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## MENSTRUAL HYGIENE AND MANAGEMENT PRACTICES IN LOWER AND UPPER BASIC SCHOOLS WITHIN THE REGION ONE EDUCATION DIRECTORATE. THE GAMBIA

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### ABSTRACT

*This research explored menstrual hygiene and management practices in lower and upper basic schools within the Region One Education Directorate in The Gambia. A mixed-methods approach is employed, combining qualitative and quantitative data collection methods. Physical inspections and observations of toilets in schools provide an objective assessment of sanitation facilities, while face-to-face interviews with headteachers offer insights into existing practices and initiatives related to menstrual hygiene management. The sample size of 74 schools is determined using Slovin's formula and purposive sampling of headteachers. Thematic analysis is used to analyze qualitative data, while quantitative data is analyzed using SPSS software. The findings reveal that the majority of schools lack a separate room for girls in menstruation, highlighting the need for private and secure environments. Many schools also use disposable rags and pads, requiring proper waste management facilities. Furthermore, adequate rest areas and comprehensive support systems are essential for menstruating students' well-being and education. Collaborations with stakeholders and conducting regular monitoring and evaluation are essential to ensure effective menstrual hygiene practices and support the well-being of menstruating students.*

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**Keywords:** *facilities, menstrual management, menstrual hygiene, practices, schools, water.*

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## 1. INTRODUCTION

Menstrual hygiene and management practices in lower and upper basic schools within the Region One Education Directorate are required for promoting the well-being and educational success of female students. With effective implementation initiatives and strategies, schools can endeavour, to ensure that girls have the necessary support, resources, and knowledge to manage their menstruation in a hygienic and dignified manner.

One important aspect of menstrual hygiene management in schools is the provision of adequate sanitary facilities, access to clean and private toilets with running water and facilities for proper disposal of menstrual waste are essential for maintaining hygiene and preserving the dignity of girls during their periods (UNICEF, 2019).

In addition to infrastructure, education plays a crucial role in promoting menstrual hygiene practices among students. Integrating menstrual health education into the school curriculum helps raise awareness, reduce stigma, and provide girls with accurate information about menstruation and related hygiene practices (UNESCO, 2014).

Providing menstrual hygiene supplies is another essential aspect of supporting girls in managing their periods effectively.

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Schools can ensure the availability of menstrual products like sanitary pads or tampons, either by providing free or low-cost supplies or by establishing partnerships with local organizations or government initiatives (UNICEF, 2019).

Creating a supportive and inclusive environment is vital for addressing the unique needs of girls during menstruation. This includes fostering a culture of open communication and understanding among students, teachers, and parents (WaterAid, 2021). Initiatives such as peer support groups or menstrual health clubs can provide a safe space for girls to discuss menstrual health issues, share experiences, and seek advice (WaterAid, 2021).

Menstrual hygiene, and management practices in lower and upper basic schools within the Region One Education Directorate encompass various strategies aimed at supporting the well-being and educational attainment of female students. By providing adequate sanitary facilities, incorporating menstrual health education, ensuring the availability of menstrual hygiene supplies, and fostering a supportive environment, schools can empower girls to manage their menstruation effectively and promote their overall health and dignity.

The objective of this research is to examine and evaluate the menstrual hygiene and management practices implemented in lower and upper basic schools within the Region One Education Directorate. The research aims to:

- i. Assess the availability and quality of sanitation facilities, including toilets, handwashing facilities, and menstrual waste disposal systems, in these schools.
- ii. Investigate the effectiveness of menstrual health education programs in providing accurate information and promoting proper menstrual hygiene practices among female students.

## **2. REVIEW OF LITERATURE**

This chapter reviews the literature into a conceptual framework, theoretical framework, and empirical review.

### **2.1 Conceptual Framework**

Menstruation is a natural physiological process that occurs in females with reproductive capabilities. It involves the monthly shedding of the endometrial lining of the uterus, when fertilization does not occur. The menstrual cycle typically lasts around 28 days, although it can vary from individual to individual. Menstruation is an integral part of the female reproductive system, signaling the potential for pregnancy. Menstrual hygiene refers to the practices and behaviors adopted by individuals during their menstruation to manage the menstrual flow hygienically. It encompasses various aspects, such as using appropriate menstrual products, maintaining personal hygiene, and accessing clean and private facilities for changing and disposing of menstrual materials.

The cultural context of menstruation significantly influences how menstruation is perceived and managed in different societies. Throughout history, menstruation has been shrouded

in myths, taboos, and stigma in many cultures, leading to negative attitudes and practices surrounding menstruating individuals. For example, in some societies, menstruating individuals may be considered impure, leading to restrictions on their participation in religious practices or social events. Access to menstrual products is crucial for ensuring proper menstrual hygiene. Menstrual products can include disposable sanitary pads, tampons, menstrual cups, or reusable cloth pads. In many low-income settings, limited access to affordable menstrual products poses challenges for menstruating individuals, impacting their health and well-being. Comprehensive menstrual health education is crucial for dispelling myths and misinformation surrounding menstruation and promoting positive menstrual hygiene practices. Education can empower individuals to understand their bodies better, manage menstruation with dignity, and break the silence and shame associated with menstruation. Access to clean and private sanitation facilities, including toilets with running water, is essential for proper menstrual hygiene management. Inadequate facilities can lead to unhygienic practices, such as improper disposal of menstrual materials, which can have adverse health and environmental consequences.

## 2.2 Theoretical Framework

There are several theories and frameworks that can help explain the concept of menstrual hygiene and management practices in lower and upper-basic schools. Some of these theories include:

Health Belief Model (HBM), Socio-Ecological Model (SEM), Theory of Planned Behavior (TPB), Diffusion of Innovations

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Theory (DIT), Social Learning Theory (SLT), The Health Belief Model (HBM) and the Empowerment Theory (ET).

The Health Belief Model and the Empowerment Theories provide a theoretical framework for menstrual hygiene and management practices in lower and upper-basic schools.

