

**MENSTRUAL HYGIENE MANAGEMENT PRACTICES AND SCHOOL
ATTENDANCE AMONG GIRLS IN PUBLIC PRIMARY SCHOOLS IN KISUMU
WEST SUB-COUNTY, KISUMU COUNTY, KENYA**

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DECLARATION AND RECOMMENDATION

Declaration by the Student

This thesis is my original work and to the best of my knowledge has not been presented for the award of a PhD degree in any other university.

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PLAGIARISM DECLARATION

DECLARATION OF NUMBER OF WORDS

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DEDICATION

I dedicate this research report to my late father Mr. Jotham Wesley Ombogo and my late mum Mrs. Hellen Awuor Ombogo who had a vision for my academic pursuit and urged me to study hard and join university. I will forever be grateful for the foundation they gave me, the financial and outstanding moral support. Thank you very much and may you continue resting with the angels.

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ABSTRACT

Governments globally prioritize Menstrual Hygiene Management (MHM) for safe school environments, yet girls in Low and Middle-Income Countries (LMICs) face challenges managing menstruation. This study aims to examine MHM Knowledge, Attitudes, and Practices and their impact on school attendance among girls in public primary schools in the Kisumu West sub-county. Additionally, it evaluates the influence of school-based MHM Programs, information dissemination on MHM practices, and the effect of school sanitation systems on attendance. The conceptual framework draws from the Sanitary Hardware theory, the Knowledge-Attitude-Behaviour Theory, and the Multi-stakeholder theory. Using a descriptive survey design, the research targets teachers and girls pupils in Kisumu West's public primary schools. The Yamane (1967) formula determined a representative sample of 356 from a population of 3,233, including girls in grades 6-8, teachers, headteachers, and Ministry of Education officials. Data collection employed structured questionnaires and interview schedules, pilot-tested in Siaya County schools (10% of the sample) for reliability and validity. Collected data underwent filtering, organization, coding, and analysis using SPSS version 22. Analytical techniques included descriptive statistics (means, standard deviations, frequencies, and percentages) and inferential statistics (coefficient of determination and analysis of variance). Quantitative data, presented in tabular format, was accompanied by insightful discussions. Qualitative findings aligned with the study's objectives and were presented thematically. Study findings revealed that MHM Knowledge, Attitudes, and Practices significantly influenced School Attendance ($p < 0.01$), explaining 43.8% of the variance. Information dissemination on MHM significantly impacted School Attendance ($p < 0.05$), explaining 17.2% of the variance. Linear regression analysis confirmed a positive relationship between disseminating MHM information and School Attendance. Additionally, cultural taboos hindered open discussions about menstruation despite some girls receiving information before their first period. Schools needed a dedicated MHM curriculum, relying on sporadic discussions during general health talks led by designated teachers, whose effectiveness remained unassessed. Given MHM practices' critical influence on attendance, recommendations include encouraging open discussions about menstruation among girls, even before their first menstrual cycle. Schools should ensure consistent access to water resources for girls during menstruation. Future research should explore performance as the dependent variable, providing a more comprehensive understanding of MHM practices within the educational context. In conclusion, this study sheds light on the challenges girls in LMICs face in managing menstruation and underscores the pivotal role of MHM Knowledge, Attitudes, and Practices in influencing school attendance. The findings emphasize the need for targeted interventions, including a dedicated MHM curriculum and open discussions, to address cultural barriers and enhance girls' overall well-being in the educational setting.

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ACRONYMS AND ABBREVIATIONS

ANOVA	:	Analysis of Variance
ASAL	:	Arid and Semi-Arid Lands
IDHS	:	Indonesia Demographic and Health Survey
KDHS	:	Kenya Demographic and Health Survey
KDHS	:	Kenya Demographic Household System
LMIC	:	Low and Middle Income Countries
MHM	:	Menstrual Hygiene Management
MoE	:	Ministry of Education
SRAS-R	:	School Refusal Assessment Scale
STP	:	Step towards Prosperity
TOTs	:	Trainers of Trainers
UNICEF	:	United Nations International Children’s Emergency Fund
USA	:	United States of America
WASH	:	Water and Sanitation and Hygiene
WASH	:	Water, Sanitation and Hygiene
WHO	:	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The transition into adolescence signifies a momentous phase in most girls' lives, often accompanied by apprehension and unease due to insufficient information and resources available for managing menstruation and the bodily changes accompanying it (World Vision International, 2016). Menarche, which marks the onset of a girls' menstrual cycle or the first occurrence of menstrual bleeding, represents the culmination of a series of physiological changes recognized as puberty (Zacur, 2018). It is widely regarded as the central event of girls' puberty from a social and medical perspective, signifying the fertility potential. The timing of menarche varies based on geographical location, ethnic background, race, and individual biological factors (Abor, 2022).

According to Henry and colleagues (2017), girls worldwide frequently miss school during their menstrual periods due to inadequate sanitation and water facilities in educational institutions. The onset of menstruation, a crucial aspect of puberty and a girl's transition into womanhood contributes to a significant gender disparity in education (McMahon, 2011). This disparity is fueled by factors such as the lack of proper guidance and social support, male-dominated decision-making processes, persistent gender inequities, and cultural beliefs and taboos surrounding menstruation. In many low and middle-income countries (LMICs), these factors collectively create an environment where girls often experience feelings of shame, fear, confusion, and discomfort as they navigate their monthly menstrual cycles (McMahon, 2011). The challenges faced by girls during menstruation contribute to school absenteeism and hinder their overall educational experience.

The concept of Menstrual Hygiene Management (MHM), as defined by the World Health Organization and UNICEF in 2014, takes a holistic approach. MHM involves girls and adolescent girls using clean and appropriate sanitary materials to absorb or collect menstrual blood, with the ability to privately change these materials as often as needed during the menstruation period. Additionally, it encompasses using soap and water for personal hygiene, access to facilities for proper disposal of used menstrual materials, and a fundamental understanding of the menstrual cycle and its management, all while preserving dignity and minimizing discomfort or anxiety. It is crucial to emphasize that MHM extends beyond the mere physical management of the menstrual period; it also addresses societal beliefs and taboos associated with menstruation. Tackling these broader aspects is essential for creating an environment where girls can manage their menstruation with dignity and without hindrance to their education. This holistic approach to MHM aligns with efforts to promote gender equality in education and mitigate the challenges faced by girls during a crucial phase of their development.

Menstrual hygiene management practices encompass the collaborative efforts of diverse stakeholders, including schools, community members, and families, to support girls during this crucial phase, enabling them to participate in educational and academic pursuits actively. Menstruation is a natural and essential monthly occurrence for healthy adolescent girls and pre-menopausal adult girls, typically between the ages of 8 and 16, as indicated by Sumpter and Toronede (2013). In lower and middle-income countries, girls can anticipate menstruating for approximately 1,632 days throughout their lifetime, assuming that menopause, the stage at which menstruation ceases, occurs around 50.

Lessey and Young (2014) define menstruation as the physiological process in which the specialized uterine lining is shed due to the spontaneous decasualization resulting from the withdrawal of progesterone and estrogen following an unsuccessful attempt at pregnancy.

They highlight the uniqueness of menstruation in human girls and certain old-world primates, whereas progesterone and estrogen levels decrease in all mammals during non-fertile cycles. After the secretory phase in a non-conceptive process, a significant portion of the superficial or functional layer of the endometrial lining within the uterine cavity disintegrates and is expelled (Lessey & Young, 2019).

Menstrual Hygiene Management (MHM) emerges as a crucial facet of hygiene for girls and adolescent girls, encompassing menarche to menopause. MHM includes providing essential resources for absorbing or collecting menstrual blood, facilitating personal hygiene, and managing waste disposal while upholding privacy and dignity. Torondel (2018) defines MHM as addressing the unique hygiene and health requirements of girls and girls during menstruation, which entails providing them with information, resources, and facilities for effective and discreet management.

Shortcomings in puberty education can have profound implications for adolescents' sexual, relational, and family planning choices, contributing to early pregnancies, premature marriages, limited educational attainment, and adverse public health outcomes. In the United States, underserved girls often lack adequate support and preparation as they approach menarche, leading to unfavorable experiences (Stephenson, 2018). Early menstruation and increased vulnerability have been linked to depression, delinquency, school dropout, and substance abuse. In low-income countries, girls encounter significant challenges in managing menstruation while attending school, sometimes resorting to transactional sex to acquire sanitary products. Nevertheless, there is limited comprehension of the specific issues girls face in educational settings, particularly those residing in impoverished circumstances in the United States.

In the context of the United States, there is an urgent imperative to conduct comprehensive research on the experiences of girls living in impoverished conditions concerning menarche

and menstrual management. Such research is paramount for assessing associated risks and providing adequate support. Globally, there is a growing commitment to addressing this pivotal issue. For instance, in 2020, the World Health Organization (WHO) integrated menstruation into its adolescent health agenda. Simultaneously, the United Nations Population Fund initiated a consortium focusing on African menstrual health. Additionally, the UK Government has contributed to funding the development of a global guidance document to enhance humanitarian responses to displaced girls and girls, explicitly addressing period poverty and equity. However, within the United States, the healthcare community has yet to accumulate sufficient evidence regarding how menstruation disproportionately impacts economically disadvantaged girls.

Indonesia has a notable demand for more context-specific research on Menstrual Hygiene Management (MHM), particularly within school settings. Published studies on MHM in schools need to be more prominently featured. Although the National School Health Program delivers education programs in primary and secondary schools which touch on aspects of menstruation but there is a suggestion that girls still need better preparation for menarche. According to Indonesian Demographic Health Survey (IDHS) of 2012, one out of four adolescent girls and seventeen out of a hundred, never talked about menstruation with anyone before their own experience of the same, and had no idea that this was a physical sign of puberty respectively. Providing essential Water, Sanitation, and Hygiene (WASH) facilities in schools remains a substantial challenge. In 2016, the Ministry of Education and Culture reported that, out of over 190,000 public primary schools, only one-fifth of school toilets were fully functional. A comprehensive understanding of MHM-related knowledge, attitudes, practices, and their impacts on girls in Indonesia is still needed.

Hence, there is an imperative need for an evidence base to inform programming and interventions aimed at improving MHM. To address this critical information gap, a school-

based survey targeting adolescent girls was undertaken to assess the prevalence of MHM practices and school absenteeism attributed to menstruation. The study also sought to identify factors associated with poor MHM and absenteeism, offering valuable insights for policy and program interventions.

