KNOWLEDGE, PRACTICES AND CHALLENGES IN MENSTRUAL
HYGIENE MANAGEMENT AMONG GIRLS AGED
10-15 YEARS AT KARAMURANI CATHOLIC
PRIMARY SCHOOL, MWIZI SUB COUNTY,
MBARARA DISTRICT

RESEARCH REPORT SUBMITTED TO UGANDA NURSES AND
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ABSTRACT

Menstrual Hygiene Management is an issue interested in Gender Equality and Development sector. Globally, particularly in developing countries, girls reach menarche, rules are applied on how they should conduct themselves. Lack of appropriate products and facilities have been previously cited as potentially contributing to school girls’ absenteeism.

The project was carried out in three upper classes of KCPS among girls aged 10-15 years. A cross-sectional descriptive method with quantitative questionnaire was employed. Quantitative data was analyzed using SPSS version 20 software package.

In total 90 respondents participated aged 10-15 years, (60%) were Catholics. Majority 93.3% of girls said that menstruation is a physiological process. However, 3.3% said that menstruation is a pathological process. The highest percentage of girls (70%) reported normally use pieces of cloth during menstruation. Seventy percent (70%) of the girls missed some days of school because of menstruation, (86.6%) of girls missed due to lack of money.

Furthermore, this study showed that some girls need knowledge on menstruation as a normal physiological process not a pathological process or curse from God. Schooling should be comfortable and positive experience, in an environment favorable to learning. Such things are made difficult for girls with old cloths, causing discomfort, worry and risks associated with poor hygiene. This affects their attendance, concentration, self-esteem and ability to carry usually. Menstruation is a natural part of a woman’s life and girls should not have to suffer in any way because of it.
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DECLARATION

I Tukundane Arthur declare that this research report is entirely my own work, apart from where references have been made of published literature. The information contained in this report has never been presented for any academic award in any institution.

Signature……………………..                                        Date……………………….

TUKUNDANE ARTHUR

(AUTHOR)
APPROVAL FOR SUBMISSION

SUPERVISOR’S APPROVAL

This research report has been produced under my close supervision and I therefore recommend it for submission in further consideration.

Signature…………………… Date……/………/…….

MR OPIO CHARLES (BEDM-MUK)
(SUPERVISOR AND TUTOR)

KIU- WC-SONS

DEAN’S APPROVAL

Signature………………………………………………Date……/…………/………

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DEDICATION

I dedicate this work to my beloved family, of the Mr. &Mrs. Nkuna George. Thank you for the love and support you gave me throughout my studies. I would like also to dedicate this work to my friends Justus, Dickson, Recheal, Odia, Allon, Ganafa, Sheila and others. Thank you all for the contribution you have made in my studies.
ACKNOWLEDGEMENT

First and foremost I would like to give my gratitude to the almighty God for giving me the opportunity, wisdom and energy through the course of this study. It has been a long and rough journey, and without God’s grace I would not have made it to this end. During this long journey, I have also realized that it is not possible to achieve a goal in life and career without the support, mentorship, encouragement and friendship of many caring people. Therefore I extend my thanks to my supervisor Mr. Opio Charles for his tireless efforts and guidance from the beginning up to the end of this long journey. My sincere thanks to my beloved family of Mr. & Mrs. Nkuna George for their encouragement. To my beloved and caring brothers Justus and others for their inputs and support throughout my studies. The long working hours I spent on this journey you never complained about, but you have only shown your love and encouraged me. Thanks also to my classmates for their academic support rendered. Sincere thanks also go to KIU-WC-SONS administration for financial support.
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<th>Abbreviation</th>
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<tr>
<td>MHM</td>
<td>Menstrual Hygiene Management</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Emergency Fund</td>
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<tr>
<td>FDG</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>WASH</td>
<td>Water Sanitation and Hygiene</td>
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<tr>
<td>SES</td>
<td>Socioeconomic Status</td>
</tr>
<tr>
<td>$</td>
<td>Dollar</td>
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<tr>
<td>e.g.</td>
<td>For example</td>
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<tr>
<td>P/S</td>
<td>Primary School</td>
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<tr>
<td><strong>KIU-WC-SON</strong></td>
<td>Kampala International University Western Campus School of Nursing Sciences</td>
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<tr>
<td><strong>BEDM-MUK</strong></td>
<td>Bachelor in Medical Education –Makerere University</td>
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<tr>
<td><strong>KCPS</strong></td>
<td>Karamurani Catholic Primary School</td>
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OPERATIONAL DEFINITIONS

Knowledge: This is a familiarity, awareness and understanding someone or something as facts, information, descriptions and skills which is acquired through experience and education by perceiving, discovery or learning.

Practice: Refers to the actual manual performance of a specific task in relation to the standard conventional guidelines.

Adolescent: Transitional stage of physical and psychological human development from puberty to adulthood.

Menarche: The first menstrual period, or the first menstrual bleeding indicating transition from girlhood to womanhood.

Menstruation: Also known as period is a monthly regular discharge of blood and mucosa tissue from the inner lining of the uterus through the vagina following failure of fertilization to take place.

Menstrual hygiene: Effective management of menstrual bleeding by women and girls.

Culture: The learned behaviour of a group of people that is generally considered to be the tradition of these people and is transmitted from generation to generation.

Physiological process: This is a series of normal changes and functioning of living organisms.

Pathological process: This is a process arising from a disease which results into abnormal changes in the living organism.
CHAPTER ONE

1.1 Introduction

This chapter comprises of the following sections; background, problem of the statement, purpose of the study, specific objectives, research questions and justification for the study.

1.2 Background

Menstrual Hygiene Management (MHM) is the absorption of menstrual blood onto clean material which can be changed in privacy. It also incorporates the availability of soap and clean water, to wash re-usable sanitary materials and the body, as well as a suitable place of disposal for used materials (WHO-UNICEF, 2012).

Menstruation also known as period is a monthly regular discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina following failure of fertilization to take place (Bigg, 2011)

Menarche is an important milestone in a girl’s transition to womanhood. However, menstruation can place significant obstacles in the way of girls’ access to health, education and future prospects, if they are not equipped for effective MHM. Good MHM requires access to necessary resources (e.g. menstrual materials to absorb or collect menstrual blood, soap and water), facilities (e.g. private place to wash, change
and dry re-usable menstrual materials, in addition to an adequate disposal system for menstrual materials), and education about MHM (UNICEF, 2012).

Worldwide, School dropout for girls in low-income settings increases when they reach puberty (UNFPA, 2014). Previously overlooked menstrual-related concerns are increasingly recognized as factors that contribute to this (Crofts, 2012).

In sub-Saharan Africa, menstruation is considered taboo and consequently, is not discussed often (Population Reference Bureau, 2013). Due to the lack of knowledge and privation of other essential resources, menstruation is often managed poorly and is described by schoolgirls as a negative and isolating experience (Aniebue & Nwankwo, 2013).

