens to the faeces of children in the market? (Tick relevant answers).
2. Thrown in the latrine.
3. Left lying on the ground.
4. Taken to the garbage.
5. Left to dogs to eat.
6. Dig a hole and cover
7. How satisfied are you with human waste disposal, garbage disposal and general sanitation of town (Tiap Tiap)
8. Very satisfied
9. Unsatisfied
10. Satisfied

END