In Africa, limited attention has been directed toward comprehending how MHM contributes to school absenteeism and other gender-related disparities. For example, approximately 44% of girls in Zambia drop out before completing their secondary education. However, existing studies have not elucidated the reasons for these high school dropout rates among girls. The 'School Led Total Sanitation' (SLTS) program has been implemented in rural Zambian schools, promoting sanitation and hygiene practices while enhancing sanitation infrastructure, including facilities conducive to MHM. Within the scope of this study, we aim to evaluate the impact of school-based menstrual hygiene management sanitation systems, encompassing interventions that specifically target school attendance among girls attending public primary schools in the Kisumu West sub-county.

A study conducted by Chinyama (2019) in rural Zambia revealed a concerning issue: Girls required assistance in maintaining proper menstrual hygiene while at school, resulting in limited attendance and active participation. This research unveiled that these girls lacked knowledge about menstruation before experiencing menarche and only received informal education on Menstrual Hygiene Management (MHM) when they began menstruating. Our study endeavors to bridge this knowledge gap by exploring the impact of disseminating information regarding MHM practices on school attendance among girls in public primary schools within the Kisumu West sub-county.

In East Africa, a study by Hennegan and Montgomery (2016) delved into the impact of Menstrual Hygiene Management (MHM) interventions on education and psychosocial outcomes, particularly in Ugandan schools. Their findings indicated that the distribution of

sanitary pads alone did not significantly reduce school absenteeism. However, combined with puberty education, it led to a notable increase in school attendance. Interestingly, Hennegan and Montgomery (2016) reported that approximately 54.51% of girls students had been absent from school for an average of two days during their last menstrual period. Moreover, girls who did not use sanitary napkins were 5.37 times more likely to miss school. Notably, changing absorbents three times a day or more emerged as a critical factor associated with higher attendance rates. The primary reasons for absenteeism encompass feelings of shame, fear of leakage, inadequate access to sanitary napkins and suitable underwear, and a lack of private facilities for changing at school. Girls also reported teasing, not only from peers but also from teachers and younger students. An intriguing point is that some girls cited embarrassment as a reason for dropping out, particularly when experiencing their first menstruation unexpectedly while at school. This often led to the embarrassment of being seen in a blood-stained dress, typically due to a lack of preparation.

In contrast, a study conducted by Montgomery et al. (2012) focused on the association between cultural constraints, high levels of poverty, and inadequate water and sanitation facilities in selected developing countries. This study posited that these factors were the primary challenges affecting MHM. However, a critical question is whether these same issues are prevalent in the study area. Therefore, to provide context-specific insights, our research investigates the impact of MHM knowledge, attitudes, and practices on school attendance among girls in primary schools within Kisumu West Sub-County.

In Kenya, the pervasive issue of high poverty levels forces many adolescent girls out of school, primarily due to their inability to afford essential menstrual protection, among other challenges. According to data from the Kenyan Ministry of Education (2019), thousands of Kenyan schoolgirls miss approximately one and a half months of school yearly due to their menstrual cycles. This chronic school absenteeism detrimentally impacts these girls'

academic performance and self-esteem and perpetuates gender disparities in educational achievements.

Studies conducted by Jewitt and Ryley (2014) and Dolan et al. (2013) in Kenya and Ghana, respectively, have sought to address the complexities of managing menstruation within school environments. These studies shed light on the multifaceted issues surrounding puberty, menstruation, and their influence on gender asymmetry in school attendance, particularly in primary and junior high schools.

From the preceding discussion, it becomes evident that a pressing need exists for more comprehensive evidence to inform interventions to address Menstrual Hygiene Management (MHM) and curb the alarming rates of girls' school dropouts. Existing programs designed to retain girls in school tend to be labor-intensive, and community engagement efforts yield limited gains with uncertain outcomes. These programs often involve local NGOs, religious institutions, and well-wishers sporadically distributing sanitary towels to schools.

In 2012, the Kenyan Ministry of Education initiated the Sanitary Towels Program (STP) in public primary schools to reduce absenteeism among poor adolescent girls while bolstering their self-esteem and active participation in classroom instruction. The government's criteria for program implementation factored in the national poverty index, gender parity index, characteristics of arid and semi-arid lands (ASAL), and areas identified as needy, based on reports from The Ministry of Education Directorate of Quality Assurance and Standards. Moreover, the Basic Education (Amendment) Act of 2017 passed, mandating the government to provide free, sufficient, and high-quality sanitary towels to every girl enrolled in a public essential education institution who has reached puberty.

However, despite the government's allocation of funds, totaling Kshs. four hundred seventy million to the program in the 2017/2018 fiscal year; the 2019/2020 budget percentage

remains undisclosed. Furthermore, while the project's initial objectives aimed to reach 3.7 million girls in the 2017/2018 budget and 4.2 million in the 2018/2019 budget, it fell short of these targets, reaching only 2.9 million in 2017/2018 and 1.02 million in 2018/2019. It is essential to underscore that the sanitary project was initially launched in 2011, focusing on schools located in marginalized areas. However, it was reintegrated into the Ministry of Education's purview in 2019/2020, with a renewed emphasis on reaching all 1,698,763 girls in classes 6-8, aged between 12 and 14 years, across all public primary schools in the 47 counties of Kenya. Consequently, it is imperative to ascertain the actual beneficiaries of this significant government program.

In this study, the researcher aligns with the field evidence presented in the 2015 Global Citizen Framework. This framework is grounded in three fundamental pillars: Firstly, recognizing the importance of breaking the silence surrounding menstruation and acknowledging it as an intrinsic aspect of girls biology devoid of shame. Secondly, ensuring the hygienic and safe management of menstruation involves providing adequate access to water, menstrual materials, and private spaces for effective menstrual flow management at home and in public areas. Lastly, emphasizing safe re-use and disposal solutions ensures the responsible and environmentally-friendly management of menstrual waste.

1.2 Statement of the Problem

While most governments prioritize Menstrual Hygiene Management (MHM) for making sure protected schools, girls and girl in Low and Middle-Income Countries (LMICs) stumble upon chronic challenges in managing menstruation whilst attending school (UNICEF, 2016). In Kenya, regardless of commendable efforts by using the authorities and improvement companions such as UNICEF World Vision International, amongst others, the Kenya Demographic Health Survey (KDHS) of 2014 reviews that over 64% of ladies in main school lack get entry to to or can't manage to pay for gorgeous MHM services. Numerous research

(Punjan, 2017; Malemba, 2017; Abor, 2022) carried out on school-based Menstrual Hygiene Management packages in Kenya and globally propose that high quality MHM practices can extensively beautify the well-being and faculty attendance of girls. However, there nevertheless desires to be gaps in perception how MHM knowledge, attitudes, and practices amongst stakeholders have an effect on the attendance of girl in public most important schools. Similarly, extra statistics is wished on the effect of school-based MHM programs, statistics dissemination on menstrual hygiene administration practices, and the faculty menstrual hygiene administration sanitation structures on school attendance amongst girl in public important faculties in Kisumu West sub-county. Although research have been carried out in different regions, there has but to be a document of comparable lookup in public foremost schools, in particular in Kisumu West sub-county, Kisumu County, Kenya, developing a massive understanding hole that this learn about targets to address. The overarching goal is to look into and fill the current know-how hole involving the impact of MHM practices, expertise dissemination, and school-based packages on the school attendance of ladies in the Kisumu West sub-county. These lookup objectives to make contributions treasured insights to the current literature, facilitating a higher grasp of the unique challenges confronted by way of girl in this region. Ultimately, the findings of this study may inform targeted interventions and policies to improve the MHM situation in the Kisumu West sub-county and contribute to the global effort to ensure equitable and uninterrupted education for all girls, irrespective of their menstrual status.

1.3 Purpose of the study

To examine the management of Menstrual Hygiene and their effect on school attendance among girls in public primary schools in Kisumu West sub county, Kisumu County- Kenya.

1.4 Objectives of the Study

1.4.1 Broad Objective

To examine the influence of Menstrual Hygiene practices on school attendance among girls in public primary schools in Kisumu West sub-county, Kisumu County- Kenya.

1.4.2 Specific Objectives of the study

The following specific objectives guided this study:

- i. To examine Menstrual Hygiene Management knowledge, attitudes, and practices and school attendance girls in public primary schools in Kisumu West sub-county.
- ii. To assess the influence of school based MHM programs on school attendance among girls in public primary schools in the Kisumu West sub-county.
- iii. To evaluate the effects of school menstrual hygiene management sanitation systems on the school attendance among girls in public primary schools in Kisumu West sub-county.

1.4.3 Research Question

- i. How does information dissemination on menstrual hygiene management practices influence school attendance among girls in public primary schools in Kisumu West sub-County

1.4 Research Hypothesis

This study was guided by the following research hypotheses:

H₀₁: Menstrual Hygiene Management Knowledge, Attitudes and Practices have no significant influence on School Attendance among Girls in public primary schools in Kisumu west sub-county, Kisumu County Kenya.

H02: School based MHM Programs have no significant influence on school attendance among girls in public Primary schools in Kisumu west sub-county, Kisumu County, Kenya.

H03: The school menstrual sanitation systems have no significant influence on school attendance among girls in public Primary schools in Kisumu west sub-county, Kisumu County, Kenya.

1.5 Justification of the Study

Among the development issues facing many African countries, Water, hygiene and sanitation ranks very high. Most governments have increasingly more debated, and taken collective hygiene and sanitation things on their improvement policies, conspicuously leaving out menstrual hygiene. Research evidence factors to a title of uncoordinated interventions, as measures to foster menstrual hygiene in schools. It is consequently key, that a aware dialogue and perfect appreciation of the challenges dealing with this social, health, cultural and herbal phenomenon known as menstrual be held. Findings from this learn about will go a lengthy way in guiding schools in fostering high quality Menstrual Hygiene Management practices in school environments. The lady infant is predicted to wield self-belief with a boosted shallowness therefore a well-balanced member of the society. Further findings from this find out about will assist coverage makers and different stakeholders to make sure multiplied reproductive fitness practices, and with accelerated faculty attendance amongst the ladies and therefore their superior educational performance. That is the learn about findings may additionally supply governments with data whilst creating policies, and imposing present insurance policies round MHM and girls' school attendance. The study is expected to improve access to accurate information on menstrual hygiene practices to the girls at the primary school level and hence reduce the cases of reproductive tract infections. The study's findings will guide further future research in the area.

