

Factors Influencing Rural Teenage Girls' Menstrual Hygiene Management

**Case study: ST. PAUL'S HIGH SCHOOL MUNYONYI,
KAGONGI SUB COUNTY, MBARARADISTRICT**

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ABBREVIATIONS

WHO	World Health Organization
MHM	Menstrual Hygiene Management
UNICEF	United Nations International Children's Emergency
PIASCY	Presidential initiative on AIDS strategy for youth
MOES	Ministry of Education and Sports
SACOSAN	South Asian Conference on Sanitation
FGDs	Focused Group Discussions
MOH	Ministry of Health
LMIC	low Middle-Income Countries
WASH	Water and Sanitation Hygiene

ABSTRACT

General objective: To determine the factors influencing menstrual hygiene management among rural teenage girls in Kagongi sub-county, Mbarara district.

Research Problem: UNICEF approximates that at least 1 in 10 of girls that menstruate skip school for 4-5 days for every 28 days cycle and others dropout completely. An increasing number of studies such as Loughnan et al, (2016) indicate that girls who struggle at school during menstruation are high in low-income settings. This study aimed at establishing these factors that constrained adolescent girls to perform safe menstrual hygiene practices.

Methodology: The study adopted a descriptive cross-sectional study that involved 102 respondents. The study used a self-administered questionnaire, a focused group guide, and an observation checklist as the data collection tools. A simple random sampling method was used to reduce bias and every respondent consented to participate in the study.

Results: The findings indicated that 71.6% of the adolescent girls aged between 15-18.

74.5% of the girls used disposable menstrual pads. The majority (77.5%) of the girls believed that menstrual blood attracts witches when not disposed of properly. 53.5% practiced unsafe menstrual hygiene management. The study also revealed that 94.1% had high levels of knowledge of menstruation.

Conclusion: The study concluded that there was a low percentage of teenage girls practicing safe menstrual methods at St. Paul's high school, Kagongi sub-county, Mbarara district.

Recommendations: The Ministry of Education to incorporate menstrual hygiene management into the school curriculum. The government should train schools on how to make reusable sanitary pads to make them accessible to every girl. The schools should construct girls' sanitary facilities with washrooms and private rooms for changing adolescent girls.

KEYWORDS:-

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

Health: A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Menarche: The first menstruation period

Menstruation: Normal vaginal bleeding from the uterus and vagina that occurs as part of a woman's monthly cycle.

Menstrual hygiene management: women and adolescent girls use a clean menstrual managed material to absorb blood that can be changed in privacy as often as necessary for the duration of the cycle using soap and water for washing the body as required and having access to facilities to dispose of the used materials.

Unsafe menstrual practices: Any menstrual practice that is unclean such as using non-recommended menstrual materials.

CHAPTER ONE

INTRODUCTION

A. Introduction

The topic of this study is the factors affecting menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district. This chapter includes the background to the study, a statement of the problem, the objectives of the study both main and specific objectives, the research questions, the significance of the study, and the conceptual framework.

B. Background

Globally about 52% of the female population is of reproductive age, this implies that menstruation is part of the female normal life and therefore menstrual hygiene management is an important aspect of reproductive health that should be handled properly (House et al., 2012). Adolescents aged 10-24 years represented a quarter of the world's population, with 90% living in low and middle-income countries. 500 million of these were girls aged 18-19 years living in less developed countries and most of these struggled to find clean water for washing, private place for changing and adequate blood absorbing materials (Loughnan et al., 2016).

According to UNICEF, Women spend many years menstruating, on average any menstruating woman menstruates 3-5 days every month, and the age of menstruating varies by geographical region, race, ethnicity, and diet. But usually in low-income settings, it occurred between 8 and 16 years (UNICEF, 2010). However, globally women and girls have developed their strategies to cope with menstruation. This also varied from country to country and it depended on the available resources, economic status, local traditions, cultural beliefs, and knowledge (UNICEF, 2012). This study focused on finding out how these adolescent girls handled menstruation by identifying the menstrual materials they used.

Many studies have revealed that menstrual hygiene management at school is constrained by poor access to water, sanitation, lack of privacy, limited knowledge and cultural restrictions about menstrual hygiene such as ((House et al., 2012) reported the widespread use of unsanitary absorbents, inadequate washing and drying of reused absorbents across South East Asia, Middle East and in Africa found out the use of sanitary pads as low as 18% among Tanzanian women with the rest using cloth or toilet paper. A study carried out in eastern Ethiopia found that 60.28% of the girls used cotton cloth which is not good hence imposing them to infections (Gultie et al., 2014). In addition (Mahon et al., 2011) discovered menstruation caused a set of physical, sociocultural, and economic challenges to adolescent girls that may disturb their ability to attend school.

Studies reported that many adolescent girls lacked sufficient knowledge of menstrual hygiene management for example a study from UNICEF revealed that 1 out of 3 girls in South Asia knew nothing about menstruation before getting it while 48% of girls in Iran and 10% of girls in India believed that menstruation was a disease (water-aid 2013, menstrual hygiene matters). In addition, a UNICEF report estimated that 23% of adolescent girls between ages 12-18 years started experiencing menstrual periods with inadequate menstrual materials (UNICEF, 2012). A study by Mudey et al, (2010) revealed that most adolescent girls had incomplete and inaccurate information about menstrual hygiene. It also revealed that mothers, television, friends, teachers, and relatives were the main sources that provided information on menstruation to adolescent girls. Ali and Ruiz also reported that in Pakistan, less than 50% of girls interviewed received menstruation information before they experience it. This showed that this attributed to poor menstrual hygiene management in this area (Ali et al., 2010).

In developing countries like Uganda, menstruation is still dealt with in secrecy. It is considered something unclean, a taboo and this is mainly inadequate knowledge about menstrual hygiene management, especially among girls in rural areas this causes adolescent girls to suffer from stigma, lack of menstrual absorbents, and lack of privacy to change while at school (Mahon et al., 2010). However, WASH United initiated the first global menstrual hygiene day on the 28th of May aimed at breaking the silence around menstruation. This was publicly to recognize the right of women to hygienically manage their menstruation anywhere. WASH developed a menstrual hygiene management curriculum to educate about taboos, hygiene, and reproductive health concerning menstruation (WaterAid, 2010).