Only one recent study of women and girls in Eastern Nigeria indicates an adequate level of knowledge of menstruation and menstrual hygiene, though the community still lacked confidence to discuss the issue openly. During the Focus Group Discussion (FGD), which was undertaken in the course of the study, the women were quiet for a while before one of them broke the silence by saying that, “every woman in the village knows that she has to wash her private parts with soap and water daily to avoid bad odour, especially during the time of her flows (menses)” (Nkandi, 2011). In general however women were not very keen to discuss issues such as menstruation and female body organs, which they regarded as social taboos and hence shameful to be mentioned in public (Nkandi, 2011).
Findings from Ghanaian study indicate that parents typically do not discuss sex or menstruation with their daughters until menarche (Scott, 2013). Many parents believe that it is the school’s responsibility to broach these subjects. Educators describe the Ghanaian parenting style as cool and non-conversational. Even so, many parents complain that girls never tell anyone when their menses begin, deciding instead to keep it a secret. Since puberty conversations are rare in the Ghanaian culture, at menarche approximately half of schoolgirls in the study have no knowledge of menstruation (Scott, 2013).

In Uganda, MHM amongst girls in rural primary schools is an under-examined area of research. Girls in this setting are unlikely to have access to what they need to manage their menstrual flow and are thus more at risk of absenteeism from school (Wilson, 2012). Girls have a human right to education and educating girls is a wise investment for development, producing ‘high and long lasting returns’ for families, societies and subsequent generations (Creswell, 2013).

In the study area, Karamurani Catholic Primary School highlighted this problem for example as noted by the reports from most primary schools in the study area that, MHM affects school attendance of girl children.

1.3 Statement of the Problem

Until recently, MHM has been overlooked in Water, sanitation and hygiene (WASH) development programmes in East Africa (Sommer, 2011) and the effects of MHM on schoolgirls remain a relatively unexamined topic (UNFPA, 2013). The reason why
MHM has previously been neglected may be due to the culture of silence on the subject (Olayinka, 2014) where menstruation is seen as a ‘secret’ (Sommer, 2011). It may also be due to the fact that men are often still the key decision makers in developing countries and due to the lack of knowledge on the issue hence MHM may not be considered in policy making (Water Aid, 2009). Researchers recommend that studies are carried out to understand the link between inadequate MHM and absenteeism from school so that policymakers in countries are aware of the barriers schoolgirls face because of menstruation (Sommer, 2013).

Research into the impact of unmet menstrual needs on girls’ education remains scarce in the study area. The dearth of studies about MHM and the impact of unmet menstrual needs are particularly striking given the relevance of the topic to numerous fields, such as water, sanitation and hygiene (WASH) humanitarian relief, and human rights.

No study had yet examined MHM amongst primary schoolgirls in Karamurani Catholic Primary School where girls are most vulnerable to bad MHM practices hence the need for this study.

1.4 Purpose of the Study

This study aims to assess knowledge, practices and challenges on Menstrual Hygiene Management among girls aged 10-15 years in KCPS, Mwizi Sub County in Mbarara District.
1.5 Specific objectives

i. To determine knowledge on menstruation among girls aged 10-15 years in KCPS, Mwizi sub county in Mbarara district.

ii. To identify the practices on menstrual hygiene management among girls aged 10-15 years in KCPS, Mwizi sub county in Mbarara district.

iii. To find out challenges faced by girls during menstrual hygiene management among girls aged 10-15 years in KCPS, Mwizi sub county in Mbarara district.

1.6 Research questions

i. What is the level of knowledge about Menstrual Hygiene Management among girls aged 10-15 years in KCPS, Mwizi Sub County in Mbarara district?

ii. What are the practices of primary school girls aged 10-15 years towards MHM in KCPS, Mwizi Sub County in Mbarara district?

iii. What are the challenges faced by primary school girls aged 10-15 years towards MHM in KCPS, Mwizi Sub County in Mbarara district?

1.7 Justification for the study

1.7.1 Nursing practice

It will be important to policy makers and stake holders in organizing trainings aimed at imparting knowledge to the girls about menstruation. Emphasis on MHM is necessary to establish confidence of the girls in primary schools.
1.7.2 Nursing educators

The findings of this study will help in creating awareness among health staffs, teachers, health tutors and parents to advocate for good MHM.

1.7.3 Nursing researchers

The study findings will be used as reference for future researchers who will be interested in carrying out research on the same topic. This research will also be essential for continuous improvement of MHM in schools.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to the research topic. This information was obtained from several publications including textbooks, reports and Journals.

2.2 Knowledge about menstruation

Research from multiple countries revealed that there was a consistent lack of knowledge and education among schoolgirls regarding menstruation. Findings from several qualitative and quantitative studies from schoolgirls in rural, peri-urban, and
urban settings indicate that many girls receive little or no pre-menarcheal information (Scott et-al, 2013). Girls most often ask parents, peers, sisters, and teachers to obtain information about menstruation (Gumanga & Kwame, 2012). Frequently, the parents, teachers, and peers pass along incorrect information or do not feel comfortable discussing menstruation (Onyegegbu, 2011). Girls commonly choose to keep their menses a secret (Scott et-al, 2013). Though some countries have puberty education and menstruation topics incorporated into their school curriculums, many schools do not actually teach these lessons or experience great difficulty if they do (Matovu, 2011). Additional challenges to providing menstruation education include that many schools have only male teachers and lack appropriate materials to help guide the lessons on this subject (Sommer, 2011).

Ghana is an example of a sub-Saharan African country that has a standard puberty education curriculum that includes a menstruation module, though most schools in a Ghanaian study are either not actually teaching it or the puberty education is described as a negative experience by girls and teachers. A trend is that the further from the city, the more likely the teachers are to be male. Many of these teachers are embarrassed when asked about puberty education, consequently choosing not to teach it. The girls who are actually learning about puberty describe it as an embarrassing event. They declare that boys tease them and make noises during the lessons, which make it difficult to retain the information (Scott et-al, 2013).
In a Kenyan study, the data revealed that, many girls name their mothers or other family members as their preferred sources of support about menstruation (Onyegegbu, 2011). Girls desire practical information about how to manage menstrual flow and hygiene as well as emotional support to make the adjustment to menarche easier. Girls want to be reassured that their experiences with menstruation are normal. Some of the mothers describe how they use cloth themselves to save money so that they can purchase sanitary pads for their daughters in an effort to make the experiences more comfortable. Similar to the Ghanaian study, some Kenyan girls receive little or no guidance either before or after menarche. Some girls try to avoid discussing menarche with their relatives. Many mothers describe discussing menstruation with their daughters as uncomfortable, embarrassing or shameful, while others choose to avoid this conversation topic entirely (Crichton et al, 2012).

A Ugandan study demonstrated that most girls from poor urban settings learn about menstruation from their peers and sisters, while the majority of girls from rural areas receive information from their mothers. Findings suggest that the rural mothers feel more comfortable discussing menstruation with their daughters than the urban poor mothers who typically stay silent (Matovu, 2011).