1.6 Assumptions of the Study

The study assumed that menstrual hygiene management practices are embraced in primary schools in, Kenya. To carry out the study as anticipated, it was assumed that the primary school pupils in Kisumu West Sub County appreciated the importance of the study and cooperates accordingly. It was further assumed that the respondents were able to understand the questions and that they were willing to give relevant information as requested in the questionnaire and interviews. Lastly, it was also assumed that the study could ensure confidentiality for respondents involved in the research.

1.7 Scope of the Study

This study aimed to investigate the impact of Menstrual Hygiene Management (MHM) practices on the school attendance of girls in public primary schools inside Kisumu West Sub-County, Kisumu County, Kenya. Additionally, it sought to discover MHM knowledge, attitudes, and practices, facts dissemination on menstrual hygiene management, and examine the effectiveness of MHM school-based applications and sanitation structures in these schools. The learn about completely centered on main faculties in Kisumu West sub-County, with Kisumu West Primary School chosen due to its recognition, as mentioned via Elimu Yetu Coalition (2020), for excessive tiers of absenteeism amongst pupils. The research aimed to furnish insights into the unique context of MHM in Kisumu West sub-County and make contributions precious records to tackle challenges associated to girls' school attendance in this region.

1.8 Limitation of the Study

Several limitations were encountered during this study, each with strategies for potential mitigation. Firstly, a significant challenge was the reluctance of some respondents to participate due to their busy schedules. To address this, proactive measures were taken,

including scheduling early appointments with potential respondents, accommodating their availability, and facilitating their engagement in the study. In addition, data collection was carried out amidst the COVID-19 pandemic, a period marked by heightened concerns and restrictions. Accessing respondents during this time posed difficulties. Nonetheless, stringent adherence to the Ministry of Health's Covid-19 prevention guidelines was ensured. Moreover, prior arrangements were made with local authorities to facilitate access to the respondents while adhering to health and safety protocols.

Another limitation stemmed from the sensitive nature of the topics discussed, encompassing issues related to hygiene, beliefs, and cultural norms. This potentially influenced respondents to be reticent in their responses. To mitigate this, the researcher employed strategies to engender trust and openness. This included providing official documentation from the university to authenticate the study's legitimacy and, crucially, offering explicit assurances of confidentiality and privacy to each respondent. Additionally, the research may have inadvertently overlooked girls absent during the data collection period or those who had already dropped out of school due to menstruation-related issues. The study primarily relied on the information provided by the respondents who were present during data collection, thus potentially missing insights from absent or former students.

1.9 Definition of Operational Terms

Menstruation:

It is the shedding of the uterus lining that is normally prepared for implantation of an embryo and its accompanying physical, psychological and hygiene requirements.

In this study, Menstruation was used to mean a monthly cycle through which an adolescent girl bleeds through the vagina any time pregnancy does not occur.

Adolescent:

Refers to teenagers between 9-13 years who are experiencing puberty stage.

Gender:

Means to the division of roles between males and girls as culturally assigned by the society

Menstrual Hygiene Management (MHM):

In the context of this study, MHM refers to the effective management of materials designed to absorb or collect menstrual blood. This includes changing these materials privately as often as needed during the menstrual period, using soap and water for personal hygiene, and having access to appropriate facilities to dispose of used menstrual management materials.

Menstrual hygiene:

Within the scope of this study, menstrual hygiene is defined as the practice of girls and adolescent girls using clean menstrual management materials that can be changed privately as frequently as required during the menstrual period. It also entails using soap and water for personal cleansing and access to facilities to dispose of used menstrual management materials properly.

Menstrual Hygiene Management Practices:

These practices encompass a range of strategies aimed at raising awareness, developing policies, and ensuring access to information and supplies to support menstruating girls and girls effectively.

School Attendance:

In this study, school attendance refers to the regular and uninterrupted participation of primary school girls in educational activities after the onset of menarche. It denotes the ability of girls to attend school without hindrance, similar to their male counterparts.

Policy:

A policy is a formal document that outlines the objectives a government ministry or department seeks to achieve, along with the methods and principles it intends to employ to accomplish those objectives.

Health Policy:

A health policy is a specific type of policy that outlines the goals and strategies of a government ministry or department in the health sector, detailing how it aims to achieve those goals and the guiding principles it adheres to improve health outcomes.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This section provides a comprehensive literature review focusing on key themes related to the study. It delves into the realms of menstrual hygiene management, encompassing topics such as knowledge, attitudes, practices, and the correlation with school attendance among girls in public primary schools. Additionally, the review explores the impact of school-based MHM programs on the attendance of girls in these educational institutions. It investigates the role of information dissemination concerning menstrual hygiene management practices and its influence on school attendance among girls in public primary schools. Lastly, the literature assesses how school menstrual hygiene management sanitation systems contribute to or hinder school attendance among girls in these institutions. Through a critical analysis of existing literature, this section aims to provide valuable insights, highlight empirical findings, and identify gaps in the current knowledge landscape, laying a foundation for the study's exploration of Menstrual Hygiene Management practices and their implications on girls' school attendance in the specified context.

2.2. Empirical Review

2.2.1 Menstrual Hygiene Management Knowledge, Attitudes and Practices and School Attendance among Girls in Public Primary Schools

In a study conducted by Sumpter and Toronede (2013), the importance of menstruation as a natural and essential month-to-month occurrence in healthful adolescent girls and pre-menopausal girls was once emphasized. Menstruation performs a necessary function in human replica and parenthood. The age at which ladies trip their first menstruation, recognized as menarche, varies relying on geographical region, race, ethnicity, and other

factors, generally happening between a while of eight and 16, with a common age of round thirteen. Considering that menopause commonly happens at about 50 years of age, ladies in low-income nations can anticipate to bear menstruation for about 1,400 days at some stage in their lifetime. Sumpter and Torondel, (2013) additionally highlighted the various techniques ladies throughout the globe rent to control menstruation, influenced via character resources, financial status, cultural beliefs, and education. However, it is integral to well known that some of these techniques can also want to be extra hygienic and convenient, especially in impoverished settings. Despite efforts to undertaking terrible attitudes and beliefs surrounding menstruation, Costos (2022) emphasised that such attitudes persist, specifically in areas formed via non secular and cultural factors. Menstruation is frequently regarded a symbolic transition to girlhood, which can evoke fearful emotions in younger girls, unsure about what to expect. Additionally, some girls become aware of societal views altering if they journey early menarche, main to unfair labeling and probably impacting their shallowness and involvement in faculty things to do (Houppert & Lee, 2016). In India, the place girl represent 48% of the population, and the financial system famous strong growth, the lively participation of ladies in monetary things to do is deemed imperative (Census of India, 2019; World Bank, 2019). However, a extraordinary 23 million female drop out of school yearly due to insufficient menstrual hygiene facilities, posing a big quandary to their schooling and conceivable contributions (Dasra, 2019). This find out about ambitions to inspect the influence of elements such as academic consciousness and the availability of healthcare amenities on sanitary serviette utilization in India's Delhi/NCR region, addressing this urgent problem (World Bank, 2018). A find out about via UNICEF (2015) on menstrual hygiene administration in schools in Malaysia unveiled that the mismanagement of menstruation is a world challenge, especially every day in low- and middle-income countries. This undertaking encompasses a number of dimensions, such as constrained get right of entry to to smooth and advantageous menstrual absorbents,

inadequate amenities for altering and disposing of absorbents, and they have an effect on cultural taboos. These elements can end result in psychosocial penalties associated to menstruation, impacting girls' school overall performance and standard well-being. In Indonesia, look up on girls' knowledge, attitudes, practices, and implications associated to Menstrual Hygiene Management (MHM) is confined (Jessica et al., 2018). To bridge this understanding gap, a find out about was once carried out amongst adolescent female in Indonesia, revealing the incidence of negative MHM practices and faculty absenteeism attributed to menstruation. The find out about underscored the necessity for complete schooling interventions and the importance of addressing the secrecy surrounding menstruation. The implementation of school-based complete sexuality education, incorporating MHM understanding and hygiene practices, holds promise in addressing insufficient MHM practices and related absenteeism. Tailoring applications to nearby contexts is crucial, and concerns for imparting ache medicine for menstruating ladies at school have to be taken into account. Further look up in Indonesia have to focal point on assessing the appropriateness of Water, Sanitation, and Hygiene (WASH) amenities and their effect on absenteeism. These exploration objectives to make contributions to the appreciation of the complexities surrounding MHM in various cultural and monetary contexts and inform focused interventions to decorate girls' academic experiences. While latrines are fundamental for menstrual hygiene, a learn about by means of Water Aid (2018) in Liberia published a number of routine themes. Many faculties failed to meet endorsed toilet-to-student ratios, cultural beliefs regularly led to menstruation being an exclusive matter, and there used to be a full-size information hole amongst schoolchildren and the broader community. Comprehensive schooling and consciousness campaigns are fundamental to bridge this informational divide.

In a study conducted by Irish, (2020), the impact of Menstrual Hygiene Management (MHM) on the academic performance of school girls was investigated. This research employed a descriptive design and used questionnaires and interview guides to collect data. The study's findings shed light on the influential role of mothers and elder sisters in introducing teenage girls to menstruation-related matters. Moreover, the research emphasized the crucial need for MHM to be seamlessly integrated into all facets of life. Such integration is essential to create a supportive environment where girls and girls can effectively manage menstruation without encountering shame, embarrassment, secrecy, fear, humiliation, silence, taboo, or stigma.

In accordance with this viewpoint, Kirk & Sommer (2016) emphasize the necessity for policymakers and key stakeholders to acknowledge menstruation as a natural aspect of life. They argue for comprehensive integration at all levels, fostering an environment where girls and girls can confidently manage their menstrual needs without the burden of negative societal perceptions.

Contributing to this discussion, Oster & Thornton (2017) assert that policymakers should recognize menstruation, coupled with the lack of access to effective sanitary products, as significant barriers to the education of adolescent girls. They highlight menstrual-related challenges, among other obstacles, as contributors to low academic performance. Media reports have also drawn attention to how menstruation can lead to reduced school attendance. The lack of information and knowledge regarding proper menstrual hygiene management leaves young girls vulnerable to reproductive health-related diseases, impacting school attendance during menstruation and, subsequently, academic progress and performance. Policymakers' oversight of menstrual hygiene issues has resulted in the absence of practical action plans to address these critical concerns (Mawathe, 2016).

In a study investigating Menstrual Hygiene Management (MHM) practices, cultural norms, attitudes, and perceptions among girls and girls conducted by House (2012), research findings revealed that the median age at which girls experienced menarche was approximately 15 years, while boys typically began experiencing pubertal changes at around 14 years of age. Notably, girls in areas with better nutritional and health indicators tended to start menstruating approximately one year earlier than their counterparts in less favorable circumstances.

