

**ASSESSING THE IMPACT OF MENSTRUAL HYGIENE MANAGEMENT
ON THE HEALTH AND SCHOOL ATTENDANCE OF ADOLESCENT
GIRLS IN JUNIOR HIGH SCHOOLS IN THE KUMBUNGU DISTRICT
OF THE NORTHERN REGION OF GHANA**

KONLAN LAMBERT LAMISI



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OF THE NORTHERN REGION OF GHANA**

BY

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(UDS/CHD/0257/16)

**THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF PUBLIC
HEALTH, SCHOOL OF ALLIED HEALTH SCIENCES, UNIVERSITY FOR
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REQUIREMENT FOR THE AWARD OF MASTER OF PHILOSOPHY
DEGREE IN COMMUNITY HEALTH AND DEVELOPMENT.**

AUGUST, 2020



Student

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

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DEDICATION

This work is dedicated to the Most-High God whose divine guidance and strength has made it possible for me to successfully complete this programme. To my dearly cherished parents and dear siblings, I also gracefully dedicate this work with all my love to my wife Ms. Konmong Y. Gifty, my sons Konlan Y. Derick and Konlan Y. Angel.



ABSTRACT

As a fast-growing District in Northern Ghana, Kumbungu has had expansion in female school population at the Basic level with persistent menstrual challenges. The phenomenal Menstrual Hygiene Management (MHM) and its accompanying management problems have had a profound effect on girl child education in the District. The study focused on the impact of menstrual hygiene management on the health and school attendance of adolescent girls in junior high Schools in the District. The main objective of this study was to analyze the nature of menstrual hygiene management among adolescent girls, the risky practices adolescent girls engaged in when managing menstruation, and the negative impact of poor MHM among adolescent girls in junior high schools in the District. This study used mixed methods design both quantitative and Qualitative with questionnaire, interview schedule and focus group discussion for data collection. However, Simple Random and Purposive sampling were used to select the schools and the respondents. The study used female Junior High School students in the District with 151 sample size. The study utilized frequencies and percentages; tables and figures were used in the presentation of data and analysis with excel. The study shows that 50% of the respondents were in JHS 2 and 21% their final year with majority of them (75%) between ages 14 -18. About 53% of the respondents revealed that parents were the reliable stakeholders on MHM. Whiles 73% of the respondents said that there were no available WASH materials in their schools. The study revealed the risky practices adolescent girls engaged in while in school during menstruation. The study also revealed financial challenge as one of reasons they absent themselves from school during mensuration coupled with personal and school environment reasons. The study concludes that WHO and UNICEF ideas on MHM could be implemented in schools to minimize the absenteeism or enhance the Girl-Child education in the District.



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LIST OF ACRONYMS

MHM	Menstrual Hygiene Management
UDS	University for Development Studies
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
WHO	World Health Organization
WASH	Water, Sanitation and Hygiene
SDGs	Sustainable Development Goals



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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In Ghana, the Adolescent Reproductive Health Policy (GHS) says, Adolescents are those aged 10-19 (young Adolescents) and 20-24 (older Adolescents). WHO says Adolescents are those 10-19 years (WHO, 2003). Adolescents represent 20% of the world's population with 85% of them living in developing countries including Ghana (Abajobir & Seme, 2014). The most critical and challenging period in a girl child's life is when she attains and experiences various changes that bring about emotional and psychological unsteadiness, and all this happening simultaneously which gradually primes to womanhood (Fernandes, 2010). Aniebue & Nwankwo, (2009) indicated that menstruation is the recurring peeling of the inner part of the uterus or the shedding of the uterine lining on a regular basis.

However, the female adolescent population has about 52% approximately being in their reproductive age with more likely to menstruate individually every month (House, et al., 2012). The United Nations (UN) Exceptional Rapporteur on human right to safe potable drinking water indicated the phenomenon menstruation as essential and typical natural activity on women or adolescent girls' life. Indeed, of human (young girl and women) existence, and for that matter, personal hygiene is necessary to dignify their wellbeing in the age bracket (House, et al., 2012). Menstruation, which can be experienced about 3000 times in a woman's lifetime (Ahmed & Yesmin, 2008), is a physiological condition that is associated with diverse terms. The interpretations of Women's often physiological and bodily





hormonal changes related to www.udsspace.uds.edu.gh menstruation is not easily viewed outside their social and antique environment on which they find their habitat. This has been influenced however by the connotation attributed to these monthly menstrual variations by westernized therapeutic practitioners and academic dialogues (Ussher, 2006).

Irrespective of the amorphous nature of the concept, Menstrual Hygiene Management is considered to be given educational, health and psychological attention of girls who undergo the monthly routine process of menstruation and this necessitated the global menstrual day celebration which was launched on 28th of May, 2014 (Chin, 2014). Menstrual Hygiene Management (MHM) involves Women and adolescent girls using a clean absorbable material to collect blood that is often changed in privacy as a necessary condition for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose off used menstrual management material of all kinds (UNICEF and WHO, 2014).

In most traditional settings in Africa, menstruation is remarkably regarded as an existing taboo and is barely discussed publicly among adolescent girls and young women (House, et al., 2012). This is often practiced because of misconceptions and other related misinformation which includes the fact that menstruation is largely regarded as impure in some societies and affects the information that is made available to teenage girls especially in the menstrual age bracket (Yagnik, 2015). According to a UNESCO report, (2014) it has been realized that the greater number of girls tend to be inexperienced and as such nervous because of unpreparedness. Besides, certain traditions and cultural expectations from the

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community and societal norms get in between as burden and leave teenager girls in a state of confusion both from home and school.

The consequence of this misunderstanding may inhibit the acquisition of knowledge formally and informally thereby disrupting the value for which the teenage girl child is in school (Yoo, et al., 2011). This, therefore, calls for the need and concerted efforts for widespread approaches to health education curricula in basic schools to purposely handle menstrual health management and its related issues. Schemes centered on comprehension of health and development focusing on communities, schools, health service sectors, family and religious-based organization, with teenage girl child especially, should be put into consideration (APSR, 2015). Kirk and Sommer, (2006) indicated that the level of knowledge on issues bordering on menstruation is very low especially in Sub-Sahara Africa, where the resource is poor and inadequate, access to sanitary materials and appropriate sanitary facilities are limited thus posing a huge challenge to the comfort of menstruating adolescent girls.

This brings about the need for more efforts and collaboration to rethink on the approaches to health education to include comprehensive menstrual education in all public and private schools so that social and economic empowerment and growth could be realized. Hence contributing to achieving a number of the Sustainable Development Goals (SDGs) including, though not limited to quality education (SDG 4), gender equality (SDG 5), and clean water and sanitation (SDG 6).



1.2 Problem Statement

To respond to nearly 113 million adolescent girls at risk of dropping out of school due to the start of menarche, the government of India in 2015 launched National Guidelines on Menstrual Hygiene Management that was expected to curb its associated risk (their first period). World Bank project 2016 (Let Girls Learn) revealed that menstruation can stop adolescent girls from attending school and this issue must be addressed to enable young women to continue their education. The provision of adequate Water, Sanitation and Hygiene facilities in schools was globally prioritized and launched in 2016 to ensure that national governments make conscious efforts to provide WASH facilities for use by students especially for adolescent girls for menstrual hygiene management. As a result, about 300 events were organized worldwide to raise awareness and further action on the challenges women and girls encounter during menstruation due to the lack or to the absent of WASH facilities both in schools and homes. However, in Ghana, studies conducted by UNICEF have revealed that about 11.5 million women (adolescent girls and young women) lack hygiene and sanitation management facilities that adequately separate waste from human contact.

Again, the studies shown that Menstrual hygiene management (MHM) is a problem for adolescent girls in low and middle-income countries (LMICs), particularly when attending school due to Poor water, sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic MHM items (absorbents). Though UNICEF reported that water and sanitation in schools monitoring report indicated that 59% of schools in Ghana have adequate water and 62% have adequate sanitation, experiences on menstruation as shameful



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and uncomfortable worsen due to inadequate menstrual hygiene management facilities.

Whereas girls' fear humiliation from leaking of blood and body odor, and lead menstruating adolescent girls to absent themselves from school, cultural taboos add to girls' difficulties, preventing them from seeking help, and impose restrictions on their diet and activities when menstruating. This situation often leaves so many adolescent girls and menstruating women disheartened and encumbered with feelings of remorsefulness, infamy, pitifulness, and contemptibility" and many may not know how to maintain optimum hygiene required hence it is this gap this thesis seeks to fill.

1.3 Research Question and Objectives

1.3.1 General Research Question

What are the impacts of menstrual hygiene management on the health and school attendance of adolescent girls in junior high Schools in Kumbungu District of the northern region of Ghana?

1.3.2 Specific Research Questions

- 1 What is the nature of menstrual hygiene management among adolescent girls in junior high Schools in Kumbungu District?
- 2 What are the risks practices adolescent girls engaged in when managing menstruation in junior high schools in the Kumbungu District?
- 3 What are the negative impacts of poor menstrual hygiene management among adolescent girls in junior high schools in Kumbungu District?



1.3.3 General Research Objective

To assess the impact of menstrual hygiene management on the health and school attendance of adolescent girls in junior high Schools in Kumbungu District of the northern region of Ghana?

1.3.4 Specific Research Objectives

- 1 To analyze the nature of menstrual hygiene management among adolescent girls in public junior high Schools in Kumbungu District.
- 2 To examine the risks practices adolescent girls engaged in when managing menstruation in junior high schools in the Kumbungu District.
- 3 To ascertain the negative impact of poor menstrual hygiene management among adolescent girls in junior high schools in Kumbungu District.

1.4 Scope of the Study

Geographically, the study was conducted in the Kumbungu District the Northern Region of Ghana taking into consideration four Junior High Schools. The study focused on the effects of menstrual hygiene management on school attendance of adolescent girls in junior high Schools in Kumbungu District. The study thematically focused on the nature of menstrual hygiene management among adolescent girls in junior high Schools, the risks practices adolescent girls engaged in when managing their menstruation, and the health and educational challenges of poor menstrual hygiene management among adolescent girls in junior high schools Kumbungu District.



1.5 Significance of the Study

In Kumbungu District, studies conducted by RIGHT to PLAY, an International Non-Governmental Organization revealed that inadequate attention has been given to the hygiene needs of menstruating adolescent girls in public schools in terms of adequate health education and the availability and quality of sanitary facilities for school pupils. Many of this stem from the improper dress or restrooms to provide secured and adequate privacy to menstruating adolescent school girls in school hence affecting their educational achievement. However, the inadequate enabling environment affects their school attendance.

Even though some studies have been conducted in the area of menstrual hygiene management, there are little studies that purposefully looked into how menstrual hygiene management among menstruating adolescent school girls affect their school attendance. It is very essential for this research to be conducted though some studies have been carried out on Menstrual Hygiene Management (MHM) worldwide by several international organizations due to the urgent attention that needs to be given it. Whereas several academic researchers have been done on the subject.

This study seeks to assess the impacts of menstrual hygiene management on the health and school attendance of adolescent girls in public Basic Schools in Kumbungu District of the then northern region of Ghana. The significance of this study therefore cannot be underestimated as the consultations will firstly, help to weigh menstrual hygiene management, health and educational attainment among adolescent girls in some selected public Basic Schools in Kumbungu District of the northern region of Ghana.

Secondly, it will serve as an important source of data or information to all



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stakeholders in the menstrual hygiene management business, policy makers and other development partners in their bit to promote access to menstrual hygiene management services for all universally.

Thirdly, the study findings may serve as a useful document which will assist the appropriate authorities including parents and the traditional authorities in the school communities in the district to learn how to sensitize and educate their adolescent girls on how to manage menstruation when they start to experience it as part of their lives cycle.

Fourthly, the study may also serve as a guide to Non-Governmental Organizations who may want to invest in the girl child particularly with Menstrual Hygiene Management.

Fifthly, the study will help guide policymakers to make informed and appropriate policies that will help in managing such inevitable natural occurrence in adolescent girls. Lastly, the study document will serve as a reference document or material for other people who are interested in doing similar studies.

1.6 Organization of the Study

This research work is assembled into five chapters. Chapter one contains the study background of the research studied, problem statement, research questions, objectives of the research, significant of the study, the scope of the study and the limitations of the study. Chapter two reviews vital thematic literature in connection with the research premeditated objectives and also the theoretical framework for research with a conceptual framework. Chapter three sketches the study area with a brief background, study design, sources of data, target population, sample size determination the sampling procedures, tools and technique for data collection,



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tools and techniques for data analysis, data processing and presentations. Chapter four analysis the data and presentations whilst Chapter five expound the outcomes of the study thematically as a summary of major findings, conclusions, and recommendations of the study.



LITERATURE REVIEW

2.1 Introduction

There is a strong basis for the analysis of primary and secondary data, this chapter reviewed thematically literature from various relevant sources on the concepts related to Menstruation, Hygiene, and its management and its consequences on adolescent girls' education as well as their health. The literature review provides informed knowledge on how adolescent girls engage in some risk practices during Menstruation and how it affects them. Also, the link between Water, Sanitation, and Menstruation was researched to further give understanding to how menstrual hygiene management promotes development through good health and education.

2.2 Conceptual Definitions

2.2.1 Menstruation

Globally, nearly 52% of the female reproductive age population and most of them menstruate every month with greater percentage being young girls. Most of these school going young adolescent (10-19 years) girls have challenges in accessing very clean and safe hygienic menstrual goods or cleaning and adequate private space which promote changing menstrual items and to wash whiles in school and sometimes at home. Menstruation, as a usual natural process and an important sign of a good reproductive health has been discussed differently in literature, thus far in many countries or cultures it is treated as something negative, shameful or dirty and non-religious in some Islamic fraternity (Sasmita, 2017). Such quietness about menstruation pooled with partial access to information at home and in school's





results in millions of girls www.udsspace.uds.edu.gh having inadequate knowledge about what is happening to their bodies when they menstruate and how to deal with it when it come unaware or aware for the first time whiles in school (Wash united)

Girls between the ages of nine to fourteen years (9-14 years) start to menstruate anytime within the month. Menarche or the first menstruation is normal physiological processes that occur among adolescent girls once puberty sets. Girls who are privileged to be aware of the processes of menstruation often deal with it in an improved condition than those who are caught unawares by such inevitable phenomenon in girls. Perhaps, such readiness gives adolescent girls the grounds to grip such natural occurrences as they mature. This also let the adolescent young girls feel confident or self-esteem without embarrassment resulting from such intense private moments during their self-development (UNICEF, 2012).

Furthermore, most adolescent girls considered menstruation as a secretive and unclean process hence they stay indoors and out of sight of many relatives. But in a natural sense, there is nothing impure or disgraceful about these natural developments among adolescent girls (Charles, 2013). However, others did not know about your periods or days of menstruating unless one by herself chooses to divulge the information to another. When appropriate hygiene practices are mimicked alongside sufficient sustaining protection to absorb the menstrual flow, women or young girls can have relaxed and linger with their regular daily activities. Confident and hygienic management of menstruation helps young adolescent girls to overcome any or many embarrassments

Whereas the phenomenon, menstruation is discussed and regarded as a commonplace subject matter in the advanced countries, same cannot be said of the



developing countries. The concept has an extended distasteful subject bounded by stigma worldwide. In the past 1694 the dictionary (Académie Française) describes “menstrues” (from the Latin “mensis”, meaning “month”) as follows: “purgations that women experience each month”. The word “purgations”, on the other hand, the phenomenon is seen as an “illness that bothers women every month” (UNICEF, 2012). Menstruation, notwithstanding remains an unmentionable subject discussion in many jurisdictions which is associated with concepts such as (feminineness, fecundity, mellowness, parenthood, and uncleanliness) which makes its research process very difficult.

Menstruation has been described differently through traditional education in developing regions of the world which dwells much on dissimilar procedures, for example; storytelling, and the traditional rites of passage (UNESCO, 2013). Menstruation is variously represented from several disciplines, through different language usage, popular accounts, music and arts rooted in culture or tradition. These fundamentals are critical important part of girl child education, particularly in Africa which affect them as they grow (UN WOMEN, 2014). Charles, (2013) define menstruation as a monthly shedding of a female's uteral lining; it lasts about 3 to 5 days (average) and contains blood and tissue that exits her body through the cervix and vagina.

The menstrual cycle is the hormonal driven cycle; day 1 is the first day of your period (bleeding) while day 14 is the approximate day you ovulate and if an egg is not fertilized, hormone levels eventually drop and at about day 25; the egg begins to dissolve and the cycle begins again with the period at about day 30, this is recurrent approximately monthly. However, the average age for girls in the United

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States to start their first menstruation is twelve (12) years, but the worldwide age range is about 8 to 15 years with adolescent girls continuously be having such periods till about the ages 45 to 55 and above where the phenomenon naturally ceases.

Health practitioners and women, and adolescent girls inclined to vision such normal biological developments (menstruation) as medical conditions requiring no treatment but sometimes when there are complications (Northrup, 2010). Such medicinal reconnaissance of adolescent generative bodies often alters the taboos, rituals as well as other traditional practices that were ascribed to represent menstruation with girl as unhygienic and hazardous, as well as medically unfit, but there are no legal or scientific truths which therefore demand urgent attention among adolescent school girls in the Ghana (Ussher, 2006).

2.2.2 What Transpires During Menstruation

A common working definition according to WHO and UNICEF, 2012 in their joint Monitoring Program of menstrual hygiene management worldwide idealized it as ‘Women or adolescent girls using a hygienic menstrual material to enthrall or accumulate unwanted blood’. They argue that, privacy is needed to aid changing as regular as possible as it is crucial for the duration of the period of menstruation. The use of soap and water as required in cleaning the body, having access to facilities for the disposal of used menstrual materials, and Menstrual Hygiene Management in general is crucial among adolescent girls (Sommer & Sahin, 2013). These aspects of the physical requirements for hygienic, effective management of menstrual bleeding will go a long way to prevent other related diseases. Whiles operationalization has been inconsistent the term has proliferated



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in terms of use; hence adequate MHM require vast understanding and explanations according to (Hennegan, et al., 2013).

Research suggests that girls have thousands of menstrual eggs from birth. Almost every month between an approximated twenty-one to thirty-five days (21 - 35 days) on average has one egg leaving an ovary to travels through the fallopian tube. This is what referred to as ovulation. Generally, such fruitlets change each month, thus releasing it from the left ovary a month and then the right ovary the next month. However, as the egg trips through the fallopian tube to settle on a very soft spongy womb lining often refer to us a uterus. Such lining is made up of tiny blood vessels often referred to as the endometrium. However, when the ovulated egg is not joined by a male sperm, the endometrium of the uterus is not needed (UNICEF, 2012). This bleeding is called a period and the whole cycle is called menstruation.

2.2.3 Hygiene

The World Health Organization (WHO, 2014) indicated Hygiene as conditions and practices that help to maintain health and prevent the spread of diseases (CAWST, 2013). Personal hygiene is the act of maintaining the cleanliness of the body which is very key when it comes to teenage girl's Menstrual Hygiene Management. Though majority of people associate hygiene with cleanliness, however, hygiene in a broad sense include personal habit choices such as how frequently does one bath, wash hands, trim fingernails, and change clothing and other menstrual practices in adolescent girls. Hygiene also includes paying attention to keeping home and workplace environment, including bathroom facilities, clean and pathogen-free (Sommer, et al., 2013).



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However, Hennegan, et al., (2013) indicated that, report of the Menstrual Hygiene practices suggests changing absorbents every 2–6 hours dependent on blood flow. However, there is no evidence on the irritation and infection risk related with prolonged wear and women's perceptions of the adequate frequency for changing for comfort and risk of soiling (House, et al., 2012). The lack of proper guidance on optimal hand washing frequency or correct use of soap and water on the body and genitals while girls are in school which subject them to many unrecognized sicknesses. Similarly, disposal methods inadequacy is highly likely to be contextually dependent and relies on latrine capacity, cultural appropriateness of burning absorbents and other waste disposal methods. These are all not compulsory in the provisions made to schools by the Ghana Education Service.