C. Statement of the problem

An increasing number of studies such as Loughnan et al, (2016) have found that girls in low-income settings struggle at school during menstruation. This is because they are unable to manage their menstrual hygiene effectively. Another study reported 61.7% of girls in rural western Uganda schools missed school each month because of menstrual-related reasons such as lack of access to menstrual materials, facilities to change from, and what to use (Boosey et al., 2014). This study aimed at establishing these factors that constrained adolescent girls to perform safe menstrual hygiene practices.

UNICEF estimated that one in ten menstruating girls skipped school for 4-5 days for every 28 days cycle and others dropped out completely. About 23% of adolescents (12-18) dropped out of school due to a lack of menstrual materials (UNICEF, 2012).

Most studies in the Mbarara district were carried out in primary schools yet also in secondary schools girls do not know how to manage their menstruation (Boosey et al., 2014). Therefore the reason why this study was carried out in St. Paul's secondary school Kagongi sub-county.

D. Objectives of the study

➤ Main objective

The main objective of this study was:

To assess factors influencing menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district.

➤ *Specific objectives*

The specific objectives of the study were;

- To determine the socio-demographic factors influencing menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district.
- To establish the socio-cultural factors influencing menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district.
- To assess the knowledge level factors on menstruation influencing menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district.

➤ *The research questions were;*

- What are the socio-demographic factors influencing menstrual hygiene management among rural adolescent girls in St Paul's Secondary School in Kagongi sub-county, Mbarara district?
- What are the socio-cultural factors influencing menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi sub-county, Mbarara district?
- What are the knowledge level factors on menstruation influencing menstrual hygiene management among rural adolescent girls in Paul's secondary school in Kagongi sub-county, Mbarara district?

E. Significance of the study

This study aims to inform various stakeholders on policy making such as the government, the head teachers, teachers, and other leaders in terms of building sanitary disposals, providing menstrual pads to girls who cannot afford them, and teaching girls about making reusable sanitary towels.

At the end of this study, the girls will be able to know that menstrual hygiene management is essential hence improving their hygiene and knowing that menstruation is normal processing their lives therefore they have to be comfortable when experiencing it.

The study made recommendations both at the national and local levels on how to address the problem of the menstrual hygiene management.

The findings of this study may be used by stakeholders to design interventions to create awareness of menstrual hygiene management among adolescent girls, especially in rural settings. The results from the study may be used by other researchers who would wish to carry out more studies on menstrual hygiene management. The study will provide information that strengthens preventive programs that promote women’s sanitary health and it added to the existing research as far as menstrual hygiene management is concerned.

F. Conceptual framework

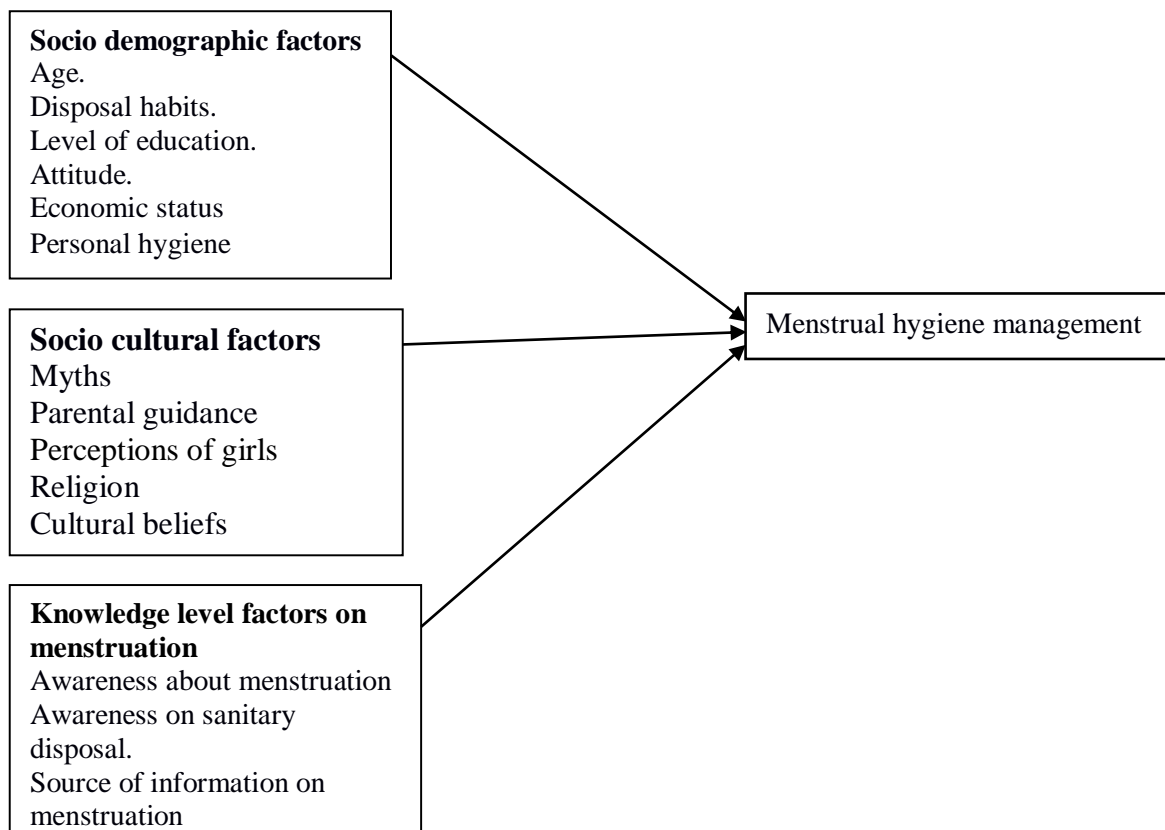


Fig. 1: Conceptual framework

From the figure above, the independent variables of the study were socio-demographic factors, socio-cultural factors, and knowledge level factors on menstruation. These were further discussed socio-demographic factors including age, disposal habits, level of education, attitude, economic status, and personal hygiene. Sociocultural factors included myths, perceptions, religion, and cultural beliefs. The knowledge level factors on menstruation included awareness of menstruation, sanitary disposal, and the source of information on menstruation. The dependent variable of the study was menstrual hygiene management.

CHAPTER TWO

LITERATURE REVIEW

This chapter includes other studies carried out by other researchers on the same study which is menstrual hygiene management. It includes studies on the socio-demographic factors, sociocultural factors, and knowledge levels on menstrual hygiene management.

A. Socio-cultural Factors Affecting menstrual hygiene management

The following are the sociocultural factors affecting menstrual hygiene management that were reviewed: myths, cultural beliefs, and perceptions.