The application of the Health Belief Model to menstrual hygiene and management practices in lower and upper-basic schools provides a comprehensive understanding of students' perceptions and attitudes towards menstruation. By addressing students' beliefs about susceptibility, severity, benefits, barriers, and self-efficacy, schools can design educational programs, interventions, and policies that promote positive menstrual hygiene practices. Creating a supportive environment that encourages open communication about menstruation and addresses students' concerns is essential for fostering a positive and hygienic menstrual experience for all menstruating students. Through the application of the HBM, schools can play a crucial role in empowering students to manage their menstruation confidently and ensure their well-being and dignity during this natural biological process.

The application of the Empowerment Theory to menstrual hygiene and management practices in lower and upper-basic schools can be instrumental in promoting positive attitudes towards menstruation, fostering informed decision-making, and creating supportive environments for menstruating students. The Empowerment Theory emphasizes the importance of providing individuals with knowledge, skills, autonomy, and support to take control of their lives and make informed choices. By providing information, skills, decision-making

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autonomy, and a supportive environment, schools empower students to manage their menstruation confidently and with dignity. Embracing the principles of empowerment can lead to positive attitudes towards menstruation, reduced stigma, and improved menstrual hygiene practices, ultimately contributing to the well-being and educational success of menstruating students.

### **2.3 Empirical Review**

The article titled "Comfortably, safely, and without Shame: Defining menstrual hygiene management as a public health issue" by Sommer, Hirsch, Nathanson, and Parker, published in the American Journal of Public Health in 2015, addressed the importance of menstrual hygiene management as a public health concern. The study highlighted the need to destigmatize menstruation, improve access to menstrual hygiene products, and promote proper menstrual hygiene practices to protect women's health and well-being. The article argued that poor menstrual hygiene should be recognized as a significant public health issue due to its potential to cause various health problems and social challenges. Insufficient access to menstrual products and a lack of knowledge about proper hygiene practices can lead to infections, discomfort, and missed educational or work opportunities for women and girls. The article advocated for increased access to affordable and quality menstrual hygiene products. Many women and girls worldwide face challenges in obtaining these products, which can affect their ability to manage their periods effectively. Ensuring access to these products is essential for maintaining menstrual health and supporting women's overall well-being.

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WaterAid is an international nonprofit organization dedicated to improving access to safe water, sanitation, and hygiene (WASH) in communities around the world. Menstrual Hygiene Matters: A Resource for Improving Menstrual Hygiene. WaterAid. (2017) is a comprehensive resource produced by WaterAid to address menstrual hygiene management (MHM) issues and provide solutions to the challenges faced by women and girls in managing their menstruation with dignity and safety. The report may cover several key areas related to menstrual hygiene. In many parts of the world, women and girls face challenges in managing menstruation due to cultural taboos, lack of access to menstrual products, sanitation facilities, and menstrual hygiene education. These challenges can have serious implications for their health, education, and overall well-being. The concept aligns with the principles of menstrual hygiene management (MHM) and emphasizes the importance of creating an enabling environment for women and girls to handle their menstruation with dignity and comfort. Private toilets offer a safe space for students to manage their menstruation without feeling exposed or uncomfortable. Having a designated space where they can change menstrual products, clean themselves, and dispose of waste discreetly helps promote their sense of dignity and respect. Providing additional space allows for the creation of private and clean facilities, ensuring that girls can manage their menstruation discreetly. Privacy is essential for preserving girls' dignity during menstruation and can have a positive impact on their emotional well-being. Ample space facilitates proper menstrual hygiene practices. Girls need space to change menstrual products, wash, and manage their personal hygiene effectively. Having enough



room in sanitation facilities allows them to do so comfortably and hygienically. Equipping toilets with running water and soap is vital for maintaining good hygiene during menstruation. Additionally, access to clean water allows for proper handwashing, reducing the risk of infections and promoting overall health. Proper hygiene practices are essential to prevent any potential health issues associated with poor menstrual hygiene. Facilities for menstrual waste disposal are essential for addressing environmental concerns and preventing the spread of infections. Proper disposal ensures that used menstrual products do not end up in inappropriate places, such as open dumps or water bodies, which can lead to contamination and health hazards.

The UNICEF report titled "Menstrual hygiene management in schools: Global guidelines and resources," published in 2019, provides comprehensive guidelines and resources to address menstrual hygiene management (MHM) in school settings worldwide. The report is an essential tool for policymakers, educators, and practitioners seeking to create a supportive and enabling environment for girls' menstrual hygiene needs within educational institutions. The report emphasizes the significance of addressing MHM in schools. It acknowledges that proper menstrual hygiene is essential for girls' health, well-being, and overall educational experience. Adequate MHM facilities and education can help reduce absenteeism and dropout rates among female students, contributing to improved gender equality and girls' empowerment. The report offers comprehensive guidelines for implementing MHM initiatives in schools. This could include recommendations on setting up private and clean toilets with running water, soap, and facilities

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for menstrual waste disposal. It also covers strategies for addressing stigma and taboos associated with menstruation through menstrual health education. The guidelines advocate for an inclusive and rights-based approach to MHM, ensuring that all girls, including those with disabilities or other vulnerabilities, have access to appropriate facilities and support. The report stresses the importance of collaboration among stakeholders, including governments, schools, parents, teachers, and communities, to create an enabling environment for MHM in schools. Engaging boys and men in discussions about MHM is also important to foster supportive attitudes and behaviors. The use of disposable rags and pads can pose challenges in waste management, especially in areas with limited waste infrastructure. Inadequate waste collection systems, lack of waste segregation, and improper disposal methods can lead to menstrual waste ending up in open dumps or water bodies, further contributing to environmental pollution and health hazards. Menstrual waste, including blood-soaked materials, is considered infectious waste due to the potential presence of blood-borne pathogens. If not managed properly, it can pose health risks to waste handlers, sanitation workers, and the general public. Proper storage, collection, and disposal of menstrual waste are essential to minimize the risk of infections and ensure public safety. Having sufficient and appropriate storage space is a critical aspect of supporting girls' access to essential resources for maintaining proper menstrual hygiene. Ample storage space in schools allows for the safekeeping and accessibility of menstrual products such as sanitary pads, menstrual cups, or reusable cloth pads. When these products are readily available, girls can access them whenever needed

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during their menstruation, ensuring they can manage their periods hygienically and comfortably.