Consequently, the lack of appropriate, comfortable and affordable materials for MHM such adequate waste disposal sites or bins and adequate toilet facilities in schools made leakage and others seeing their menstrual blood a source of stress for adolescent girls. Adolescent girls avoided changing their sanitary materials at school because toilet facilities were dirty and lacked privacy. Adolescent girls preferred to suffer the discomfort of using thick cloth, paper, handkerchief, restricting their self-movement, and open defecation rather than the use the school toilet (Anusree, et al., 2013).

Menstrual hygiene management and its related issues have not been given the needed attention it deserves in comparison to other development issues such as girl child education. This has led to little or no proper information on menstrual hygiene management among adolescent school going girls in low- and middle-income countries and this could be as a result of lack of prioritization menstrual hygiene issues on national government agendas, inadequate or lack of resources among others.



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The sanitary pads usage and washing the genital area are often very essential practices that help to keep the area very hygienic and healthy but this is hardly practiced by school girls during menstruation especially in deprived communities of the world. However, the health of adolescent girls are affected by unhygienic menstrual practices and there is an increased vulnerability to reproductive tract infections, pelvic inflammatory diseases and other complications as well as increasing school absenteeism (Upashe, et al., 2015).

2.2.4 General Hygiene Measures

Rupali Patle, et al., (2014) said that, deficiency in hygiene knowledge and pitiable personal hygienic practices during menstruation mostly leads to several genital difficulties through the procreative life of women and some adolescent young girls. Singh, (2006) stated that good personal hygienic exercises which include the use clean sanitary pads, adequate cleaning (genital area) are very crucial throughout menstruation. Basic schools' adolescent young girls within their menstrual age compulsorily needs an admittance to clean potable water, permeable hygienic products which will their health in the long run. The normal overall cleanliness humdrum is supportive in guaranteeing virtuous health for the adolescent young girl. These could be attributed to the precise menstrual hygiene processes very necessary to be used by adolescent young girls or women (WHO, 2014).

- ✓ Bath a minimum of twice daily. Using a warm water bath would guarantee some relief to the associated aches or pains with such periodic natural phenomena among adolescent girls and women (menstruation).
- ✓ Girls or women should make sure that undergarments and sweat-drenched dresses are changed frequently.



- ✓ Fiber under-wears are desirable to artificial or polyester under-wears. This is because artificial or polyester under-wears do not absorb moisture and heat hence promoting the breeding for bacteria.
- ✓ The genital part must be washed well after each use of the toilet or wash room.
- ✓ The part between the legs must be clean and dry else aching and itching due to bad odor.
- ✓ The extent of some body odor becomes ordinary but unvarying bathing, washing, and changing of materials used for soaking menstrual blood will reduce the nature of the odor.

2.2.5 Adolescent School Girls and Menstruation

The World Health Organization (WHO) describes adolescence age as the period of growth and developments that precedes childhood and adulthood. The age group between 10-19 years is widely held in many academic grounds. It represents the very precarious transitions in the life of the adolescent female which is branded by a wonderful pace in growth and changes with time (WHO, 2017). Notwithstanding the fact that menstruation is a healthy biological process, the issue of menstruation is approached with hesitance and wrong information because of deep-rooted cultural taboos (The National Guidelines on Menstrual Hygiene Management, 2017).

This has often however affected the information needs and flow to adolescent girls in developing countries. The reproductive health of adolescent girls and management of menstrual hygiene have a great impact on their quality of life (Pandit, 2014). In order to hygienically manage menstruation with dignity, there is





the need to create greater [awareness among adolescent girls](http://www.udsspace.uds.edu.gh) of good menstrual hygiene practices.

Adolescence is a phase of unsettled growth because of the occurrence of continuous physical and psychological changes. Menstruation is therefore a breakthrough experience in the life of adolescent girl and the beginning of reproductive life among them across the world though there are some girls who hardly menstruate every month (Paul, 2007). This therefore suggests that all characteristics of menstruation need to be keenly understood by adolescent girls' couple with the fact that they are schooling. In reality, greater majority of adolescent girls have insufficient knowledge about menstruation until their first experience. This is because menstruation is something that is not frequently talked off in homes by parents. The menstrual information is passed from mother to daughter which is often not sufficient and sometimes incorrect due to the fast-changing world.

This often warrants inadequacy in understanding and poor personal hygienic practices which often leads to various pre-birth difficulties including reproductive tract infections among women. Research has shown that a huge information gap exists among rural as well as urban adolescent girls concerning previous awareness about menstruation and menstrual hygiene which have an impact on the practices during menstruation (Patle & Kubde, 2014). There is the need to understand the young adolescent knowledge, attitude and practices of menstruation and menstrual hygiene management (MHM) practices among school going adolescent girls.

Adolescent girls' and women's reproductive health, including menstruation, is therefore encompassed in their rights (UNFPA & DIHR, 2014). These are fundamental human rights, to be protected in accordance with highly moral

philosophies, norms, and [standards worldwide](http://www.udsspace.uds.edu.gh) (James, et al., 2013). In many countries, the right to the appropriate conditions for reproductive health is challenged by numerous factors. These include the availability of accurate information, guidance and support; religion- and culture-based gender norms and values; and the impact of poverty (Warenius, et al., 2007).

For instance, in Zambia a developing country in Southern Africa, has formulated an agreement which has a duty to elect and pursue policies to eliminate discrimination on the basis of menstrual status of women. However, there is a global tendency for governments to regard such obligations; consequently, these health rights should not often have infringed upon. The dignity of vulnerable people, in this case menstruating schoolgirls, is threatened by their states' and institutions' failure to recognize and respond to their reproductive health needs (Mann, et al., 1994).

Adolescent girls in many developing countries lack accurate health information at a time when they need to prepare mentally and physically to manage their menstruation appropriately (Mahon & Fernandes, 2010; Nagar & Aimol, 2011). Studies of similar population groups in developing regions highlight the relevance of early, sensitive, and formal education in reproductive health, including the menstrual cycle. The aim of this guidance is to prevent misconceptions, build adolescent girls' confidence and self-esteem before and during menstruation (Adinma & Adinma, 2008; Lawan, Nafisa & Aisha, 2010; Warenius, et al., 2007). This prepare adolescent girls emotionally and psychologically so as to reduce stress and embarrassment (Anjum, et al., 2010; Onyegebu, 2011). Therefore, if we incorporate menstrual hygiene into school curricula and home education, adolescent girls can be empowered to manage their menstruation properly right



from the beginning, thus [enabling them to live healthy and dignified lives](http://www.udsspace.uds.edu.gh) (Nagar & Aimol, 2011; Thakre, et al., 2011).

2.2.6 Management

Management (or managing) is often seen as the administration of an entity, whether it is a business or not-for-profit organization and government body. Management describes the happenings of setting a strategies of an organization through coordinating the good efforts of effective employees of volunteers who aims to accomplish the objectives of the organization through the application of available resources (financial, natural, technological, and human resources (Pfeiffer & Jones, 1972).

2.2.7 Management of Menstruation in Basic School

In most developing countries worldwide for example; sub Saharan Africa, the onset of puberty results or adolescent is significant changes to the changes among school girl's participation. The start of menstruation is the beginning of fertile age of adolescent life which affects young girls' socialization with people within family and community which often has substantial influence on their levels of education (Sormer, et al., 2013). Throughout the developing world, the issue of poor sanitation facilities prevents adolescent girls from attending school, particularly during menstruating. Out of the 113 million children currently not enrolled in school worldwide, 60% are adolescent girls. Adolescent young girls in developing regions of the world stated that poor menstrual hygiene and management-related problems as the cause leading to the unending absenteeism in some basic schools.



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Upper primary and Junior High School girls among other students go to school on foot and spend between 6-10 hours a day. While in school, menstruating adolescent girls are faced with deprived facilities such as; inadequate water for washing hands after the use of the toilet facility, lack of soap and other detergent, poor privacy, poor-functioning or inadequate toilets and no disposal facilities dominant in rural communities (UNICEF, 2012). Due to this, students who choose to go to school while menstruating is often embarrassed by soiling their school uniform with blood, bad body odor resulting from using the same menstrual materials without changing and washing. However, the male students often teased them during that challenging week for adolescent female students.

During menstruation numerous effects such as abdominal cramps, headaches and fatigue coupled with poor facilities and improper treatment lead to absenteeism and poor performance which negatively impact a girl's desire to complete school. Many parts of the issue such as privacy, appropriate facilities and arrangements are also being taken up in some areas. There is the need for schools to work in addressing and counseling young girls on the physiological and psychological aspects of MHM. Now, various government programs are ensuring separate toilet facilities for girls to provide them with privacy to manage themselves during their menstruation. Efforts are being made to ensure that sanitary napkins are available at schools with one of the lady teachers to ensure that a girl has access to menstrual hygiene products while at school for change or the unexpected start of periods. Incinerators/covered bins are also provided to ensure disposal at the school level. Some relevant points to ensure that menstrual management is supported by schools are:



- ✓ Presence of water on or near all their sanitary facilities toilets for personal hygiene.
- ✓ Reliable potable water supply.
- ✓ Equity or equality in portable water usage.
- ✓ Incinerators or bins should be more available for girls hence they will be able to disposed their toiletries, sanitary towels among others properly.
- ✓ There should be available material to cape soiled napkins that will reduce young girl's embarrassment whiles in school.
- ✓ There should be a harmless final disposal with burning or deep burial.
- ✓ There should be available sanitary pads in school in cases of difficulties among the starters of menstruation.
- ✓ The plan and setting of lavatories must not encouraged abuse example initiation of students, bullying of students, drug use or poor menstrual materials).
- ✓ The school should have guidelines on the proper use of lavatories and monitors their utilization to the benefits of the student's girls.

For example, in some African countries like Uganda, Government have prioritized the improvement in Menstrual Hygiene Management (MHM) among adolescent girls and women, by launching the Menstrual Hygiene Agreement since 2015. Also, governments and civil society organizations (CSO) are much dedicated to the common goal that they will work together to uphold Menstrual Hygiene Management (MHM) (Government of Uganda, 2015). On the other hand, inadequate or poor social support within the presence of religious myth, stories and taboos often leads to emotional consequences of menstruation such as; shame, fear, anxiety as well as academic distractions whiles in school (Sommer, 2010). This potentially hinders girls'



child education by limiting their capacities to thrive or to have good academic performance within the school environs.

2.3 Adolescent Girls Attitude and beliefs towards menstruation

The Attitudes and principles towards menstruation are divided. Several studies report that both young adolescent school girls hold mostly negative attitudes towards menstruation in Africa. It is therefore something we cannot omit in our quest to develop (Rembeck, et al., 2006). These deleterious insouciances comprise feeling embarrassed, painful, among others as indicated in the studies of Tang, et al., (2004) seeing menstruation as annoying (Marván, et al., 2005).

Roberts, (2004) outline that, in some developed jurisdictions, young girls tend to consider this monthly menstruation as sickening or disgraceful, and ensure that maximum level of confidentiality environs menstruation should be held in high esteem (Çevirme, et al., 2010). Furthermore, Adolescent school going girls have negative attitudes including accepting menstruation as a colossal bodily and psychosomatic encumbrance that to be beard (Shanbhag, et al., 2012). The idea on the performance of adolescent girls in schools are affected by menstruation may lead to restrictions of girl's opportunities in society, for example. This result in numerous adolescent school girls detaching themselves or moving away from expected obligations both in schools and home (Chrisler & Caplan, 2002).

However, such beliefs could promote important grounds for discriminating against adolescent girls and women through the form of societal mechanism that furthers their negative attitude towards menstruation thus preventing people to see when their time is due for menstruation (Chrisler & Caplan, 2002). Literature on the



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differences in attitude towards the concept has often been between different age groups, sex and others, older and younger participant's female population, on pre-monarchal and post-monarchal girls as well as pre-menopausal and post-menopausal women suggested very uncommon evidences on the challenges young girls go through during menstruation.

For example, according to Marván, et al., (2005) the principles and attitude concerning menstruation of some selected South American women of different ages were diverse. The study stood to revealed that menstruation was very irritating by younger participants to the participants who were older in the study area (Marván, et al., 2005).

Also, adolescent girls viewed the menstruation period with some prohibitions and treatments that makes the concept very topical especially in the global south. This are attributed to some adolescent girl's acquaintance on menstruation as shameful and this is often predominantly prejudiced by traditional pigeonholes from western societies which are somewhat damaging. (Marván, et al., 2005). The consequences of these believes and attitudes on young adolescent school girls is seeing menstruation as something that should be kept secret even from close people who could help them manage their menstruation properly. Young adolescent girls feel optimistic on menstruation that it must be a concealed agenda (Marván, et al., 2005). Correspondingly, it revealed the strong affiliation among self-objectification adolescent girls or women sampled in the age range of 12 and 61 years. This age bracket remains the age that correlate with menstrual attitudes and emotions (Roberts, 2004).



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Notwithstanding, these pressures from cultural realities encourages adolescent girls to engage in fixes to modify their womanly physiques in order to meet or standardizes to cultural feminineness. As a normal natural development, menstruation is often seen as disgusting and, shameful periods monthly among women and adolescent young girls. This often results in adolescent girls and women with self-objectified views of their bodies, indicating additional adverse insolences and perceptions towards that ‘thing’ menstruation (Roberts, 2004). Similarly, Johnston-Robledo, et al., (2007) indicated that women and adolescent girls who recorded higher on the measurement of self-objectification scale had especially some undesirable assertiveness near menstruation.

According to Tang, et al., (2004) Cultural stereotypes, myths and religion on menstruation together with-it related symptoms tend to emphasize and explain the incapacitating and disconcerting nature of menstruation periodically, therefore impacting on adolescent young girl’s opinions on the expectation of menstruation. For example, a study on pre-menstrual as well as post-menstrual expectations, and attitudes amongst girls’ others towards menstruation were scrutinized with contradictory effects. As Tang, et al., (2004) revealed poor experiences of menstruation in China.

Tang, et al., (Ibid) further observed that pre-monarchial adolescent girls anticipated feeling uncomfortable and these predictable negative indications of menstruation were applicable to those who were practically experiencing post-monarchial adolescent girls and women (Tang, et al., 2004). Negatively, such prospects have ever been related to their discriminating thoughtfulness to the undesirable aspects



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of the information they received on menstruation from their mother's, peer's, and menstrual products advertisement (Tang, et al., 2004).

Contrary to this, findings from the study by Rembeck, et al., (2006) as revealed in his study at Sweden exposed that 12-year-old girls, post-monarchial adolescent girl had a less likely positive attitude towards menarche than pre-monarchial women or adolescent girl did during menstruation. The outcome of their work suggested that irrespective of many girls having menstrual information understood completely that adolescent girls were completely ready to flinch menstruating though are not likely to be the same in the global south, experiencing such menarche may worsen adolescent girl's assertiveness concerning menstruation and it challenges. It could also be related to the argument that; women or young adolescents are not correctly equipped for this stage of such menarche consistently as alleged from expert, experienced parents and peers. Deficient information or data acknowledged formerly menstruation could consequence on the inconsistencies among adolescent girls. Experiencing it as unscrupulous and undesirable event affected the attitudes and principles near the know-hows of menstruation which is very late into womanhood (Rembeck, et al., 2006).

2.4 Conceptualization of Menstrual Hygiene Management among teen pupils

In some crosswise contexts, women spent a substantial percentage of their lives menstruating. As a very natural, it presents challenges to self-esteem and the participation in some community's society for many (Geertz, et al., 2016). With the unmet menstrual necessities, a body various studies have linked attention to health and education. Mudey, (2010) said that societal prohibitions and the negative attitude of parents in discussing the related issues openly have blocked the access of



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adolescent girls to the right kind of information, especially in the rural and tribal communities on Menstrual Hygiene Management in developing regions of the world.

WHO, (2014) on the contrary indicated that, menstrual blood is regarded as unhygienic further making the subject matter more secretive among adolescent girls. This results in women, and adolescent or teen girls commonly excluded from some home happenings and some religious activities throughout menstruation. This therefore becomes a groundwork that materializes quickly as girls start their foremost period. Young female adolescent girls recognizes as a distinct old-fashioned which signifies the changeover from childhood to womanhood. Menstruation as generally well-thought-out as unclean in most society in developing world.

Segregating some menstruating girls and imposing restrictions on by some family, have often strengthened negative insulence towards this conception (Dhingra & Kumar, 2009).

An agreed working definition of Menstrual Hygiene Management (MHM) was developed by the Joint Monitoring Program of the WHO and UNICEF in 2012. The definition of Menstrual Hygiene Management (MHM) is women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials (Sommer, et al., 2013). This definition in cooperates aspects of the physical requirements for hygienic, effective management of menstrual bleeding. The use of the term has proliferated; however, operationalization has been inconsistent. As per the above definition, adequate MHM would require the following:



- ✓ www.udsspace.uds.edu.gh
- ✓ Clean menstrual absorbents
- ✓ Adequacy in the frequency of change in absorbent
- ✓ Washing the body with soap and water frequently
- ✓ Adequate menstrual waste disposal
- ✓ Privacy for managing menstruation whiles in school.

Most of the women and girls interviewed by UN states that they stop from countless religious actions during menstruation, this includes; prayer, fasting, touching the Koran among others. The concept MHM is seen as Adolescent girls using very clean material to absorb blood that is changed in private as necessary for the time of menstrual period, using good soap, water and other materials for washing the body or hand as obligatory, and having a good access to menstrual facilities helps in disposing used menstrual materials.

Menstruation presupposes the acquisition of quantifiable resources to collect menstrual blood, facilitate a good personal hygiene and disposal of menstrual waste, with adequate concealment (Sahin, 2015). Women and adolescent girls in developing regions or settings have low consciousness level of hygienic practices when it comes to menstruation and the poor socially appropriate materials for its management and practices (Sumpter & Torondel, 2013).

Others circumvent certain “sacred” locations, within which menstruating women and menstruating adolescent girls generally banded during menstruation. Hence at the teen level, it poses a serious problem on how to manage the inevitable natural phenomenon. This has called for a special day been set aside to educate girls and women worldwide on menstruation. The Menstrual Hygiene Day (MH Day); (May 28), is dedicated to bringing awareness around the vital role that good menstrual



hygiene management (MHM) www.udsspace.uds.edu.gh plays in empowering women and adolescent girls worldwide to become all that they can be.

The idea behind MH Day is a world in which every woman and girl is able to manage her menstruation in a hygienic way- in safety, privacy and dignity. The continued silence around menstruation combined with limited access to information at home and in school's results in millions of women and girls having very little knowledge about what is happening to their bodies when they menstruate and how to deal with it hygienically (Jespers, et al., 2014). For instance, the UNICEF study revealed that 1 out of every 3 girls in South Asia knew nothing about menstruation prior to getting it while 48% of girls in Iran and 10% of girls in India believe that menstruation is a disease (WaterAid, 2013 Menstrual Hygiene Matters). Despite recent drive and a collated definition of menstrual hygiene management (MHM), it has unveiled that the inadequate guidance on MHM thus poor quality and an inadequate supply of water, disposal facilities, and privacy for changing in many schools continue to leave girls with limited options for safe and proper personal hygiene (Sommer, et al., 2013).

Also, the inadequate sanitary hygiene products force some girls to use unhygienic materials (Juyal, et al., 2014), potentially increasing urogenital symptoms and infections (Das, et al., 2014). Fresh but limited evidence suggests that this need leads adolescent girls to engage in transactional sex in order to buy menstrual products for them to have sustainable management practices (Oruko, 2015). Besides, inadequate social support, ongoing gender inequality, and social and hygiene taboos around menstruation in numerous countries leave girls



experiencing shame, fear, and [confusion](http://www.udsspace.uds.edu.gh) when trying to cope with their menstrual flow (Herz, et al., 2014).