➤ *Myths*

Many studies in different areas revealed some of the myths associated with menstruation such as Oche et al, (2012) which reported people believing menstrual blood can attract witches if not disposed off properly. These in turn use it in black magic rituals hence the used pads must be burnt off. Another study by Kumar et al, (2011) revealed that when girls are menstruating their mobility and character are limited and this is because of the existing myths, misconceptions, and cultural and religious beliefs such as women being unclean. A Roman author Pliny, (2010) in his Natural History also wrote that a menstruating woman could turn wine sour, cause seeds to be sterile, wither grafts, cause garden plants to become parched, and fruit to fall from a tree she sits under. A Hindu woman abstains from worship and cooking and stays away from her family as her touch is considered impure during menstruation. As per the Jewish tradition, a woman is regarded as ritually impure during menstruation therefore anyone or anything she touches becomes impure. However, these studies did not clearly show how these myths affected menstrual hygiene management therefore this study intended to find out the cultural taboos, misconceptions, and myths on menstruation in the study area and if they were associated with menstrual hygiene management.

➤ *Cultural Beliefs and Taboos*

Studies showed that there are many cultural beliefs on menstruation for example a study by House et al, (2012) reported that in some cultures, women are told during their menstrual cycle they should not bath or will be infertile, touch a cow or it will become infertile, look in a mirror or it will lose its brightness or touch a plant it will die and these cultural norms and religious taboos on menstruation are usually associated with evil spirits, shame surrounding sexual reproduction such as in Tanzania some believed that if a menstrual cloth is seen by others then the owner of the cloth become cured. In a study carried out by Kumar and colleagues, they adopted a cross-sectional study which this study also used. In this study, some girls said that bathing during menstruation increases the flow of menstrual blood and causes infections (Kumar et al., 2011). Results of another study carried out in India indicated that students had substantial doubts about menstruation and were influenced by societal beliefs and taboos concerning menstrual practices (Chothe et al., 2014). However few studies were done in Uganda to establish the cultural beliefs that influenced menstrual hygiene management therefore, this study intended to add to the literature available.

➤ *Perception*

Over the decades, women have been taught that having periods is shameful. They have indirectly absorbed the messages that menstrual blood is dirty, smelly, unhygienic, and unclean. With all these negative messages it is natural for women to want to hide their blood and throw it away as garbage (Upashe et al., 2015). In Uganda, Menstruation is linked to maturity, and it is taken as a transition to adulthood for girls this has led to early marriages, especially in rural areas. Women and girls recycled old clothes and used inappropriate materials which make them feel shy and isolated. (Depio and Ntale, 2018). According to Dhingra et al, (2010), girls do hide their menstrual rags and do not dry properly because they feel it's embarrassing to be menstruating. Another study carried out by (Sommer, 2010) found that sanitary products are not washed or dried properly because the girls hide them under the beds and hidden corners or fear of

others noticing them and fear for curses, so they end up using these damp materials which are not dried hence affecting their health. These studies identified the perceptions on menstruation but did not highlight what should be done to break and end the perceptions therefore this study intended to find out what should be done to end the perceptions.

B. Socio-demographic factors affecting menstrual hygiene Management

➤ *Age*

A study carried out in Entebbe among four secondary schools reported that the mean age for female students was 15.6 years. However, both boys and girls participated in the study, and yet this study involved only girls because the researcher assumed they had better information than boys. (Miiri et al., 2018). In a study carried out in India, a large proportion of 58.7% of the study population was in the age group of 14 - 15 years, followed by 32.4% in the age group of 12 - 13 years and the majority attained menarche at the age of (13-14 years) (Shanbag et al., 2012). A study in Ghana reported that the majority attained their first menstruation at the age of 13 years (Ameada et al., 2016)

➤ *Economic status*

Studies revealed that most adolescent girls lacked access to menstrual materials such as pads because of financial constraints for example, in a study carried out by Boosey and colleagues in 2014 in Rukungiri district, the researcher adopted a cross-sectional study and data collection tools included a self-administered questionnaire, focused group discussion guide which this study adopted too. In this study, 61.6% lacked disposal pads in the last 6 months since they couldn't afford them (Boosey et al., 2014). In addition, a study carried out in Uganda (PMA2020, 2017) indicated that 35% of women had everything they needed to manage their menstruation. In a study in Bangladesh on factory women workers, 60% of them were using rags from the factory floor for menstrual materials and these are highly chemically charged and often freshly dyed therefore infections. These women had no safe place to purchase the pads or where to change from or dispose off the used material. (WSSCC, 2013). Girls in villages from poor families cannot get or afford sanitary pads which should be changed around two or four times during menstruation. The majority of girls use rags which are torn old blankets, or tissue of any kind, and the rags whereby these rags are washed with inadequate and unsafe water even without soap, and used repeatedly (FRCRC, 2010). Parental and school support of menstrual needs is limited, Girls' physical changes prompt boys and adults to target girls as ripe for sexual activity including marriage. Girls admitted they don't attend school during menstruation, due to physical symptoms or inadequate sanitary materials. They described difficulties engaging in class, due to fear of smelling and leakage, and subsequent teasing. Sanitary pads were valued but resource constraints resulted in prolonged use causing leakage. Others improvised alternatives such as rags and grass, which leak, cause soreness, and were perceived as harmful. (Mason et al., 2013).

➤ *Practices*

In a study carried out in Afghanistan, 51% of the girls did not take a bath for eight days after the onset of their period and 84% of the girls never washed their genital areas. (Nagar et al., 2010). Students practices revealed that one-quarter of the sample avoid bathing during their bleeding period. About two-thirds of the students stated that they use 3-8 sanitary pads per day. First-year students significantly used fewer pads than those at higher (Gultie et al., 2014). In a study (Sharma et al., 2017) it was clear from the study findings that the majority of the girls' practices were unhygienic only 10 girls out of 64 girls were using boiled and dried cloth as menstrual absorbent. A study in Pakistan also reported that nearly 50% of the participants reported that they did not take baths during menstruation (Ali et al., 2010).

C. Levels of knowledge on menstruation hygiene management

➤ *Awareness on menstruation*

Many studies revealed that many adolescent girls were not aware of menstruation prior to it and lacked knowledge on menstrual hygiene such as a study carried out among urban and rural adolescent girls showed that only 37.52% were aware of menstruation prior to attainment of menarche (Paria et al., 2014). Another study carried out in Uganda revealed that most (66.9%) of the girls had poor knowledge about menstruation (Boosey et al., 2014).