This body of literature underscores the urgency for a paradigm shift in policymaker attitudes toward menstruation. Acknowledging it as a natural facet of life and addressing the associated challenges, including the lack of access to sanitary products and societal stigmas, is imperative for fostering a supportive environment that enables girls and girls to manage their menstrual needs confidently and without hindrance to their education.

Elderly girls emerged as pivotal figures in the dissemination of Menstrual Hygiene Management (MHM) information across various regions studied. In many villages, an elderly girls was designated as the chief counselor, responsible for imparting knowledge about reproductive health to young girls. Notably, 43% of girls and 33% of males reported participating in initiation or puberty rites, typically occurring after menstruation or pubertal changes. These rites served to guide young individuals through the transition into the realm of sexuality, ranging from encouraging sexual experiences to advising on avoiding contact with the opposite sex to prevent pregnancy. Additionally, these rites covered issues related to respect and societal roles.

The study uncovered significant gaps in girls' awareness of menstruation, with 82% being unaware before experiencing menarche and 30% reporting feeling fearful during this period. Regarding MHM practices, 30% of girls did not use latrines during menstruation. Moreover,

7% of girls admitted to missing school on heavy menstruation days, with each girl missing an average of 0-8 school days over a term.

In a separate cross-sectional Knowledge, Attitudes, and Practices (KAP) survey conducted by Tshomo et al. (2021) in 10 government schools in Bhutan in 2018, the focus was on assessing MHM facilities within these institutions. The survey utilized questionnaires and direct observations by the research team. Findings highlighted the need for more comprehensive knowledge of MHM among girls school students in Bhutan. While over 50% of girls students demonstrated reasonable knowledge, a small portion struggled to answer any "knowledge" questions about menstruation. Interestingly, despite gaps in theoretical knowledge, most students reported practicing proper MHM behaviors, such as bathing during menstruation and appropriately disposing of menstrual products. This indicated that practical MHM practices surpassed theoretical knowledge, emphasizing the importance of addressing both aspects in MHM interventions. These insights underscore the multifaceted nature of MHM challenges, incorporating cultural practices, education gaps, and the need for targeted interventions to bridge knowledge disparities and improve MHM practices among adolescent girls and young girls.

The study observed a positive correlation between a higher level of education, particularly among school students, and a more profound understanding of Menstrual Hygiene Management (MHM). Findings indicated that menstrual pain, notably cramps, played a significant role in absenteeism among girls school students. Inadequate MHM facilities in school hostels and restrooms, including insufficient water, soap, and disposal bins for absorbents, posed substantial challenges to students' ability to maintain proper hygiene. Interestingly, the study highlighted a strong desire among participants for open discussions about menstruation within the school environment, even though a minority still felt uncomfortable engaging in such conversations.

In summary, the Knowledge, Attitudes, and Practices (KAP) found associated with MHM printed considerable gaps in understanding and beliefs among school-going girls in authority schools in Bhutan. Despite these gaps, the find out about additionally uncovered encouraging practices associated with MHM. It shed mild on the inadequate bodily and psychosocial amenities handy to aid students' MHM practices, contributing to absenteeism. Similarly, a find out about carried out by means of Sychareun (2020) in North African international locations yielded comparable conclusions. The research emphasized the significance of prior records and training for young girls about menstruation earlier than their non-public experiences. The want for an extra grasp on reproductive fitness and extra facts about cutting-edge strategies for preserving menstrual hygiene frequently led to confusion and doubts about the authenticity of data from a range of sources. Moreover, discomfort, awkwardness, and hesitance skilled by using girls for the duration of menstruation-related discussions similarly exacerbated this issue. The study-about highlighted the quintessential position of imparting healthcare services in influencing focus and picks involving sanitary napkins. Notably, the Indian healthcare enterprise has skilled speedy increase and is anticipated to attain large income figures with the aid of 2020. As a phase of the Adolescent Reproductive and Sexual Health (ARSH) thing underneath RCH II, the authorities launched initiatives to expand menstrual hygiene awareness, enhance entry to exceptional sanitary pads, and ensure the secure disposal of sanitary pads. These findings, at the same time, underscore the multifaceted challenges surrounding MHM, encompassing training gaps, insufficient facilities, and the want for open discussions to tackle soreness and foster supportive surroundings for girls and girls. The initiatives launched with the aid of the authorities in the Indian healthcare enterprise reveal a proactive method to enhancing menstrual hygiene cognizance and getting admission to great sanitary products. Within the framework of the menstrual hygiene management (MHM) initiatives, the authorities have carried out a scheme facilitating the furnishing of sanitary pads both through the central

government's distribution channels or Self Help Groups (SHG). This strategic strategy entails Accredited Social Health Activists (ASHA) who play an integral position in making sure of the provision of these pads, contributing notably to the enhancement of menstrual hygiene practices amongst girls and girls.

Kizito's 2014 findings about menstrual hygiene management in Zambia unveiled the government's dedication to improving MHM amongst girls and girls. A pivotal success was the launch of the Menstrual Hygiene Charter in 2015, symbolizing a collaborative effort between the authorities and civil society groups to promote MHM. However, systematic critiques have highlighted the want for greater strong evidence concerning the effect of negative MHM on fitness and social consequences and the effectiveness of MHM interventions in improving schooling and psychosocial outcomes. While some proof suggests a hyperlink between negative MHM and an accelerated chance of reproductive tract infections, the extent and satisfactory of handy proof continue to be limited. Existing research requires greater pattern sizes and has to tackle challenges in assessing academic outcomes, such as inaccuracies in school registers and editions in academic definitions throughout schools. In the consciousness of this proof gap, the "MHM in Ten" group, comprising United Nations agencies, non-governmental organizations, academics, and different stakeholders, outlined priorities for MHM enhancement by way of 2024 in 2014. One recognized precedence used to be increasing proof of insufficient MHM's fitness and academic influences and figuring out practical, least expensive interventions to decorate MHM in schools. Relatedly, Miiro's 2018 find out about in Uganda explored the relationship between menstrual onset and schooling. Haque's 2019 research investigated menstrual training applications in schools and their outcomes on knowledge, beliefs, and menstrual hygiene-related practices. Hennegan and Montgomery, in their 2020 study, specifically targeted low and middle-income countries, inspecting the effectiveness of menstrual

management interventions on girls's education, employment, and psychosocial well-being. Some research has additionally delved into menarche's socio-cultural and bodily implications, as considered in Lahme's 2018 work. However, the present literature wishes to research especially addressing the elements influencing the utilization of sanitary pads. There is a want for greater research and ample facts dissemination on this subject, mainly in the growing world, as highlighted with the aid of Chandra-Mouli and Patel in 2017 and Coast in 2019. Nevertheless, research has established that keeping genital cleanliness and having entry to protected menstrual merchandise minimize the chance of reproductive infections, as mentioned through Janoowalla in 2020. Proper use of sanitary napkins all through menstruation can appreciably decrease the threat of infections related to periods, as emphasized via Sychareun in 2020. This collective physique of research underscores the significance of evidence-based processes in shaping MHM insurance policies and interventions, emphasizing the want for a holistic grasp of the complicated elements influencing menstrual fitness in numerous cultural and socio-economic contexts.

In an awesome study, Pilitteri's 2017 research delved into the cultural practices, attitudes, and perceptions of girls and girls in the Mzimba and Salima districts of Uganda regarding Menstrual Hygiene Management (MHM). Employing a combined strategies method involving questionnaires and center of attention team discussions, the find out about published that girls possessed a considerably greater stage of MHM know-how in contrast to boys. This information amongst girls correlated with higher MHM practices and decreased absenteeism. Intriguingly, multiplied MHM understanding amongst boys adversely affected girls, main to teasing and improved absenteeism. The use of disposable pads positively correlated with school attendance at some point of menstruation. In each districts, girls in menstruation have been frequently viewed as unclean and challenge to a number restrictions. Sociocultural variations associated to facts sources have been observed: Grandmothers

historically performed a function in imparting MHM understanding in the course of initiation rites in Mzimba, whereas girls in Salima relied extra on their moms and girl teachers. Sommer's (2020) comparative find out about in Tanzania, spanning rural and city settings and focusing on girls aged sixteen to 19, explored their menstrual experiences. The find out about underscored a want for greater menstrual and puberty expertise amongst schoolgirls, emphasizing the necessity for extended recognition and training in this domain. A comparable commentary was once made in South Western Nigeria with the aid of Abioye Kuteyi in 2000, the place the family, mainly mothers, emerged as the fundamental supply of menstrual knowledge. Girls who possessed menstrual recognition had acquired training from their parents, specially their mothers. However, over 40% of the girls remained ignorant of menstrual knowledge, impeding their capacity to keep suited menstrual hygiene. Alarmingly, 66.3% of them relied on unsanitary substances all through their menstrual cycles. This study about additionally shed mild on prevailing cultural norms in Nigeria, the place discussions associated to sexual problems and household existence education, such as menstrual schooling and preparation, had been regarded appropriate solely amongst adults. Consequently, these conversations had been discouraged amongst younger girls. The findings underscored the integral position of girl literacy in society and the want for schooling to put together adolescent girls earlier than menstruation. Odago's 2014 find out about on MHM in Ugandan schools, performed in ten rural schools, highlighted school girls' challenges all through their menstrual cycles. These challenges embody fear, shame, and worries about privacy when managing menstruation. The girls apprehended that their friends and instructors would parent their menstruation status, and they dreaded the opportunity of publicity due to bloodstains and odors, main to teasing by means of classmates. These challenges had been traced again to the lack of sensible teaching on MHM, a restrained organic perception of menstruation, insufficient school facilities, and confined get right of entry to to absorbent materials. The study's guidelines emphasized the necessity for more