Sommer et al. (2016) revealed that teachers often lacked adequate knowledge about menstruation, shedding light on a significant issue in menstrual hygiene management (MHM) and reproductive health education. This finding has important implications for the well-being and empowerment of students, particularly girls. It underscores the need for improved teacher training and comprehensive menstrual health education. Teachers shape students' perceptions and attitudes towards menstruation. When teachers lack accurate knowledge, they may inadvertently pass on misconceptions and stigma surrounding menstruation, perpetuating existing taboos and stereotypes. Misinformation and lack of knowledge may contribute to stigmatizing attitudes towards menstruation. Girls may feel embarrassed or ashamed about their periods, leading to potential negative impacts on their self-esteem and overall well-being. Inaccurate information or lack of knowledge about menstruation may result in missed opportunities for incorporating MHM education into the curriculum. Comprehensive and age-appropriate menstrual health education can empower students to make informed decisions about their health and well-being. When teachers lack accurate knowledge about menstruation, they may not be able to provide students with essential information about proper MHM practices. This can result in health risks such as infections or discomfort for girls who may not know how to manage their menstruation hygienically. Adequate knowledge about menstruation is essential for both male and female students. When teachers are uninformed about menstruation, they may

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not address the topic inclusively, reinforcing gender disparities and contributing to the silence surrounding menstruation.

The American College of Obstetricians and Gynecologists, 2015 (ACOG) is a professional medical association representing obstetricians, gynecologists, and other healthcare professionals specializing in women's health. Established in 1951, ACOG is one of the leading organizations in the field of obstetrics and gynecology, and it plays a vital role in promoting women's health, setting medical standards, and advocating for women's healthcare rights. ACOG publishes guidelines and recommendations on various aspects of women's health, including prenatal care, labor and delivery, family planning, gynecological conditions, and menopause. These guidelines are widely used by healthcare professionals to guide their medical decision-making. Addressing the well-being of girls during menstruation is a crucial aspect of menstrual hygiene management (MHM) that extends beyond the provision of proper menstrual products and facilities. Recognizing and addressing the pain that some girls experience during menstruation is essential for their overall health and comfort. Menstrual pain, also known as dysmenorrhea, is a common issue experienced by many girls and women during menstruation. Providing access to pain relief medication can help alleviate discomfort and improve their well-being during this time. During menstruation, some girls may experience heightened fatigue and discomfort. Offering sufficient rest and creating a comfortable environment can help girls cope with these symptoms and manage their daily activities more effectively.

The article "Menstrual-related Attitudes and symptoms among multiethnic adolescent girls" by Wong, Khoo, Abdullah, Rahman, Tan, and Hazaini (2017) explores the attitudes and symptoms related to menstruation among adolescent girls from diverse ethnic backgrounds. The study aims to understand how cultural factors and ethnicity may influence adolescent girls' experiences and perceptions of menstruation. The research methodology employed in the study includes surveys and interviews with adolescent girls from various ethnic backgrounds. The participants were asked about their menstrual-related attitudes, perceptions, and symptoms. The study also examines the influence of cultural factors on these attitudes and experiences. The finding by Wong et al., that rest and relaxation were effective in reducing menstrual pain, suggests that stress management and self-care practices play a crucial role in managing discomfort during menstruation. Rest and relaxation are known to have positive effects on physical and psychological well-being. By reducing stress and promoting relaxation, these practices may help in alleviating muscle tension, promote blood circulation, and reduce the intensity of menstrual cramps. When individuals are relaxed and well-rested, they may better cope with discomfort and experience reduced pain sensitivity. It is essential to note that the effectiveness of rest and relaxation may vary among individuals. While some girls may find these strategies highly beneficial, others may require additional measures or a combination of approaches to manage menstrual pain effectively. For some individuals with severe dysmenorrhea, medical intervention or pain-relieving medications may be necessary. The findings of the study by Wong et al. highlight the importance of

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considering non-pharmacological approaches in managing menstrual pain. Encouraging adolescent girls to prioritize self-care, stress reduction, and rest during their menstrual periods can contribute to their overall well-being and comfort during this time.

The article "Menstrual hygiene management among adolescent schoolgirls in low- and middle-income countries: research priorities" by Hennegan, Montgomery, and Doos (2020) addresses an important global health issue: menstrual hygiene management (MHM) among adolescent girls in low- and middle-income countries (LMICs). Menstrual hygiene is a critical aspect of female reproductive health, and its proper management is essential for the well-being and dignity of adolescent girls. However, many girls in LMICs face challenges in accessing adequate menstrual hygiene facilities and resources, which can have significant implications for their health, education, and overall quality of life. To identify research priorities, the authors conducted a comprehensive review of existing literature and research on menstrual hygiene management. They synthesized the findings to identify key knowledge gaps and areas that require further investigation to inform evidence-based policies and programs. In the study by Hennegan, Montgomery and Doos, menstrual waste, which includes used sanitary pads or tampons, is indeed considered infectious waste due to the potential presence of blood. Menstrual blood contains microorganisms, including bacteria and viruses, which can pose health risks if not handled and disposed of properly.

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### 3. METHODOLOGY

#### 3.1 Research Design

The research employed a mixed-methods approach to gather comprehensive data on menstrual hygiene and management practices in lower and upper-basic schools within the Region One Education Directorate. This mixed-methods approach combines both qualitative and quantitative methods, allowing for a more holistic understanding of the research topic. The qualitative method involved conducting physical inspections and observations of the toilets in the schools. A checklist was used to systematically assess the availability and quality of sanitation facilities, including factors such as cleanliness, functionality, privacy, and the presence of menstrual waste disposal systems. This qualitative data collection method provides a direct and objective assessment of the physical conditions of the facilities, offering a comprehensive overview of the actual state of the toilets' suitability for menstrual hygiene activities for effective management.