However, stripping girls of their self-esteem and sense of agency, growing evidence suggests that inequitable school environments negatively impact girls' ability to succeed academically, limit their long-term economic potential, and significantly affect their SRH outcomes (Kerubo, et al., 2016). Hence, United WASH has developed a menstrual hygiene management curriculum to educate about taboos on Mensuration, hygiene and reproductive health. Using our approach of fun, games and positive communication, the curriculum is designed for the training of teachers as well as of adolescent girls and boys.

2.5 Risk Practices adolescent girls engaged in during Menstruation

According to the Foundation for African Women Educationalists (FAWE) which is a Pan-African NGO, the 'culture of silence' surrounding menstruation in many rural developing regions has brought about it being ignored in schools, families, and communities (FAWE-U, 2003 cited in Kirk and Sommer, 2006). Many adolescent girls in low- and middle-income countries often scuffle to obtain information on menstruation and puberty due to a lack of supportive school staff or even family members to discuss these issues with (Muito, 2004; McMahon, et al., 2011; Mason, et al., 2013).

This has necessitated numerous health risks to which adolescent girls are predisposed as a result of improper hygiene practices during menstruation, sometimes even leading to stigmatization because menstrual blood has a bad odor which can spread all through the body when proper hygiene practice is not





exhibited by the girl child (www.udsspace.uds.edu.gh (Abajobir & Seme, 2014). These outcomes are commonly due to unhygienic practices such as the use of dirty sanitary facility, absence or poor hand washing skills, improper genital washing during menstruation and cultural practices such as the cutting of the genitalia popularly seen as female circumcision, with pain experienced during menstruation (dysmenorrhea) causing discomfort and increasing susceptibility to acquiring further health-related issues (Kirk & Sommer, 2006). The safe management of menstrual periods among adolescent girls and women is a challenge in many low- and middle-income countries.

This is often related to persisting cultural and historical factors (taboos), limited accessibility to affordable, hygienic materials and disposal options affect women and adolescent girls' capacity to manage their periods in an effective, comfortable and hygienic ways. In some circumstances especially in low- and middle-income countries, natural materials such as mud, leaves, dry cow dung or animal skins are used to manage the menstrual flow (UNESCO, 2013 Puberty Education and Menstrual Hygiene Management).

These problems are further exacerbated by insufficient access to safe and private toilets and lack of clean water and soap for personal hygiene. As a result, menstruating girls and women often feel ashamed and embarrassed in many low- and middle-income countries. The long-standing social stigmas attached to menstruating issues face by adolescent girls compelled many become isolated from family, friends and their communities. As a result, the adolescent girls miss school and productive work days and fall behind their male counterparts. For example, adolescent school girl, Kishori, from Bettiah, India elaborates **“I hate**

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menstruation because I have to miss my school during those days and I love my school. My school does not have any facilities where I can change and dispose of menstrual waste. On those days my mother always forces me to stay at home.” This, however, affects their academic performance and progress.

Adolescent girls or women are often less equipped for the management of menstrual hygiene and suffer from nervousness, apprehensions, fear, and shame during menstruation (Budhathoki, et al., 2017). Furthermore, pre-existing social taboos and cultural restraints during menstruation meant that managing menstruation is a greater challenge during disasters (Adhikari, et al., 2007). Again, there are limited admittance to multiplicative health amenities and safe menstrual hygiene absorbent during menstruation (Anwar, et al., 2011). The needs of menstrual hygiene are not unambiguous and unrelenting to young women and adolescent girls in their reproductive age bracket. This requires that access to similar good management practices during the period of menstruation is a basic reproductive health veracious for all.

In terms of predicaments, the adolescent girls’ existences affect their personages change as antagonized by supplementary pressure that deteriorates their bodily and emotional welfare. Establishments’ central to the existence of mankind existent requires shelter, food, clean water, and medicines patronized. Also, others request a very safe menstrual management that has a profound psychosocial impact on the unmet needs which are frequently mistreated (Travers, 2017).

There are some associated health risks to which adolescent girls are predisposed as a result of improper hygiene practices during menstruation, sometimes even leading to stigmatization because menstrual blood has a bad odor which can spread





all through the body when www.udsspace.uds.edu.gh proper hygiene practice is not exhibited by the girl child. These outcomes are commonly due to unhygienic practices such as use of dirty sanitary facility, absence or poor hand washing skills, improper genital washing during menstruation, and cultural practices such as the cutting of the genitalia popularly seen as female circumcision, with pain experienced during menstruation (dysmenorrhea) causing discomfort and increasing susceptibility to acquiring further health-related issues (Kirk & Sommer, 2006).

Table 1: Common Risk Practices teen girls engaged in during Menstruation

Menstrual Hygiene Management Practices	Health Risk
Unclean sanitary materials	Bacteria may cause local infections to travel up to the vagina cavity
Changing of materials infrequently	Skin irritation
Insertion unclean materials into the vagina	Bacterial potentially accessing the vagina and the uterine cavity
Wiping from back to front after urination	Enhance the introduction of bacteria from the bowel into the vagina
Unsafe disposal of used sanitary materials or blood	Infecting Others with STI or STD

Source; Adapted from House, et al., 2012

The risk of infection seems really high during menstruation because, at this time, the mouth of the cervix is opened and allows blood to come out into the vaginal

and out of the body, (www.udsspace.uds.edu.gh) and (Kirk & Sommer, 2006). This process creates a passageway for bacteria to travel back into the uterus and pelvic cavity. Poor hygiene practices during menstruation have also been noted to increase female infertility and morbidity due to reproductive tract infections (Ramaswamy, 2011).

2.6 Benefit of Adequate Menstrual Hygiene Management among teenage girls

Having recognized the need to improve the Menstrual Hygiene Management experience for girls in developing countries, researchers and practitioners met to outline a global vision for MHM in schools by 2024 and identified priority action areas to guide global, national, and local action (Sommer, et al., 2016). The outbreak of disease in a given geographical location could be influenced by human attitudes resulting from hygiene practices which can cause various health problems or may even lead to death (Assefa & Kumie, 2014). Absence or poor menstrual hygiene management, especially among adolescent girls, has significant consequences, with the proven association between it and reproductive, urinary tract infections and diseases which can be assessed in terms of way of sanitary protection (Aniebue, et al., 2009). This is because for example, the use of unclean sanitary cloth to absorb blood flowing from the cervix during menstruation, expose the individual to infection (Chin, 2014). The impact of this practice on the society at large is the fact that poor MHM negated efforts targeted at achieving the Sustainable Development Goals (SDGs) which were the achievement of universal primary or basic education and the improvement of maternal health, respectively (Chin, 2014).



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On the strength of the foregoing, if MHM is not put in the front burner of discourse, efforts at achieving the SDG 3 (ensure healthy lives and promote well-being for all at all ages), SDG 4 (ensure quality education for all) and SDG 6 (clean water and sanitation for all) of the newly adopted Sustainable Development Goals (otherwise known as the Global Goals which builds on the MDGs) (UNDP, 2015), would also be frustrated. Thus, research into Menstrual Hygiene Management among Basic School girls in Legon was very important so as to know and tackle various health issues associated with it. This is because a girl child has a right to education which is an intelligent asset that will yield long term gains for her immediate family, nation and enhance sustainable development for future generation (Boosey, et al., 2014).

2.7 The link between Water, Sanitation, and Menstruation

The broad acknowledgments of potable water importance, standardized hygienic amenities or infrastructure are inevitable for menstrual hygiene management (MHM). It has been captured that the capacity requirements for menstrual hygiene management should focus on adolescent basic school girls' more often with poor and limited engrossments on the school environments (McMahon, et al., 2011). In the developing regions of the world, there are noted stressors on adolescent girl's experiences in changing themselves during menstruation. It was indicated by Haver, et al., (2013) that safety, privacy and security worries were among the reasons why teen girls absent or do not attend school during menstruation The dignity and hygienic expectations are much hampered in schools because doors are not locked sometimes, access to detergent, potable water among others affects the process of menstrual hygiene management in schools (Sommer, et al., 2013).





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Sustainable Development Goals (SDGs) in 2015 clearly indicated its ambitions for development worldwide. Menstrual hygiene could be associated with frequent intentions related to health in the SDG 3, to education in the SDG 4, and to gender parity in the SDG 5 which together aimed at developing women and adolescent young girls (Henley, et al., 2014). The goal six (SDG 6) indicates the need for “ensuring access to water and sanitation for all”. There were detailed goals to improve access to water, sanitation and hygiene, with SDG 6.2 acknowledging the need to “pay special attention to the needs, for women and adolescent girls” (WHO, 2017).

Furthermore, pointers for gauging the progress towards SDG 6 was to emphasis on terminating exposed excretion, and disinfected parting of human excreta from bodily contact” amenities. The focus was on how humans could cope with waste, but often not reflecting on the environment which may be relevant to the needs of women and young adolescent girls (Khan, et al., 2017). For instance, in India, where the management of such natural occurring phenomenon is a hunch has a menstrual hygiene procedure, of which sanitation amenities are suggested to support menstrual hygiene management (MHM). Universally, it is recognized and accepted for need for separated latrines for boys and girls due to privacy, water, soap and other cleaning agent coupled with adequate space for changing oneself as well as washing (M D W S, Government of India, 2015).

The significant indicators for menstrual hygiene management include awareness on the issue, enlightening strategy, and identifying sustainable options for improvement. Of particular interest on water, the WASH sector has taken the governance on Menstrual Hygiene Management (MHM) in the global south as a



www.udsspace.uds.edu.gh matter of urgent and national interest (Sommer, et al., 2016). However, the relationship amongst contemporary sustainable development goal 6 which is crucial in the adequate management and enhancements of menstrual health management and its related issues are hugely lacking behind particularly in low- and middle-income countries.

As such, applying existing WASH pointers as substitutions for gauging inadequate menstrual hygiene management is not misplaced (Loughnan, et al., 2016). Good menstrual hygiene management among teen school girls depends on clean water supply for cleaning and washing as well as adequate sanitary facilities for changing menstrual products during menstruation especially during school sessions (Parker, et al., 2014). The foregoing therefore highlights the linkage between water, sanitation, and hygiene.

2.8 Effect of Inadequate Menstrual Hygiene Management Resources in Schools

School absenteeism and disengagement have been emphasized as important consequences of poor MHM. Evidence on the links between MHM and school attendance, performance have been mixed (Van Eijk, et al., 2016). Psychosocial consequences including shame, insecurity, anxiety, and fear of stigma are well-documented correlates of menstruation. Such negative psychosocial outcomes have been hypothesized to arise from poor MHM such as inadequate absorbent use by adolescent school girls and also poor knowledge and information about menstruation, cultural stigma, and taboos among others (Dolan, et al., 2014).

Phillips-Howard, et al., (2015) indicated that more evidence is needed to unpack the roles of these different contributors to wellbeing, and associations between

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MHM and well-being outcomes of women and more especially Junior High adolescent school girls. While water sources were closer to some schools than others, water, sanitation, and hygiene (WASH) for MHM was comparable across schools. All the adolescent girls in the schools at baseline were included in the trial, regardless of menstrual status (Montgomery & Hennegan, 2014).

For example, a research work piloted in Ethiopia found that, most of the respondents (92%) were aware menstruation of before menarche. The application of hygienic materials was very minimal at (37.6%). There is a significant of (62.4%) who use rags and pieces of cloth and other unhygienic materials (Zegeye, 2009). While (11%) of girls in Ethiopia change their menstrual cloths once a day which reported has had serious effects on their reproductive life (Sarah, 2012). Research also observed that 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, 2010).

2.8.1 Absenteeism from School

Till lately, the idea of menstrual hygiene has been an overwhelming health challenge worldwide. Even though, there are associated solemn undesirable effects of poor menstrual hygiene management among adolescent girls' health. The existing female population menstruates between 13 to 50 years on average in developing regions of the world. With a total of 1400 days of menstruation existing in woman's lifetime, the strategies to grip menstruation is often influenced by cultural beliefs that mark it as disgraceful, informally unattractive, and



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devotedly problematical and the negative effects that affect the health of young adolescent girls and women” (Ribeiro, 2013).

Adolescent girls have the anxiety of sullyng their school uniform with menstrual blood, abdominal cramp and loss of concentration during school lessons (Chin, 2014). Research has shown that about 95% of Ghanaian girls do not attend school during menstruation, while 53% of girls in Nairobi, Kenya, and 51% of Ethiopian girls absent themselves from school mostly as a result of the absence of sanitary resources in schools (Yagnik, 2015).

Other research revealed that the fear of stigmatization as a result of complaining of lack or insufficient sanitary material or soiled uniforms also leads to absenteeism from school for the total days of her menstruation (Kirk & Sommer, 2006). This realization has therefore proved that menstrual hygiene management has significant effect in improving school attendance (Sommer, 2010). For example, a 9% to 14% improvement in school attendance due to the provision of sanitary products has been recorded in Ghana (Chin, 2014)

What emerges from these and other studies is also the notion that the problem for young adolescent girls is in hygienically managing menstruation. Several studies note that menstrual hygiene of young adolescent girls is ‘inappropriate’ and the ‘use of unhygienic material as menstrual absorbent’ lead to an ‘adverse effect of menstruation on schooling and social life’ (Aniebue, et al., 2009). In Ghana, Scott, et al., (2009) research suggests that Ghanaian ‘post-pubescent girls were missing school as many as five days each month due to inadequate menstrual care and cramping feelings. This made Montgomery, et al., (2012) to execute a pilot study that concluded that



providing both pads and education gives a 9 per cent increase of attendance after five months of school girls who were menstruating.

2.9 Family support and Menstrual Hygiene Management

Many priority research areas have been identified as indispensable for shaping and promoting MHM in schools. The advanced the evidence on these topics will enable the global community to better understand the main negative effects of poor MHM on girls' well-being, dignity, health, and schooling when there is an active involvement of the family. This when operationalized will go a long way to strengthen the body of knowledge around MHM's impact on school dropout, absence and other measurable school indicators such as stress, self-confidence and self-efficacy. Efforts are also made to specifically explore the impact of poor MHM on girls' sexual reproductive health are also needed to define its contribution toward sexual exposure (Phillips-Howard, 2014; Oruko, et al., 2015). These subsequently increased the risk of adolescent school girls exposure to sexually transmitted infections (Kerubo, et al., 2016).

Family's message to the adolescent girl child is of very great significance because various activities relating to sexual activeness starts early for these girl children (Ayalew, et al., 2014). All forms of love, care, and support that make a girl child feel accepted are important factors in the achievement of proper menstrual hygiene management. Where parents especially mothers devote time and teach their teenage girls what to expect and how to manage or go about it at the onset of menarche, gives hope and help to the teenage girl on how to manage their menstrual periods well and so are not scared and intimidated by fear and stigmatization of staining her uniform or dress in Schools. Considering also that peer influence could have a strong bond



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negatively on a girl child, it is therefore important for parents to know who their children's friends are in order to facilitate adequate education to their girl child at home (AlQuaiz, & Al Muneef, 2013).

2.10 Influential Factors of Poor Menstrual Hygiene Management

2.10.1 Knowledge and practices of menstruation

A number of studies show how poor knowledge about menstruation consequently influences poor menstrual hygiene practices among adolescent girls (Dasgupta & Sarkar, 2008; WaterAid, 2009; Dhingra, et al., 2009; Shanbhag, et al., 2012). For instance, a cross-sectional study undertaken in West Bengal with 160 respondents reports that the majority of the girls did not fully understand the physical process of menstruation and therefore were not prepared for their first period which has affected their management practices during menstruation (Dasgupta & Sarkar, 2008). The findings of the Dasgupta & Sarkar, (2008) study further related and confirmed poor knowledge on menstruation and its management as the core factor to tackle in addressing menstrual hygiene management issues particularly in low- and middle-income countries. According to WaterAid, (2009) in a cross-sectional study in four government secondary schools on adolescent girls, formal education about reproductive health is very limited among adolescent girls attending school. The Mahon and Fernandes, (2010) research revealed that girls' information on menstruation is mainly about ritual practices, cultural issues and behavioral cautiousness towards males. Information on the physiological process of the adolescent girls is very little or small. Shanbhag, et al., (2012) attested that the knowledge of the menstruation process among school girls is very inadequate.





Thakre, et al., (2011) and Nagar & Aimol, (2011) studies confirmed that knowledge of the female menstrual cycle is an important reproductive health issue for adolescent girls and should be incorporated in schools' curricula and home education and to enable adolescent girls to manage their menstruation adequately and live a healthy life. Other studies such as Lawan, et al., (2010) of Kano in Nigeria report differences in the levels of knowledge among urban and rural school girls, which are related to different levels of exposure to information about reproductive health. This study emphasizes the importance of educating adolescents prior to menarche.

2.10.2 Role of Culture and societal norms

Several cultural and traditional beliefs and norms connected with menstruation sway the knowledge of menstrual hygiene management. Most of these cultural and traditional practices and societal norms amount to putting a woman's lifestyle on hold during the period of her menstrual flow such as preventing her from cooking, bathing or sleeping at home (Chin, 2014). These limitations though long in existence, still have a very strong influence on teenage girls' behavior towards menstrual practice today (Yagnik, 2015). Studies have also revealed that adolescent girls have difficulty in understanding hygiene knowledge linked with menstruation as a result of the unhealthy and false practices associated with it with some considering it a taboo and secret matter (Fakhri, et al., 2012).

A study in Lebanon revealed that adolescent girls adopt cultural beliefs of not bathing during first three days of menstruation or even as long as the period lasts rather than following prescribed menstrual hygiene practices (Tania, et al.,

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2013). The stories and hence the belief that menstruating women are not clean and polluting is widespread in the cultures of many developing countries. It comprises stories portraying the negative effect of menstrual blood as polluting including blood after childbirth (Joshi & Fawcett, 2001; Ten, 2007; Ahmed & Yesmin, 2008; Kumar & Srivastava, 2011).

2.10.3 Inadequate Availability of Sanitary Products

The absence or insufficiency of sanitary products and materials of all types, water and soap, and sanitary facilities influences the achievement of poor MHM among the adolescent girls. Ribeiro, et al., (2013) disclosed that only one (1) out of the twenty (20) selected schools studied had a girls-only private space for changing sanitary products when menstruating and only two had water at their disposal. The situation is worsened by gender- unfriendly conditions in schools (Sommer, 2008). On the other hand, Pilliteri, (2011) disclosed that boarding adolescent school girls usually go to their dormitories to change and wash, as there rarely are sanitation facilities at the classroom blocks. They also wash their used menstrual cloth at night and dry them under their beds which all contribute to the poor MHM among adolescent school girls.

This assertion is premised on the recent Secondary Education Improvement Project (SEIP) of the Ministry of Education. Pillar 1 of Component 1 of the SHEP targets improving access and equity in 15 senior secondary schools by the provision of scholarship to girls also covers the provision of sanitary materials to the beneficiaries (Education & Project, 2014). In Indian for example, a budget allocation was made for menstrual sanitary products of targeted girls about the ages 10-19 years and inclusive of girls classified as



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living below the poverty line leading to continuous progress of the wellbeing of these women (Yagnik, 2015).

2.10.4 Menstrual Challenges, Age groups and Levels of Education

Firat, et al., studies (2009) indicated that the differences between female high school students and other university students from a Turkish, found out that comparatively more high school adolescent students observe menstruation as a devastating than the university students who often are aware of the modalities in the management of menstruation. The university students however, indicated that menstruation was more troublesome than the high school students though they feel its challenges less. The study of Firat, et al., (2009) attributed such differences in understanding on the side of the students, signifying that experience in menstruation minimize the insight of menstruation as debilitating. Notwithstanding, this indication by Rembeck, et al., (2006) on the nature and experience of menstruation affects young adolescent girls' assertiveness.