A study carried out across LMIC revealed that the majority (70%) of the girls had limited knowledge and understanding of menstruation prior to reaching menarche (Tarimu et al., 2015). In a study carried out in Saoner Nagpur district, only 36.95% of the girls were aware of menstruation before menarche further more than three fourth of the girls in the study were not aware of the cause and the source of the bleeding. (Thakre et al., 2011). Descriptive findings from a study in Pakistan showed that 50% of the girls lacked an understanding of the origin of menstrual blood and those with prior knowledge of menarche had gained it primarily through conversations with their mothers (Ali et al., 2010).

However, some studies reported that adolescent girls had good knowledge of menstrual hygiene. For example, a study (Teklemariam et al, 2014) on the knowledge about menstrual hygiene management among adolescent school girls in Amhara province, Ethiopia found that 90.7% of the respondents had a high level of knowledge about menstrual hygiene management. A study carried out among high school girls in western Ethiopia assessing their knowledge and practice found that 60.9% of the respondents had good knowledge about menstrual hygiene management(Upashe et al.,2015).The majority (99.6%) of the students had heard of menstruation and 57.9% had acquired this knowledge before attaining menarche. Shanbaget al., 2012).

➤ *Source of information*

Most studies showed mothers as the major source of information on menstruation as a study by Thakre et al,(2011) revealed that (71.33%)of the respondents reported that the major source of information about menstruation for them was found to be their mothers.

Another study by Shanbaget et al, (2012) revealed that the majority ofthe knowledge was imparted to them by the mother (55.1%), followed by friends (17.4%) and sister (14.2%).

A study by Oche et al, (2012) carried out among adolescent girls in an urban city in Nigeria also revealed that the majority (56.6%) had gotten information from their mothers. This study agrees with the above studies because it's usually the mother who is close to the girl child.

However a study by Shah et al, (2019) carried out in Gambia showed that the majority (78%) had gotten information from the teachers while another study in western Ethiopia by Upashe et al, (2015) showed that 67.5% of the respondents got information on menstruation from friends.

CHAPTER THREE

METHODOLOGY

A. Introduction

This chapter is made up of the methodology which the study adopted. It includes the study area, study design, study population, inclusion and exclusion criteria, sample size determination, source of data, sampling procedure, study variables, data collection tools, data collection techniques, data analysis, quality control measures, ethical considerations limitations of the study and the plan for the dissemination.

B. Study area

The study was conducted in Kagongi Sub County. It is found in Kashari county, Mbarara district. It is made up of 6 parishes and 63 villages that is Bwengure, kibingo, KyadahiNgango, Nsiika, and Ntura. It is bordered by Rubindi sub-county. There is only one government secondary school and 2 private secondary schools in this sub-county. It has an estimated population density of 230.3 (Census, 2002).

C. Study Design

A descriptive cross-sectional study was adopted that involved the use of both quantitative and qualitative data collection methods. This design was used because of the limited time given to collect this data and involved collecting data at that point in time. This design also focused on obtaining data on a representative sample of the study population at a specific time.

D. Study population

This study included all adolescent girls (13-18 years) in S1 to S4 at St Paul's secondary school in Kagongi Sub County at the time this study was conducted.

E. Selection Criteria

➤ Inclusion Criteria

Only adolescent girls aged 13-18 years and were within S1 to S4 in St. Paul's secondary school in Kagongi Sub County, Mbarara district at the time of the study.

➤ Exclusion Criteria

All adolescent girls above the age bracket but were in s.1 to s4

Those adolescent girls who were in the reproductive age bracket but hadn't started menstruating

F. Sample size determination

The study adopted the Kish and Leslie (1965) formula of sample size determination.

$$N = \frac{Z^2(P*Q)}{e^2}$$

Where N was the minimum sample size,

Z= a constant score of 1.96 at a 95% confidence interval

p= estimate of the proportion of adolescent girls not having good menstrual hygiene practices was 90% (according to UNICEF, 2013).

q=1-p

e= Error allowed at a given confidence of 95% (0.05).

$$N = \frac{1.96^2(0.9*0.1)}{0.05^2}$$

N = 138.29

$$\begin{aligned} \text{Sample size, } n &= N/1 + N * e^2 \\ n &= 138.29/1 + 138.29 * 0.05^2 \\ n &= 102.7624 \\ n &= 102 \text{ respondents} \end{aligned}$$

G. Source of data

➤ Primary data:

Collected from the adolescent girls studying attending St. Paul's secondary school in Kagongi Sub County.

➤ Secondary data:

Internet sources, articles, earlier studies literature, online publications, and journals.

H. Sampling procedure

In the selection of the participating adolescent girls, this study adopted a simple random sampling method. This was to give all the girls an equal chance to take part in this study. A dice was used to determine the class, to begin with by the researcher. Then also wrote Yes or No on a piece of paper and put it in a box so every girl who met the study inclusion picked a paper and everyone who picked yes participated in the study

I. Study variables

➤ Dependent variable

Menstrual hygiene management among rural adolescent girls in St. Paul's secondary school in Kagongi Sub County was measured by a binary procedure that is safe and unsafe menstrual practices.

➤ Independent variables

This study included independent factors: Social-cultural factors such as cultural beliefs, religion, perception, and parental guidance, Socio-demographic factors such as age, disposal habits, level of education, economic status of parents/guardians, personal hygiene, and Level of knowledge factors which included awareness about menstruation hygiene, source of information of menstrual hygiene and awareness on sanitary disposal.

J. Data collection methods.

The researcher used an interviewing method, a Focused group Discussions method, and a non-participant observation method.

K. Interviewing method

The adolescent girls were subjected to the interview by answering questions in the questionnaire since the researcher assumed this would be the easiest way to collect data in the shortest time given.

L. Focus Group discussion method

The adolescent girls were divided into six groups to get clear views on menstruation since it is a sensitive issue. The questions from the Focused group guide were discussed.

M. Observation Method

The researcher moved around the school while seeing if the items in the observation checklist were available or not.

All these methods enabled the researcher to collect data about the study variables.

N. Data collection tools

The study used a questionnaire, a Focused group guide, and an observation checklist.

O. Questionnaire

The study used a structured and close-ended questionnaire which was answered by the adolescent girls, the questionnaires were self-administered since most of the study population were students so they could read and interpret questions on their own. This was used to collect quantitative data.