On the other hand, the quantitative data were gathered through face-to-face interviews with the head teachers of the schools. The interviews followed a structured questionnaire format, allowing for standardized data collection. The questionnaire included specific questions related to menstrual hygiene and management practices, such as the availability of menstrual health education programs, access to menstrual hygiene products, and any existing policies or initiatives in place to support menstrual hygiene management. The head teacher was purposively selected for his/her comprehensive overview of the school operations; the quantitative data provides insights into the broader institutional practices related to menstrual hygiene management.

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With the combination of both qualitative and quantitative methods, the research is able to gather rich and diverse data. The qualitative data from the physical inspections and observations provide tangible evidence of the actual conditions of the sanitation facilities. Meanwhile, the quantitative data from the interviews with the head teachers offer more comprehensive information on the existing practices, and initiatives related to menstrual hygiene and management. The combination of these methods enhances the validity and reliability of the findings, allowing for a more robust analysis and understanding of the research topic.

### **3.2 Sample Selection**

The research employed a multistage sampling technique to collect data on menstrual hygiene and management practices in lower and upper-basic schools within the Region One Education Directorate. The sampling process involved two stages: determining the appropriate sample size using Slovin's formula and selecting eligible schools through a random table, followed by the purposive sampling of headteachers.

Firstly, Slovin's formula was used to calculate the appropriate sample size for the study, considering a 90% confidence interval. Slovin's formula helps determine the sample size needed for a given population to ensure statistical accuracy. By using this formula, the researchers could estimate the required number of schools to include in the study to achieve a reliable representation of the population.

After determining the sample size, a random table was used to select the eligible schools from a pre-coded list within the jurisdiction. The random table ensures an unbiased and random selection process, allowing for a representative sample of



schools within the Region One Education Directorate. This approach helps to minimize any potential bias and ensure that the selected schools are a fair representation of the overall population.

Once the schools were selected, a purposive sampling method was employed to select the headteachers of these schools. Purposive sampling involves selecting individuals based on their specialized skills, knowledge, and institutional memory related to the operations and history of the institutions. Headteachers are key stakeholders in the schools and have a comprehensive understanding of the institutional practices, and initiatives related to menstrual hygiene and management. Purposively selecting headteachers, the research ensures that valuable insights and information are gathered from individuals with the necessary expertise and authority to provide accurate and detailed responses to the research inquiries.

### **3.3 Sample Size**

To determine an appropriate sample size for the study, Slovin's formula was applied. The target population for the study comprised 195 schools within the region. A desired confidence level of 90% and a margin of error, or sampling error, of 0.1 (10%) were considered in the calculation. By substituting the given values into the formula  $n = N / (1 + Ne^2)$ , the calculated sample size was approximately 66.10. To ensure a practical and feasible sample, the number was rounded up to the nearest 10, resulting in a sample size of 70. Rounding up the sample size ensures an adequate number of participants for statistical significance and representative findings. An additional 4 were added to account for potential non-responses or dropouts. This adjustment accounts for the possibility of incomplete or missing data due to participants not providing responses or

withdrawing from the study. As a result, the final sample size was determined to be 74 schools.

### **3.4 Data Collection**

The data collected through inspection and observation of the physical structure involved assessing the sanitation facilities, specifically the toilets, within the lower and upper basic schools. Researchers conducted a physical examination of the facilities and used a checklist to document the conditions of the toilets, including factors such as cleanliness, functionality, privacy, and the presence of menstrual waste disposal systems. This data collection method provided objective information about the actual state and suitability of the sanitation facilities for menstrual hygiene management.

On the other hand, the data collected from face-to-face interviews with the head teachers focused on gathering information on various aspects of menstrual hygiene and management practices within the schools. The interviews followed a structured questionnaire format, and the head teachers, with their specialized knowledge and institutional memory, provided insights into the existing practices, and initiatives related to menstrual hygiene management. The interviews aimed to understand the availability of menstrual health education programs, access to menstrual hygiene products, and any challenges or gaps in the current practices. Engaging with head teachers who hold key positions in the schools, provided valuable qualitative insights to complement the quantitative data gathered through inspections and observations.

By combining data from physical inspections/observations and interviews with head teachers, the research ensures a

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comprehensive understanding of menstrual hygiene and management practices within the lower and upper basic schools. The inspection data provides objective insights into the physical conditions of the sanitation facilities, while the interview data captures the perspectives and experiences of the school leadership regarding menstrual hygiene management. This combined approach allows for a more robust analysis and interpretation of the research findings, incorporating both objective observations and subjective viewpoints.

### 3.5 Data Analysis

The qualitative data was analyzed through thematic analysis and the quantitative data analyzed using SPSS software both contribute to a comprehensive understanding of menstrual hygiene and management practices in the selected schools.

In this research, thematic analysis was employed to identify and analyze recurring patterns, themes, and insights from the qualitative data collected through interviews, observations, and inspections. The qualitative data, such as interview transcripts and observational notes, were carefully reviewed and coded to identify key themes and categories related to menstrual hygiene and management practices. These themes were then organized and analyzed to generate meaningful findings. The quantitative data collected through surveys/questionnaires were analyzed using SPSS (Statistical Package for the Social Sciences) software. The researchers input the collected quantitative data into the SPSS software, which then performs various statistical analyses based on the research objectives and data characteristics. The results of the quantitative analysis are typically presented in the form of graphs, tables, and statistical summaries. The statistical analysis using SPSS allows for a quantitative understanding of various aspects related to

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menstrual hygiene and management, such as the availability of sanitation facilities, access to menstrual hygiene products, and the effectiveness of menstrual health education programs. It provides objective measures and quantifiable data to support the research findings and draw statistical inferences.