2.3 Practices on Menstrual hygiene management

Adolescent girls constitute a vulnerable group not only with respect to their social status but also in relation to their health. In this regard, menstruation is regarded
unclean or dirty in society (Dasgupta & Sarkar, 2008). The issue of menstrual hygiene is inadequately acknowledged and has not received proper attention (Water Aid, 2009).

Studies in Africa have found out the use of sanitary pads as low as 18% amongst Tanzanian women with the remainder using cloth or toilet paper (Baisley et al 2009).

Studies of Nigerian schoolgirls have found between 31% and 56% using toilet tissue or cloth to absorb their menstrual blood as opposed to menstrual pads (Adinma, 2008 & Aniebue, 2009).

A study conducted in Ethiopia showed that, though, most (92%) students were aware of menstruation before menarche, their utilization of sanitary napkins was low at 37.6% and a significant proportion, 62.4% were using rags and pieces of cloth (Desalegn, Berihum & Abay, 2009). Eleven percent (11%) of girls in Ethiopia change their menstrual cloths once a day (Sarah, 2012). Most girls in Ethiopia are at risk of getting genitourinary tract infections due to their unhygienic practices during their menstruation period which may lead to further complication if left untreated (Annabel S, et al. 2010).
2.4 Challenges faced by girls towards MHM.

2.4.1 Lack of adequate sanitation facilities in schools.

Many studies indicated that most school girls do not have adequate sanitation facilities at school to manage their menses (Fehr, 2013). This problem is more severe in rural areas than in urban areas. Some rural schools have communal latrines or no facilities at all.

Many sanitation facilities are open to both sexes and do not afford the girls’ privacy they need to manage their menses. Frequently, the facilities do not have locks, doors, water for washing, or disposal mechanisms. Girls complain that the lack of privacy in the bathrooms increases their discomfort and fear of discovery (Crichton, 2012). Furthermore, the sanitation facilities are often dirty and smell badly.

Responses from a Malawian study illustrated the importance of this issue (Pillitteri, 2011). Girls assert that, the maintenance of basic restroom facilities is often deficient or nonexistent. At some schools, girls are responsible for cleaning the facilities, although they have no training or cleaning materials. The girls reported that all toilets smell intensely of feaces and that many are filled with flies and mosquitoes. Researchers asked the girls why they do not want to use school toilets at two time points: first, when they are menstruating and secondly, when they were not menstruating. Across the board, girls are less likely to use school sanitation facilities while menstruating. The most common reasons why girls do not want to use the
sanitation facilities while menstruating are the following: they are able to see blood in
the school toilets, the toilets are dirty, they cannot wash, the toilets are located far
from class and for fear that boys can see. Since girls report changing menstrual
protection materials several times a day demonstrating that it is vital to have hygienic
sanitation facilities at school (Fehr, 2013).

Many studies revealed that schoolgirls do not have places to properly dispose of their
feminine hygiene products; this creates many problems (Crofts T & Fisher, 2012).

Studies carried out in Malawi and Lesotho reported that used sanitary pads are often
discarded in open pits due to the lack of adequate disposal mechanisms. Subsequently,
they are carried around the school grounds by dogs and crows, becoming visible to everyone (Pillitteri, 2011).

A Ugandan study highlighted that sanitary pads are disposed off in the latrines or
toilets in most schools (Matovu, 2011).

2.4.2 Inadequate feminine hygiene products

Multiple studies in sub-Saharan Africa show that, most commonly used feminine
hygiene products are reusable cloths and sanitary pads among schoolgirls. Girls make
reusable cloths using scraps from shirts, dresses, old towels, or blankets (McMahon,
2011). Girls from urban areas and with higher socioeconomic status (SES) more often
use sanitary pads while girls from lower SES and in peri-urban and rural areas
typically utilize reusable menstrual materials (Chebii, 2012). Girls from lower SES often respond that sanitary pads are too expensive for them to purchase (Matovu, 2012). Girls from rural areas indicate that sanitary pads are inaccessible in their areas (Crichton, 2011). Apart from pads, other feminine products girls use include cotton, wool, socks, toilet paper, papers torn from school exercise books, old newspapers, pieces of sponge torn from mattresses and additional clothing worn as menstrual protection (Chebii, 2012).

Many studies specify that the preferred feminine hygiene product among schoolgirls is sanitary pads. The schoolgirls expand on the advantages of sanitary pads and describe the challenges with reusable cloths. Nigerian girls claim that using sanitary pads is a satisfactory experience, helpful for hygiene purposes, and boosts their self-confidence (Adika, 2011).

2.4.3 Financial barriers

Although most schoolgirls prefer to use sanitary pads to manage their menses, it was often out of their financial means. Multiple studies from different countries in sub-Saharan Africa value a pack of 10 sanitary pads between $1 and $2, depending on the brand and location. Most girls use three sanitary pads a day, with average menstrual periods lasting between three and five days (Crofts, 2012). A Ugandan study revealed that sometimes the schoolgirls stay in their sanitary pads longer than recommended to lessen the number used per cycle (Matovu, 2011).
Many studies indicated that, rural families often find it more challenging to afford sanitary pads than urban families (Adika, 2011). A Ghanaian study highlighted this trend, reporting that girls in urban settings typically use sanitary pads because they are more readily available and families can more frequently afford them. However, in rural and peri-urban areas, the adults state that their daughters wear cloth or toilet paper because they cannot afford sanitary pads. Each female family member often has one or two pieces of cloth. They usually wear one while the other one is cleaned and dried. In some cases, female family members have to share cloths. Some families communicate that even toilet paper is expensive because it is disposable and has to be purchased every menstrual cycle (Scott, 2013).

**2.4.4 School absenteeism and reduced performance**

Almost all the data indicated that, MHM challenges lead to absenteeism and reduced concentration among schoolgirls (Abera, 2014). While some studies found that girls often miss multiple days a month during their menses (House, 2013), others observed that girls are typically absent just a few hours (Fehr, 2011). Usually, girls from rural areas have no money to buy sanitary pads and report greater absenteeism due to menstruation than their urban counterparts (Matovu, 2011).

Though most studies highlighted menstruation as a principal reason for absenteeism, an Ethiopian study suggested that many other factors play a larger role in keeping girls out of school (Chege, 2013). Although 43% of respondents missed school
because of menstruation, this factor ranks low on the consensus analysis performed on all the factors in the survey that contribute to school absence. Other items such as early marriage, lack of parents, work load, family poverty, general disinterest, feeling that school is unimportant and distance rank higher than menstruation on the consensus analysis (Chege, 2013).

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter described the study design and rationale, study setting and rationale, study population, sample size and sampling procedure, inclusion and exclusion criteria, definition of variables, research instruments, data collection procedures, data management and quality control, data processing and analysis, ethical considerations, anticipated limitations and dissemination of findings.
3.2 Study Design and rationale

A descriptive cross sectional study design was used involving quantitative methods of data collection. A cross-sectional study is the one that is carried out at appoint in a time or over a short period of time. It is a good design when the purpose of the study is descriptive and helps to find the prevalence of the outcome of interest for a group in a population. It was chosen because of its simplicity and nature of the study which is descriptive and numerical data is required.