Du Toit, (1988) study in South African compared the attitudes before the end of menstruation and after menstruation of young adolescent girl or woman. It was revealed by the study that most pre-menopausal young adolescent women watched the changes that occurred through to the end of menstruation. This suggest that there will not be any serious thinking about 'monthly bother' of menstruation or forgetting of any menstrual cramps or disorders related to menstruation as they became aware of all the changes and the various challenges it comes with it due to vast experiences gained through the years during their menstruation. This gain is often related to menstrual adolescent girls or women mostly with the potency of bearing kids. Menstruation cleansed many female bodies to gain a good system



healthy justifies a woman's www.udsspace.uds.edu.gh productiveness (Du Toit, 1988). In contrast, about 81.5 percent of menopausal women who are not menstruating naturally viewed it as an advantage because there are no termination accompanying the commencement of sicknesses and cyphers at their level (Du Toit, 1988).

Although, menstrual hygiene management is very critical when it comes to the woman reproductive system, the few studies conducted on menstruation hygiene management found strong correlation between positive menstrual hygiene management attitudes toward menstruation and women's ability to successfully manage their reproductive system (Aflaq & Jami, 2012). It was scrutinized however that the current existing attitudes in menstrual hygiene management by adolescents and the socio-economic factors as well as cultures and taboos play major roles in how menstruation is handled by women in general (Morrison, et al., 2010). The research work revealed majority of the women and young adolescent participants had a good positive attitude on menstruation. About 83 percent stating that it was natural and only 32 percent seeing such natural phenomenon as irritating (Morrison, et al., 2010).

The outcome of such research primarily indicates a more positive attitude towards menstruation. This was however on the contrary as majority of adolescents in low- and middle-income countries always struggle to cope with menstrual hygiene management which in most cases leave them with dainty blood though associated with short flow intervals. Sometimes, these adolescents have had health orientation on menstrual hygiene management, they are not more flexible on their menstrual cycles and are not willing to discuss about them cooperatively for help and support (Morrison, et al., 2010). Such attitudes and beliefs and the understanding of



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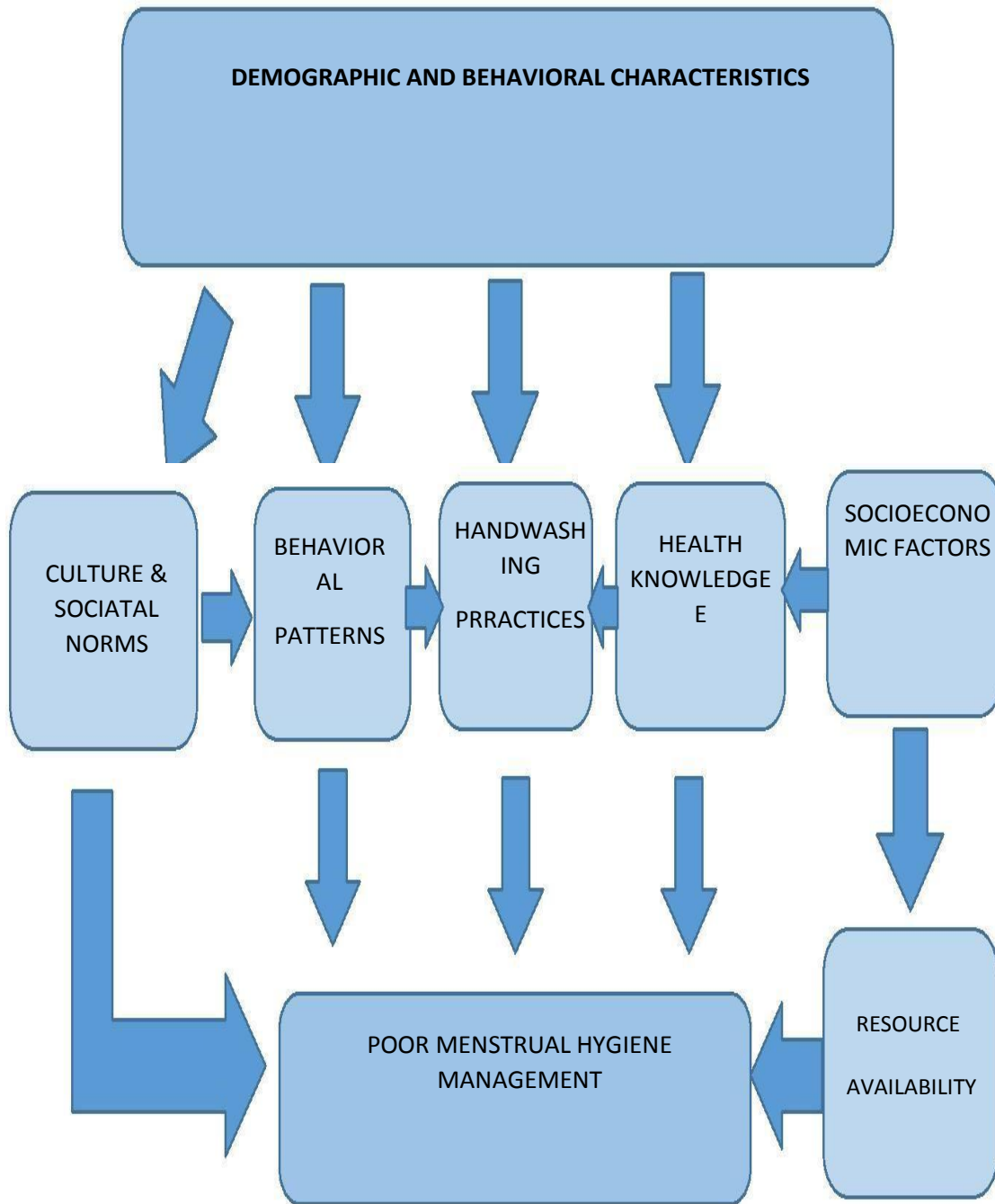
menstruation as women or young adolescent girls issue contribute to the poor and improper management of menstrual hygiene and forms part of some of the causative factors for managing menstruation. These positive and negative attitudes and principles either promote or hinder the proper management of menstrual hygiene. This is further molded as numerous myths and taboos that surrounds the topic which comes with it emotions and socio-cultural features that thwart the efforts taken to address and alleviate the challenges adolescent girls go through during menstruation (Tiwari, et al., 2006).

2.11 Conceptual Framework

The conceptual framework, (Figure 1) shows the socio-economic and behavioural characteristics which contribute to poor menstrual hygiene management among adolescent school girls in some selected basic schools in Kumbungu District of the Northern Region. It gives details associations between the outcome (dependent) variable – adequate menstrual hygiene management and the independent variables (demographic characteristics, socioeconomic factors, hand washing practice, behavioural patterns, culture and societal norms, health knowledge and resource availability) which helps to regulate the likely backgrounds and explanations for patterned conditions of the problem. Demographic characteristics such as age, educational level (grade in school), religion and ethnicity of the girl child influence their interpretation of culture, traditional and societal norms which in influences their hand washing practices as well as their adopted behavioral patterns of good menstrual hygiene management.



Figure 1: Conceptual Framework



Source; Adopted from Blessing, (2016)

Socio-economic factors affect negatively, the health knowledge attained by the teenage girls in overall menstrual hygiene management and its implementation through proper hand washing practices. The regularity of hand washing during the menstrual cycle is as well dependent on the demographic characteristics of

these teenage girls. www.udsspace.uds.edu.gh Socio-economic factors are serious contributors when it comes to resource availability for the adolescent girls which subsequently mend their menstrual hygiene management practices.

2.12 Conclusion

This chapter contains the review of the literature on Menstruation, management of menstruation, menstrual hygiene management, Water and sanitation, risk practices teen girls do during menstruation, the effect of poor menstrual management on health and education. In particular, it looked at menstrual hygiene in theory where the various definitions of Menstruation, hygiene, and management were looked at as well as its numerous effects on their health and education. Under this chapter, a review of the key concept and theories was provided in the framework for the study.



METHODOLOGY

3.1 Introduction

This chapter focuses primarily on methodological approach employed, methods used for data collection and analysis. It gives the description of how data was collected, discussing the design, the study areas, the population, sample and sampling procedure, data collection technique, and the instruments used in analyzing the data.

3.2 Research Design

The study was a mixed methods study in design. It was adopted because the research described pupils' views on Menstrual Hygiene Management. However, in-depth interview technique was employed with the purpose of generalizing from a sample to a population so that inferences can be made about the risk practices of and effects on poor Menstrual Hygiene Management (MHM) among Junior High School adolescent girls in Kungumbu Districts. Questionnaire and interview guide were used as tools of data collection. The qualitative research design was merged in this study for the purpose of narrating or adding on to the deductions and answers received from the field. However institutional inputs were analyzed in themes which aided the comparative analysis of the result between the study communities where the schools are located.

3.3 Study Area Profile

This study was conducted in the Kumbungu District of the Northern Region of Ghana. The area was chosen for the study because it is noted for inadequate Menstrual



Hygiene Management (MHM) among Junior High School adolescent young girls. (WASH, 2016). The District (Kumbungu) was etched out from the then Tolon/Kumbungu District in 2011 as mandated by the 1992 constitution. The Kumbungu District was ordained in June 2012 with Kumbungu as the capital. The Kumbungu District parts borders to the northern side with Mamprugu/Moagduri district, to the western with Tolon, and Northern Gonja district, to the Southern with Sagnerigu district and Savelugu/Nanton Municipal to the eastern corridors.

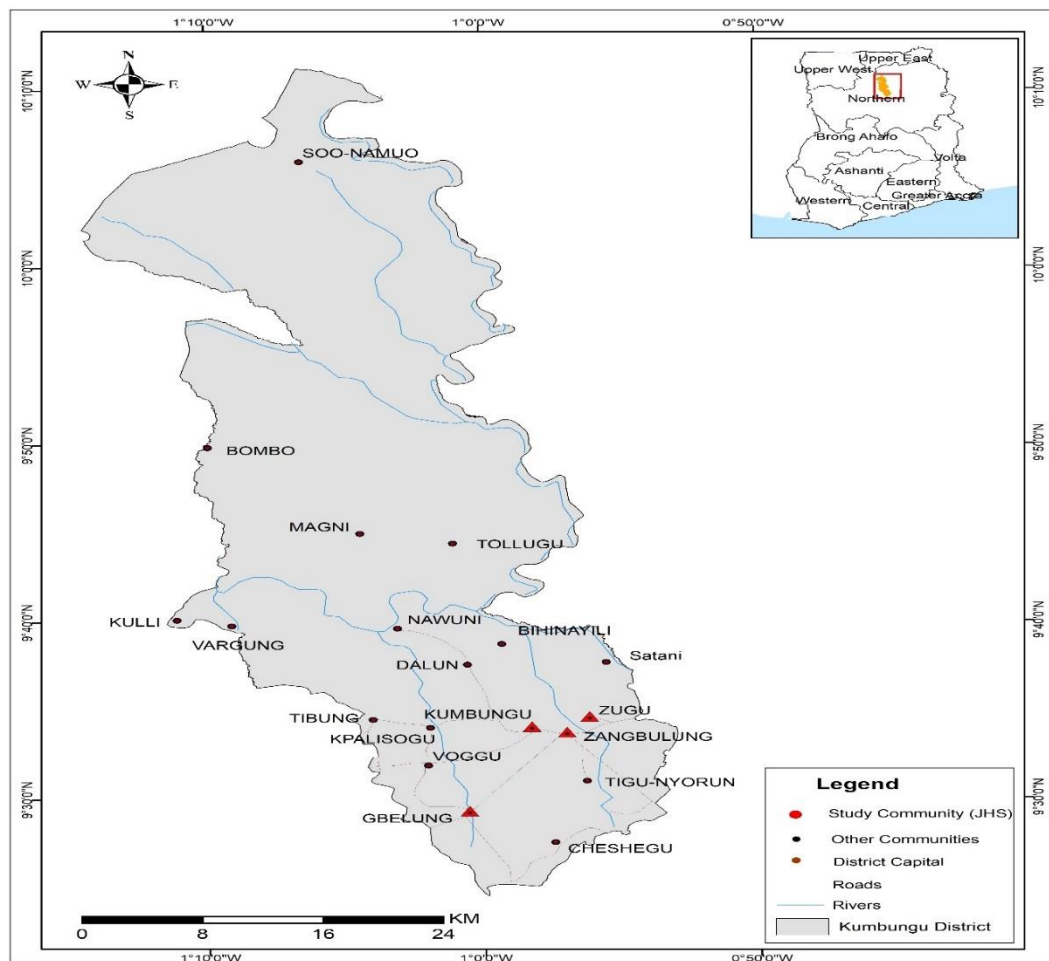


Figure 2: Map of the Study Area

The district covered a total land size of 1,599sqkm, though it is considered as one of the smallest districts in Northern Region (NPHC, 2010).



3.4 Education

Education plays a crucial role in a nation's development through capital formation and adequate resources channeled in to the area. Enrolment and attendance in schools ensures that the citizenry achieves the desirable educational level for economic, social and political advancement. The report suggests that, in the district, about 63.8 % of persons aged three (3) years and above have not ever appeared in school which duly sometimes affects their personal development in term of menstrual hygiene management. More females (69.6 percent) and males (58.0 percent) have a difficulty in attending school with the few populates (adolescent girls) being hampered by the menstruation and its management. Education is one important areas mankind's social developments.

This is because education brings about self-development through the process of obtaining academic or scientific knowledge, training skills, value added production capacity, and a good positive attitude to be fully developed as an individual for the societal well-being (UNDP, 2011). This is why developing and developed countries place greater emphasis on their educational systems and policies in designing sustainable strategies to quicken economic, social, and political development.

3.5 Sanitation

The 2010 PHC report indicates that 82% (percent) of the populates in the Kumbungu district recounted how they have inadequate toilet and water facilities, with only 7% indicating that use Kumasi Ventilated Improved Pit (KVIP), 6% reporting that they use household's toilet facilities. However, the use of public toilet facilities hard 5% as the use pits latrines in the district. However, a cumulative proportion of less than 1%



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households use WC or Bucket/Pan as reported. Such rural populates who shared separate bathroom in the same house recorded the highest proportion of 51%, followed by households who exclusively use their own bathrooms thus 23%. Also, 13% of the household's who pooled uncluttered cubicles to the bath.

And less than 1% of the households indicated the usage of bathrooms in other houses. This however affects adolescent girls who happen not to have them at home and hence will affect the nature of their menstrual hygiene management. Furthermore 5% of the rural households reported that the use of an open environment around some houses in the communities. This therefore had a short- and long-term effect on adolescent girl's level of menstrual hygiene management at home and even in schools in the district.

3.6 Housing

The inadequacy of the quantity of housing in the District was 3,538 representing 1.4 % of the total number of houses at the Regional level. The average number of persons per house is 11.1 indicating pressure on existing amenities which aimed at helping young adolescent women in the management of menstrual Hygiene.

3.7 Waste Disposal

The common widely solid waste disposal method used is public dump sits in the open cosmos constituting for 56.0 %. Most of the people dump indiscriminately 15.0% their solid waste openly. Household waste collection was also about 7 percent. On the other hand, liquid waste disposal constituted 64% which are often thrown on to the street in the District.



3.8 Target Population

The study targeted all girls who have reached the stage of adolescent and are menstruating. Appreciable percentage was selected from each school to be representative enough to gain adequate information for generalization.

3.9 Types of Data Sources

Primary and secondary data were the main types of data used in this research. The basis for this combination was to allow the study to have an adequate discussion of the phenomenon under consideration. This approach further allowed the study to scrutinize documents and other relevant materials to give a very clear understanding of the effects of poor Menstrual Hygiene management in the Kumbungu District of the Northern Region of Ghana. The Amalgamation of primary and secondary data sources justifies the interplay of research ideas with theory in literature (Creswell, 2003).

3.9.1 Primary Data

Primary data was obtained from the teen or adolescent girls in the junior high schools selected from the district. These respondents included only adolescent pupils that have reached their periodic menstrual cycle. Primary data was principally about the nature of menstrual hygiene management among teenage girls, risks practices teenage girls engaged in when managing menstruation and the negative impact of poor menstrual hygiene management among teenage girls in junior high schools in Kumbungu District.



3.9.2 Secondary Data

Secondary data was gathered from the Health Directorate, Ghana Education Service and Parent of pupils. These sources may be census reports, Books, Journals and other official records.

3.9.3 Sample Size Determination

The total population of teen girls in the four Junior High Schools thus Junior high school A (64), Junior High schools B (59), Junior High schools C (56), and Junior High schools D (69). Thus, the sampling unit was 248 hence the actual sample size selected from the units was obtained through the formula (Adnan and Al. Swaity (2015):

$$N = \frac{Z^2 \times P \times (1-P)}{C^2}$$

N – Sample size;

Z - Z –Value (eg.1.96 for 95% confidence interval)

P - Percentage of picking a choice expressed as a decimal (0.50 uses for sample size needed)

C - Maximum error of estimate (0.05)

$$N = \frac{1.96^2 \times 0.50 \times (1-0.50)}{0.05^2} = 384.1$$

Therefore, the finite population or sample size for the study is



$$N_{\text{new}} = \frac{N}{1 + \frac{N-1}{POP}} \rightarrow \frac{\frac{384.1}{www.udsspace.uds.edu.gh}}{1 + \frac{384.1-1}{248}} = 151$$

Where POP - Total population of the teen or adolescent girls in the four selected Junior High Schools in the District. Therefore, a sample size of **151** was used for the study. **Proportional representation** was applied taking into consideration the total population for determining the actual number of respondents from the population sum of the member category (schools) selected. A total of each member group was divided by the sum of all members and related to the sample size of **151**.

Selection of the Proportionate Samples from the Selected Schools

Table 2: Selection of the proportionate samples from the selected schools

Junior High School	Number of adolescent girls (2017)	Proportionate Sample size */248×151
School A	64	39
School B	59	36



School C	56	34
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School D	69	42
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TOTAL	248	151
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Source: Field Survey, 2017

3.9.4 Sampling Procedure

In this study, purposive sampling and simple random sampling techniques were adopted. These justify the combination of probability and non-probability sampling techniques. This helped in merging systematic and thematic understanding deduced and related to the results. Simple random sampling techniques were probability methods whilst the purposive sampling technique was a Non-probability method of sampling and was used where suitably in the process of the research.

3.9.5 Purposive Sampling

Purposive sampling was used in selecting the research participants. With purposive sampling, the selection of respondents is based on particular characteristics of the respondents within the universe where the known characteristics are to be studied intensively (Kothari, 2004; Kumekpor, 2002). In selecting four resource persons with one each from the schools selected in the District, who see to it that issues of Menstrual Hygiene Management were incorporated in girls' curricular activities and two directors who spearheads teen girls' affairs in the district. Purposive sampling



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technique was used to ensure that adequate information was gotten from such members to aid the understanding of this study. These officials were purposively selected because they are key stakeholders who have knowledge on Menstrual Hygiene management and planning for the teen girls and therefore have adequate information that could be of relevance to the study.

3.9.6 Simple Random Sampling

In the districts a list of all the junior high schools was gotten from the Ghana Education Service, computer-generated random numbers assigned to the list of schools using excel and in ascending order four (4) junior high schools were carefully chosen for the study. List of all teenage girls were done by the researcher in collaboration with class teachers in the Junior High Schools selected whereas menstrual Hygiene management has been poor.

However, girls who were teen but have not menstruated were skipped. Since adolescent girls were all within the population of pupils in the various Junior High schools, the study also focused on girls who have had their menstruation. The choice of this technique was to ensure openness to the target group and also engaged the experienced people who have their menstruation in each of the selected Junior High schools to provide adequate information for the study.

3.9.7 Tools and techniques for Data Collection

The study objectives were achieved by the use of multiple data collection methods including an interview (structured key informant), questionnaires and a comprehensive review of official and other documents to generate empirical data for this research. These methods yielded detailed primary and secondary data which



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helped to achieve the purpose and objectives of the study on Menstrual Hygiene Management in the Kumbungu District.