### **3.6 Ethical Considerations**

One fundamental ethical consideration is obtaining ethical approval from the relevant authority, in this case, the Director of Region One Education Directorate. Ethical approval demonstrates that the research design and procedures have been reviewed to ensure compliance with ethical guidelines and principles. By obtaining this approval, the research team assures that the study has undergone a formal evaluation process and that the rights and well-being of the participants were protected throughout the research process.

Participants in the research, particularly headteachers, were provided with clear and comprehensive information regarding the research objectives, procedures, and potential risks or discomforts associated with their participation. Participants were fully informed and could make voluntary decisions about their involvement. Respecting and protecting participants' rights and well-being was of utmost importance. Ethical considerations included assuring participants of anonymity and confidentiality. Participants were informed that their identities and individual responses would be kept confidential, and that their privacy would be safeguarded. Additionally, participants were assured that their involvement was entirely voluntary and that they had the right to withdraw from the study at any stage without any negative consequences. A notable ethical practice in this research was leaving a copy of the ethical approval at each school. This action served to strengthen transparency and

accountability in the research process. Providing schools with a record of the research being conducted on their premises ensured that the study was conducted with proper authorization and cooperation. It also served as documentation of the ethical review and approval process, reinforcing the credibility and integrity of the research.

#### 4. RESULTS

This chapter presents the findings of the research conducted to examine and evaluate the menstrual hygiene and management practices in lower and upper basic schools within the Region One Education Directorate.

Table 1. Depicting the availability of a separate bathroom for girls at menstrual age

	Frequency	Percent	Cumulative Percent
Yes	7	9.5	9.7
No	60	81.1	93.1
Not accessible at the time of the visit	5	6.8	100.0
Total	72	97.3	
Missing System	2	2.7	
Total	74	100.0	

Field survey April, 2023.

81.1% (n=60) of the schools did not have a separate room for girls in menstruation, 9.2% (n=7) of the respondents have a separate bathroom for girls in menstruation, 6.8% (n=5) of the schools were inaccessible at the time of the visit and 2.7% (n=2) of the schools did not provide any response to the question.

Table 2. Showing the menstrual management materials to girls during their period

	Frequency	Percent	Cumulative Percent
Disposable rags	35	47.3	61.4
pads	10	13.5	78.9
Others	4	5.4	86.0
Not Applicable	2	2.7	89.5
Clean reusable rags and disposable rags	1	1.4	91.2
Not accessible at the time of the visit	5	6.8	100.0
Total	57	77.0	
Missing System	17	23.0	

Field survey April, 2023.

47.3% (n=35) of the schools used disposable rags, 13.5% (n=10) used pads while 23% (n=17) are missing data due to the pupil being below menstrual age or are non-responses, and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

Table 3. Showing the availability of space to enable the proper management of menstruation

	Frequency	Percent	Cumulative Percent
Yes	4	5.4	6.5
No	53	71.6	91.9
Not accessible at the time of the visit	5	6.8	100.0
Total	62	83.8	
Missing System	12	16.2	
Total	74	100.0	

Field survey April, 2023.

71.6% (n=53) of the schools do not have space to enable proper management of menstruation 5.4% (n=4) of the schools are provided with space to enable menstrual management, 16.2% (n=12) are missing data due to the pupil being below menstrual age or are non-responses, and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

Table 4. Showing the availability of a private place that girls use to wash menstrual cloth

	Frequency	Percent	Cumulative Percent
Yes	4	5.4	6.5
No	53	71.6	91.9
Not accessible at the time of the visit	5	6.8	100.0
Total	62	83.8	
Missing System	12	16.2	
Total	74	100.0	

Field survey April, 2023.

71.6% (n=53) of the schools have no private place for girls to wash their menstrual cloth, 5.4% (n=4) of the schools provided a washing place for girls to launder their menstrual cloths, and 16.2% (n=12) are missing data due to the pupil being below menstrual age or are non-responses, and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

Table 5. Showing the availability of a resting place used to recover girls from menstrual pain.

	Frequency	Percent	Cumulative Percent
Yes	4	5.4	6.3
No	54	73.0	92.1
Not accessible at the time of the visit	5	6.8	100.0
Total	63	85.1	
Missing System	11	14.9	
Total	74	100.0	

Field survey April, 2023.

73% (n=54) of the schools have no resting place for girls in menstruation, 5.4% (n=4) of the schools provided a resting place for girls in menstruation, and 14.9% (n=11) are missing data due to the pupil being below menstrual age or are non-responses, and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

Table 6. Showing the type of support given to girls in menstruation

	Frequency	Percent	Cumulative Percent
	9	12.2	12.2
A female teacher helps the girls during menstruation.	2	2.7	14.9
A female teacher is counselling girls on menstruation.	1	1.4	16.2
A female teacher to assist them and we provide pads for them.	1	1.4	17.6
A specific home science personnel to attend to them.	1	1.4	18.9
A teacher assigned to help them.	1	1.4	20.3



A teacher is assigned to each in case of menstrual experience.	1	1.4	21.6
A teacher that supports them time to time.	1	1.4	23.0
All the pupils are below the menstrual age.	1	1.4	24.3
Are assisted by female teachers.	1	1.4	25.7
Comprehensive Health Education, counselling 2 female and a male teacher was trained to provide counselling on menstruation.	1	1.4	27.0
Female teachers assist them in the school.	1	1.4	28.4
Female teachers take care of them.	1	1.4	29.7
Female teachers to assist them.	1	1.4	31.1
Most of them complete this level before reaching the menstruation stage.	1	1.4	32.4
No experience as at now.	1	1.4	33.8
No experience with girls at the menstrual age.	1	1.4	35.1
No issue with Menstrual management due to the ages of the pupils.	1	1.4	36.5
No means, maybe through counselling.	1	1.4	37.8
No mechanism to support them.	1	1.4	39.2
No specific support.	1	1.4	40.5
No specific way.	1	1.4	41.9
No support.	1	1.4	43.2
No support at the moment.	2	2.7	45.9
No support because of privacy issues.	1	1.4	47.3
No support for them at the moment.	1	1.4	48.6
Not accessible at the time of the visit.	5	6.8	55.4
Not happening in this school.	1	1.4	56.8