P. Focused Group Guide

This had questions that were discussed among the adolescent girls in their six groups. This was used to collect qualitative data.

Q. Observation Checklist

An observation checklist was answered by the researcher and also complimented on the data. These tools enabled the researcher to access the factors affecting menstrual hygiene management among adolescent rural girls in Kagongi, Mbarara district.

R. Data Analysis and Presentation

Data collected using questionnaires was processed and analyzed using Microsoft Excel and statistical package for Social Sciences (SPSS version) software and results were presented in figures such as pie charts and Tables.

To find an association between the dependent and independent variables, Cross Tabulation was done. Statistical significance was assessed using the Chi-square test with a P-Value of less than 0.05 considered statically significant.

Qualitative data was presented using phrases and quotes said by certain individuals during the focused group discussions. This was used to avoid misinterpretation of the said responses.

S. Quality control measures

The questionnaire adopted was checked thoroughly before data collection by the Researcher to ensure the validity of the content. It was also explained in detail before handling.

Pretesting of the questionnaire was done and the filled questionnaires were checked for Completeness. Research assistants were trained to ensure that all questions were understood.

T. Ethical Considerations

An introduction letter was gotten from Clarke International University with clearance from the Research committee. This letter was presented to the chairman LC III of Kagongi Sub County to seek permission to carry out the study in the area.

An acceptance letter was obtained from the head teacher of St Paul's secondary school and all the respondents who participated in this study had to consent before the study was carried out. Codes were used instead of the names of the participants who were interviewed to keep their identities a secret.

U. limitation

The area was geographically inaccessible since the school was located where roads are poor and there were physical barriers since it was under a hill. The researcher used the available means of transport to overcome the inaccessibility problem.

V. Plan for dissemination

The findings of this research were submitted to the research and education board of Clarke international university in partial fulfillment of the award of a bachelor's degree in public health. The school that participated in the study also received a copy of the findings for purposes of reference.

CHAPTER FOUR

RESULTS

A. Introduction

Analysis was done using SPSS version 20 at univariate, and bivariate levels. Univariate analysis was typically descriptive and bivariate analysis was done for statistical inference. Statistical comparisons and relationships were examined for the variables of this study in correspondence to the demographic and situational variables.

Demographic factors of adolescent girls (13-18years) influencing menstrual hygiene management attending St .Paul's secondary school, Kagongi sub-county, Mbarara district

Table 1: Univariate analysis of demographic characteristics of respondents (n=102)

Variable	Frequency (n)	Percentage (%)
Age groups		
13-14	28	27.5
15-18	73	71.6
Class		
S1	33	32.4
S2	28	27.5
S3	34	33.3
S4	7	6.9
Age of first menstruation		
<12	5	4.9
12-14	64	62.7
15-18	33	32.4
Religion		
Catholic	79	77.5
Protestant	21	20.5
Muslim	1	1.0
Others	1	1.0
Mother's education		
Illiterate	13	12.7
Primary	40	39.2
Secondary	40	39.2
Tertiary	9	8.9
Source of menstrual materials		
Family	96	94.1
School	1	1.0
Self	2	2.0
Others	3	2.9
Type of sanitary towel used		
Old cloth	3	2.9
Knickers	9	8.9
Disposal sanitary pads	76	74.5
Reusable pads	14	13.7
Times of bathing during menstruation		

Once	2	2.0
Twice	30	30.0
Thrice	50	50.0
More than three times	13	13.0
Times of change of sanitary towel		
Once	2.0	2.0
Twice	28	27.5
Thrice	59	57.8
More than three times	13	12.7
How disposal of used pads		
Throw in latrine	86	84.3
Burning	15	14.7
Throw in a rubbish pit	1	1.0

Source: primary data, 2019

From the table above, the majority of the respondents were in the age group of 15-18(71.6%).

Most of the respondents were in S3 (33.3%) followed by those in S1 (32.1%) and the least were in S4 (6.9%).

The findings on the age of first menstruation majority began in the age group of 12-14(62.7%).

The majority of the respondents were Catholics (77.5%) followed by protestants (20.6%). ha

Most of the mothers had reached secondary (39.2%) and primary level of education (39.2%) and while (12.7%) are illiterate.

The study found that the majority of girls get menstrual materials from their family members (94.1%).

According to the findings on the type of sanitary material used it was found out the majority use disposal sanitary pads (74.5%) followed by those who use reusable pads (13.7%).

The findings on times of bathing during menstruation showed that the majority(49%) bath three times a day and followed by those who bathed twice a day(29.4%).The study also established that most(57.8%) of girls change their menstrual material two times a day during menstruation.

A majority (84.3) of the girls dispose off the used menstrual material by throwing it in the latrine followed by those who burn it (14.7%).

The discussions revealed that there is inadequate resources such as money to buy sanitary pads, water to bathe during menstruation, and the school having one bathroom for all the girls.

“Am told to use clothes such as a piece of bed sheets by my mother because she cannot afford sanitary pads.” **One of the girls from Kyandahi reported.**

B. Socio-cultural factors influencing menstrual hygiene management

Table 2: showing univariate analysis of socio-cultural factors of respondents on menstruation (n=102)

	Frequency(n)	Percentage (%)
Anyone talks to you about menstruation before experiencingit		
Yes	86	84.3
No	16	15.7
Belief that pain during menstruation is unhealthy		
Yes	31	30.4
No	71	69.6
Belief that it's harmful to run or dance during menstruation		
True	33	32.4
False	69	67.6
The used menstrual pads can attract witches if not disposed off properly		
True	79	77.5
False	23	22.5

Source: primary data, 2019

From Table 2 above, the majority (86/102) of the girls had been talked to prior to menstruation.

The study found out that (69.6 %) of the girls did not believe that the pain during

Menstruation is unhealthy while 30.4% believed it was unhealthy.

According to the findings on the belief that it is harmful to run or dance during menstruation, 67.6% of the respondents said it was false and 32.4% said it was true.

Majority (79/102) of the respondents believed that the used menstrual pads can attract witches if not disposed off properly.

From all the FGDs, many cultural beliefs were raised by adolescent girls. They include: A woman should not cook while menstruating, a woman is considered unclean during menstruation, sanitary pads make a woman infertile and women menstruating are not supposed to go in public.