3.3 Study setting and rationale.

The study was conducted at Karamurani Catholic Primary School, Mwizi Sub County in Mbarara district. Geographically, KCPS is found in Ngoma Parish, near Karamurani Trading centre in Mwizi Sub County, Mbarara district in South Western Uganda. Mwizi Sub County is located approximately 27 Kilometers by road from Ruti-matooke market alongside Mbarara-Kabale road. Majority of Pupils came from Mwizi Sub County, Some from neighboring Sub Counties of Bugamba and Nyakayojo. There were fourteen government aided Primary Schools and two private owned primary schools. This study area was chosen because girls in this school are unlikely to have access to what they need to manage their menstrual flow and are thus more at risk of absenteeism from school.
3.4 Study Population

The study was conducted on knowledge, practices and challenges on MHM among girls aged 10-15 years in upper classes (Primary five-seven) at KCPS located in Mwizi Sub County, Mbarara district.

3.4.1 Sample size determination

The sample size was determined by using (Kish Leslie, 1965) formula.

\[ n = \left( \frac{Z^2 \cdot p \cdot q}{d^2} \right) \]

Where, \( n \) = desired sample size

\( z \) = the standard normal deviation, usually set at 1.96 which correspond to 95% confidence level

\( p \) = the proportion of target population estimated to have a particular characteristics, estimated as 50% =0.5

\( q \) = proportion of the population without desired characteristics, 1-p.

\( d \) = the measure of anticipated error as a proportion of standard deviation 5%h which is 0.05 as constant.
Taking; \( z = 1.96 \), \( p=0.5 \), \( q=1-p \), \( q=0.5 \) and \( d = 0.05 \)

Therefore, from the above formula, \( n = \left( \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} \right) \)

\[ n = 384 \]

Since the sample population was less than 10,000

\( N = \) Total number of girls (10-15) at that time of survey = 117

Equation 2: Target population of <10,000

\[ nf = \left( \frac{n}{1 + \frac{n}{N}} \right); nf = \left( \frac{384}{1 + \frac{384}{117}} \right); nf = 90 \text{ respondents} \]

Where \( nf \) sample size for \( N \), population less than 10,000

The study however considered the value of 90 respondents.

3.4.2 Sampling procedure

This is a process of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they are selected. A sample is a smaller collection of units from a population used to determine truths about that population.

In this study, simple random sampling method was used to select participants from the study population, where by 90 participants were chosen at random from total 118 girls in Primary five to seven that were obtained from class registers. To reduce bias, the number of girls who were present at the time of data collection were elicited,
equal number of papers assigned “yes” and “no” were folded, then mixed in a box and each girl was given chance to pick one, those who randomly pick “yes” were given questionnaires to fill. A girl who selected “no” was not an eligible participant and the sample size was not realized, this was repeated by another round of randomly picking folded papers assigned “yes” or “no” by those who were not selected in the first round until a sample size of 90 girls were reached.

This method was preferred because it is easily understood, time saving, economical and it involves a selection process in which each member in the population had an equal independent chances of being selected.

3.4.3 Inclusion criteria

i. Primary Schoolgirls aged 10-15 years, who had started experiencing menses, who were in class five, six and seven and were present on the days of data collection.

ii. Respondents who had voluntarily consented.

3.4.4 Exclusion criteria

i. Those who had not attained menarche and were not in the age blacket of (10-15 years).

ii. Those who did not consent for the study.
3.5 Definition of variables

Knowledge, practices and Challenges on MHM were composed of independent and the dependent factors or variables.

3.5.1 Dependent variables

Menstrual hygiene management among girls aged 10-15 years in Karamurani Catholic Primary School.

3.5.2 Independent variables

Knowledge, practices and challenges in menstrual hygiene management.

3.6 Research instruments

A semi-structured questionnaire with leading questions was used to generate information from the respondents. Data was collected through administered questionnaires.

3.6.1 Pre-testing of the research Instrument

Questionnaire was pre-tested in one of the Primary Schools that was not chosen for the study three days before data collection for validity and reliability. Any observed inconsistencies of the questions were corrected to meet the intended objectives before time of data collection.
3.7 Data collection procedures

A pre-test was carried out in one of the Primary schools that was not chosen for the study.

This facilitated clear testing on the reliability and validity of the research instrument in relation to the appropriateness of the questions. The collected data was checked by the supervisor for any incompleteness and inconsistency. This helped to make clear adjustments where necessary before the primary data collection. Every participant in the study had consented and each acquired a questionnaire. Privacy and confidentiality were maintained throughout the process of data collection. Responses were recorded in the questionnaires.

3.7.1 Data management and quality control

Data obtained was kept in safe custody and treated with respect and confidentiality.
Coding and sorting at the end of data collection process was done to ensure adequacy, completeness and correctness of information collected.

3.7.2 Data processing and analysis

Data entry and analysis were performed using SPSS version 20 software package. To explain the study population in relation to relevant variables, frequencies, percentages and summary statistics was used. Associations between dependent and independent variables were assessed and presented using tables, graphs, and pie charts.
3.8 Ethical considerations

The Primary School where the study was conducted was presented with an introductory letter from Kampala International University School of Nursing Sciences seeking approval to undertake the study. Voluntary participation in the study was ensured by explaining its indirect and direct benefits to the Pupils before obtaining written consent. The respondents were asked to consent before participating in the study. The study was conducted in a manner that enabled every Pupil to respond freely and openly in the absence of any other adult person apart from for confidentiality. Names of the respondents were not included in the questionnaires to ensure confidentiality.

3.9 Anticipated study limitations

Research is expensive almost in all its aspects thus it may be hard to meet the research budget. However, this was addressed by soliciting funds from parents, relatives and friends to carry out the study.

This study requires ample time in order to get accurate results however there is limited time provided for the study process. Therefore, this was managed to start data collection early.
3.10 Dissemination of results

Copies of the study findings were produced and given to; The Uganda Nurses and Midwives Examination Board, Kampala International University School of Nursing Sciences- Western Campus Library, Head teacher of KCPS where the study was conducted and my own copy (researcher).
CHAPTER FOUR: THE FINDINGS OF THE STUDY

4.1 Introduction

This chapter presents the study findings which have been analyzed and presented following the objectives of the study.

The study involved a total of 90 participants aged 10-15 years. Through the selection criteria, a total of 90 girls were recruited to meet the sample size.