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Special staff assist them.	1	1.4	58.1
Special trained personnel in the school.	2	2.7	60.8
Specific assignment teacher to take care of them.	1	1.4	62.2
Specific team responsible for menstrual management.	1	1.4	63.5
The female teachers to take care of them.	1	1.4	64.9
The girls take care of themselves.	1	1.4	66.2
The Headteacher who was trained by the GTU counsels' girls.	1	1.4	67.6
There is a sickbay. A specific female teacher who is responsible for them.	1	1.4	68.9
There is a specialist nurse employed by the school.	1	1.4	70.3
There is a teacher that is responsible for them at the sickbay	1	1.4	71.6
They come to the head teacher or senior management for grade six pupils	1	1.4	73.0
They go to a female teacher and peer health teach coordinate	1	1.4	74.3
They go to female teachers for help	1	1.4	75.7
They go to the female teachers vocationally	1	1.4	77.0
We ask the child to go home	1	1.4	78.4
We buy menstrual materials and give it to the at times	1	1.4	79.7
We have a clinic where they are supported	1	1.4	81.1
We have a female teacher who is responsible for it	2	2.7	83.8
We have a health teacher that help them	2	2.7	86.5
We have a person entrusted with child safe guarding and also home science department also helps	1	1.4	87.8
We have a sick bay, where menstrual management is done	1	1.4	89.2
We have a special teacher train of compelum	1	1.4	90.5

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We have a teacher counsellor to take care of their needs	1	1.4	91.9
We have a teacher trained in comprehensive health education to take care of that	1	1.4	93.2
We have no means to support them	1	1.4	94.6
We have the school secretary and the home economics teacher to help them	2	2.7	97.3
We refer them to our LBS where we have our clinic	1	1.4	98.6
We take them to the hospital sometimes, a teacher also helps	1	1.4	100.0
Total	74	100.0	

Field survey April, 2023.

Table 6 above is categorized into the following themes.

*Designated personnel:* Several schools have assigned specific personnel, such as a teacher counselor, health teacher, female teacher, or home economics teacher, to provide support and guidance to girls during menstruation. This indicates a recognition of the importance of having someone responsible for addressing their menstrual needs.

*Comprehensive health education:* Some schools have implemented comprehensive health education programs, including counseling sessions conducted by trained teachers, to provide information and support related to menstruation.

*Limited support:* In a few instances, it was mentioned that there is currently no specific support or mechanism in place to address the menstrual needs of girls. This suggests a potential gap in providing adequate support and resources for addressing menstrual needs.

*Referral systems:* Some schools have established referral systems, either within the school or to external healthcare facilities, to address specific needs related to menstruation.

*Limited accessibility:* In some cases, accessibility to specific personnel or facilities was not available at the time of the visit, indicating potential challenges in consistently providing support for menstrual needs.

*Self-management:* In a few instances, it was mentioned that girls take care of their menstrual needs by themselves. This raises questions about whether they have access to proper resources and support during this time.

*Age-related factors:* Some schools mentioned that the pupils are below the menstrual age or that there are no issues with menstrual management due to the age of the students. This suggests that the schools may not currently have girls who have started menstruating or have limited experience with menstrual needs.

Table 7. Showing the disposal method for menstrual hygiene materials

	Frequency	Percent	Cumulative Percent
	31	41.9	41.9
With the general waste	1	1.4	43.2
A bin is provided in the female toilet to collect this type of waste	1	1.4	44.6
Are collected and managed by the female teacher	1	1.4	45.9
are disposed off with the general school waste collected in the plastic bins	1	1.4	47.3
City Council	1	1.4	48.6

City Council collection	1	1.4	50.0
Dispose with the General waste generated in the school	2	2.7	52.7
Disposed in the refuse bins	1	1.4	54.1
In the main dust bins provided in the school	2	2.7	56.8
It is usually collected with the general school waste	1	1.4	58.1
Most student are shy to talk about menstruation	1	1.4	59.5
Not accessible at the time of the visit	4	5.4	64.9
Not to my knowledge	2	2.7	67.6
They are disposed normally by the specialist nurse	1	1.4	68.9
They are dumped in a special pit latrine in the school	1	1.4	70.3
They carry it away	1	1.4	71.6
They dispose it by themselves	1	1.4	73.0
They flush them in our sewage system	1	1.4	74.3
We have a bin in the female toilet to dispose the pads	1	1.4	75.7
We have a special bin where they are collected	1	1.4	77.0
With the general school waste	1	1.4	78.4
With the general school waste	1	1.4	79.7
With general waste	1	1.4	81.1
With the general school waste	4	5.4	86.5
With the general waste	8	10.8	97.3
With the general waste collected in the plastic bins	1	1.4	98.6
With the general waste	1	1.4	100.0
Total	74	100.0	

Field survey April, 2023.

The following themes best describe table 7 above.

*Inconsistent practices:* There is a lack of consistency in how menstrual waste is disposed of in schools. Some responses indicate that there are designated bins or facilities specifically for menstrual waste, while others mention disposing of it with the general school waste or in the main dust bins provided.

*Limited accessibility:* In certain cases, access to proper disposal facilities or information about the appropriate methods of disposal was not accessible at the time of the visit. This suggests a need for improved infrastructure and education regarding menstrual waste management.

*Varied approaches:* Different schools employ different methods of disposal, including disposing of menstrual waste in refuse bins, general waste bins, or plastic bins meant for general waste collection. Some schools mentioned the presence of a bin in the female toilets for disposal.

*Self-disposal:* In a few instances, students were reported to dispose of their menstrual waste by themselves, implying a lack of proper systems in place for managing this waste.

*Specialized management:* In a couple of cases, the responsibility of managing menstrual waste was mentioned to lie with specialized personnel such as a nurse or a female teacher.