3.9.8 Questionnaires

Questionnaires were used for soliciting primary data from the respondents from adolescent girls who have reached their menstrual age. The questionnaires included both closed and open-ended questions. The questionnaires were used to gather data on the practices they engage themselves in during menstruation, sanitation issues, what their school is doing to help them during that period every month.

3.9.9 Interviews (Semi-Structured and Key Informant Interviews)

Both structured and the key informant was used to generate primary data from the officials of key institutions for the study. The key informant interviews were done by using an interview guide that gave the researcher the chance to probe and get more information from the institutions, which aided convincing understanding of the study by indicating the effect of poor menstrual hygiene management among adolescent girls in the selected Junior high schools for the study in the District.

3.9.10 Focus Group Discussion

Four focus group discussions were held in the selected School in the district. This approach is considered appropriate when the objective of the research is to explore reactions of a group or community in response to some commonly experienced aspects of their practices in Menstrual Hygiene management (Owusu, et al., 2014). This added on to the information obtained from the field because not all of the people had a chance to be part of the study but their contributions were key and also gave an add on information.



3.10 Data Analysis and Presentation

Processed data critically analyzed both quantitatively and qualitatively. Data collected were coded manually and analyzed with the use of Statistical Package for Service Solution (SPSS) with Descriptive statistics (mainly frequencies, percentages, and cross-tabulations). Analyzed data were presented with tables and charts. Interviews were transcribed and analyzed based on emerging themes. In addition, verbatim expressions of respondents were used where applicable. This section aimed at identifying and ranking the expected effect of improper menstrual hygiene management (MHM) amongst teen girls who were in the selected schools in the Kumbungu District. Data were collected on a four-point Likert scale; (1) severe, strongly severe (2), not severe (3), strongly not severe (4) was then analyzed using the rank their Relative Importance Index (RII). The index is calculated in Adnan et al., (2007) as:

$$RII = \frac{4n^4 + 3n^3 + 2n^2 + n^1}{4(n^4 + n^3 + n^2 + n^1)}$$

Where: n^1 = number of respondents who answered —severe

n^2 = number of respondents who answered —strongly severe

n^3 = number of respondents who answered —not severe

n^4 = number of respondents who answered —strongly not severe



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This was used to rank the challenges female students face in the selected schools during menstruation.

3.11 Delimitation of the Study

For the purpose of time and resource used, the work was limited to only four junior high schools in the Kumbungu District. In the quest to examine the effects of poor Menstrual Management among junior high school girls, the research was faced with a series of constraints. First, financial and logistical problems: considering the geographical size of the district and the locations of the communities and their schools, it was very difficult getting all the necessary financial and logistical resources to travel to various communities and institutions for data. Another problem was also time constraints. Research of such type requires a longer period but the institution had barely a few weeks for the form three (3) students to complete school which posed a challenge to the researcher. Though time was limited because of the duration of the school calendar, the research was therefore organized with an activity schedule which guided the process.

3.12 Conclusion

This chapter looked at the research methodology that was employed in the study. In these regards, it deals specifically with areas such as the research design where the mix method approach was used for the study. The sampling techniques were also both probability and non-probability methods. This chapter looked at methods of data collection, sources and instruments and data analysis. It provides justification of the selection and a brief description of the study area.



RESULTS AND ANALYSIS

4.1 Introduction

The results and analysis of the data obtained from the field are presented in this chapter. The analysis of the results in this chapter is divided into relevant themes or sections based on the objectives of the study. The purpose of the study demanded that data be generated both from female students and institutional structures, specifically those tangled with students' health, health management practice and safety. The data from the selected study schools analyzed and used to investigate whether the conceptual and theoretical issues discussed in chapter two concerning the effects of menstrual hygiene management on school attendance of adolescent girls in junior high Schools in Kumbungu District of the Northern Region of Ghana agree or not with the findings.



4.2 Demographic Characteristics of Respondents

4.2.1 Age of respondents

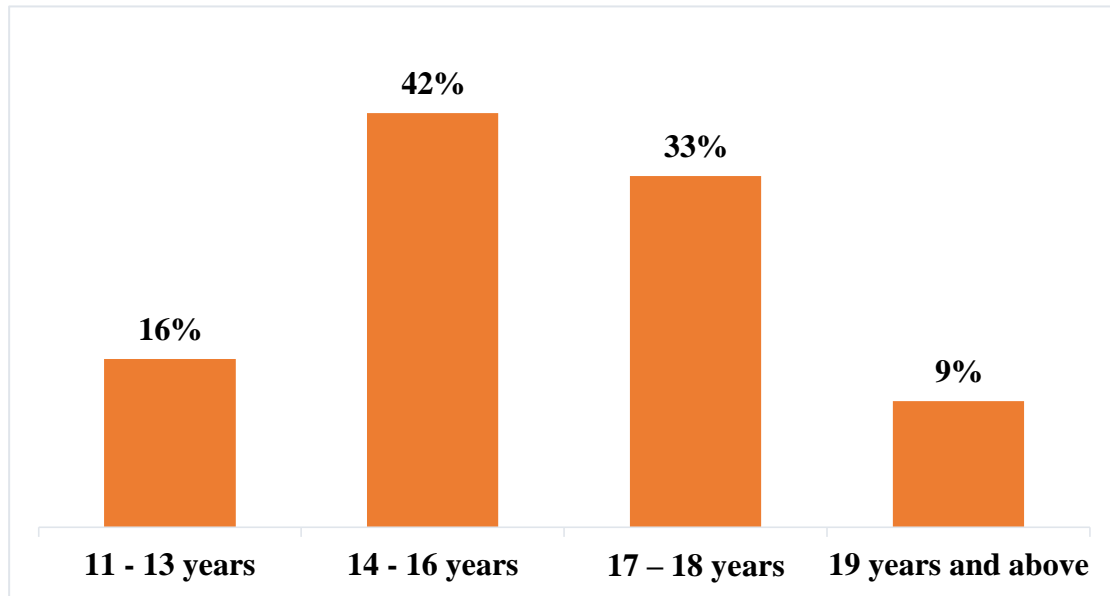


Figure 3: Age of respondents

The socio-demographic characteristics discussed issues of respondents' age, class, menstruation duration, and religion. Figure 3 reveals that data on age were gathered to ascertain the level of knowledge and understanding of the respondents in terms of menstruation periods. Four two percent of the respondents interviewed were in the age bracket 14 – 16 years. Thirty three percent of them were within the age bracket 17 – 18 years, 16% of girls fell within the age bracket 11 – 13 years and 9% of girls interviewed represented 19 years or more. This implies that the greater majority of the respondent had seen their monthly flow more than five times though few girls indicated otherwise as it is their second time of menstruating as indicated secretly to the interviewer. However more than half of the respondents experienced regular flow monthly constituting 75% of the respondents.



4.2.2 Class of the respondents

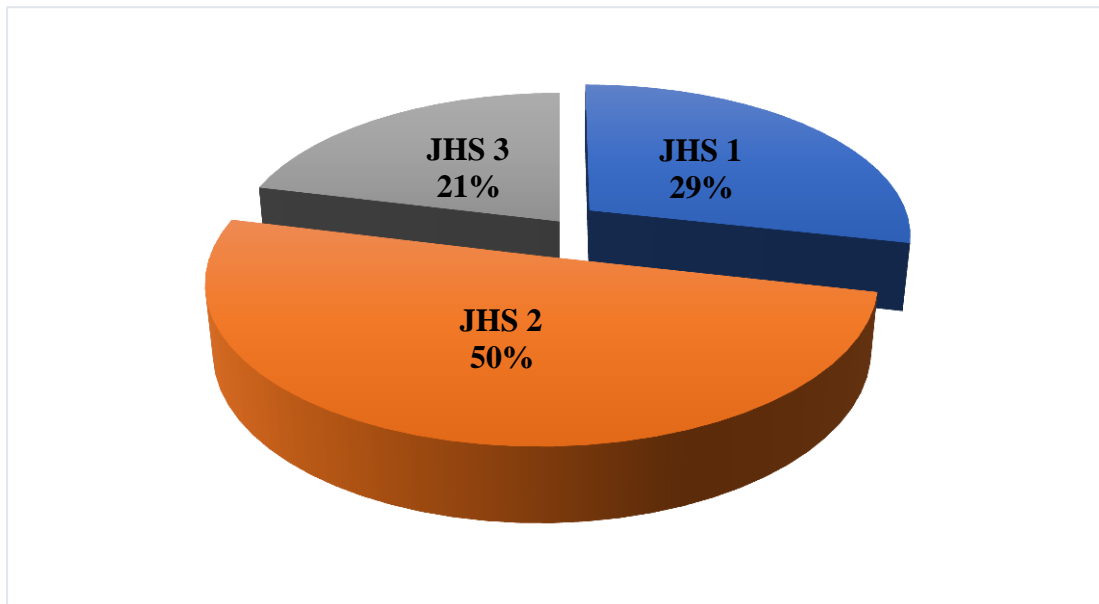


Figure 4: Class of the respondent

Figure 4 shows the class of the respondents across the three universal levels of segregation in the Junior High Schools (JHS) selected. From the selected Junior High schools for the study, 29% of the respondents were in JHS 1 while 50% of the respondents were in JHS 2 and the remaining 21% of the respondents were in JHS 3. It can be realized from figure 4 above that half of the girls in JHS 2 indicated they have been menstruating for some time and so they have in-depth knowledge and experiences when it comes to menstruation. This confirms what one head teacher indicated when asked, why are the JHS 2 outnumber JHS 3 and JHS1? This was what a teacher had to say

“JHS 3 students have been variously recruited for the next examination whiles the JHS1 students have been promoted to add up to the repeated JHS 2 students”.



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This justified why there were more JHS 2 students than in JHS 3. Also, the JHS 3 students were due for examination and the study needed the best students who could motivate the JHS 1 and JHS 2 to learn hard.

4.2.3 Stakeholders Interest in Menstrual Hygiene Management (MHM)

According to Charles (2013), menstruation is the monthly detaching of a female's uterus lining which lasts on the average of about 3 to 5 days and contains blood and tissue that exits her body through the cervix and vagina. Considering mensuration as an unavoidable cycle in the life of every female UN WOMEN, (2014) and its occurrence emerging at an early stage as 11 years, it is imperative that parents, teachers, civil societies and other stakeholders take interest in their hygiene. When asked the stakeholders involved in menstrual hygiene management in the district, Table 2 revealed that the involvement of these stakeholders in girl's menstrual hygiene management in Kumbungu Districts of the Northern region of Ghana.

Table 3: Stakeholders interest in MHM

Stakeholders	Frequency	Percentage (%)
Development Partners	9	6
International NGOs	40	26

Teachers	16	11
Parents	80	53
Civil Society	6	4
<hr/>		
Totals	151	100
<hr/>		

Very small thus, 6% percent of the respondents attributed their ability to manage their menstruation due to the support the receive from Development Partners, 26% of the respondents indicated International NGO (WASH initiative), respondents indicated that Teachers helped in their menstrual hygiene management which constituted 11%. The greater majority of the respondent 53% indicated that parents helped them in their menstrual hygiene management. However, 6% of them attributed their menstrual hygiene management to civil society. Girls are closer and feel secured expressing their “new stage” with their parents. As a result, parents had the highest percentage as stakeholders in Menstrual Hygiene Management followed by international NGOs. When asked if respondents have had any form of education or exposure from their parents concerning their menstrual management, this was what a twelve-year-old respondent said

“My parents thought me well on the management of menstruation and this gives me enough confidence outside the home even if it comes unaware”.



However, the number of students who said they have had some form of education and exposure concerning the management of their menstruation were marginally few and had little or no impact on the remaining students' girl population who had no such exposure from their parents.

4.2.4 Duration of menstruation in years among adolescent girls in the selected School.

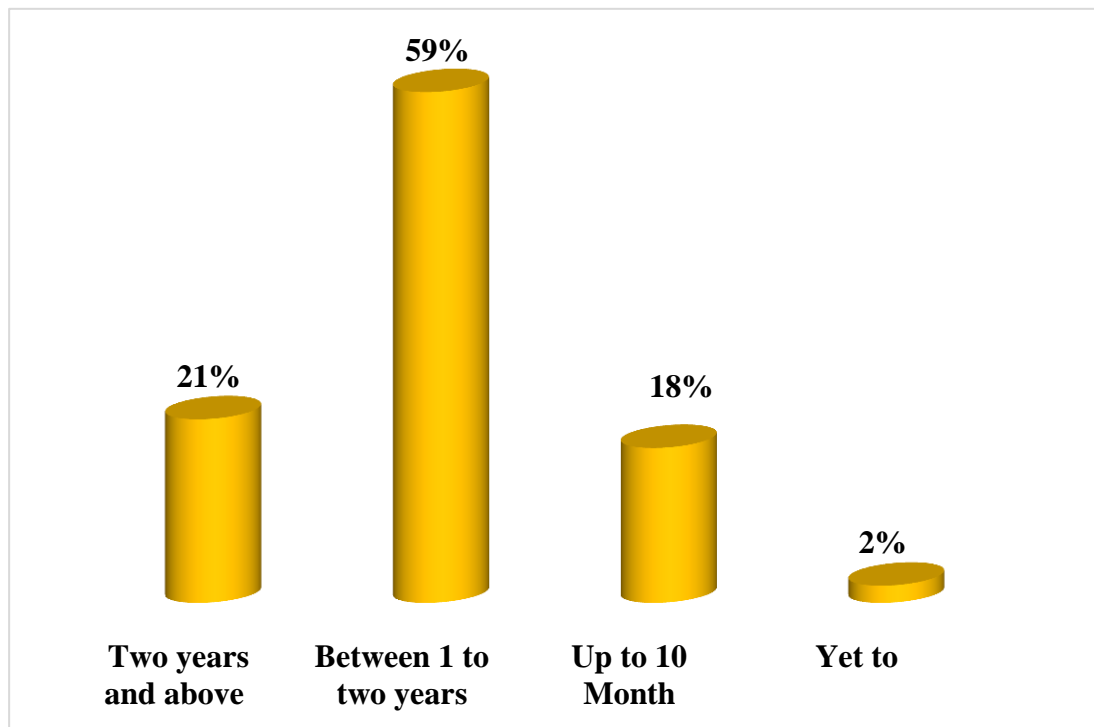


Figure 5: Menstrual duration

Figure 5 revealed Respondents duration of menstruation in years. Twenty one percent (21%) of the respondents had experienced their mensuration for the past two years and beyond. They constituted few of the respondents who were in JHS 3 and the well matured students among the sample population. Fifty nine percent (59%) of the respondents had their menstrual period up to two years and consisted of the greater majority of the respondents who were in JHS 2. This was what a fifteen-year-old one JHS 2 respondent said

“it is now normal for me and I have accepted it as part of womanhood because it is inevitable”.

Eighteen percent (18%) of the respondents said they have experienced menstruation for just ten months and were the majority in JHS 1. The least component 2% were yet to have menarche and constituted the very young ones who were also in JHS 1. The twelve-year-old respondent explained the role of parents and especially mothers in educating and also providing menstrual materials even before it occurs. It is obvious that even though parents are crucial in providing the needed education, the mother is seen as central in the provision of the necessary sanitary materials.



4.2.5 Does culture, religion and social norm influence you during menstruation

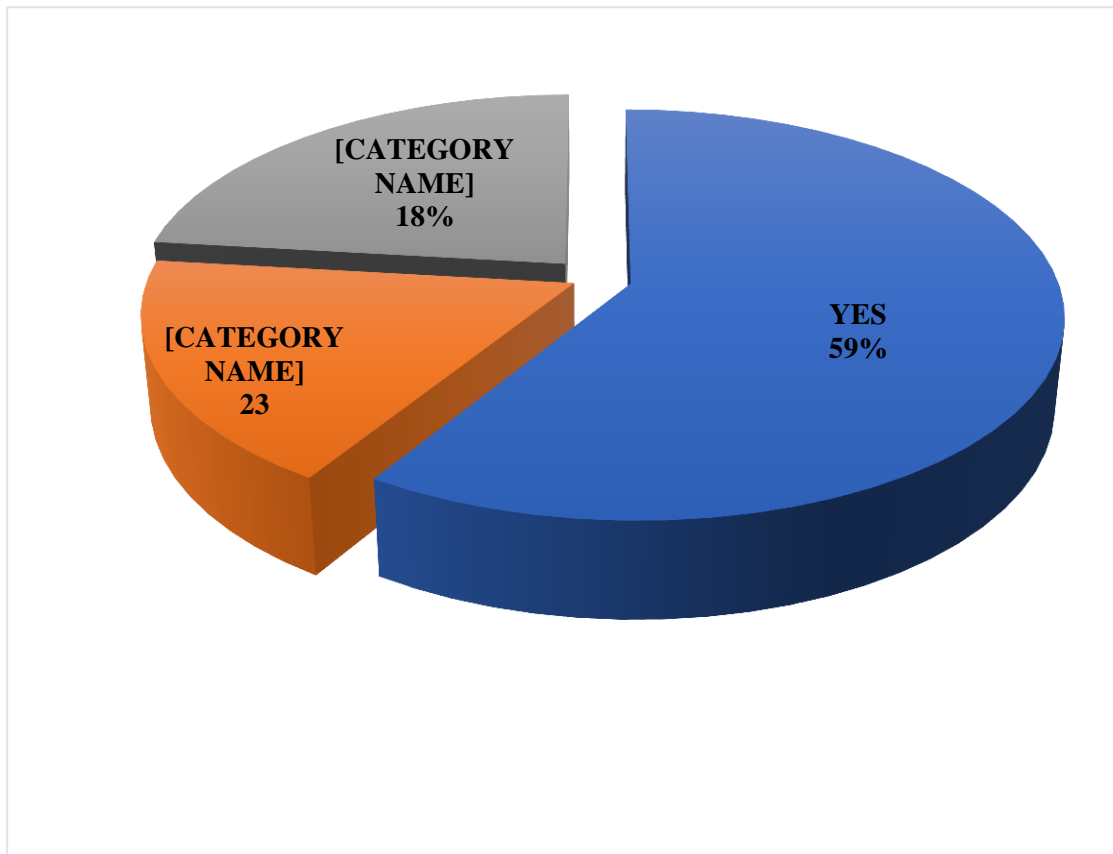


Figure 6: Do culture, religion and social norm influence you during menstruation

In some instance, girls are “restricted” or “prevented” from participating during social gatherings, religious activities and other societal norms when they are menstruating.

Information on such situation was retrieved from the interviewees and is as shown in Figure 4. In affirmation of the situation, 59% said culture, religion, and social norms have an influence on their relationships with some cultural practices during menstruation while 23% said there were no such influences because people see it normal and difficult for one to determine when girls menstruate currently. Meanwhile, 18% of the respondents have no knowledge about whether or not religion, culture and social norms does influence them during menstruation.



4.2.6 Religion of the Respondents

Table 4: Religion of the respondents

Response	Frequency	Percentage
Christianity	61	40%
Islamic	83	55%
Traditional	7	5%
Total	151	100%

Table 4 shows the religious affiliation of respondents. Fifty-five (55%) of the respondents were in the Islamic religion and this was in accordance with the regional breakdown of religion. Forty (40%) of the respondents were Christians while 5% were traditionalists. These religions and their religious beliefs combined was spread among the study population. However, it was deduced from the study that respondents had diverse views on the concept of menstruation which to some extent affected its management among them. This was why several adolescent girls and women have challenges when it comes to safe management of their periods in developing countries due to persisting cultural and historical factors (taboos) and religion. A Muslim parent had this to say



“it difficult for my young girl to accept why she cannot pray during menstruation because her Christian friend does during her period”.

The daughter is confused about why she is not allowed to pray to God during menstruation when the same God allows Christians to do so. This is how religion affects the perception of menstruation.