4.2 Social – Demographic Information

Table I: Shows social demographic information. n=90

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>10-11 years</td>
<td>3</td>
</tr>
<tr>
<td>Age Group</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>12-13 years</td>
<td>12</td>
<td>13.3%</td>
</tr>
<tr>
<td>14-15 years</td>
<td>75</td>
<td>83.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tribes</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banyankole</td>
<td>51</td>
<td>57%</td>
</tr>
<tr>
<td>Bakiga</td>
<td>39</td>
<td>43%</td>
</tr>
<tr>
<td>Baganda</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Menarche Age</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10 years</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>11-12 years</td>
<td>21</td>
<td>23%</td>
</tr>
<tr>
<td>13-15 years</td>
<td>69</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary five</td>
<td>30</td>
<td>33.3%</td>
</tr>
<tr>
<td>Primary six</td>
<td>30</td>
<td>33.3%</td>
</tr>
<tr>
<td>Primary seven</td>
<td>30</td>
<td>33.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholics</td>
<td>54</td>
<td>60%</td>
</tr>
<tr>
<td>Protestants</td>
<td>29</td>
<td>32%</td>
</tr>
<tr>
<td>Muslims</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Majority (83.3%) of the girls were aged 14-15 years, followed by age group of 12-13 years (13.3%) and the least (3.3%) were in age group of 10-11 years. The study revealed that majority of the participants were Banyankole with (56.6%) followed by Bakiga with (43.3%). Findings further revealed that majority (76.6%) of girls attained menarche at 13-15 years, (23%) at 11-12 years and no one was in age group of 9-10 years. The study showed that participants from three classes (Primary five, Primary six and Primary seven) were equal each class with (33.3%). Majority of the respondents were Catholics (60%), followed by Protestants (32%) and the rest (8%) and belonged to other religions like Pentecostals.
4.2: Knowledge about Menstruation

Table II: If girls had started menarche. n = 90

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>90</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100%</td>
</tr>
</tbody>
</table>

Question (6) of part 2 asked if the girls had started menarche. It was found out that of all girls who participated (100%) had started periods.

Figure I: Shows participants’ knowledge about the meaning of menstruation.

n = 90
According to the data obtained from participants, figure I above shows that majority (83%) of the participants knew that menstruation was a physiological process, followed by (11%) of the participants who believed that menstruation was a pathological process and the least (6%) believed that it’s a curse from God.

**Figure II: Shows the respondents’ beliefs about the cause of menstruation. n =90**
Majority (90%) of the respondents revealed that the cause of menstruation is hormones, (7%) believed that the cause of menstruation is a curse from God and the least (3%) did not know the cause of menstruation.

Figure III: Shows source of menstrual blood. n =90

Half (50%) of the respondents knew that the origin of the menstrual blood is from the uterus (womb), followed by vagina (44%), bladder (3%) and abdomen also (3%).

Table III: Shows participants’ responses to the questions about menstruation. n=90
<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq (n)</td>
<td>Perc (%)</td>
</tr>
<tr>
<td>Had you ever heard about menstruation before attaining menarche?</td>
<td>84</td>
<td>93.3%</td>
</tr>
<tr>
<td>Had you known about menstrual hygiene before?</td>
<td>87</td>
<td>96.6%</td>
</tr>
<tr>
<td>Is there any foul (bad) smell during menstruation?</td>
<td>75</td>
<td>83.3%</td>
</tr>
<tr>
<td>Is the menstrual blood is unhygienic?</td>
<td>66</td>
<td>73.3%</td>
</tr>
<tr>
<td>Do old women do menstruate?</td>
<td>21</td>
<td>23.3%</td>
</tr>
<tr>
<td>Is menstruation a disease?</td>
<td>42</td>
<td>46.6%</td>
</tr>
<tr>
<td>Do pregnant women menstruate?</td>
<td>27</td>
<td>30%</td>
</tr>
</tbody>
</table>

Majority (93.3%) of girls has heard about menstruation before attaining menarche and (6.6%) had not heard about it. Ninety six point six percent (96.6%) of girls knew about menstrual hygiene and (3.3%) had not heard about menstrual hygiene. Eighty
three point three percent (83.3%) reported that there is a foul (bad) smell during menstruation and (16.6%) reported that there is no foul (bad) smell during menstruation. More than half 73.3% of the girls incorrectly answered that menstrual blood contained harmful substances, (23.3%) believed that old women do not menstruate and majority (76.6%) thought that old women do menstruate. Forty six point six percent (46.6%) reported menstruation is a disease and (30%) of the participants thought that pregnant women menstruate.
Figure IV: Represents respondents’ source of information about menstruation.
n=90

The results of the study revealed that majority 42% of the respondents got information about menstruation from their mothers, followed by friends 32%, teachers 23% and 3% got information from other sources e.g. Sisters.
### 4.2: Hygienic Practices during Menstruation

Table IV: Shows respondents’ hygienic practices during menstruation. n = 90

<table>
<thead>
<tr>
<th>Parameters of practices</th>
<th>Yes No.(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses absorbent materials during menstruation</td>
<td>57 (63.3%) / 33 (36.6%)</td>
</tr>
<tr>
<td>Uses commercially made sanitary pad as absorbent material during menstruation</td>
<td>39 (43.3%) / 51 (56.6%)</td>
</tr>
<tr>
<td>Cleans cloths with soap and water</td>
<td>84 (93.3%) / 6 (6.6%)</td>
</tr>
<tr>
<td>Dry cloths in sunlight</td>
<td>84 (93.3%) / 6 (6.6%)</td>
</tr>
<tr>
<td>Changing pads or cloths more than three times and above during menstruation</td>
<td>60 (66.6%) / 30 (33.3%)</td>
</tr>
<tr>
<td>Disposes used sanitary Pads in dustbin</td>
<td>21 (23.3%) / 69 (76.7%)</td>
</tr>
<tr>
<td>Uses paper to dispose the pads by wrapping</td>
<td>54 (60%) / 36 (40%)</td>
</tr>
<tr>
<td>Takes bath daily with soap during menstruation</td>
<td>90 (100%) / 0 (0%)</td>
</tr>
<tr>
<td>Cleans external genitalia during menstruation</td>
<td>87 (96.6%) / 3 (3.3%)</td>
</tr>
<tr>
<td>Cleans external genitalia with soap and water during menstruation</td>
<td>81 (90%) / 6 (10%)</td>
</tr>
</tbody>
</table>
Majority (63.3%) of girls were using absorbent materials during menstruation and almost half (43.3%) of girls were using commercial made sanitary pads as absorbent material during menstruation. Ninety three point three percent (93.3%) of the respondents were washing clothes with soap and water. Ninety three point three percent (93.3%) of the respondents dried their washed clothes in sunlight. Two-thirds (66.6%) of girls change their pads or clothes three and above times per day. Majority (76.7%) of the respondents were not disposing their sanitary pads in dustbin while (23.3%) of the respondents were disposing their used sanitary pads in dustbin. More than half 54 (60%) of girls use paper to dispose the pads by wrapping. One hundred percent (100%) of respondents were taking bath daily with soap during menstruation. The biggest proportions (96.6%) of the girls clean their external genitalia during menstruation and (90%) clean with soap and water.