“I was told by my mother to sleep on her bed and count the iron sheet ridges when I experienced my first menstruation to count the days I will be experiencing” as explained by one of the girls.

It was also established from the discussions that there is gender discrimination, especially at school because boys laugh at the girls when their uniforms get stained with blood and this makes the girls miss school even. The discrimination was also attributed to tradition such as girls are not supposed to sit with boys when menstruating.

C. Proportion of respondents practicing safe menstrual hygiene management

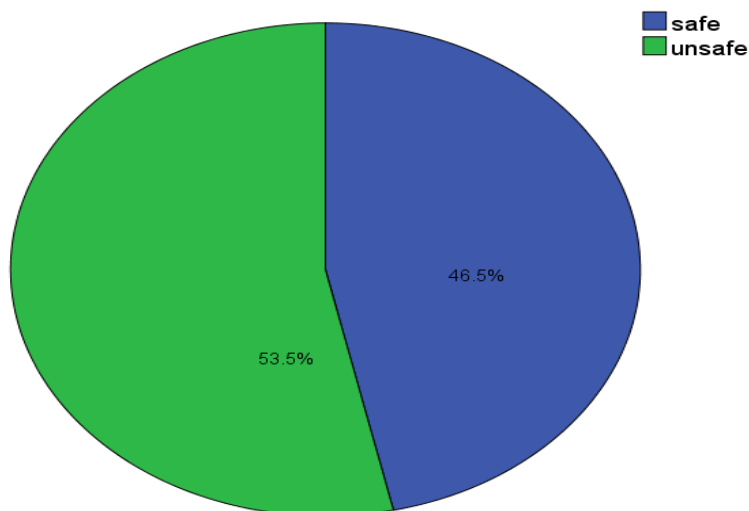


Fig. 2: A pie chart showing the proportion of respondents practicing safe menstrual hygiene management

The figure above shows that half(53.5%) of the adolescent girls in St Paul’s secondary school, Kagongi sub county, Mbarara district practiced unsafe menstrual hygiene management.

D. Knowledge factors affecting menstrual hygiene management

Table 3: Univariate analysis of knowledge factors affecting menstrual hygiene management

	Frequency(n)	Percentage (%)
Menstruation is a disease		
True	5	4.9
False	96	94.1
Menstrual blood contains harmful substances		
True	47	46.1
False	55	53.9
Used sanitary towels should be disposed off		
True	82	80.4
False	19	18.6
Know about menstruation prior to it		
Yes	94	92.2
No	8	7.8
Source of information		
Mother	48	47.1
Family	9	8.8
Friends	41	40.2
School	4	3.9

Source: Primary data, 2019

From the table above, majority (94.1%) of the respondents did not believe that menstruation is a disease. The study also found out that (92/102) of the adolescent girls did not believe that pregnant women menstruate.

The findings also revealed that 47% of the respondents believed that menstrual blood contains harmful substances while 55% did not believe.

80.4% of the respondents said they used sanitary towels should be disposed off.

The study also established that 92.2% of the respondents knew about menstruation prior to experiencing it and for most (47.1%) of them the source of information was the mother followed by friends (40.2%).

Most of the respondents in the FGDs agreed that there is inadequate information on how to handle menstrual hygiene, especially at school. This was backed up by their reactions such as most of them don't know how to use sanitary pads and lack of guidance and support from both the parents and teachers at school.

“I don't know how to use the sanitary pad.” **Said one of the girls from Munyonyi.**

This contradicts the results from the table above which showed that most had good information on MHM.

Table 4: Showing a cross-tabulation and chi-square analysis of demographic factors and menstrual hygiene management.

Variable	Menstrual hygiene management		X ² (df)	P-value
	Safe	Unsafe		
Times of bathing during menstruation			8.614(3)	0.035*
Once	1	1		
Twice	8	19		
Thrice	24	20		
More than three times	10	3		
Age of first menstruation			15.689(2)	0.001*
<12	2	2		
12-14	38	21		
15-18	6	24		

* significant at 0.05

From the table above, 24 respondents who bathed three times a day practiced safe menstrual hygiene, and 20 of them practiced unsafe menstrual hygiene.

Since the p-value 0.035 <0.05 therefore there is an association between times of bathing during menstruation and menstrual hygiene management.

Majority (38) who experienced their first menstruation (12-14) years practiced safe menstrual hygiene management while 24 respondents who experienced their first menstruation (15-18) years practiced unsafe menstrual hygiene management.

There is a statistically significant association between the age of first menstruation and menstrual hygiene management since the P-value (0.001) is less than 0.05.

Table 5: Showing a cross-tabulation and chi-square analysis of socio-cultural factors and menstrual hygiene management

Variable	Menstrual hygiene management		X ² (df)	P-value
	Safe	Unsafe		
Any of the family talk about menstruation prior to it			5.182(1)	0.023*
Yes	43	36		
No	3	11		
Harmful to a woman's body if she runs or dances during her period			5.987(1)	0.014*
True	8	19		
False	38	28		

* significant at 0.05

From the table above, 43 respondents who had one of their family members talk to them prior to menstruation practiced safe menstrual hygiene management while 11 of the respondents who did not have any of the family talk to them prior to menstruation practiced unsafe menstrual hygiene management.

There is an association between menstrual hygiene management and if anyone in the family talked about menstruation prior to it. This is because the p-value (0.014) is less than 0.05.

Table 6: Showing a cross-tabulation and chi-square analysis of knowledge factors and menstrual hygiene management

Variable	Menstrual hygiene management		X ² (df)	P-value
	Safe	Unsafe		
know about menstruation before experiencing it			4.784(1)	0.029*
Yes	45	40		
No	1	7		

* significant at 0.05

From the bivariate analysis between knowledge factors and menstrual hygiene management, it was found that only one factor had a significant association which is having information about menstruation before experiencing it. The p-value is 0.029 < 0.05.

CHAPTER FIVE

DISCUSSION

A. The proportion of adolescent girls practicing safe menstrual hygiene management

This study revealed that 46.5% of adolescent girls practiced safe menstrual hygiene. This indicates that the majority (53.5%) practiced unsafe menstrual hygiene. These results agree with another study carried out by Nagar et al (2011) in Afghanistan which showed that 51% of adolescent girls did not take bath for eight days after the onset of menstruation.