desirable menstruation schooling for schoolgirls and neighborhood members, the provision of enough WASH (Water, Sanitation, and Hygiene) services with non-stop maintenance, and making sure the availability and accessibility of absorbent substances for girls, taking into account each affordability and acceptability. These complete findings make contributions treasured insights into the complicated interaction of cultural, educational, and infrastructural elements influencing MHM practices and the experiences of adolescent girls in numerous contexts. Osea's (2018) investigation into the effect of menstruation on the tutorial overall performance of excessive school girls in Migori County, Kenya, employed a descriptive research plan using questionnaires and interview courses for information collection. The study about affirmed that, notwithstanding familial efforts, especially with the aid of mothers, to instruct their daughters about menstruation in a manner that preserves their privacy, intimacy, and dignity, stigmatization remained widespread amongst many school going girls. Furthermore, the find out about highlighted the manifold challenges posed with the aid of menstruation, encompassing physical, socio-cultural, and financial constraints, all of which should hinder an adolescent girl's capacity to attend school and actively take part in lecture room and school activities. A current survey performed in 2018 with the aid of 'Save the Children Kenya' supplied treasured insights into Menstrual Hygiene Management (MHM) practices. This survey included eight schools in Central, Western, North Eastern, and Coastal regions, involving a complete of 420 individuals (comprising 212 boys and 208 girls). The survey results printed a hanging absence of MHM instruction for girls in all schools, with an extremely good shortage of academic materials. When attractive with girls at some point of the research, they articulated three necessary standards for categorizing lavatory stalls as "girl-friendly." These standards entailed the presence of a rest room with a lid, a rubbish can with a lid inside the stall, and a door geared up with a lock on the inside. Regrettably, none of the stalls in the surveyed schools fulfilled all three of these criteria. Another pivotal discovery from this research highlighted that schools in these

areas wished to contain training addressing puberty and menstruation management into annual planning and supervision activities. While these research shed mild on MHM troubles in each rural and city contexts, there stays a sizable hole in comprehending the challenges girls come upon at some stage in the onset of menstruation, their requisites for managing month-to-month intervals discreetly and with dignity, and how these challenges differ throughout various cultural contexts. This present know-how hole served as the impetus for the researcher to observe menstrual hygiene management knowledge, attitudes, practices, and there have an effect on school attendance amongst girls. A complete perception of girls' experiences throughout menstruation is integral to formulate evidence-based programmatic recommendations.

In the context of Osea's study, the findings underscored the persistence of stigmatization despite efforts to educate girls about menstruation within the familial sphere. The multifaceted challenges posed by menstruation, spanning physical, socio-cultural, and economic dimensions, were identified as impediments to the active participation of adolescent girls in school activities. This aligns with broader literature emphasizing the need to address not only the practical aspects of MHM but also the societal attitudes and norms surrounding menstruation.

The survey by 'Save the Children Kenya' revealed critical deficiencies in MHM guidance and facilities in surveyed schools. The specific criteria articulated by girls for "girl-friendly" bathroom stalls underscore the importance of addressing not just the availability of facilities but also their design and privacy features. The call for the incorporation of puberty and menstruation management classes into annual planning and supervision activities highlights the need for a systemic approach to MHM education within school structures.

In synthesizing these studies, it becomes evident that a holistic understanding of MHM encompasses not only the physical aspects of hygiene but also the broader social and cultural

contexts. The disparities in MHM experiences across different regions and cultural settings underscore the necessity for context-specific interventions and educational programs. The identified knowledge gap serves as a critical impetus for the current research, emphasizing the need for nuanced insights into girls' experiences during menstruation to inform evidence-based recommendations for MHM programs and policies.

2.2.2. School-Based MHM Programmes and School Attendance among Girls in Primary Schools

In recent years, both developing and developed nations have shown a growing commitment to incorporating effective menstrual hygiene management (MHM) practices into their national standards, particularly in the context of water, sanitation, and hygiene (WASH) in schools (WinS). National policies and strategies pertaining to education, sexual reproductive health (SRH), and WASH increasingly recognize the critical importance of MHM within the broader WinS framework. Despite these positive developments, global evidence over the past decade has brought attention to the complex challenges faced by schoolgirls in achieving safe, hygienic, and dignified menstruation (Hennegan et al., 2019).

Among the significant challenges identified are factors such as the lack of information preceding the onset of menstruation, insufficient health education on menstruation and puberty, limited social support from teachers, peers, and family members in managing menstruation within the school environment, and restricted access to essential resources like water, sanitation facilities, hygienic materials, and appropriate disposal infrastructure (Deo, 2005; Crockett et al., 2019; Haver et al., 2018). These barriers have resulted in gender disparities in physical school settings (Alexander et al., 2015) and have perpetuated menstruation-related stigma, leading to behavioral restrictions, feelings of shame, stress, and taboo, all of which negatively impact girls' educational experiences (Sommer et al., 2015).

Despite numerous programs addressing the MHM needs of girls in Kenya and globally, there is a pressing need for more rigorous evaluations. Moreover, where evidence exists regarding the impact of these programs on reproductive health (RH) and educational outcomes, findings often lack conclusiveness. A systematic review conducted in 2013, focusing on the effects of MHM programs, concluded that while some evidence supported the influence of MHM on psycho-social outcomes, the impact on RH outcomes remained unclear. The review also highlighted the scarcity of quantitative evidence related to reducing school absenteeism due to MHM and the absence of robust studies elucidating the impact of MHM on girls' overall health and well-being (Sumpter & Torondel, 2013).

The global effort to integrate MHM into national education, SRH, and WASH policies is undoubtedly a positive step forward. However, it is imperative to recognize the persistent and multifaceted challenges faced by schoolgirls in translating these policies into practical, impactful changes within their daily lives. The identified barriers, ranging from informational gaps to insufficient resources, underscore the need for a holistic and comprehensive approach to MHM within the school context.

The prevalence of gender disparities and the perpetuation of menstrual stigma emphasize the importance of addressing not only the physical aspects of MHM but also the socio-cultural and psychological dimensions. Interventions should aim not only to provide essential resources but also to foster a supportive and understanding environment that empowers girls to manage menstruation with dignity and without hindrance to their education.

As the global community continues to invest in MHM programs, there is a call for more rigorous evaluations that can provide conclusive evidence of the impact of these interventions. The existing gaps in understanding the link between MHM, reproductive health, and overall well-being highlight the need for targeted research and comprehensive studies that can contribute to the development of evidence-based policies and interventions.

Ultimately, a nuanced and thorough examination of MHM challenges and interventions is crucial to crafting effective strategies that promote the educational and reproductive health rights of girls worldwide.

Recognition of the menstrual hygiene management (MHM) needs of girls and girls' staff by school management, teachers, and parents has seen a positive shift in recent years. School-based health and nutrition services, as well as counseling services, play a crucial role in supporting girls. These services empower girls to seek advice on menstruation, obtain pain relief medication or sanitary materials, and find suitable spaces to rest when needed. Initiatives promoting the use of locally-made reusable sanitary materials have emerged, although supply chain challenges persist in various locations. Notably, a variety of sanitary pad brands are readily available across the region.

However, the level of national government involvement and leadership in addressing MHM exhibits significant variations within the region. Many initiatives are still in the pilot stage, and while some countries have incorporated MHM into their national monitoring systems, a comprehensive response is yet to be fully realized. It is crucial to acknowledge that girls and girls residing in hard-to-reach areas face numerous MHM challenges, particularly those marginalized due to factors such as geographical remoteness, caste, ethnicity, disability, disaster vulnerability, or extreme poverty (Buer, 2018).

A study conducted by Kuhlmann (2019) in an urban St. Louis, MD district sheds light on the MHM challenges faced by economically disadvantaged girls in higher-income countries like the United States. The study involved 58 girls students who completed a self-administered survey during registration and orientation. The findings highlighted a significant need among students for menstrual hygiene products, with frequent reliance on school resources to access these products. The discourse around MHM as a global public health issue has recently expanded to include economically disadvantaged girls in higher-

income countries like the United States. The research revealed that while schools worldwide are recognized as places where girls grapple with MHM challenges, there still needs to be more knowledge regarding the menstrual hygiene needs of students in the United States.

Ensuring adequate MHM in schools necessitates the availability of absorbent period products and provisions for space, water, soap, and privacy for changing these products. Inadequate MHM can lead to physical, emotional, and social repercussions, ultimately resulting in decreased school attendance and diminished academic performance (Thakur et al., 2019). In this context, school-based health and nutrition services must not only address the immediate needs of girls but also contribute to the broader conversation on MHM. Collaborative efforts involving school management, teachers, parents, and local communities are crucial to implementing sustainable solutions. Initiatives promoting the use of locally-made reusable sanitary materials are commendable, but addressing supply chain challenges remains imperative for the effectiveness of such programs.

The variation in national government involvement emphasizes the need for a more concerted effort to integrate MHM into broader national policies and monitoring systems. Pilot initiatives should be scaled up to ensure a comprehensive and standardized response that reaches all regions and demographics. Special attention should be given to marginalized groups facing additional challenges due to geographical remoteness, caste, ethnicity, disability, disaster vulnerability, or extreme poverty. The study in St. Louis, MD, underscores the importance of recognizing MHM challenges in economically disadvantaged settings, even in higher-income countries. It highlights the critical role schools play in addressing these challenges and emphasizes the need for a more nuanced understanding of MHM needs in diverse socio-economic contexts.

While progress has been made in acknowledging MHM needs globally, there is still work to be done to ensure a comprehensive and inclusive response. Collaboration between stakeholders at various levels, from local communities to national governments, is essential to address the multifaceted challenges faced by girls and girls in managing menstruation with dignity and without hindrance to their education.

As of 2019, only four U.S. states—California, Illinois, New Hampshire, and New York had enacted legislation mandating the provision of free menstrual hygiene products to students in schools. In contrast, other states, including Missouri, leave the decision to provide such products to local districts and individual schools. The limited legislative action can be attributed, in part, to a lack of understanding about menstruation and MHM among girls in schools. The existing literature prompted the researcher to explore the influence of school-based programs on school attendance among girls in primary schools.

Punjan (2017) carried out a find out about school-based menstrual hygiene management (MHM) applications in India, making use of a correlation research format with a pattern of 678 respondents. The research highlighted indispensable facts hole regarding the fabulous substances for facilitating effortless disposal, recycling, or composting. In India, the disposal of menstrual waste poses a giant challenge, with an estimated 121 million girls and girls the use of a common of eight disposables (non-compostable) sanitary pads monthly. These consequences in the disposal of about 968 million pads per month and a spectacular 11,616 million pads annually. The surge in disposable pad utilization necessitates sustained interest and sensible options built into Water, Sanitation, and Hygiene (WinS) packages and waste management systems. A complete strategy addressing the complete lifecycle of sanitary materials, from manufacturing to disposal, is crucial. This requires context-specific options developed through collaboration with girls, emphasizing long-lasting, sustainable solutions. Involving the non-public sector, mainly groups in the manufacturing and furnishing chain of

sanitary products, is probably to beautify each grant and appropriate disposal of used materials. Collaborating with waste management businesses and urging company social duty from industrial pad suppliers are key aspects of a holistic strategy.