Figure V: Illustrates Products normally used by respondents during menstruation n =90
The figure above illustrated what girls reported as products they normally use during menstruation. The most common product normally used was cloth (70%), followed by the use of purchased sanitary pads (27%) and (3%) reported the use of tampon.

4.3: Challenges faced by School Girls during menstruation.

Table V: Summary of girls’ responses on the availability of sanitary pads and money n =90

<table>
<thead>
<tr>
<th></th>
<th>True n (%)</th>
<th>False n (%)</th>
<th>Don’t know n(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you bought disposable sanitary pads from the shop in the last 6 months?</td>
<td>39 (43.3%)</td>
<td>51 (56.6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Have you ever wanted to buy disposable sanitary pads from a shop but been unable to?</td>
<td>78 (86.6%)</td>
<td>12 (13.3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>I do not have enough money to buy</td>
<td>75 (83.3%)</td>
<td>15 (16.6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>disposable sanitary pads from a shop</td>
<td>24 (26.6%)</td>
<td>60 (66.6%)</td>
<td>6 (6.6%)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>There are no disposable sanitary pads in the shop</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Just (56.6%) of girls had bought disposable sanitary pads in the last 6 months but the majority of participants (86.6%) had been unable to buy disposable sanitary pads in the past. Eighty three point three percent (83.3%) of girls reported that this was due to a lack of money and (26.6%) reported that this was due to a lack of availability of disposable sanitary pads in shops.

Figure VI: Shows reasons for missing days of school during menstruation. n=90
Almost half (47.7%) of the girls reported normally missed some days of school during menstruation due to lack of privacy to wash and change at school, followed by lack of money to buy sanitary pads (31.1%), Menstrual pain (11.1%) and fear of staining clothes (10%).

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, RECOMMENDATIONS.
5.1 Introduction

This chapter discussed the findings of the study in relation to similar studies conducted by other authors on menstrual hygiene management and discussions are arranged in themes of the objectives for easy follow up and how the issues were being raised and presented in the chapter above. This chapter also discussed the study’s limitations, concludes and makes recommendations.

5.2 Social Demographic Information

Results showed that 90 respondents participated in the study which was within the same range with a number of studies.

Majority of the respondents (57%) were Banyankole and Bakiga constituted 43%. Banyankole are the natives of the study area. It is important to note that different tribes have different cultural beliefs regarding menstruation.

Majority of the respondents were of age 14-15 years (83.3%) this was because it was the average age group for pupils in P.5 to P.7 and the least were ranging from 10-11 years (3.3%).

In this study, majority (76.6%) of participant’s attained menarche at the age of (13-15 years), this could be because it was the average age group for girls to start menses and the rest (23.3%) were in age group (11-12 years).
All of the three classes had equal number (33.3%) of respondents. The level of education affects ones reasoning and judgment skills as well as the ability to use hygienic menstrual practices and level of knowledge about menstruation.

Results showed that Catholics were the majority (60%), Protestants were (32%), 8% were from other religions and Muslims had no representative. This was because the school was a Catholic based

5.3 Discussion of findings

5.3.1 Knowledge of primary school girls about menstruation

In this study, majority of the respondents had good knowledge about menstruation and its hygiene. The majority (83%) of girl knew that menstruation is a physiological process, this could be due to communication between mothers and their daughters in families about menstruation and menstrual hygiene issues and was similar to only one recent study of women and girls in Eastern Nigeria which indicated an adequate level of knowledge of menstruation and menstrual hygiene, though the community still lacked confidence to discuss the issue openly (Nkandi, 2011). Ten (11 %) of them believed that menstruation was a pathological process and others (6%) of the girls believed that menstruation was a curse from God.

The fact that a large number 90% of girls in this study indicated that menstruation is caused by hormones, this could be due to knowledge acquired from teachers in class especially senior woman teacher, 6.6% believed that menstruation was caused by
curse from God and 3.3% did not know the cause of menstruation. However no studies in sub-Saharan Africa are available to compare with results of this study.

Half (50%) of the respondents reported that the origin of menstrual blood is from the uterus (womb), this could be due to discussions between girls and senior woman teacher about menstruation and knowledge acquired in class and the least 3.3% believed that it comes from the abdomen. This was due to their non-attendance to menstruation discussions.

Majority (93.3%) of girls had heard about menstruation before attaining menarche. This could be due to communication between mothers and their daughters in families about menstruation. Similarly, a study conducted in Ethiopia showed most (92%) students were aware of menstruation before menarche. Contrary to the findings of this study, a Kenyan study revealed that some girls receive little or no guidance either before or after menarche (Crichton et al, 2012).

Ninety six point six percent (96.6%) of girls knew about menstrual hygiene, this was due to communication between mothers and their daughters and senior woman teacher and (3.3%) had not heard about menstrual hygiene, this could be because of their non-attendance to menstrual hygiene discussions from school teachers and their mothers or sisters.
Eighty three point three percent (83.3%) reported that there is a foul (bad) smell during menstruation and (16.6%) reported that there is no foul (bad) smell during menstruation.

More than half 73.3% of the girls incorrectly answered that menstrual blood contained harmful substances. This could be due to misinterpretation of information, as menstrual blood if left unchanged or unwashed on pads can cause infection.

The fact that almost half 46.6% of the respondents in this study thought that menstruation is a disease, this could be due to menstrual related pain and discomfort. This was supported by other studies in Tanzania where girls also reported this belief (Sommer, 2009).

Almost half 42% of the respondents received information about menstruation from their mothers. This was because mothers spend most of the time with their daughters at home. This agrees to a Ugandan study conducted by (Matovu, 2011) which demonstrated that the majority of girls from rural areas receive information from their mothers, followed by friends (32%), teachers (23%) and other sources e.g. sisters (3%) were the main sources of menstrual information in this study.

5.3.2 Practices during menstrual hygiene management

In this study, majority of the respondents had good practice of menstrual hygiene. Sixty three point three percent (63.3%) of girls were using absorbent material during
menstruation. Out of 63.3%, (43.3%) of girls were using commercial made sanitary pads as absorbent material during menstruation.

The findings of this study was higher than studies conducted in Tanzania and Ethiopia which were 18% and 37.6% (Baisley et-al 2009, Desalegn ,Berihum & Abay, 2009) respectively Thus, the reason for the observed difference could be due to low awareness and communication of menstrual hygiene by Tanzanian and Ethiopian girls which affects their menstrual hygienic practice.

More girls 70% in this study used traditional materials, like cloth, rather than sanitary pads, this could be due to lack of money to buy commercial made sanitary pads. This was supported by results from studies conducted in Tanzania, Nigeria and Ethiopia which were 82%, 56% and 62.4% by (Baisley et al 2009, Adinma, 2008 &Aniebue, 2009 and Desalegn , Berihum & Abay, 2009) respectively.