*Shyness and lack of discussion:* Some responses noted that students were shy to talk about menstruation, indicating a potential cultural barrier to open discussions about menstrual hygiene and waste management.

Table 8. Showing the availability of a Bin to dispose of menstrual pads.

	Frequency	Percent	Cumulative Percent
Yes	5	6.8	6.8
No	63	85.1	91.9
Not accessible at the time of the visit	5	6.8	98.6
School n	1	1.4	100.0

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Total	74	100.0
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Field survey April, 2023.

85.1% (n=63) of the schools did not have a bin to dispose of the menstrual pads, 6.8% (n=5) of the schools provided bins to dispose of the menstrual pads and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

## 5. DISCUSSION

Menstruation is a natural physiological process experienced by adolescent girls and women, and managing menstrual hygiene is essential for their physical, emotional, and social well-being (Sommer et al., 2015). One of the key components of menstrual hygiene in schools is the provision of sanitary facilities. Private and clean toilets equipped with running water, soap, and facilities for menstrual waste disposal are essential to ensure students can manage their menstruation discreetly and hygienically (WaterAid, 2017). This chapter presents a comprehensive discussion of the findings derived from the research conducted on menstrual hygiene and management practices in lower and upper basic schools in the region one education directorate.

The research revealed that 81.1% (n=60) of the schools did not have a separate room for girls in menstruation, 9.2% (n=7) of the respondents had a separate bathroom for girls in menstruation, 6.8% (n=5) of the schools were inaccessible at the time of the visit and 2.7% (n=2) of the schools did not provide any response to the question. The provision of a separate room dedicated to girls in menstruation is a desired element to ensure proper management of menstruation with dignity without stigma and unnecessary shame. This will ensure a high level of secrecy and

convenience for the person to adequately take care of herself and where required to change the pad and or wash the reusable rags. This room also provides a safe and secure environment for girls' privacy which advances their wellbeing. Similar finding was corroborated by Sommer et al. (2015) who posited that girls require a supportive environment where they can manage their menstruation comfortably and privately, allowing them to focus on their education without unnecessary distractions or discomfort.

However, the research revealed that 47.3% (n=35) of the schools used disposable rags, 13.5% (n=10) used pads while 23% (n=17) are missing data due to the pupil being below menstrual age or are non-responses, and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection. Disposable rags and conventional pads are widely used menstrual hygiene materials. These are convenient materials and afford a maximum level of hygiene in places where water is adequate. The availability of adequate water is desired to help wash hands after changing pads to maintain a high level of hygiene, particularly with soap to rid the hands of traces of blood left on the hand. Where water is not adequate the hand washing aspect to clean the hands may not be adequate and the possibility of contaminating anything being touched is relatively high. It must also be understood that, the use of disposable rags and pads may cause a challenge in waste management and disposal. For blood or anything stained with it is considered infectious waste and that requires proper storage, collection and disposal. Therefore, schools generating such kind of waste constitute a heavy burden that requires an additional cost commitment to provide appropriate bins and specialised



disposal methods. (UNICEF, 2019) vindicated this finding who argued that the use of disposable rags and pads can pose challenges in waste management and disposal. Menstrual waste, including blood-soaked materials, is considered infectious waste and requires proper storage, collection, and disposal

Furthermore, the research revealed that 71.6% (n=53) of the schools do not have space to enable proper management of menstruation while 5.4% (n=4) of the schools are provided with space to enable menstrual management. In this context, space is very relevant for menstrual hygiene management, although, there are separate toilets for both sexes, additional space dedicated to girls in menstruation to ease the pressure on the existing cubicle or to maintain privacy and secrecy is very vital to further separate girls in menstruation and those not in menstruation. Adequate space may be useful for the designation of bins required for the proper storage and disposal of used menstrual hygiene materials. It can equally be used to store materials required for adequate menstrual hygiene activities. According to (UNICEF, 2019), the provision of ample space allows for the storage of necessary materials, ensuring that girls have access to essential resources for maintaining proper menstrual hygiene. In the same vein WaterAid (2017) stressed the importance of providing additional space for girls in menstruation to ensure privacy and facilitate proper menstrual hygiene management. It must be noted that a private place allocated for girls to wash their menstrual clothes or rags is quite significant to maintain a high degree of self-esteem and dignity of persons undergoing menstruation as the findings indicated that 71.6% (n=53) of the schools have no private place

for girls to wash their menstrual cloth, 5.4% (n=4) of the schools provided a washing place for girls to launder their menstrual cloths, and 16.2% (n=12). Menstruation may become painful for some girls and during the process such persons experience enormous cramps in the lower abdomen. To minimize this pain such individuals, need to be accorded ample rest and possibly pain relievers to help them recover quickly. Menstruation is often accompanied by different degrees of pain and discomfort, specifically in the lower abdomen in the form of cramps. To ensure the well-being of girls during menstruation, it is required to address the pain they experience by offering sufficient rest and access to pain relief medication, which can aid in their speedy recovery (ACOG, 2015) while Wong et al. (2017) found that rest and relaxation were effective strategies in reducing menstrual pain among adolescent. This requires the schools to provide as far as reasonably feasible rest place equipped with requisite materials that facilitate recovery as the research revealed that 73% (n=54) of the schools have no resting place for girls in menstruating, with only 5.4% (n=4) of the schools provided a resting place for girls in menstruation. With excessive, mild or no pain, a person in menstruation requires the support of others and in this research, the girls in menstruation are supported in various ways that are categorized in these following themes; designated personnel, in this category schools, assigned special personnel such as a teacher counselor, health teacher, female teacher, or home economics teacher, to provide support and guidance to girls during menstruation. In the comprehensive health education category, some schools have implemented comprehensive health education programs, including counseling sessions conducted by trained teachers, to