Kuyote's (2014) complete study about Menstrual Hygiene Management worried 567 respondents, using quantitative research techniques. The research shed mild on the restricted interest given to grasp how MHM practices make contributions to school absenteeism and gender disparities in Zambia. Notably, the 'School Led Total Sanitation' (SLTS) initiative, carried out in rural Zambian schools, goals to promote sanitation and hygiene behaviors while bettering infrastructure, such as MHM-friendly facilities. Schools collaborating in SLTS applications are greater possibly to have elevated rest room services and devoted handwashing stations, presenting fundamental insights into the effectiveness of such initiatives regarding MHM. Mulangwa's (2015) find out about on MHM practices in Rwanda employed a descriptive research format with questionnaires and focal point team discussions. The study about printed that throughout the country, girls and girls principally use cotton clothes, sanitary pads, and different absorbent substances to manipulate menstruation. Despite authorities applications supplying pads to girls in schools, escalating charges and insufficient disposal choices inside schools may additionally jeopardize the long-term success of these initiatives. The accessibility, affordability, and regional fee disparities of commercially accessible pads in Rwanda pose challenges, especially for rural girls. Even with the availability of disposable pad brands, many girls conflict to manage to pay for them, requiring help to prioritize these purchases inside their families. The notion of a "girl-unfriendly" school surroundings concerning MHM characterizes an surroundings missing indispensable aspects for high-quality and at ease menstrual management (Sommer & Kirk, 2018). Ogeta, Wesonga, and Mumbi's (2011) find out about on sanitation services and their implications for the participation of girls in public foremost schooling

inside Thika municipality emphasized the challenges confronted by way of public principal schools. These school required greater toilets, with none assembly the Ministry of Education's encouraged rest room ratio of 1:25 for girls.

Addressing menstrual hygiene management troubles requires a holistic and context-specific approach, thinking about cultural, economic, and infrastructural factors. Sustainable options contain collaboration between stakeholders, consisting of the non-public sector, and the integration of MHM concerns into broader initiatives such as WinS and sanitation programs. Understanding the challenges confronted via girls in extraordinary contexts, consisting of the disposal of menstrual waste and the affordability of sanitary products, is critical for designing wonderful and culturally touchy interventions. The find out about findings underscore the want for ongoing research and realistic techniques to enhance MHM practices and create supportive environments for girls in instructional settings. Furthermore, the loos in most of these schools required greater ample maintenance, with flush bathrooms providing damaged cisterns. Essential facilities such as rest room paper, sanitary pads, and cleaning soap have been in brief supply. Shockingly, some schools resorted to hazardous coping mechanisms, such as permitting school students to relieve themselves in bushes. This uncovered them to ailments like diarrhea, cholera, and worm infections. Consequently, this dire state of affairs led to girls losing out of school or lacking instructions due to the bad sanitation services on hand (Ogeta et al., 2011). These findings are of paramount relevance to the modern study, as there is an pressing want to confirm if comparable prerequisites persist in Kisumu West Sub County whilst investigating the effect of school sanitation structures on school attendance.

While specific country-level data remains insufficient, a plethora of non-governmental organizations (NGOs), local African girls's groups, United Nations entities such as UNICEF, and an expanding cadre of academic researchers have delved into the factors that render a

school environment unfavorable for girls (El-Gilany et al., 2005). First, school environments are characterized by a complete absence of latrines or those with inadequate latrines. These inadequacies encompass factors such as insufficient numbers of latrines, their subpar quality, improper design, proximity to boys' latrines, safety of location, and the level of privacy they afford, including the availability of locks on the inside of latrine doors.

Second, school environments suffer from scarce or absent clean water availability. More specifically, these are contexts where water sources are distant from sanitation facilities such as latrines or toilets. Moreover, water is typically not provided within the latrines or toilets, necessitating more private facilities for handwashing and addressing menstrual-related stains.

Provision of sanitary materials, water, soap and privacy in schools, which is a water, sanitation and Hygiene (WASH) intervention, has not yielded clear positive outcomes concerning absenteeism across sub-Saharan Africa. For example, a study conducted by Mwangi (2014) in Kenya on school absenteeism found that maintaining the cleanliness of school latrines reduced the odds of absenteeism. Alarmingly, one in ten school-aged girls from low and middle-income families either misses school during menstruation or drops out of school upon reaching puberty due to the absence of adequate menstrual hygiene management (MHM) facilities. Quantitative investigations have demonstrated moderate to non-significant enhancements in school attendance associated with MHM interventions. Nevertheless, it is imperative to view WASH for MHM as a fundamental right, ensuring girls' comfort, self-assuredness, and consistent school attendance as a strategy to mitigate gender disparities in education, health, and broader socio-political and economic engagement.

Menstrual hygiene management (MHM) remains a critical yet often overlooked aspect of the broader field of public health, particularly concerning its impact on girls' education. In

various parts of the world, girls and girls face unique challenges related to menstruation that can significantly affect their educational experiences and overall well-being. These challenges underscore the need for comprehensive research and interventions aimed at improving MHM in educational settings.

Inadequate MHM practices can lead to a range of negative consequences for girls, including school absenteeism, diminished self-esteem, and increased vulnerability to reproductive tract infections. A study by Sumpter and Toronede (2013) emphasizes that menstrual hygiene is not merely a matter of comfort but is deeply interconnected with girls' education, health, and overall development. Addressing MHM challenges is not only a matter of hygiene but also a human rights issue, particularly regarding gender equality and the right to education.

One common challenge girls face in many parts of the world is the lack of access to affordable and hygienic menstrual products. While there has been a global push to provide free or subsidized menstrual products in schools, these efforts are not yet universal. For instance, as of 2019, only four U.S. states had enacted legislation mandating the provision of free menstrual hygiene products to students in schools (Thakur et al., 2019). In many low- and middle-income countries, girls often resort to using makeshift materials like old rags, leaves, or even old newspapers, during their periods due to the unavailability of sanitary products. These makeshift materials are not only uncomfortable but also pose significant health risks. Improper MHM practices can lead to infections, which can further disrupt girls' education. Furthermore, the stigma associated with menstruation in many societies can prevent girls from openly discussing their needs and challenges. This lack of dialogue can perpetuate misconceptions and taboos about menstruation, making it difficult for girls to access the support and information they need (Sychareun, 2020).

In some cases, the transition into womanhood that accompanies menarche can be fraught with social and cultural expectations, further impacting girls' education. For instance, in

some cultures, girls are expected to take on adult responsibilities immediately upon menstruating, which may include early marriage or limited access to educational opportunities (Lee, 2019). Such practices can reinforce gender disparities in education and limit girls' future prospects.

To address these multifaceted challenges, comprehensive MHM programs that encompass education, access to hygienic products, and the creation of safe and supportive environments in schools are essential. Such programs must be sensitive to cultural contexts and tailored to the specific needs of the communities they serve. Additionally, school sanitation plays a pivotal role in MHM. As highlighted in the study by Ogeta, Wesonga, and Mumbi (2011), the absence of adequate and well-maintained sanitation facilities in schools can have dire consequences for girls. In many cases, schools lack sufficient latrines, and the existing facilities may be in disrepair. Moreover, the absence of basic amenities like toilet paper, soap, and sanitary disposal bins can exacerbate the challenges girls face during menstruation.

Inadequate sanitation facilities can lead to girls avoiding school during their periods, which, over time, can contribute to a significant educational gap. Girls who miss school regularly during menstruation may fall behind in their studies and face barriers to completing their education. This, in turn, can limit their future opportunities and perpetuate cycles of poverty and gender inequality.

Efforts to improve school sanitation should focus on not only increasing the quantity but also the quality of facilities. Latrines should be designed to provide privacy and safety to girls, with locks on the inside of doors and adequate lighting. Additionally, schools must ensure the availability of essential items like toilet paper, soap, and sanitary disposal facilities. Moreover, water availability is a critical component of MHM in schools, hence, water sources should be accessible and situated close to sanitation facilities, since adequate water supply is essential for girls to maintain proper hygiene during menstruation.

In some contexts, there is a need for innovative waste management solutions for menstrual products. As more girls access disposable pads, the issue of menstrual waste disposal becomes increasingly important. Initiatives that promote the use of environmentally friendly and biodegradable products can be part of the solution (Punjan, 2017). Furthermore, MHM programs should not be limited to the school environment alone. Parents, communities, and policymakers must also be engaged to create a supportive ecosystem for girls. Awareness campaigns about the importance of MHM and the debunking of menstrual taboos can help change perceptions and behaviors.

Furthermore, the toilets in most of these schools required more adequate maintenance, with flush toilets featuring broken cisterns. Essential amenities such as toilet paper, sanitary pads, and soap were in short supply. Shockingly, some schools resorted to hazardous coping mechanisms, including allowing students to relieve themselves in bushes. This exposed them to diseases like diarrhea, cholera, and worm infections. Consequently, this dire situation led to girls dropping out of school or missing classes due to the poor sanitation facilities available (Ogeta et al., 2011). These findings are of paramount relevance to the current study, as there is an urgent need to verify if similar conditions persist in Kisumu West Sub County while investigating the impact of school sanitation systems on school attendance.

Menstrual hygiene management (MHM) remains a critical yet often overlooked aspect of the broader field of public health, particularly concerning its impact on girls' education. In various parts of the world, girls and women face unique challenges related to menstruation that can significantly affect their educational experiences and overall well-being. These challenges underscore the need for comprehensive research and interventions aimed at improving MHM in educational settings.

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campaigns about the importance of MHM and the debunking of menstrual taboos can help change perceptions and behaviors.

Recently, the global significance of menstrual hygiene management (MHM) and its profound implications for girls' education and overall well-being has attracted significant recognition globally. This emerging awareness has prompted various stakeholders, including governments, non-governmental organizations (NGOs), and international bodies, to take proactive steps in addressing the MHM needs of school-going girls. While substantial progress has been made, there remain substantial challenges in ensuring that girls have access to adequate MHM facilities, information, and support, particularly in low-resource settings.

One key aspect that has gained traction in MHM initiatives is the promotion of reusable menstrual products. These products, such as menstrual cups and reusable cloth pads, are not only cost-effective but also environmentally sustainable. They offer a practical solution for girls who may struggle to afford disposable sanitary pads regularly. By providing girls with information on these alternatives and ensuring their accessibility, MHM programs can empower girls to manage their menstruation effectively and without interruption to their education.