4.3 Objective one; The nature of menstrual hygiene management among adolescent girls in public schools.

4.3.1 Hygienic practices girls engage themselves in during menstruation

Against the literature reviewed, respondents were asked about practices during menstruation including number of times they bath during menstruation, hand washing, trimming fingernails and changing of menstrual materials (pads and panties). Figure 7 gives a summary of the findings:

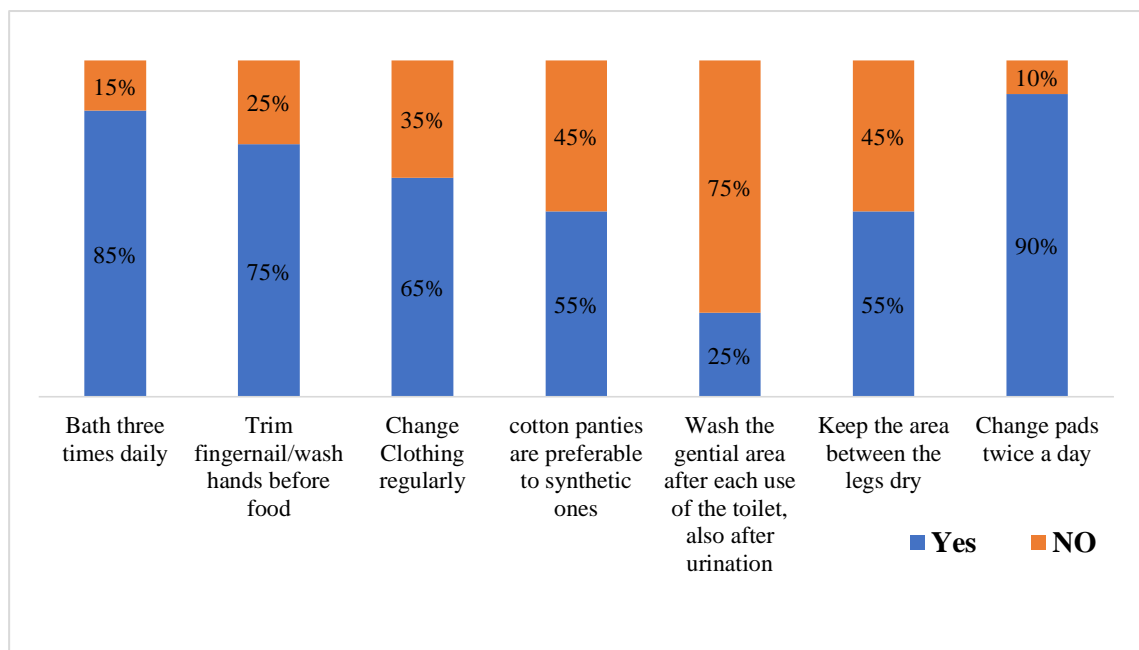


Figure 7: Hygienic practices girls engage themselves in during menstruation



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The greater majority of the respondents (85%) indicated that bathing three times daily is crucial during menstruation. Respondents however noted challenges even though the overwhelming majority of respondents (85%) have knowledge about the standard of bathing during menstruation; the school environment presents some challenges in practice. Felicia, a 16-year-old JHS 2 female complained as follows:

“From day one I was made to be aware that a time will come for me to bath three times daily but it’s very difficult currently because we have less facility in our school to permit the menstruating girl to bath in the afternoon away from home”.

Felicia’s observation seems to be a common complaint. The school environment lacks the necessary facilities such as privacy, toilet facilities among others for meeting the needs of girls during menstruation.

However, 75% of the respondents had it that there was a need for them to trim fingernails/wash their hand well before eating. The remaining 25% said that indeed you cannot eat without washing hands so they do not see it as menstrual practices besides it’s a requirement for all to trim fingernails and wash hands before food. On the other hand, changing cloth regularly was another best practice that were assessed by the students. More than half of the respondent 65% said that it was such a good practice. For instance, some girls indicated in an open forum that the smell that sometimes emanates from there is quite bad hence there was the need for constant regular change of menstrual materials (pads and panties) during and after menstruation. The remaining 25% said that school uniforms are inadequate for girls because the maximum may be two hence there was no need for such cloth continuous cloth changing.



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Also, 55% of the respondents indicated that the use of cotton panty instead of synthetic ones because it is easy to wash with or without stains and also allows free flow of air in and out and around the genital area. The remaining 45% had no reason to a specific pant type to be used as they still depend on their parents for underwear. Twenty-five (25%) of the respondents said that their genital part was to be clean after each use of the Washroom due to its openness to germs. Conversely, more than half of the respondent (75%) responded that it was really a difficult task because of inadequate materials available in schools and financial challenges because as you wash there is the need to change the pad. Conclusively, it was revealed by the greater majority of the respondents (90%) that pad was to be changed twice daily.

4.3.2 Are there available WASH materials in your School?

Good hygiene during menstruation is very principal as bacterium may find their way into the body during menstruation especially changing pad and where to ease oneself. Table 5 shows WASH materials available in respondents' schools. More than half of the respondent (73%) indicated that there were no WASH materials in their school. The absent of the availability of WASH materials in many of the basic schools makes it very difficult for menstruating adolescent to stay in school for lessons while seeing their menses as they cannot have the needed materials to keep themselves safe from staining and also comfortable to participate affectively in school lessons and activities. The non-availability of changing rooms purposely for menstruating adolescents to change when catch unawares contributed significantly to why menstruating girls prefer to stay at home and manage their menstruation to stay in school. This was what a 15-year-old in JHS 3 said



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“I walked home crying when I first menstruated because there was no WASH materials and facilities to access and I thought I was going to die because my mother did not indicate to me the exact quantity and nature of blood that may come”.

The remaining 27% outlined that there were some available WASH materials in their schools. The availability of WASH materials to use during menstruation while in school by the adolescent girls accounted for the reason why they stay in school and participated in school lessons and activities even whenever they were in their menses. This was what one of the respondents (a 12-year-old) JHS 1 said

“As for me, although I was catch unawares in school for my first menarche, I was not shamed because my school had some WASH materials available for use for such critical times so, I quickly went and changed and came back to the classroom for lessons”.

Table 5: Are there available WASH materials in your school

Responses	Frequency	Percentage
NO	110	73%
YES	41	27%
TOTALS	151	100%



4.3.3 WASH material types available in your school

The students were asked on the existing WASH materials available for use in their schools during menstruation. As shown in Figure 8, it was revealed that potable water supply was a challenge in the school as indicated by more than half of the respondent thus 55%. The remaining 45% indicated that there was a reliable supply of water in their school which helps them greatly when menstruating.

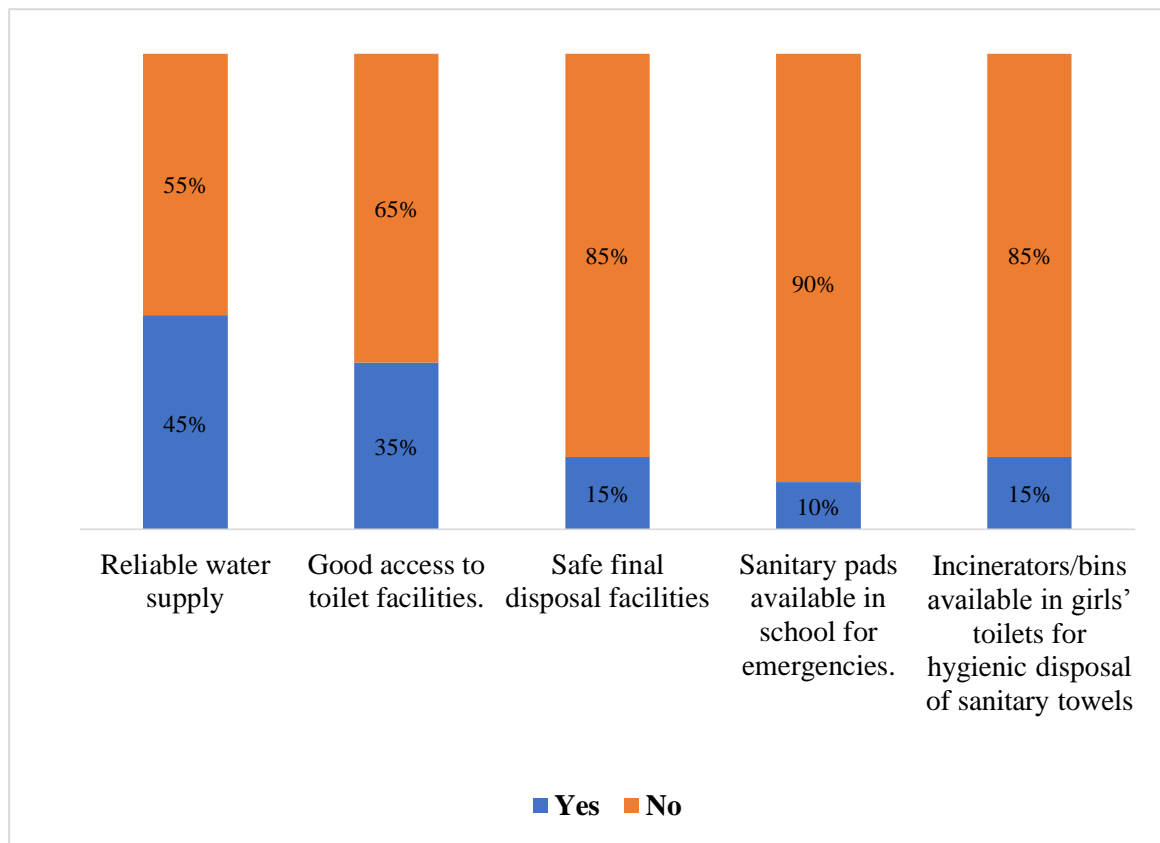


Figure 8: WASH material types available in your school

This was what a 14-year-old respondent in JHS 2 had to say

“Water is essential but its supply in the district is a challenged due to the existing of dry well and boreholes during the dry season which affects menstrual hygiene management in schools”.



Even though female respondents were knowledgeable about the essence of using clean water during their menstruation, the findings suggest that most schools lack reliable water supply. This challenge was cited as a major factor responsible for the yearning gap between knowledge and practices related to menstrual hygiene management.

Figure 8 revealed that 65% of the respondent indicated that there was poor access to toilet facilities in the selected schools. This was what an 11-year-old respondent in JHS 1 had to say

“It is really difficult to change and organize yourself because whiles wasting time on the toilet facility another female student will be getting ready to use it for another purpose (defecation or urinating)”.

The lack or inadequate separate toilet facilities for both girls and boys presented a change to menstruating adolescents to feel safe and comfortable to use the shared facilities to change during menstruation and even to use it to defecate. This and other reasons compelled adolescent girls to resort to staying away from school or absenting themselves from school each month in order to safely and comfortably manage their menstruation in their respective individual homes.

Also, with safe final disposal, 85% of the respondent said that their school had improper disposal facilities whiles the remaining 15% said that there were accessible disposal methods and facilities. This was what a female teacher said in an interview

“Adolescent girls have no option than to put their sanitary pads in the few available dustbins in the school...because we do the burning system of managing



waste, boys who are assigned to these areas of work weekly complain about the unclean and difficult burning of refuse with such bloody sanitary pads”.

This assertion substantiated further the gender issues and perceptions that surround menstruation. The perception that menstruation is secretive and women issue alone affects the way menstruating adolescent girls manage their menstruation in the midst of boys especially in the school environment. It is perceived that boys should not see or come into contact with menses or menstrual pads of girls most especially used ones. As a result, menstruating girls tend to keep their menstruation secret and do not seek for help especially from their male counterparts even if they do not have the experience to manage it on their own. This further compound their lack of knowledge and understanding on the subject matter making it look very difficult to handle. In most of the schools, it was revealed that menstruating girls do not seek help and do not even feel free to talk to male Teachers who are in charge of menstrual hygiene issues in their schools.

The overwhelming majority of the respondents (90%) complained that they were no sanitary pads available for ease of access when the need for changing arises. Even where available, the question of affordability was also raised. However, 10% of the respondents indicated that they had one box of sanitary pads every term for emergency use. Another related issue was the available of bins for easy disposal of used sanitary pads as well as the problem of getting soap for proper hand washing and general body cleaning during menstruation. In one of the focus group discussions, the respondents advocated for the availability of water and soap close to their toilets. This was what they said



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“They should put water and soap on our toilets facilities because often at times our water taps are sheltered even if a student wants to clean him or herself”.

4.3.4 Privacy for changing oneself during menstruation

When the respondents were asked if there are designated private places for them to comfortably change their menstrual materials during menstruation while in school, 68% of the respondents indicated that there were no private place (s) for them to change during menstruation while in school. This meant that menstruating adolescent girls have no choice rather than to stay at home to manage their menstruation each month. The absent of availability of private places in the schools for even emergency menstruation where menstruating girls could easily change their menstrual materials and even safely dispose them without their male counterparts noticing is quite challenging and problematic for these adolescent girls to stay in school and feel safe, secure and comfortable hence, they choice to absent from school for the duration of the menstruation and only come back to school when topics treated during their absent are not repeated for their benefit. This was what transpired in a focus group discussion in school C which was crucial

“We either walk home with shame or devise some means to stop the blood from flowing by using things like a handkerchief, paper, socks among others... just to make sure that our boys do not see anything like that”.



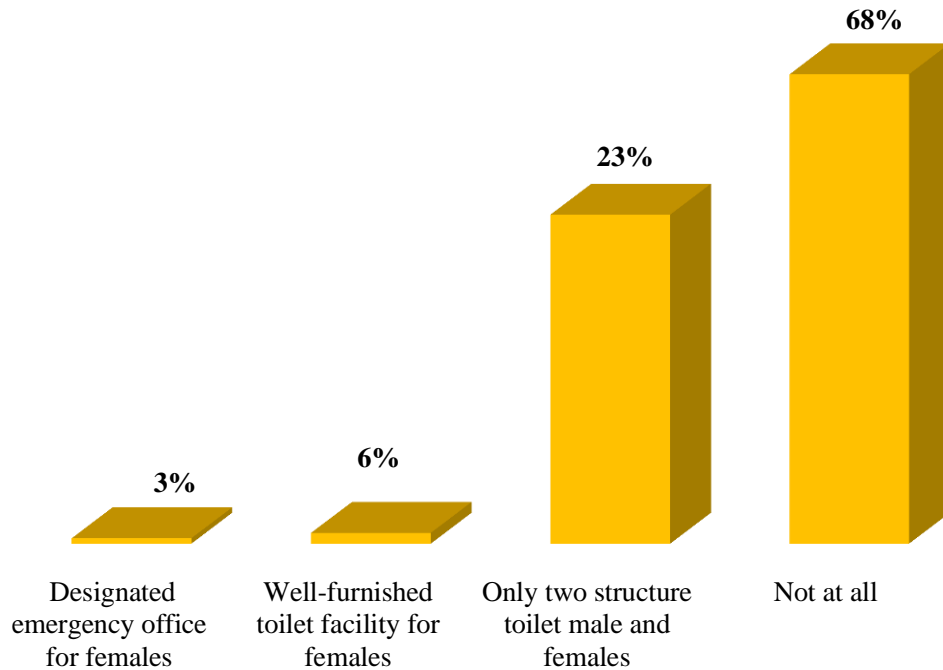


Figure 9: Privacy for changing oneself during menstruation

Also, 23% of the respondents indicated that there was only two structures male and female toilet facility for use. This was common and universal in most basic schools in Ghana and affects the hope of MHM in basic schools. An interview with a 12-year-old JHS 2 respondent revealed this

“Our conditions as girls and future leaders of this great country of ours are not respected by GES or the Government and even our PTA...at this point we should have been given a very decent facility that will help us manage this ‘Monthly bills’ well whiles in school...and I know it could go a long way to reduce absenteeism...Offer lavatories where adolescent girls can clean up because our boys can come and open the door of the toilet without knocking the door when you are in the process of cleaning yourself”.



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This situation or experiences make menstruating girls feel unsafe and unsecure and uncomfortable to use the shared toilets facilities in the schools with their male colleagues for either defecating or for changing their menstrual materials during menstruation hence, they stay home to do so at the expense of class lessons which has the potential to impact on their future potential and development.

Few (6%) indicated that they had good facilities in their schools. This was attributed to NGO intervention and their old existing HIPIC facility has been given to the boys. It was deduced that these schools had strong female teachers. Lastly, 3% of the respondent indicated that they had designated office to face such emergency but not very comfortable when using because the male students always find out after coming out of the room which sometimes affects them emotionally.

4.4 Objective Two; Risks practices adolescent girls engage in when menstruating

4.4.1 What influences you to engage in risky practices during menstruation

Table 6 revealed that 29% of the respondents indicated that the lack of supporting school staff has influenced students to engage in some risky practices. This was what one Focus Group Discussion unveiled

“Teachers do not see it as part of their work to engage student on how to manage menstruation except some cared science teachers and few of them who will want to share willingly”.

Twenty two percent (22%) of the respondents mentioned poor menstrual information as one of the reasons why they engage in risk practices during menstruation. As menstruating adolescent girls do not adequate access to information on menstrual hygiene management, they engage in risk practices during menstruation in order to



manage it on their own without knowing that these are detrimental to their own health and to the health of the general society. An interview with 15-year-old JHS 3 girls' perfect revealed that

“The mentality outside that teachers helps us in our quest of managing menstruation is far false... teachers only talk about it when they come across it when teaching some courses such as Science, Religious and Moral Education”.

Menstruating girls do not get the needed information and support from their teachers which could help them understanding the risk practices they engage in and the consequence thereof as well as how to properly manage their menstruation hygienically.

Table 6: Risky practices during menstruation

Risky Practices	Frequency	Percentage
Lack of supporting school staff	29	19
Poor menstrual information	32	22
Poor family support	12	8
Limited access to affordable and hygienic sanitary materials	53	35
Religious cultural and historical factors (taboos),	5	3



Disposal options	20	13
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Total	151	100
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8% indicated poor family support, 35% indicated limited access to affordable and hygienic sanitary materials, they explained that they needed to deduce some mechanisms to prevent them from buying too many sanitary pads. Thirteen (13%) of the respondents attributed it to poor disposable option and the remaining 3% said that religion and cultural factors influenced them to engage in risky practices when managing menstruation.

4.4.2 Risk practices you have engaged in since you started menstruating

Figure 10 shows the various risky practices teen girls engages themselves in during menstruation. Eleven (11%) of the respondents indicated that the unsafe disposal of used sanitary materials. This was what JHS 1 respondent (14 years old) said

“Being a matured girl is one thing ...and managing menstrual materials in public places is another thing... but our school environment offers no better grounds for us to dispose off used menstrual materials whiles in school”.

However, greater number of respondents (40%) indicated that the insertion of unclean materials into the vagina to absorb the menstrual flow was inevitable. This they said is because, many of them cannot afford the so called clean sanitary pads monthly to absorb the menstrual blood hence, they sometimes resort to the use of the so called



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unclean menstrual materials which are easily available to absorb the menstrual blood. This was in confirmation with the fact that many of the adolescent girls confessed that they have inserted the so called unclean menstrual materials into their vagina several times in order to manage their menstrual flow but that they have recently been sensitized and educated by some development partners and they have come to realize how bad it was inserting unclean menstrual materials in their private parts (vagina). Twenty-one (21%) of the respondents indicated the unclean use of sanitary materials as one of the risk practices they engage themselves in to manage the menstrual blood. One of the parents confirmed this by saying

“at first, I use to tell my daughter to cut the old cloth into pieces and use to line her panty each time during her period to absorb the blood because that was the best practice my grandmother taught me ...but she regretted and changed to the use of modern pads because my daughter developed bad odour and irritation each time she uses the old cloth to absorb the menstrual blood”.