In this study, majority (66.6%) of girls reported changing pads or cloths more than three times and above during menstruation, this could be because of prior information about menstrual hygiene given to girls by their mothers at home and teachers at school. This draws a comparison to a study conducted by (Sarah, 2012) in Ethiopia which shows that eleven percent (11%) of girls change their menstrual cloths once a day.
In this study some girls (23.3%) disposes used sanitary pads in dustbin. This was thought to be related to lack of proper places to dispose off their used menstrual padding products. Contrary to a Ugandan study which highlighted that sanitary pads are disposed off in the latrines or toilets in most schools (Matovu, 2011).

5.3.3 Challenges faced by school girls during menstruation

In this study, almost half (47.7%) of girls reported normally missing some days of school per month due to lack of privacy to wash and change at school during menstruation. This was supported by the senior woman teacher from the study area who stated that girls missed days of school during their period and it was also supported by the study conducted in Uganda which revealed that girls in rural primary schools are unlikely to have access to what they need to manage their menstrual flow and are thus more at risk of absenteeism from school (Wilson, 2012). However in this study, there were other factors contributing to girls’ absenteeism from school during their periods whereby lack of money to buy sanitary pads was ranked (31.1%) followed by menstrual pain (11.1%) and fear of staining clothes (10%). This draws comparison to an Ethiopian study which suggested that many other factors play a larger role in keeping girls out of school (Chege, 2013).

Girls in this study found it difficult to use disposable pads partly because of finance and access to relevant shops. Less than half (43.3%) of the girls in this study were able to buy sanitary pads in the last six months. This was supported by a study
conducted by (Scott, 2013) in Ghana which highlighted that girls in urban settings typically use sanitary pads because they are more readily available and families can more frequently afford them. However, in rural and peri-urban areas, the adults state that their daughters wear cloth or toilet paper because they cannot afford sanitary pads. Each female family member often has one or two pieces of cloth. They usually wear one while the other one is cleaned and dried. In some cases, female family members have to share cloths. Some families communicate that even toilet paper is expensive because it is disposable and has to be purchased every menstrual cycle (Scott, 2013).

In this study more girls (83.3%) reported being unable to buy sanitary pads because of lack of money but less (26.6%) of the girls reported the inability to buy pads due to the lack of availability in shops. This could be due to the extremely rural location of many of the villages around the study area. Most schools and therefore village shops lacked accessibility because of poor road conditions and demand. This finding however agrees with the study findings of (Crofts, 2012) which stated the cost of pads was also seen as a significant issue for girls in multiple studies from different countries in sub-Saharan Africa which value a pack of 10 sanitary pads between $1 and $2, depending on the brand and location. Most girls use three sanitary pads a day, with average menstrual periods lasting between three and five days. However, there wasn’t quantitative data from the study to compare results.
According to the results, disposable sanitary pads were clearly the preferred method for managing menstruation but lack of money and availability in shops has left girls in KCPS unable to buy them. Comparatively, many studies specify that the preferred feminine hygiene product among school girls is sanitary pads. The school girls expand on the advantages of sanitary pads and describe the challenges with reusable cloths. Nigerian girls claim that using sanitary pads is a satisfactory experience, helpful for hygiene purposes, and boosts their self-confidence (Adika, 2011).

5.4 Conclusions

Basing on the results of the study, the following conclusions were made as per objective of the study.

Overall, all respondents who participated in the study had attained menarche. Majority of them had an average good knowledge about menstruation and menstrual hygiene. Furthermore, more than half of the participants knew that menstruation is a physiological process, more than three-quarters reported that the cause of menstruation is hormones, half of the respondents knew that the uterus is the source of menstrual blood and other questions were fairly answered. This was due to communication between mothers and their daughters in families about menstruation and menstrual hygiene issues and knowledge acquired from teachers in class especially senior woman teacher. However, the findings also showed that the
knowledge and practice of menstrual hygiene is low. Awareness regarding the need for information about good menstrual practices is very important.

Menstrual hygiene practices have been investigated among girls in KCPS. The findings of the study indicated an average level of practice among girls during menstruation. Factors such as financial constraints and inaccessibility of already made sanitary pads were known to have effect among respondents of this study. The results revealed that majority of the respondents use clothes as their padding product during menstruation.

The study had shown that menstruating girls face many challenges. Managing their menstruation and maintaining a good standard of menstrual hygiene was difficult for the respondents because of the factors established in the this study, such as inadequate knowledge, lack of money to buy sanitary pads, lack of privacy at school, fear of staining clothes and menstrual pain. This study showed that majority of the participants miss some days of school during menstruation due to the above mentioned factors. This study showed that majority of the participants miss some days of school during menstruation due to the above mentioned factor. The latter factors were not planned to be explored right from the beginning, not the least because of its crosscutting nature. Menstruation is a natural part of a woman’s life and girls should not have to suffer in any way because of it.
5.5 Recommendations

The findings from this study made the researcher to make the following recommendations.

i. Menstrual hygiene and self-care practice guide should be taught by teachers and easily practicable at home by their parents, sisters and experienced neighbors.

ii. Menstrual hygiene and self-care practices should be included in the curriculum of primary school training.

iii. Campaigns and seminars to improve adolescent menstrual hygiene and self-care should be organized by teachers and parents association, as well as health care organization.

iv. Sanitary pads should be made available by the government, the office of women Affairs and Gender matters to all adolescent females, and the need for regular bathing and change of pads should be emphasized by their teachers and school health visitors.

v. This study was based on a small sample size of 90 respondents and moreover from only one catholic based founded Primary school in the rural area. These findings would vary if a larger sample from many schools were to be used and as such it may not hold much policy implications. It is therefore recommended
that further studies be undertaken to address this limitation by increasing the sample size and the number of schools.

5.6 Implications to Nursing practice

Nurses play a role in girl counseling and guidance during health care visits and therefore taking this study has given a back ground of menstrual challenges on which the knowledge to be availed to the girls will be based.

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APPENDICES

APPENDIX I: INFORMED CONSENT FORM

Dear participant,

I am Tukundane Arthur a Diploma nursing student of Kampala international university school of Nursing Western Campus. I am conducting a study to determine the knowledge, practices and challenges on MHM among girls aged 10-15 years in Karamurani catholic Primary School, Mwizi Sub County.

You have been chosen to take part in this study. The information generated will be used for academic purposes and by relevant authorities in nursing training.
The questions will take a bit of your time and will require patience. These questions might also require you to give some confidential information however fill free as this will be kept anonymous.

It is important that you try to appropriately answer all questions applicable in your case, your participation in the study is absolutely voluntary but very vital and desirable, you can opt out any time if you so wish without being disadvantaged in any way. The information generated will be strictly confidential and used only for the purpose of the study. In case of any queries, you can reach me on 0771699869.

Proceed with study [ ]  Do not proceed with study [ ]

Signature/Thumb prints of participant…………………………..date………./………./2016

Signature of witness/interviewer…………………………..date………./………./2016

APPENDIX II: SEMI-STRUCTURED QUESTIONNAIRE

Dear Participant
I am Tukundane Arthur from Kampala International University, School of Nursing Sciences conducting a study titled "knowledge, practices and challenges in menstrual hygiene management among girls aged 10-15 years in Karamurani Catholic Primary School. You are kindly requested to answer the following questions and your responses will be treated with utmost confidentiality.