Another study (Sharma et al, 2017) indicated that majority of the girls' practices were unhygienic only 10 girls out of 64 girls were using boiled and dried cloth as menstrual absorbent and also a study in Pakistan reported that nearly 50% of the participants reported that they did not take baths during menstruation (Ali et al., 2010). Other studies carried out by Dingra et al (2010) and Sommer,(2010) also revealed that most girls did not wash their menstrual rags and also dry them properly for fear of being embarrassed and therefore practiced unsafe practices. The low proportion of adolescent girls practicing safe menstrual hygiene in St Paul's secondary school may be due to inadequate information and cultural beliefs about menstruation. This can be addressed by incorporating awareness programs within schools such that the girls can know the safe practices to carry out during menstruation. This can be done by the NGOs and the schools.

B. Socio-cultural factors influencing menstrual hygiene management

The study demonstrated that the majority (77.5%) of the respondents believed that menstrual pads can attract witches if not disposed off properly. This is in line with a study carried out by Oche et al,(2012) which revealed that people believed menstrual blood attracts witches who use it in black magic rituals if not disposed off properly. This is because menstruation has been associated with myths and taboos in most rural areas therefore there is a need to break these taboos by creating awareness on menstruation.

From the qualitative data, the adolescent girls reported the socio-cultural beliefs associated with menstruation which included: women being considered unclean, women not supposed to cook while menstruating or go in public, and menstrual pads can make a woman infertile. This is in agreement with a study carried out by Kumar et al, (2011) which found that menstruating girls' mobility is restricted because of the existing taboos that they are unclean. Another study by House et al,(2012) also reported that in some cultures, women were told during their menstrual cycle they should not bath or will be infertile, touch a cow or it will become infertile, look in a mirror or it will lose its brightness or touch a plant it will die. There is a need to teach adolescent girls that these beliefs are not true.

There was a significant relationship between menstrual hygiene management and if any family member talked to the adolescent girl prior to it (p-value 0.023). This showed that those adolescent girls whose family members talked to them practiced safe menstrual hygiene. This is probably because most of the mothers were educated therefore they were able to pass on information to their girls on how to handle menstrual hygiene management.

The study also demonstrated a significant association between menstrual hygiene management and the belief that it is harmful to a woman's body to run or dance during her period (p-value 0.014). This means that adolescent girls who believed that it was harmful to run or dance during their period were less likely to practice safe menstrual hygiene. This is because these adolescent girls might not bathe. After all, they are in one place. There is a need for cultural leaders to be trained on menstruation so that they can perceive menstruation as a normal process.

C. Socio-demographic factors influencing menstrual hygiene management

The study revealed that the majority of the respondents (71.6%) were in the age group of 15-18 years. This is in line with a study carried out by Shanbaget et al, (2012) which showed the majority (58.7%) of the respondents were between 15-18years. The results were similar probably because they were all carried out among adolescents in secondary schools.

Most of the mothers had reached secondary (39.2%) and primary (39.2%) levels of education. This is probably because of the introduction of UPE in rural areas whereby at least one can go to the primary level. This explained why most of the adolescent girls had some knowledge on menstrual hygiene.

The qualitative data demonstrated that the adolescent girls lacked the money to buy sanitary pads therefore they are advised by their mothers to use bedsheets. These results were similar to a study carried out by FRCRC, (2010) where girls in the villages could not afford sanitary pads but used rags. The results are also in line with a study carried out in Uganda by PMO 2020, (2017) which found out only 36% of women were able to afford to buy sanitary pads. This is probably attributed to the high levels of poverty in Kagongi Sub County. These girls should be taught how to make reusable sanitary pads to cut the costs incurred while purchasing disposal sanitary pads.

There was a significant association between menstrual hygiene management and the age of first menstruation (p-value 0.001). The adolescent girls who experienced their menstruation in the age bracket (12-14) years practiced safe menstrual hygiene while those who experienced between (15-18years) practiced unsafe menstrual hygiene. This is probably because those who experienced their menstruation earlier were well prepared by their guardians compared to those who experienced it at a later stage.

There was a statically significant association between menstrual hygiene management and the times of bathing during menstruation. The adolescent girls who bathed more than two times a day practiced safe menstrual hygiene. This is probably because they have information on how to handle menstruation.

D. Knowledge factors influencing menstrual hygiene management

The study revealed that the majority (94.1%) had a high level of knowledge of menstrual hygiene. This is in line with a study carried out in Ethiopia by Teklemariam et al, (2014) and Upashe et al, (2015) which showed that 90.7% of the respondents had high levels of knowledge on menstruation and 60.9% of the respondents had good knowledge about menstrual hygiene management respectively. Another study also revealed majority (99.6%) of the students had heard of menstruation (Shanbaget al., 2012). These results were contracting with a study carried out in Runkungiri district by Boosey, (2014) which demonstrated that the majority (66.7%) had low levels of knowledge about menstruation. The results of the study are contracting with those of Boosey may be because of the different literacy levels in the districts.

Most (92.2%) of the respondents had heard of menstruation prior to experiencing it. These results are in agreement with a study carried out by Shanbaget, (2012) which showed majority 57% had heard of menstruation before experiencing it. However, they were in disagreement with a study carried out in LMIC showed that 70% had limited knowledge about menstruation prior to it. This is probably because that study was carried out in many countries yet this study was carried out in only one district so the results cannot be applied to a larger population. Another study carried out among urban and rural adolescent girls showed that only 37.52% were aware of menstruation prior to the attainment of menarche (Paria et al., 2014). This is also in line with a study in Pakistan that showed that 50% of the girls lacked an understanding of the origin of menstrual blood (Ali et al., 2010).

Most (47.1%) of the adolescent girls had received information about menstruation from their mothers. These results are in line with a study carried out by Shanbaget, (2012) which showed that 55.1% had received information from their mothers prior to menstruation, and also with a study carried out in Nagpur district which showed a majority (71.33%) had gotten information from their mothers prior to menstruation. This could be probably in African tradition it is mothers to nurture their girl child and probably the girls feel comfortable talking to their mothers in such matters.

There was a significant relationship between menstrual hygiene management and knowing about menstruation before experiencing it (p-value 0.029). The adolescent girls who knew about menstruation before experiencing it were more likely to practice safe menstrual hygiene compared to those who did not know. This is because they have learnt practices and have information on safe menstrual hygiene management.

CHAPTER SIX

CONCLUSION

Menstruation is an important period in a woman's life which shows that one can give birth. The study concluded that 53.5% of the respondents practiced unsafe menstrual hygiene in St .Paul's secondary school, Kagongi Sub County.