The challenge with the affordability of modern menstrual pads to absorb the flow of menstrual blood was eminent in all the schools as the respondents indicated their readiness and willingness to use the modern pads but for lack of money to buy them, they resort to the use of unclean menstrual materials to manage their menses. Many of the respondents who confessed to have used unclean menstrual materials to manage their menses attested to the fact that from time to time, the experience foul or bad odour or smell emanating from their private part (vagina) due to unclean menstrual materials. Besides, skin irritation was also one of the major illnesses they have experienced or they experience anytime they resort to the use of the unclean menstrual materials. Menstruating adolescent girls due to the risk practices they



engage in to manage their menstruation, and the subsequent consequences that follows after their use such as irritation of the skin around the genital area and the bad odour accompanies it, leads to very uncomfortable feeling by the adolescent girls and as such, they absent themselves from school in order to attend to their ill health and as long as it continues, they miss out of important classroom lessons that they cannot get again in the school hence, affecting their academic work.

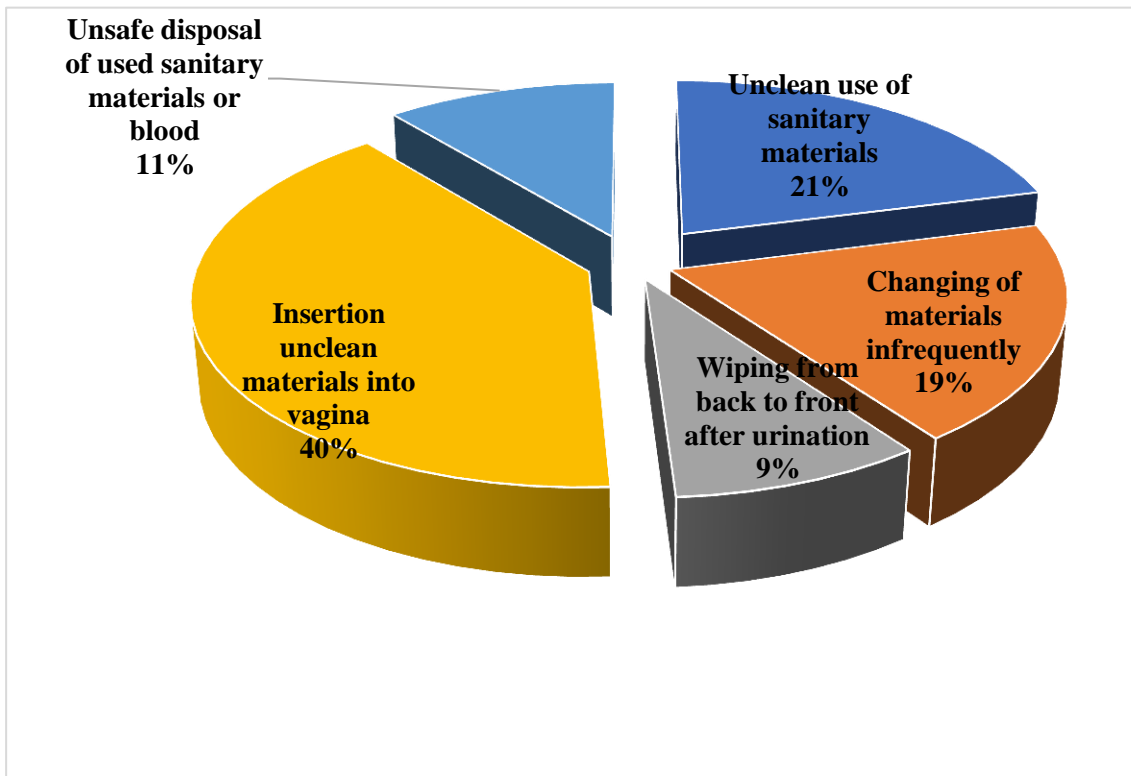


Figure 10: Risky practices engaged in during menstruation

4.4.3 How did you come by such practice as students

Majority of the respondents (59%) said that their friends influenced them to engage in some risky menstruation practices while in school. This was what a 14-year-old JHS 2 adolescent girl had to say



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“My friend told me that she did not allow herself to be laugh at...as for her, she used her handkerchief and paper to hold the blood flow until she left the premises”.

This established that most inexperienced adolescent girls who were menstruating may fall victim to such risky practices as a result of the information and the influence they get from the friends. In one of the focus group discussions, it was further revealed that adolescent girls in basic schools in the Districts are keeping to these old ideas which have been wide spread among them since time long time ago. Respondents themselves indicated that they have engaged in some risky practices during menstruation as a way of managing the menstrual blood flow. One of the respondents in JHS 3 of 15 years old said

“Our level of education on the concept was minimal until I got to JHS 3 where we have severally discussed the concept in Science, Social Studies and RME... I have also gained experience outside of the school and home on modern practices that helps me in MHM”.

It was shown in table 6 that 28% of the respondents indicated that their parents influenced them to engage in some risky practices.

4.5. Objective Three; Negative Impact of Poor Menstrual Hygiene Management

4.5.1 Side effects of risky practices during menstruation

The side effects have affected adolescent girls which were revealed in table 7. The side effects of practices adolescent girls engaged during menstruation were bad dour which was indicated by 58% of the respondents and attributed it to the risky and other



dangerous practices they engage in resulted in this unpleasant smell around some of them.

Table 7: Side effects of risky practices during mensuration

RESPONSES	FREQUENCY	PERCENTAGE (%)
Skin irritation	27	18
Cervical burns	32	21
Bad odor	88	58
Infecting Others with STI or STD	4	3
Total	151	100

Cervical burns and skin irritation had 21% and 18%, respectively were another common problem faced by girls owing to bad practices they engaged themselves in during menstruation. Sexual Transmitted Diseases (STDs) or Sexual Transmitted Infections (STIs) had 3% indicating that respondents are to be more careful on the practices they engage themselves in during menstruation.



4.5.2 Why students miss school during menstruation

Table 8: Reasons why students miss school during menstruation

Variable	RII	Mean of RII	Rank
PERSONAL REASONS			
1. I fear to stain my clothes	0.85		
2. Menstruation can cause pain	0.79		
3. Menstruation cause discomfort from bloating or tiredness	0.66	0.74	2 nd
FINANCIAL CHALLENGES			
1. Fear of higher cost of menstrual materials	0.99		
2. Lack of financial resources	0.77		1 st
		0.88	
SCHOOL ENVIRONMENT REASONS			
1. There is no private place for hand washing or change at school.	0.75		
2. Poor disposable facilities	0.72		
3. Poor waste management	0.74		
		0.72	3 rd



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Table 8 showed that financial challenge had the highest mean of Relative Important Index (RII) of 0.88. This revealed that the financial challenge is a major reason why students absent themselves from school during menstruation. However, almost all the adolescent girls in the study area (99%) indicated that they fear the cost of menstrual materials hence they will stay home and use the few their parents and other family members buy for them. This was supported by a key informant interview with one male teacher,

“In fact, it is difficult to track the level of absenteeism of girls and relate it to their menstruation, but in every ten cases of girl’s absenteeism, a report from them and friends are that they are ‘paying bills’ to nature”.

This was however explained by girls in a focus group discussion that, it was their right to stay at home because some are given one sanitary pad a day and others do not have it at all hence, the best place to be to minimally managed yourself is home.

This, however, justifies why 77% of the respondents indicated inadequate financial resource as a major factor to measure proper menstruation hygiene management hence, they prefer to stay at home for MHM.

Personal Reasons had a second mean of RII of 74%. On a four-point Likert scale 85% of the respondents indicated that **“I fear to stain my self during menstruation”**. This could be attributed to why students stay home during menstruation. This is what one student had to say

“The boys laugh at us ... when you soil your uniform and you aren’t aware. Instead of them letting you know, they call their friends to tell them how you have soiled your uniform which is very embarrassing”.



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It, therefore, means that students' fright of menstrual misfortune and successive mortification from the male mates also reported to affects their school retention and attendance. Several adolescent girls attested to this statement in a focus group discussion. Literature confirmed that adolescent girls fear to stain their school uniform with menstrual blood, abdominal cramps and loss of concentration during school lessons as indicated by (Chin, 2014).

On the other hand, 79% of the respondent indicated that menstruation can cause pain and hence they prefer to stay home when they are in their period. This was what one of the respondents in JHS 2 (13 years old) in an in-depth interview said

“Some male teachers just start harassing us. Sometimes we don't feel like talking and if we hear someone talking it irritate us and causes more pain”.

Menstruating comes with it some pains and discomfort hence, menstruating girls who experience these pains which causes discomfort to them, they tend to stay at home instead of been in school while going through the excruciating pains. Many of the adolescent girls confessed that they do not like talking during their menstruation as it causes more pain and even if people around them are talking, it irritates them as talking adds to their pains.

Furthermore, 66% of the respondents said that Menstruation cause discomfort from bloating or tiredness, hence student may not want to participate in any school activities which to some extent influence why they absent themselves from school.

School environment reasons had the third mean of RII of 72%. On a four-point Likert scale 55% of the respondents indicated that there is no private place for hand washing



or change at school. Hence, they prefer to stay home when menstruating. This was what one adolescent girl of age 12 years old in JHS 1 said

“Boys can peep at you when changing yourself. I feel bad too when boys are reading their books at an angle you were actually feel unsafe when changing yourself because they can easily see you. Boys can even see you from their toilets”.

On the availability of facilities for waste management and control, 72% of the respondents indicated that they were poor while 74% indicated poor management style of waste in the school environment. They further argued in a focus group discussion that, though no one could identify one’s sanitary pad in an opened bin or on open dump, it was embarrassing to see others used menstrual pads hence, they may prefer to stay home and burn their pads after use.

4.5.3 Do you agree that Poor menstrual hygiene management affect your academic performance

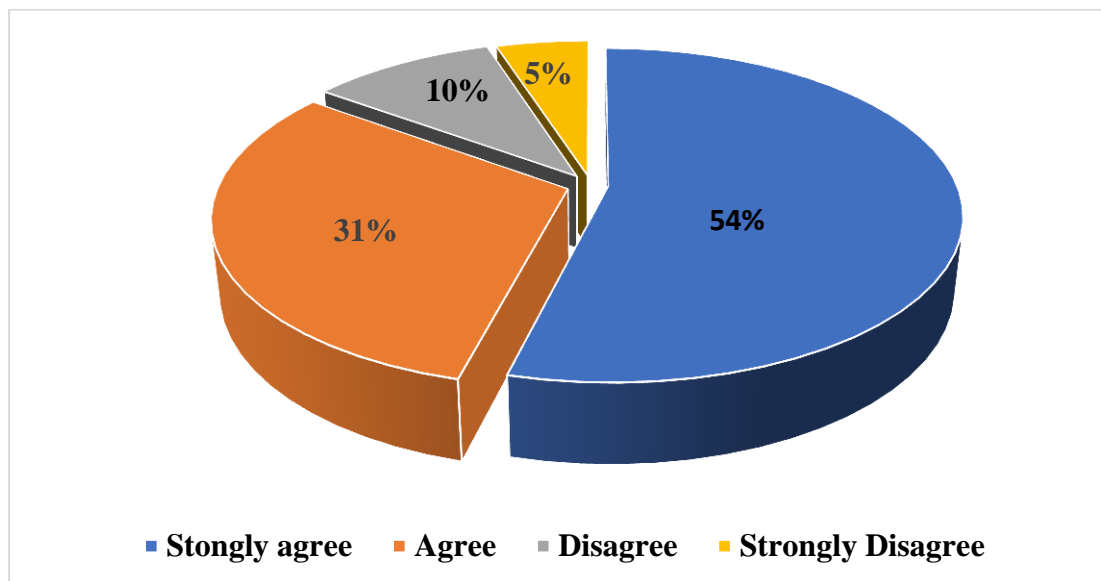


Figure 11: Do you agree that poor menstrual hygiene management affect your academic performance





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Figure 11 revealed that the greater majority of the respondent (54%) confirmed that indeed Poor menstrual hygiene management affected their academic performance.

This was what a 13-year-old adolescent girl in JHS 2 had to say

“our teachers do not go back to explain to some of us who are absent from school during menstruation, our time spent on school do not also permit us to get detailed explanation from our friends... this really affect us because some topics are built on the other”.

The lack of WASH facilities for adolescent girls to safely and comfortably manage their menstruation while in school, majority of them if not all, choose to stay at home and manage their menstruation rather than stay in school. These adolescent girls miss out of classroom lessons taught in their absent and do not get the opportunity to be taught by their teachers on those topics coupled with their friends inability to detailly explain to them hence, it affects their academic performance in class and their understanding in subsequent and related topics as the topics are built on each other.

It was further revealed that 31% of the respondents confirmed that they agree to the assertion that they were affected academically due to poor menstrual hygiene from themselves, parent and their School. Ten (10%) of the respondents indicated that they disagree to the assertion that poor menstrual hygiene management influences their academic performance and the remaining 5% also expressed that they strongly disagree to the assertion that poor menstrual hygiene management affected their academic performance.

4.6 Conclusion

This chapter examines the relevant demographic and socio-economic characteristics of the respondent related to the study contextually and relevant themes emanating from the objectives of the study. The themes are Hygienic practices girls engage themselves in during menstruation, available WASH materials, WASH material types, Privacy for changing oneself during menstruation influential to push students to engage in risky practices during menstruation Risk practices they engaged in, how they were introduced, Side effects and how it impacts on their education.



DISCUSSION OF RESULTS

5.1 Introduction

This chapter hinges on the discussions of the results of the information obtained from the field and the literature that shaped the thought of the idea. This chapter is divided into relevant themes that are linked to the topic under consideration as presented in chapter four (4).

5.2 Socio-demographic characteristics of respondents

The result on the respondent age implied that the greater majority of the respondent had seen their monthly flow more than five times though few girls indicated otherwise as it is their second time of menstruating as indicated secretly to the interviewer. However more than half of the respondents experienced regular flow monthly constituting 75% of the respondents. On the Stakeholders interest in Menstrual Hygiene Management, numerous stakeholders including international organizations showed their contributions as revealed by the study.

For instance, Charles, (2013) indicated that menstruation is a monthly detaching of a female's uterus lining which lasts for an average of about 3 to 5 days and contains blood and tissue that exits her body through the cervix and vagina. Considering mensuration as an unavoidable cycle in the life of every female UN WOMEN, (2014) and its occurrence emerging at an early stage as 11 years, it is imperative that parents, teachers, civil societies and other stakeholders take interest their hygiene.





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However, the study confirmed in the literature that socio-cultural factors (culture, religion and social norm) influence you during menstruation. Sommer, et al., (2013) assessed that, the beginning of menstruation which marks the entering of fertile age of the teenage girls affects their socialization with family and community and often has a significant impact on their education.

5.2.1 Hygienic practices girls engage themselves in during menstruation

Findings suggest that the school environment is hardly supportive for girls in their menses. Inadequate toilet facilities, privacy, flowing water among others were reportedly limited.

Literature suggest that Women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in private as often as necessary for the duration using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials is crucial' (Sommer, et al.,2013).

Because some girls lack the requisite skill to know the exact day of their menstruation it was proposed by the young girls that facilities available must be raised to standard to support them. This was in line with WHO, (2014) claim that Menstrual blood is considered unclean hence there is the need for appropriate hygienic practices after cleaning with the hands and standardized facilities in schools.

5.2.2 Available WASH materials in schools

In 2014, Ghana was selected from 14 countries to partake in research on advocacy and capacity building on MHM through Water, Sanitation and Hygiene (WASH) initiative in schools. The aim of the research was to understand the relationship

between school girls under the WASH program and school girls who were not on it. It also sought to bring out the challenges school girls go through during menstruation and find lasting solutions to the challenges confronting adolescent girls during menstruation.

Literature did not point out any particular interest to the water, sanitation and hygiene (WASH) sector, which has taken leadership on menstrual hygiene management in many developing regions of the world (Sommer, et al., 2016). Hence this implies that WASH NGOs should expand their operational activities to the Kumbungu Districts of the Northern Region of Ghana. This is because there is a connection between MHM and current SDG6 monitoring and improvements in menstrual health hence when appropriately spread could trigger the achievement of SDG 6. This, therefore, confirmed the argument of Loughnan and colleague's proposal on applying existing WASH indicators as proxies for measuring inadequate menstrual hygiene (Loughnan, et al., 2016).

It was therefore deduced from the study that teen girls lack the requisite education on the management of menstruation hence there is the need to intensify WASH activities in the Districts. This proves why the WASH United has developed a menstrual hygiene management curriculum to educate girls about taboos on Mensuration, hygiene, and reproductive health through the use of an approach of fun, games and positive communication. The curriculum is designed for the training of teachers as well as adolescent girls and boys.



5.2.3 WASH material types available in your school

It was deduced that Ghana education service in collaboration with international organizations must use the planning standards to establish facilities which ease pressure on the pupil. Hence, there is also the need for the establishment of the MHM facility for girls and even female teachers for emergency and further training to girls who will be menstruating. Hence will help reduction in disease transfers, improve students stay on campus during menstruation and reduce bad odor on girls after cleaning. Hence the fear of menstrual accident mutually and succeeding mortification from some section of our class boys recounted the effect of school attendance and retention.

5.2.4 Privacy for changing oneself during menstruation

It was deduced from Figure 7 that there was really no better place for girls to clean and change when menstruating in schools. This affected negatively the management of menstrual Hygiene by adolescent school girls. This contributed significantly to adolescent school girls staying away from school during menstruation. The provision of changing rooms or places of privacy for menstruating girls to change while in school will not only help the girl child but will go a long way to educate some parent that are not educated in the district on the management of menstrual hygiene in the Kumbungu District. However, mandated stakeholders must provide the necessary facility and education for teen girls on how to manage themselves with the existing facility and the need for them to wait on them calmly for the new improved facility.



5.2.5 Risky practices during menstruation

The finding is that, menstruating girls finds it difficult to cope especially in the school environment. In the literature, many adolescent girls in developing world often scuffle to obtain information on menstruation due to poor supporting school staff and family members to discuss these issues with (Muito, 2004; Mason, et al., 2013). This has necessitated numerous health risks to which adolescent girls are predisposed as a result of improper hygiene practices during menstruation. This entails that GES must establish counseling units in every basic school in Ghana and with other challenges education could be offered to students on some sensitive information, especially on girls. It was also deduced that open forum discussion with teenage girls in the selected schools is limited and has duly affected their way of managing menstruation. However, for a proper MHM, there is a need for GES to include this whole concept into their Physical Education periods.

5.2.6 Risk practices respondents engaged in since you started menstruating

In some contexts, this theme is in line with UNESCO (2013), that natural materials such as mud, leaves, dung or animal skins are used to manage the menstrual flow. Young adolescent girls and women are often less prepared for menstruation and its further management. Also, they agonize from apprehension, or fear, and shameful during their period of menstruation which further render them to engage in uncounted risky practices (Budhathoki, et al., 2017). This implies that the open disposal and burning system of waste in schools must be relooked to provide a good avenue for teen girls in junior high schools to feel free to manage their used menstrual materials instead of putting in their bags. Also, parent indeed have a role to play in helping girls to know what is good and bad during menstruation and support them to engage in





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good menstrual hygiene management practices to promote their own health and the health of the general society at large.

Clean menstrual hygiene management materials must be kept in clean areas on the body as well as organizations providing menstrual hygiene management education and materials for teen girls who have reached their menstruating age. For instance, materials like pads and toiletries, medicine must be provided by helping adolescent young girls who get painful cramps during their periods to moderate absenteeism to promote retention. This study confirms Miiro, et al., (2018) study which emphasized girls' education as not only undermined by absenteeism from school but absent from lesson and it's positively related to monthly periodic menstruation.

5.2.7 How did you come by such practice as students

The study found that there are already existing social and cultural taboos which impact on the management of menstruation by young adolescent school girls. This is backed by the literature which explicitly explains that, there are already existing social taboos and some traditional limitations whiles menstruating. This means that handling menstruation is a grander task because adolescent girls lack the requisite information (Adhikari, et al., 2007). There is also restricted admittance to procreative well-being amenities and benign menstrual hygiene materials during such ill fortunes among adolescent girls (Anwar, et al., 2011). It was deduced from the literature that some other sources of information teen girls depend on motivates them to indulge in some risky practices during menstruation.