Moreover, the provision of gender-sensitive sanitation facilities in schools is pivotal. These facilities should not only be hygienic but also ensure the privacy and dignity of girls during menstruation. Adequate water supply, soap, and waste disposal mechanisms are essential components of such facilities. Initiatives focusing on constructing and maintaining these facilities in schools have shown promise in improving girls' attendance and overall experience during menstruation.

It's important to highlight that MHM is not solely the responsibility of schools. Families and communities play a crucial role in supporting girls through their menstrual journey. Engaging parents and caregivers in MHM discussions and awareness campaigns can help reduce stigma and ensure that girls receive the necessary support at home. Furthermore, community-driven initiatives can complement school-based programs by addressing MHM challenges holistically.

In addition to the physical aspects of MHM, addressing the cultural and social dimensions is equally important. Stigmatization and taboos surrounding menstruation persist in many societies, affecting girls' self-esteem and their willingness to openly discuss their menstrual needs. Comprehensive sexuality education programs that incorporate MHM can help challenge these norms and empower girls to embrace their bodies confidently.

While many strides have been made in the field of MHM, it's essential to acknowledge that the landscape is continually evolving. New research, innovative solutions, and lessons from successful programs continue to shape the way we address MHM challenges. As we move forward, it is imperative to adopt a holistic and multi-dimensional approach that considers not only the practical aspects of MHM but also the cultural, social, and psychological factors that influence girls' experiences.

Effective menstrual hygiene management requires accessibility to clean, absorbent menstrual materials, and the provision of privacy, water, soap, and proper facilities for disposing of used menstrual products. However, it is crucial to highlight that many schools in Kenya, particularly those in rural areas, face significant deficiencies in these essential facilities. These deficiencies encompass the absence of water provisions that would allow girls to maintain personal hygiene, including washing their hands, external genitalia, and soiled clothing. Furthermore, these schools often lack privacy, soap, sanitary pads, and appropriate disposal solutions for used pads.

The absence of sanitary pads or suitable alternatives places girls in a challenging predicament, as it compromises their participation in classroom activities and affects their psychological well-being. The fear of staining their clothing, along with the potential for peer teasing and humiliation, can lead to increased absenteeism among girls during menstruation. Additionally, it is noteworthy that aside from the hormonal changes associated with menstruation, girls' academic performance in Kenya has been observed to decline following the onset of menstruation.

The literature reviewed thus far underscores the disparities in approaches taken by schools in different regions regarding the support provided to girls during menstruation. This includes variations in the programs and amenities available to them and the level of support extended by different stakeholders to ensure their continued access to education. Building upon this foundational understanding, the researcher's objective is to conduct a comprehensive examination of school-based programs and assess their impact on girls' attendance in primary schools.

2.2.3. Information Dissemination and School Attendance among Girls

Azamfirei (2016) posited that when Sir Francis published his work, "Meditationes Sacrae" (1597), he likely aimed to convey the idea that knowledge itself is the bedrock of reputation and influence. Thus, power and all achievements stem from it. Leonard further emphasized that in contemporary times, scientific knowledge is disseminated through publications that not only inform but possess the potential to shape decision-making processes.

There is a pressing need for dedicated efforts to investigate the ramifications of inadequate MHM on girls' school attendance, particularly in elucidating its role in exposing them to heightened risks of schoolgirl pregnancies and sexually transmitted infections. To address the unpredictability of reported symptomatology among girls (and girls), laboratory-based

support becomes indispensable. Moreover, it is imperative to devise innovative MHM interventions, individually or as comprehensive packages, tailored to diverse settings. These interventions should undergo rigorous evaluation to ascertain their impact on various outcomes while gauging their sustainability and cost-effectiveness.

While the existing body of evidence on MHM is comprehensive in elucidating the barriers girls encounter in schools across many low- and middle-income countries (LMICs), it remains insufficient in verifying critical outcomes that profoundly affect girls' lives. Notably, the MHM-specific effects have yet to be fully explored. Although inequitable school environments have been shown to disadvantage girls, increasing their vulnerability to pregnancy and dropout, there remains a dearth of evidence concerning MHM-specific effects. The assessment of intermediate outcomes, such as school absence, which may contribute to dropout or academic underachievement, has yielded mixed results, with no significant impact observed after the provision of menstrual products. Furthermore, no studies have delved into girls' academic achievements within the school system (Unterhalter & Aikman, 2017).

In recent years, there has been a noticeable shift in the strategies employed to address menstrual hygiene management (MHM) challenges among schoolgirls, particularly in low-resource settings. While teachers have historically played a pivotal role in imparting MHM knowledge, new approaches have emerged to complement their efforts and enhance the scalability and effectiveness of MHM programs.

One prevalent approach is the involvement of healthcare assistants and educators, especially in regions where teachers' workloads are already substantial, as observed in countries like India and the Maldives. These programs, mandated by specific government initiatives, delegate the responsibility of MHM education to healthcare assistants and educators. While

this approach has shown promise, there is a need to evaluate its effectiveness and potential for scalability.

Furthermore, in countries like Bangladesh, Nepal, India, and Pakistan, MHM initiatives in schools have often taken the form of ad hoc extracurricular activities supported by NGOs and private sector agencies. NGOs have played a crucial role in filling the gap left by teachers by providing MHM education to adolescents and supplying additional studying resources. Contracting NGOs to deliver services under the supervision of government ministries has been suggested as an effective way to impart comprehensive MHM education that goes beyond biology curricula, encompassing broader aspects of reproduction and reproductive health. For instance, in Bhutan, NGOs like the Bhutan Nuns Foundation and SNV have been involved in training teachers and directly teaching MHM to students as extracurricular activities. A similar trend is observed in India, where MHM education is increasingly outsourced by schools to specialised NGOs, including international ones like WASH United UNICEF and local NGOs such as Khel and Pasand.

Moreover, various organizations have actively supported teacher training and outreach efforts carried out by those in the front line at the school as well as school levels in different regions. Community-based groups and local NGOs, with their deep understanding of local cultures, have been effective in tailoring MHM messages and initiatives to suit specific communities. In Pakistan, for instance, IRSP and UNICEF have collaborated to empower mothers to engage more effectively with their daughters about MHM. This initiative not only aims to improve MHM education but also addresses harmful traditional practices while supporting girls in creating reusable pads. These community-driven efforts have demonstrated the potential for grassroots involvement in MHM education.

MHM challenges have been addressed by designating specific spaces in schools in some countries. For instance, in the Maldives, "health" rooms have been established in many schools where girls can find respite and access painkillers as well as emergency pads.

Bangladesh's WaterAid program has changing rooms adapted to MHM in order to provide private changing and washing areas without waiting in queues. WaterAid Nepal put "resource centers" within schools, enabling the girls to access MHM information through shared materials that also have personal and health education information. These interventions serve as demonstrative projects showcasing the potential for enhancing school-level facilities for MHM, in spite of the fact that they are in small scale.

Additionally, there is emerging evidence suggesting that adolescent girls are actively challenging traditional norms surrounding menstruation through online social interactions with their peers. Polak's (2016) research into online spaces revealed that girls are reshaping the discourse around menstruation, engaging in candid and open discussions. These discussions encompass answering questions, validating experiences, and even addressing highly stigmatized aspects of menstruation. This digital platform provides a space for girls to foster a healthy sense of self and challenge the historical negative narrative surrounding menstruation.

However, it's essential to recognize that online discussions may inadvertently exclude girls who lack immediate access to computers, and factors like ethnicity, social class, or sexual orientation could influence girls' perspectives and participation. Moreover, while these digital conversations provide an avenue for open discourse, they should complement, not replace, comprehensive MHM education within schools and communities.

One significant aspect of this evolving landscape is the role of teachers in MHM education. Teachers have traditionally been at the forefront of imparting knowledge about menstruation

to students. They play a crucial role in educating girls about the biological and practical aspects of menstruation, including hygiene practices and the use of menstrual hygiene products. Their position as trusted figures in students' lives makes them instrumental in addressing MHM challenges. However, it is essential to acknowledge that the effectiveness of teacher-led MHM education can be influenced by various factors.

For instance, the willingness and preparedness of teachers to discuss MHM topics can vary widely. Some teachers may feel comfortable addressing these issues openly and engaging in dialogue with their students. In contrast, others may shy away from such conversations due to cultural norms, personal discomfort, or inadequate training. This variability in teacher readiness underscores the importance of providing teachers with the necessary support, training, and resources to deliver effective MHM education.

Furthermore, the curriculum and educational materials used in schools can significantly impact the quality of MHM education. In some regions, MHM topics may be inadequately covered or omitted altogether from the curriculum. Even when included, the materials used may lack cultural sensitivity and relevance to the local context, making it challenging for students to relate to the content. To address these issues, there is a growing call for the development of culturally appropriate and inclusive educational materials that can enhance MHM education in schools.

Moreover, the stigmatization and secrecy surrounding menstruation in certain cultures can create barriers to open discussions in the classroom. In societies where menstruation is considered taboo or shameful, girls may feel reluctant to seek information or support from teachers. Tackling the stigma associated with menstruation is a crucial aspect of promoting MHM and ensuring that girls feel comfortable discussing their needs and concerns.

In addition to teacher-led education, several countries have implemented government programs and policies aimed at improving MHM in schools. These initiatives often involve the provision of free menstrual hygiene products to students, the establishment of private and hygienic sanitation facilities, and the integration of MHM topics into the broader school curriculum. While these efforts represent significant strides in addressing MHM challenges, their effectiveness can vary based on factors such as funding, infrastructure, and implementation at the local level.

Furthermore, it is essential to consider the specific needs of marginalized groups of girls who may face additional barriers to MHM in schools. Girls living in rural or remote areas may encounter challenges related to access to sanitary products, clean water, and private sanitation facilities. Those from low-income families may struggle to afford menstrual hygiene products, leading to absenteeism during menstruation. Additionally, girls with disabilities may require tailored support to ensure that MHM facilities are accessible and accommodating.

Understanding the diverse needs of these marginalized groups and implementing targeted interventions is vital to achieving inclusive and equitable MHM in schools. This includes providing financial assistance to girls from disadvantaged backgrounds, ensuring that schools have accessible and gender-sensitive sanitation facilities, and offering support and education that considers the unique requirements of girls with disabilities.