Most of the respondents were aged between 15-18(71.6%).It was established that the age of first menstruation was significant.

The study found many cultural beliefs as discussed in the FGDs such as a woman shouldn't cook while menstruating,a woman is considered unclean,sanitary pads make one infertile, and menstruating women should stay at home.

The study revealed knowing about menstruation before experiencing was significant.

The majority (92.2%) of the adolescent girls had good knowledge of menstrual hygiene management.

A. Recommendations to the.

➤ *MOH*

The ministry should consider on improving on sexual and adolescent health, especially regarding gender-based violence.This can be done through sensitization and creating awareness such that women and girls are not denied their reproductive and cultural rights.This will create an environment where women are comfortable.

➤ *MOES*

The Ministry of Education and Sports should incorporate menstrual hygiene management into the school curriculum. This will increase information on menstruation and decrease stigmatization in schools especially by the opposite sex hence improving the performance of girls in schools.

The ministry should train schools on how to make reusable sanitary pads to make them accessible to every girl. This will reduce the money spent on sanitary pads by adolescent girls.

➤ *The school*

The teachers and senior women should be trained in MHM.These will provide accurate and correct information to adolescent girls on how to manage menstruation. The school should construct girls' sanitary facilities with washrooms and a private room for changing for the menstruating girls. Schools should also construct incinerators where used menstrual pads can be disposed off safely. This will offer convenience and privacy. The school should recruit more senior women who are motivated to teach the girls about menstrual hygiene management.

➤ *Community members*

Community leaders should influence the breaking of traditions and taboos surrounding menstruation and make it a culturally acceptable issue that women and men can discuss freely with their families. This will help to break the restrictions that girls face due to lack of information and some beliefs, and taboos and hence will be able to discuss menstrual hygiene freely and understand that menstruation is a transition stage, therefore, is normal.

The study recommends further studies on challenges adolescent girls face while maintaining menstrual hygiene such as gender discrimination, inadequate menstrual materials, and lack of information on menstrual hygiene management.

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QUESTIONNAIRE

Dear Respondent, I am Bankunda Paula a student of Clarke International University pursuing a Bachelor of Science in Public Health. As a requirement for the course, a research study is supposed to be carried out to fulfill the course. You are invited to participate in the study titled the factors influencing menstrual hygiene management among rural adolescent girls in St Paul's secondary school in Kagongi Sub County, Mbarara District. The information you provide will be confidential and strictly used for research purposes only. Your time and cooperation will be highly appreciated.

Socio-demographic factors

QN 1 .How old are you?

<12 years

12-14 years

15-18years

>18 years

QN 2. Which class are you in?.....

QN3. At what age did you experience your first menstruation

<12years

12-14 years

15-18years

>18years

QN 4.What is your religion

Catholic

Protestant

Muslim

Others specify.....

QN 5. Mother's level of education

Illiterate

Primary

Secondary

Tertiary

QN 6. Who provides menstrual materials for you?

Family

School

Self

Others specify.....

QN.7 What type of sanitary towels do you use

Old cloth

Knickers

Disposal sanitary pads

Reusable pads

Toilet paper

Others specify

QN.8 Does the school have a separate bathroom with water and soap for when menstruating

Yes

No

If yes, how many times do you bath during menstruation?

Once

Twice

Thrice

More than three times

QN.9 how many times do you change the sanitary towel in a day during menstruation

Once

Twice

Thrice

More than three times

QN.10 How do you dispose off the used menstrual pads

Throw in latrine

Burning

Throw in rubbish pit

Wash and re use

Others specify.....

Socio-cultural factors

QN .11 Did any of your parents/family talk to you about menstruation before you experienced it

Yes

No

If yes, specify who she/he was.....

QN .12 Do you believe that pain during menstruation means that one is unhealthy

Yes

No

QN.13.It is harmful to a woman's body if she runs or dances during her period

True

False

QN.14 The used menstrual pads can attract witches if not disposed off properly

True

False

QN.15 In the following table answer Agree, Disagree and Not sure

AGREE

DISAGREE

NOT SURE

Women during menstruation should not bath or will be infertile

During menstruation you aren't supposed to touch others

Women in menstruation are unclean

The menstrual cloth shouldn't be seen by others

The knowledge level factors

QN .16 Menstruation is a disease

True

False

QN.17 Menstrual blood contains harmful substances

True

False

QN.18 Used sanitary towels should be disposed off

True

False

QN.19 Did you know about menstruation before you experienced it

Yes

No

If yes, where did you first hear it from?

Mother

Family

Friends

School

Others specify

APPENDIX II: FOCUS GROUP DISCUSSIONS GUIDE

What are the cultural and traditional beliefs you know about menstrual hygiene management?

How do friends react to you during menstruation?

What other major factors do you think influence menstrual hygiene and management?

Have you heard about menstrual hygiene management?

Are u able to access menstrual cloth such as pads if not why?

APPENDIX III: OBSERVATION CHECKLIST

- 1. Number of latrines designated for girls.....
.....
.....
- 2. Presence of buckets.....
.....
.....
- 3. Waste disposal pit or incinerator.....
.....
.....
- 3. Tap water in the school near the girls' latrines.....
.....
.....
- 4. Daily cleaning schedule for girl's latrines.....
.....
.....
- 5. An office in the school with sanitary materials for girls.....
.....
.....

INTRODUCTORY AND CORRESPONDENCE LETTER



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 deaniphm@ciu.ac.ug
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To the head Teacher,
 St. Paul's secondary school

Kampala, 06th August 2019

*Deputy H/c Girls wing
 or Senior woman
 or female hostel trs*

Please list to

12/08/19

PO BOX 7782 KAMPALA

ST. PAUL'S MBARARA

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from Clarke International University formerly known as International Health Sciences University.

This is to introduce to you **Bankunda Paula** Reg. No.2016-BSCPH-FT-012 who is a student of our University. As part of the requirements for the award of a Degree of Public Health, the student is required to carry out field research for the submission of a Research Dissertation

Paula would like to carry out research on issues related to: **Factors Affecting Menstrual Hygiene Management among Rural Adolescent Girls in St. Paul's Secondary School in Kagongi Subcounty Mbarara District.**

I therefore request you to render the student such assistance as may be necessary for the research.

I, and indeed the entire University are thanking you in anticipation for the assistance you will render to the student.

Sincerely yours,

for

06 AUG 2019

Alege John Bosco
 Dean, Institute of Public Health & Management

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