Whereas some did not want to expose parent as deduced from Table 6, the researcher probed adequately for the young adolescent girls to understand the differences

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between the modern and old practices that were exposed to them at home by their parent. Indeed, this justifies why the study was not only benefitting the young adolescent school girls but they also became information carriers to their sisters, mothers and others at home. This was in line with Miiro, et al., (2018) which indicated that the inadequacy in the knowledge of menstruation was largely indicated from guardians' (parents) disentanglement regarding good information on puberty, menstruation and its associated risk and sexual education

Kirk & Sommer, (2006) study concluded that the outcomes of unhygienic menstrual practices are commonly due to the use of the dirty sanitary facility, absence or poor hand washing skills, improper genital washing during menstruation, and cultural practices. This supported the claim of Rupali Patle, et al., (2014) that lack of knowledge and poor personal hygienic practices during menstruation can lead to various genital problems in the reproductive life of girls as revealed in the study. This, therefore, implies that young school adolescent girls if not well sensitized and educated, can engage in doing anything to survive this period in their natural development.

5.2.8 Why students miss school during menstruation

It was deduced from the study that menstruation stigma becomes obstructions to adolescent girls learning process among the respondents who though had access to adequate menstrual hygiene materials at their disposal. This humiliation, as occasioned by teasing from classmates (boys) for appearing in school, and also some male teachers are gender callous, as well as other non-teaching staff. However, gender-insensitive infrastructure at schools had a limiting challenge on female attendance and retention during school section. This confirmed Yagnik, (2015) study





that about 95% of Ghanaian girls do not attend school during menstruation, while 53% of girls in Nairobi, Kenya, and 51% of Ethiopian girls absent themselves from school mostly as a result of the absence of sanitary resources in schools.

5.2.9 How poor menstrual hygiene management affect academic performance

The finding of the study suggests that, the academic performance of young adolescent school girls is negatively affected as they absent themselves from school during menstruation due to lack or inadequate menstrual hygiene management facilities and school environments. The study found out that menstruation school adolescent girls miss important lesson during menstruation and they are not taken through these topics again hence, their understanding of the subsequent topics is affected negatively as many of the topics are built on others. According to Lahme and Stern, (2017) menstruation is both a public health concern that requires hygienic management and a human rights issue that demands dignity and health and therefore affects numerous processes of development for future and current generation when left unchecked. However, menstruating teen girls or women are protected by multiple human rights laws and norms under state-mandated institutions. For example, the Universal Declaration of Human Rights (UDHR) indicated that “all anthropological beings are born to be free and equivalent in self-esteem and privileges” (UN, 1948).

Worldwide, it is acknowledged by several researcher works that, adolescent girls in low- and middle-income countries struggle in managing their menstruation especially in school environments. It is also established studies conducted menstruation that due to lack or inadequate menstrual hygiene management facilities and the like in low- and middle-income countries, adolescent school girls academic performances are affected negatively due to girls staying at home in order to proper manage their

www.udsspace.uds.edu.gh menstruation while missing out on lessons during each monthly cycle. This is in confirmation with the study finding which suggest lack or inadequate WASH facilities in basic schools in the Kumbungu district of the Northern Region of Ghana. Many of the basic schools suffer from adequate WASH facilities and on the job training for teachers on how to handle adolescent girls who are menstruating. The provision of WASH facilities in basic schools to help adolescent manage their menstruation hygienically while in school was one of the regularly resounded plead by adolescent students. Partakers often and predominantly jagged on the view for the provision of menstrual hygiene management necessities for such a steady supply of potable water, soap, tissue and some sanitary pads to basic schools.



SUMMARY, CONCLUSION, AND RECOMMENDATIONS

6.1 Introduction

This chapter summarizes the entire work into themes of findings, conclusions, and recommendations. This chapter firms the linkages between the findings of the study and that of other studies. This chapter also concludes in all the aspects of the study and the policy recommendation made by the researcher. Though the recommendations are not binding on the mandated institutional structures, they may yield fruitful results if implemented by the authorities and other relevant stakeholders interested in the management of Menstrual Hygiene among basic school girls in Kumbungu Districts of the Northern Region of Ghana.

6.2 Summary of major findings

This study found that perceptions and practices of menstrual hygiene management among Basic School girls in the Kumbungu District were bad and misleading. Socio-economic status of the adolescent girls influenced menstrual hygiene practice relative to the extent of poverty and civilization rooted in their culture. Notwithstanding some girls in the District used clean disposable sanitary pads as the means of absorbing menstrual blood and attested that there were some WASH materials available in their school. It was found that the knowledge of menstruation among the adolescent girls was averaging because they hardly get good information from the school, parent and tend to rely on a friend which could be good or bad as far as their health status is a concern.



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The socio-demographic characteristics discussed issues of respondents' age, class, menstruation duration, and religion. Figure 4.1 reveals that data on age were gathered to attest the credibility of the respondents in terms of their level of maturity and menstruation periods. A greater majority of the respondent 75% was between the ages of 14-18 years. Whereas 16% of girls fell within the age bracket 11 – 13 years and 9% of girls interviewed represented 19 years or more. The respondent revealed their class level thus 29% of the respondent was in JHS 1, 50% of the respondents were in JHS 2 and the final year students were 32 girls covering 21% of the respondent.

On the level of stakeholder's involvement in basic school girl's menstrual hygiene management in Kumbungu Districts of the Northern region of Ghana. 6% percent of the student respondents attributed their menstrual hygiene management to Development Partners, 26% of the student's respondents indicated International NGO (WASH initiative), Teachers had 11% and parents had 53%. 6% of them attributed their menstrual hygiene management to civil society.

On how long respondents have been menstruating, 21% indicated that they have experienced their mensuration for the past two years and beyond which constituted the few respondents who were in JHS 3 and those grown students among the respondent's population in the selected sample for the population. 59% of the respondents had their menstrual period up to two years and consisted of the greater majority of the respondent who was in JHS 2 and JHS 1.

On how norms and culture affect the practice of menstrual hygiene management, 59% said culture, religion, and social norms have an influence on them during menstruation, 23% said there were no such influences but the remaining 18% of the respondent has no knowledge about the subject matter at all. The religious affiliation





of respondents, 59% of the respondents were in the Islamic religion and was in accordance with the regional breakdown of religion. (40%) of the respondent were Christians while 7% was a traditionalist which were other religious believes combine and spread among the study population.

As a component of objective one, Hygienic practices girls engage themselves in during menstruation was assessed. The greater majority of the respondent indicated that the practice of bathing three times daily was a requirement by every menstruating girl. 85% indicated yes to that assertion whereas 15% indicated otherwise as bathing twice daily. On the other hand, changing cloth regularly was another best practice that were assessed by the students. More than half of the respondent 65% said that it was such a good practice.

Respondent was further probed if there were available WASH materials in their school more than half of the respondent 73% indicated that there were no WASH materials in their school. The remaining 27% outlines that there was available wash material in their school. However, on the It was revealed that potable water supply was a challenge in the school as indicated by more than half of the respondent thus 55%. The remaining 45% indicated that there was a reliable supply of water in their school which helps them greatly when menstruating. Also, 65% of the respondent indicated that there was poor access to toilet facilities in their school.

With the remaining 35% indicating a limited number of facilities in relation to WASH. With safe final disposal, 85% of the respondent said that their school had improper disposal facilities while the remaining 15% said that there were accessible disposal methods. The study further revealed 90% of the respondent indicated no to sanitary pads availability in schools for emergency while the remaining 10%

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indicated that they had one box every term for an emergency. However, 85% indicated that they had no bins in their toilet facility which affected MHM. On the issue of privacy for changing oneself in school during menstruation, 68% of the teen girl's respondent said that they had no private places or place in their school to offer them the grounds to change themselves.

Objective Two seeks to address the Risks practices adolescent girls engaged in when managing menstruating in schools. To know the influential factors that make them engage in risky practices, 29% of the respondents indicated that the lack of supporting school staff has influence students to engage in some risky practices. 22% outline poor menstrual information and 35% indicated limited access to affordable and hygienic sanitary materials. This made them to engage in some risky practices in the District. 21% of the respondents indicated the unclean use of sanitary materials as part of the risky practices they engage themselves in.

However, the greater majority of the respondent 40% indicated that insertion of unclean materials into the vagina was used to be inevitable. On their sources of knowledge on the practices they engage themselves in, a greater majority of the respondent 59% said that their Friends influences them to engage in some risky practices while in schools. And also 28% of the respondent indicated that their parents influenced them to engage in some risky practices.

Objective three seeks to address the negative impact of poor menstrual hygiene management on the pupil in the school selected for the study. With the effects of risky practices, respondents revealed to engage in, 58% indicated Bad dour, Cervical burns and skin irritation had 21% and 18% respectively. Students were further asked why they miss school during menstruation, on the Relative Important Index measurement;



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respondents revealed that financial challenges were their greatest problem which was 88% (lack of financial resources and the fear of menstrual material cost).

It was further revealed that 31% of the respondents confirmed that they agree to the assertion that they were affected academically due to poor menstrual hygiene from themselves, parent and their School. However, 10% of the respondent indicated that they disagree to the assertion that poor menstrual hygiene management influences their academic performance and the remaining 5% also expressed that they strongly disagree to the assertion that poor menstrual hygiene management affected their academic performance.

6.3 Conclusions

Menstruation and menstrual hygiene practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls or teen girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes to girls and sometimes to their siblings or friends at home and in schools. The pattern of menstruation has been dormant on the Junior High School girls particularly on the JHS 2 and the JHS 3. Whereas some adolescent girls observe good personal hygiene during menstruation, it was insignificant in the study districts as against more adolescent girls who engaged in certain unhealthy practices which affect their health and the health of the general society at large.

This study established that good practical menstrual hygiene management among adolescent school girls in the Basic School in the Kumbungu District were not too good to write home about. Socio-economic status of the adolescent girls influenced menstrual hygiene practice and how they are integrated or allowed to be doing certain



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normal duties at home. In schools too, inadequate material hygiene materials often propel girls to engender riskier practices to not allow anyone to see them menstruating and to avoid shame. As such most Basic School girls in the district used unclean disposable sanitary pads and other materials such as used cloth, Paper, handkerchief among others as the means of absorbing menstrual blood in schools.

It was found that the knowledge of menstruation among the adolescent girls was very minimal with few having more than 2-5 years. This was related to why hygiene knowledge regarding menstruation was not adequate among the basic School Girls in Kumbungu Districts.

The study revealed that menstruation had a major influence on school attendance of pupil in the district, greater efforts still need to be put in place to ensure no girl is out of school because of menstruation-related issues such as lack of sanitary products, low self-esteem or no private place for convenient change of sanitary products in school during the period of her menstruation, the fear of being laughed at by their boys counterparts among others as was found in the study. However, in terms of maintenance and in safeguarding the health of the adolescent girls, resources such as running water, soap for hand washing, were not available at the time of the survey. Hence, they attributed it to the weather conditions in the case of water and lack of funds in the case of sanitary material.

These collective efforts aimed to improve the quality and focus of further research, to enhance effectiveness of programming, and strengthening global commitments, increasing funding, facilitating sharing of expertise across disciplines to foster multi-disciplinary studies in the area (including intervention research), and eliminating time



and money spent on www.udsspace.uds.edu.gh duplication of efforts on the topical areas already well researched.

Regarding the association between health and menstrual hygiene practices among the adolescent girls in the Basic Schools in Kumbungu District, this study found that there were no significant differences between numbers of times respondents changed their sanitary products daily by knowledge on menstrual hygiene. But there were a number of problems which affected girls not too engaging themselves with best practices to menstruation.

6.4 Recommendation

The District Education Service should adopt the best menstrual hygiene management document by WHO & UNICEF for used in Basic Schools to improve menstrual hygiene practices among these adolescent girls' whiles in school.

The Ministry of Education (MOE) should establish a comprehensive school health hygiene education programme which has a firm input that will help in familiarization of instruction in Menstrual Hygienic Practices relating to menstruation.

The Ministry of Education should make it compulsory for Teacher Training Colleges or Colleges of Education in Ghana to include training of Teachers on menstrual hygiene management so that they pass same skills adolescent school girls in their respective catchment school environments. Girls should be educated about the selection of sanitary menstrual pads as well as their proper disposal of the used





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materials, and for that matter how to look after their menstrual needs when at school or away from home anytime.

There is a need for Menstrual Sanitary products donation programme to be instituted by the PTA's in Schools so to make menstrual materials donations to basic schools at regular intervals. This will help adolescent girls in an emergency or onset of menstruation during school hours which will reduce female absenteeism during menstruation.

The Ministry of Education should intensify strategies that promote girl-child education in the District and the Northern Ghana in general and equal attentions given to the implementation guidelines and interventions by MOE and Basic Schools which struggle for better involvement and understanding of matters regarding menstruation especially among adolescent Girls whiles in School, as well as tackling challenges faced by them in school during menstruation and out of school premises.

The Ministry of Education in close collaboration with Ministry of Sanitation and Water Resources to ensure adequate provision of WASH facilities in basic schools as these facilities are necessities in the management of Menstrual Hygiene among adolescent school girls. The Ministry of Education should make resources readily available in Basic Schools for menstrual hygiene management at all times most especially during school sessions. This is because unless water is made sufficient at all times for girls, they cannot wash and clean themselves during and after menstruation whiles in school.

Public health experts, health educators and policy makers who work with adolescents need up to date information on knowledge, attitudes, and practices of

menstrual hygiene so as to help shape policies and programs on improving adolescence reproductive health.

There is a need for GES to collaborate well with other relevant stakeholders to help adolescent school girls to develop adequate knowledge on the management of menstrual hygiene.



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This Research Instrument is designed to collect relevant primary data for the conduct of a study on the topic assessing the effects of menstrual hygiene management on the health of teenage girls in public Basic Schools in Kumbungu District of the northern region of Ghana. The research is conducted in partial fulfillment of the award of MPhil Degree in Community Health and Development from University for Development Studies, Tamale Campus. Your support and co-operation are very much expected and please be assured that your responses will be treated with utmost confidentiality.

Please provide the right answers by either ticking or writing in the spaces provided.

SECTION A

BACKGROUND INFORMATION OF RESPONDENT

1. How old are you (in years)?

Response

Code

A.	Below 11 years	[]
B.	11 - 13 years	
C	14 - 16 years	[]
D	17 – 18 years	[]
E	19 years and above	[]

2. FORM OF RESPONDENT

Code	Response	
A	JHS 1	[]
B	JHS 2	[]
C	JHS 3	[]



3. Underline which stakeholders you are aware of that offer support for MHM? A

(GES-SHEP), B (Development Partners), C (International NGOs), D.

(Teachers), E. (Parents), F. (Civil Society)

4. HOW LONG HAVE YOU BEEN MENSTRUATING?

Code	Response	
A	24 months and above	[]
B	18 months	[]
C	6 to 12 months	[]
D	Less than 6 months	[]

5. The religion of the respondent

Code	Response	
A	Christianity	[]
B	Islamic	[]
C	Traditional	[]
D	Other	[]

6. Indicate whether each of the following affect your relationship during menstruation. Indicate (Yes, No or No idea).

Code	Response	
A	Culture	[]
B	Religion	[]
B	Social norm	[]



7. What was your experience like at the onset of your first menstrual period?

Code	Response
A	Prepared []
B	Happy []
C	Sad []
D	Surprised []

8. The under listed practices connotes good hygiene practices during menstruation in girls.

	PRACTICES	Tick (Yes-A)	Tick (No-B)
A	Bath three times daily,		
B	Trim fingernails/ wash hands before food		
C	Change clothing regularly		
D	Cotton panties are preferable to synthetic ones		
E	Wash the genital area after each use of the toilet, also after urination.		
F	Keep the area between the legs dry		
G	Changing pads twice a day		

9. Are WASH materials available in your school? **YES** **NO**



10. Which type of WASH materials are available in your school?

Code	Response	Yes (A)	No (B)
A	Reliable water supply	[]	[]
B	Good access to toilet facilities.	[]	[]
C	Safe final disposal facilities	[]	[]
D	Sanitary pads available in school for emergencies.	[]	[]
E	Incinerators/bins available in girls' toilets for hygienic disposal of sanitary towels	[]	[]

11. Does your school offer privacy for changing during menstruation? Yes

(A) No (B)

Code	Responses	Yes (A)	No (B)
A	Designated emergency office for females	[]	[]
B	Well-furnished toilet facility for females	[]	[]
C	Only two structure toilet male and females	[]	[]
D	Not at all	[]	[]

12. What causes you to engage in risky practices during menstruation?

Code	Response	Yes (A)	No (B)
A	Lack of supporting school staff	[]	[]
B	Poor menstrual information	[]	[]



C	Poor family support	[]
D	Limited access to affordable and hygienic sanitary materials	[]
E	Religious cultural and historical factors (taboos),	[]
F	disposal options	[]

13. Which risk practices have you engaged in since you started menstruating?

Code	Responses	
A	Unclean use of sanitary materials	[]
B	Changing of materials infrequently	[]
C	Wiping from back to front after urination	[]
B	Insertion unclean materials into vagina	[]
C	Unsafe disposal of used sanitary materials or blood	[]

14. How did you come by such practices?

Code	Responses	
A	Friends	[]
B	My self	[]



C	parent	[]
---	--------	-----

15. Why do you miss school during menstruation?

Code	Responses	Please tick
PERSONAL REASONS		
A	I fear to stain my clothes	
B	Menstruation can cause pain	
C	Menstruation cause discomfort from bloating or tiredness	
SCHOOL ENVIRONMENT REASONS		
D	There is no private place for hand washing or change at school	
E	I am afraid of others making fun of me	
F	Male teachers do not understand our feeling and disturb	

16. What are the side effects of such practices do you know?

Code	Responses	
A	Skin irritation	[]
B	Cervical burns	[]
C	Bad odor	[]
D	Infecting Others with STI or STD	[]



17. Does poor menstrual hygiene management affect your academic performance?

Code	A	B	C	D	E
Response	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Tick	[]	[]	[]	[]	[]

**INTERVIEW GUIDES ON
MENSTRUAL HYGIENE MANAGEMENT
QUESTIONNAIRES FOR GHANA EDUCATION SERVICE (GES)**

Knowledge

1. What do you understand by menstrual hygiene management?

.....
.....
.....

2. In your opinion what are the causes of poor MHM among teen girls in your school?

.....
.....
.....

3. What is your institution doing to regulate poor MHM among girls?

.....
.....
.....



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4. What significant role are your teaching staff playing to curtail certain MHM practices?

.....
.....
.....

5. What is the P.T.A doing to help the school in Menstrual Hygiene Management in a teen girl?

.....
.....
.....

6. What do you think should be done by GES to aid the management of MHM in your school?

.....
.....
.....

7. How are your teachers helping in educating teen girls on MHM in your school?

.....
.....
.....

8. Are you aware that student's teen girls absent themselves from school during menstruation?

YES **NO**

9. If yes, what accounts for that?

.....
.....



.....
10. What role is GES playing to mitigate such inevitable practices among teen girls?

.....
.....
.....

11. Are you aware of some risk practices student's teen girls engage in during menstruation?

YES **NO**

.....
.....
.....

12. If yes, what are some of the effect teen girls may have gotten due to such practices?

.....
.....
.....

13. What role is GES playing to address poor menstrual management practices among teen girls in the Kumbungu district?

.....
.....
.....



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AN INTERVIEW GUIDE FOR PARENTS

1. Has your girl child started menstruating? **YES** **NO**

2. If yes, how are you helping her to maintain good practices at home and school?
.....
.....
.....

3. If no, have you started educating her on menstruation and the good practices for its management? **YES** **NO**

4. What are some of the good practices you tell your teen girl to engage in during menstruation?.....
.....
.....