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provide information and support related to menstruation. In the limited support category, it was mentioned that there is currently no specific support or mechanism in place to address the menstrual needs of girls. This suggests a potential gap in providing adequate support and resources for managing menstruation. In this research it has been evident that Some schools have established referral systems, either within the school or to external healthcare facilities, to address specific needs related to menstruation leading to the Referral systems categorization. Other categorizations such as Self-management in which girls take care of their menstrual needs by themselves. This raises questions about whether they have access to proper resources and support during this time. Age-related factors categorization also exists in which the pupils are below the menstrual age or there are no issues with menstrual management due to the age of the students. This suggests that the schools may not currently have girls who have started menstruating or have limited experience with menstrual needs. With all these various categorizations, the bottom line is that menstrual hygiene and management is not a priority to teachers and school administration that requires much attention for improved competence, knowledge and awareness. Sommer et al. (2016) revealed that teachers often lacked adequate knowledge about menstruation, leading to misconceptions and inaccurate information being passed on to students while Hennegan et al. (2020), found that menstrual hygiene management often receives insufficient attention in schools, particularly in low- and middle-income countries. Menstrual hygiene is never new in anywhere there are young girls at the puberty stage and this leads to a generation of a special

category of waste that need focused attention. In this research, this waste is disposed of in designated bins or facilities specifically for menstrual waste, while others mention disposing of it with the general school waste or in the main dust bins provided. Disposing of menstrual waste along with general school waste may be dangerous to the environment and has the potential to spread infections because menstruation discharges blood from individuals, and if this is not properly handled may produce detrimental effects on humans, animals, and the environment. According to (Hennegan et al., 2020) Menstrual waste, such as used sanitary pads or tampons, is considered infectious waste due to the potential presence of blood .In a few instances, students were reported to dispose of their menstrual waste by themselves, implying a lack of proper systems in place for managing this waste while, the responsibility of managing menstrual waste was mentioned to lie with specialized personnel such as a nurse or a female teacher as 85.1% (n=63) of the schools did not have a bin to dispose of the menstrual pads,6.8% (n=5) of the schools provided bins to dispose the menstrual pads and the remaining 6.8% (n=5) of the schools were inaccessible during the time of the data collection.

## **6. CONCLUSION, LIMITATIONS & RECOMMENDATIONS FOR FUTURE STUDIES**

In conclusion, the research sheds light on the current state of menstrual hygiene management in lower and upper basic schools in the region one education directorate. The findings reveal several critical areas that require attention and

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improvement to ensure the well-being and dignity of menstruating students.

Firstly, the lack of dedicated space for girls in menstruation in the majority of schools highlights the need for creating private and secure environments where girls manage their menstruation with ease and without stigma. Adequate space is essential not only for privacy but also for proper storage and disposal of menstrual hygiene materials.

Secondly, the prevalence of using disposable rags and pads for menstrual hygiene raises concerns about waste management and disposal. Proper facilities and specialized bins are necessary to the safe management of menstrual waste and the prevention of environmental and health hazards.

The research also reveals that a significant number of schools lack designated resting places for girls during menstruation. Providing a rest area equipped with the necessary amenities can help alleviate discomfort and pain experienced by some girls during menstruation.

Furthermore, the varying degrees of support offered to girls in menstruation indicate that there is a need for comprehensive and consistent support systems within schools. Trained personnel, such as teachers or counselors, can play a proactive role in providing information, guidance, and emotional support to menstruating students.

The research also identifies age-related factors that influence the management of menstruation in schools. While some schools may not currently have girls who have started

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menstruating, it is essential to proactively prepare for their needs and provide proper education and resources.

Generally, menstrual hygiene management is an important aspect of girls' well-being and education. It requires greater attention, competence, knowledge, and awareness among teachers and school administrations. Implementing comprehensive menstrual hygiene programs and providing adequate facilities can contribute significantly to creating a supportive and empowering environment for menstruating students.

Based on the findings of the research on menstrual hygiene management in schools, the following recommendations are suggested:

*Provision of Adequate Sanitary Facilities:* Schools should prioritize the establishment of private and clean toilets equipped with running water, soap, and facilities for menstrual waste disposal. Separate rooms dedicated to girls in menstruation should be provided to ensure proper management of menstruation with dignity and privacy.

*Education and Awareness:* Schools should implement comprehensive health education programs that include counseling sessions conducted by trained teachers. These programs should provide accurate information about menstruation, and menstrual hygiene practices, and address the social and emotional aspects related to menstruation. Students should be educated about the importance of maintaining menstrual hygiene and the proper use and disposal of menstrual hygiene materials.

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*Availability of Menstrual Hygiene Materials:* Schools should ensure the availability of menstrual hygiene materials such as pads, tampons, or reusable menstrual products. An adequate water supply should be provided to facilitate handwashing after changing pads or managing menstrual hygiene.

*Waste Management:* Schools should establish proper systems for the storage, collection, and disposal of menstrual waste. Designated bins or facilities specifically for menstrual waste should be provided to prevent contamination and environmental hazards.

*Resting Areas and Support:* Schools should allocate private spaces or resting areas where girls can rest and manage any discomfort or pain associated with menstruation. Providing necessary amenities and pain relief options can contribute to the well-being and comfort of menstruating students. Teachers and school staff should be trained to provide appropriate support and guidance to girls in menstruation.

*Collaboration and Partnerships:* Schools should collaborate with relevant stakeholders, including local health authorities, NGOs, and community organizations, to support menstrual hygiene management initiatives. Partnerships can help ensure the availability of resources, training, and sustainable solutions for menstrual hygiene in schools.

*Policy Development and Implementation:* Education authorities should develop and implement policies that explicitly address menstrual hygiene management in schools. These policies should outline the responsibilities of schools, provide guidelines

for infrastructure and facilities, and ensure the inclusion of menstrual hygiene education in the curriculum.

*Monitoring and Evaluation:* Regular monitoring and evaluation of menstrual hygiene management practices in schools should be conducted to assess progress and identify areas for improvement. Feedback from students, teachers, and parents should be considered to make informed decisions and address challenges effectively.



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