### Part 1: Socio-Demographic Information

1. Tribe
   - a) Munyanke
   - b) Muganda
   - c) Mukiga
   - d) Others

2. Age (years)
   - a) 10-11
   - b) 12-13
   - c) 14-15

3. Menarche age (years)
   - a) 9-10
   - b) 11-12
   - c) 13-15
4. Education level;

- [ ] a) Primary five
- [ ] b) Primary six
- [ ] c) Primary seven

5. Religion;

- [ ] a) Catholic
- [ ] c) Muslim
- [ ] b) Protestant
- [ ] d) Others………………. (Specify).

Part 2: Knowledge about menstruation and its hygiene

Tick in the box to indicate answer.

6. Have you started your menarche?

- [ ] Yes
- [ ] No

7. What do you think menstruation is?

- [ ] a) Physiological process (normal changes in female body)
- [ ] b) Pathological process (arising from disease)
- [ ] c) Curse from God
- [ ] d) Do not know

8. What is the cause of menstruation?

- [ ] a) Hormones
- [ ] c) Curse from God
9. What is the source of menstrual blood?
   a) Uterus (Womb
   b) Vaginae
   c) Bladder
   d) Abdomen
   e) Do not know

10. Have you ever heard about menstruation before starting menstruating (menarche)?
    Yes
    No

11. Have you ever heard about menstrual hygiene before?
    Yes
    No

12. Have you ever known that there is a foul smell during menstruation?
    Yes
    No

13. Have you ever known that menstrual blood is unhygienic?
    Yes
    No

14. Do old women menstruate?
    Yes
    No

15. Is menstruation is a disease?
    Yes
    No

17. Do pregnant women menstruate?
    Yes
    No

18. Please tick in the box where you got information about menstruation from?
    a) Friends
    b) Teachers
    c) Bladder
    d) Mass Media
    e) Mothers
19 (a): Practices during menstrual hygiene management (write YES or NO).

<table>
<thead>
<tr>
<th>PARAMETERS OF PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you use absorbent materials during menstruation?</td>
</tr>
<tr>
<td>Do you use commercially made sanitary pad as absorbent material during menstruation?</td>
</tr>
<tr>
<td>Do you clean cloth with soap and water?</td>
</tr>
<tr>
<td>Do you dry cloths in sunlight?</td>
</tr>
<tr>
<td>Do you change pads or cloths more than three times and above during menstruation?</td>
</tr>
<tr>
<td>Do you dispose used sanitary pads in dustbin?</td>
</tr>
<tr>
<td>Do use paper to dispose the pads by wrapping?</td>
</tr>
<tr>
<td>Do you take bath daily with soap during menstruation?</td>
</tr>
<tr>
<td>Do you clean external genitalia with soap and water during menstruation?</td>
</tr>
</tbody>
</table>

(b): Please tick what you normally use during menstruation

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloth</td>
</tr>
<tr>
<td>Tampon</td>
</tr>
<tr>
<td>Purchased sanitary pads</td>
</tr>
<tr>
<td>Menstrual cup</td>
</tr>
<tr>
<td>Toilet paper</td>
</tr>
<tr>
<td>Cotton</td>
</tr>
<tr>
<td>Mattress</td>
</tr>
</tbody>
</table>

If you use any other product apart from the above please write it below………..
Part 4: Challenges faced by school girls during menstruation.

Menstrual related absenteeism.

20. Why did you miss days of school during menstruation?

Lack of money to buy sanitary pads

Lack of privacy to wash and change at school

Fear of staining clothes

Pain and discomfort

Any other reason you why miss school? ..........................................

Financial barrier (Lack of money)

21. Have you ever bought disposable sanitary pads from a shop in the last six months?

Yes                                No

22. Have you ever wanted to buy disposable sanitary pads from a shop but been unable to?

Yes                                               No

23. Please mark whether statements are true or false for you.

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not have enough money to buy disposable sanitary pads from a shop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are no disposable sanitary pads in the shops</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation
TO WHOM IT MAY CONCERN

Dear Sir / Madam

Re: TUKUNDANE ARTHUR DNS/F/0033/152/DU

The above mentioned is a student of Kampala International University undertaking Diploma in Nursing Sciences Extension program and he is in his final academic year.

He is recommended to carry out data collection as a partial fulfillment for the award of the Diploma in Nursing.

His topic is: KNOWLEDGE, PRACTICES AND CHALLENGES IN MENSTRUAL HYGIENE MANAGEMENT AMONG GIRLS AGED 10-15 YEARS IN KARAMURANI PRIMARY SCHOOL, MUZI SUB COUNTY, MBARARA DISTRICT.

Any assistance rendered to him will be highly appreciated.

Thank you in advance for the positive response.

Apondi Winfred
Administrator school of Nursing Sciences
## Appendix IV: Research Workplan

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>STUDY PERIOD 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>APRIL</td>
</tr>
<tr>
<td>Topic</td>
<td></td>
</tr>
<tr>
<td>Formulation &amp; approval</td>
<td></td>
</tr>
<tr>
<td>Proposal</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>Proposal Approval</td>
<td></td>
</tr>
<tr>
<td>Data Collection</td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX V: RESEARCH BUDGET

<table>
<thead>
<tr>
<th>Activity(s)</th>
<th>Description / Justification</th>
<th>Unit cost</th>
<th>No.</th>
<th>Total (Ug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop</td>
<td>Hiring laptop will ease literature review and research</td>
<td>100,000/=</td>
<td>1</td>
<td>100,000/=</td>
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<tr>
<td>2</td>
<td><strong>Proposal development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet bundles</td>
<td>Will be required during Literature review</td>
<td>20,000/=</td>
<td></td>
<td>20,000/=</td>
</tr>
<tr>
<td>Editing and printing</td>
<td>Review by other research assistants and supervisors for development of the research</td>
<td>15,000/=</td>
<td>2</td>
<td>30,000/=</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
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<td>----------------</td>
<td>---</td>
<td>---------</td>
</tr>
<tr>
<td>3</td>
<td><strong>Data collection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>Transport to and fro the district</td>
<td>30,000/=</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td><strong>Data analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistical analysis</td>
<td>100,000/=</td>
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<td>100,000/=</td>
</tr>
<tr>
<td>5</td>
<td><strong>Report writing</strong></td>
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<td></td>
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<tr>
<td></td>
<td>Typing and printing</td>
<td>Three copies of the report made</td>
<td>20,000/=</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>450,000/=</td>
</tr>
</tbody>
</table>
APPENDIX VI: MAP OF UGANDA

MBARARA DISTRICT
APPENDIX VII: MAP OF MBARARA SHOWING MWIZI SUB COUNTY

KEY

-MWIZI SUB COUNTY