Addressing MHM challenges among schoolgirls is a multifaceted endeavor that requires a holistic approach. While teachers play a central role in MHM education, it is essential to provide them with the necessary training and resources to deliver effective and culturally sensitive instruction. Additionally, government programs and policies can significantly contribute to improving MHM in schools, but their success depends on factors like funding and local implementation. Finally, recognizing and addressing the specific needs of

marginalized groups of girls is crucial to achieving equitable MHM outcomes. By considering these various dimensions, we can work towards ensuring that no girl's education is hindered by the challenges of menstruation, ultimately promoting gender equality and social inclusion in education.

Incorporating these evolving approaches alongside teacher-led MHM education can create a more robust and comprehensive framework to address the multifaceted challenges girls face during menstruation. As we continue to refine our strategies, it is imperative to consider the unique needs of each community and leverage a combination of resources, including teachers, NGOs, community-based organizations, and digital platforms, to ensure that no girl's education is disrupted by her menstrual cycle.

The study highlighted a critical gap in low and middle-income countries, where girls often lack suitable facilities and support within schools to manage menstruation effectively. Additionally, it underscored the scarcity of research exploring the impact of menstruation on school absenteeism. The findings elucidated several risk factors contributing to school absence, including girls' attitudes, misconceptions about menstruation, inadequate school facilities, and familial restrictions. The study emphasized that equipping girls with the knowledge and management techniques necessary to navigate menstruation at school before menarche, along with ensuring privacy and fostering a positive social environment around menstrual issues, has the potential to mitigate school absenteeism.

Furthermore, the study cast doubt on the accuracy of official school attendance records, positing that these records tend to be over-reported due to schools being funded based on student enrollment. The study then suggested that toilets in schools be constructed in areas easily accessible during school hours. The school curriculum should incorporate menstrual education for girls at least three years before their first menstruation experience. Sensitizing communities to engage in conversations with girls about menstruation and encouraging their

attendance in school during menstruation emerged as another crucial recommendation. Finally, the study advocated for developing teachers' capacity to deliver menstrual hygiene education effectively.

A survey report by the United Nations 2014, employing a survey research design along with focus group discussions and structured questionnaires, revealed that most Asian countries do not teach Menstrual Hygiene Management (MHM) systematically in schools since MHM is not incorporated in as a topic in their curricula. Occasionally, while teaching subjects like life skills, (covering Sexual Education, Sexual and Reproductive Health, and Puberty Education), Religious Education, or Science/Biology classes, MHM is only mentioned in passing. Unfortunately, most girls are not privileged to receive this information before their first period and hence are ill prepared for what they have to experience. On the other hand, some teachers are not in a position to address issues related to MHM in the classroom due to embarrassment, unwillingness and even low confidence in handling this, as a topic. For instance, in Nepal, Sexual and Reproductive Health (SRH) and Hygiene Education classes based on life skills are conducted for grades 6-9. However, child-friendly, and information appropriate for their age may not be delivered to the girls before they experience their menarche. In Bhutan, teaching life-skills/SRH is optional in all religious institutions in spite of the presence of a factsheet on the same. Within the WASH (Water, Sanitation, and Hygiene) and education sectors, there is growing interest in advocating for the inclusion of MHM in teaching curricula consistently and comprehensively.

It is often necessary to offer training and provide more resources for teachers in order to enhance their knowledge of MHM, and the region has made efforts to address this gap. For example, in India, the National MHM Consultation held in 2016 found it necessary to systematically build the capacity of teachers and educators by addressing their needs and using the master training approach as well. In Nepal, the Department of Education includes

MHM awareness in all management trainings conducted within the nation. Additionally, a training package titled 'Integrating MHM into School Health Programme' was collaboratively developed in 2015 by NFCC, Water Aid, Save the Children and GIZ. This package has undergone pilot implementations in select districts to enhance the confidence and competence of teachers in addressing MHM topics.

Okafor's 2015 study on Menstrual Hygiene Management in Ghana employed interview schedules and structured questionnaires, with data analysis encompassing descriptive and inferential statistics. The study findings shed light on the efficacy of the peer group approach, which fosters peer-to-peer MHM studying through the support of existing girls' groups, particularly those concentrated on menstrual hygiene education. In the southern regions of Ghana, these groups led by peers are endeavoring to formalize and establish federations at the district levels bolstered by the guidance of a dedicated teacher or community health worker.

However, textbooks used in the region's schools predominantly present biological information about menstruation, neglecting vital aspects such as how to effectively manage menstruation and the socio-cultural and emotional dimensions of this experience. To address this deficiency in materials related to MHM education, there has been deliberate moves to enhance the capacity of teachers and improve on the educational materials, for imparting this knowledge in the classroom. Furthermore, endeavors have been made to publish materials more tailored to girls' needs. Notable examples include the publication "Growing Up Well for Girls," a 16-page booklet jointly produced by the Ministry of Education (MoE) and UNICEF. This booklet offers guidance on best practices upon attaining puberty, menstrual hygiene, individual hygiene, use and disposal of used sanitary pads. The Participatory MHM Toolkit is another valuable resource to facilitate open discussions about MHM issues and dispel myths, targeting all and sundry in the education sector and at home.

In collaboration with the MoE, UNICEF developed guidelines that were introduced together with an interactive booklet designed for girls. This booklet imparts information about menarche, addresses MHM-related queries, and counters prevailing myths. Innovative tools, such as speaking books, have been recognized for their potential to raise MHM awareness among non-literate girls. Several MHM informational materials have been devised for specific Water, Sanitation, and Hygiene (WASH) programs, encompassing booklets and flashcards intended for use by both teachers and students during hygiene education sessions.

In the Kumasi region, diverse teaching and studying materials have been developed alongside innovative outreach strategies. These initiatives include campaigns at the school level geared towards promotion of best MHM practices and sanitation, competitions at the district level in order to identify schools that offer sanitation options that are friendly to the girls, and an essay competition conducted at the national level that is centered on girl friendly sanitation. Using social and print media underscores the importance of using both formal and informal channels to promote MHM in schools, a discovery highlighted during the 2017 ILE event in Ghana.

Malemba's (2017) study, focusing on the Menstrual Hygiene Management curriculum in Tanzania, adopted questionnaires as the primary data collection tool, involving a sample size of 893 respondents. Data analysis encompassed frequencies, percentages, correlations, and regressions. The study demonstrated that successful efforts to incorporate MHM into the curriculum in some schools could serve as replicable models. However, the study emphasized the vital role of teacher training and providing educational resources in sustaining these efforts. The engagement of formal communication channels, particularly within the reproductive health sector, was suggested as a more suitable approach in specific contexts. Additionally, non-formal and creative communication platforms, including games,

were identified as practical tools for raising awareness and empowering young people to engage in MHM discussions.

Cell phones, apps and social media have received traction to dispel traditional beliefs and reduce the stigma surrounding menstruation. SMS-based polls and live chats have targeted girls with mobile phones, facilitating dialogue on MHM. Innovative online tools and educational videos, alongside comics like Menstrupedia, have been created to offer easily accessible resources for girls, contingent on internet access. The "Touch the Pickle" campaign for sanitary protection by Procter and Gamble has now become more substantially reachable.

Although provision of separate toilets and spaces for boys and girls has been significantly achieved, challenges still persist due to inadequate infrastructure, and it is noted that 49% and 76% of schools lack adequate buildings and electricity respectively. Consequently, several schools need better-equipped Water, Sanitation, and Hygiene (WASH) facilities, and, although girls are provided with separate toilets, it is noted that only 34% of girls acknowledge using them to clean and change sanitary materials. Common reasons presented include limited options for disposal and inadequate water and privacy. In essence, many schools in the region need to have girls' toilets that are equipped to cater for the practical MH needs of students who are girls.

The existing gaps in infrastructure encompass poorly constructed toilets, missing doors/locks, inadequate lighting, absence of hand washing facilities, insufficient MH products (such as toilet paper and cleansing materials, including emergency absorbents), including limited services (lack of running water, uncleaned toilets, inadequate waste disposal options, etc.). This situation aligns with the critical components of WASH in schools, which entail overall hygiene and proper hand washing, provision of toilets, drainage systems, and environmental sanitation.

Jewitt and Ryley (2022) conducted a study in Kenya to address the challenges of managing menstruation in school environments. Notably, the gender of the teacher becomes especially significant at the onset of menarche. This transition often invokes fear, anxiety, and emotional distress in some girls. Girls teachers are better positioned to understand and address these emotional aspects. However, many rural schools face a shortage of girls teachers, which may lead some girls to opt for school absenteeism during their menstrual periods.

Kibet (2014) highlights Kenya's innovative ways to improve on awareness of MHM and reduction of exclusion. Campaigns are used and various mediums are employed by involving installation/performance artists, celebrity figures actresses, alongside participatory photography that has allowed girls to express their concerns, while initiatives like the "4 days of fun" campaign incorporate speech and photo/selfie competitions. The "Period Power" movement features actors sharing their experiences with menstruation. It is important to address the knowledge of MHM and behaviour change as well as the quality of WinS in order to improve the MHM services in schools. It is also essential to advocate for MHM awareness and to include it in WinS budgets and programs.

Kenya has conducted MHM-focused formative research and Knowledge, Attitudes, and Practices (KAP) analyses to inform both program development and advocacy efforts.

These research endeavors aim to have a better understanding of socio-cultural factors, perceptions and contextual factors that influence school menstrual hygiene management. The literature reviewed underscores the diverse strategies and programs implemented by various stakeholders on a global, regional, and local scale. However, there needs to be a consistent multi-stakeholder framework for menstrual hygiene management and a dearth of evidence measuring the outcomes of such interventions. The current study endeavors to bridge this gap.

2.2.4. School Menstrual Sanitation Systems and School Attendance among Girls

There is a growing acknowledgment that menstrual hygiene encompasses multiple sectors and necessitates a holistic approach, particularly involving education, adolescent protection, WASH (Water, Sanitation, and Hygiene), health, and gender sectors, as highlighted by the Ministry of Health in 2020. As the emphasis on the significance of menstrual hygiene for girls by the body of research expands, a heightened commitment exists to address this issue, notably through the prism of WASH in Schools (WinS) programs. Several studies have consistently underscored that inadequate information, the absence of facilities that are MHM friendly, lack of menstrual hygiene materials, and inappropriate social support for schoolgirls and girls educators significantly impedes their full engagement in the educational process, consequently impacting the quality of education.

Prominent organizations such as UNICEF and WaterAid have taken proactive measures by integrating Menstrual Hygiene Management (MHM) into WinS programs. This integration can potentially empower both students and teachers, focusing on bolstering the confidence and participation of girls as well as girls teachers. Recognizing how important MHM is within the school environment, relevant indicators have been included in monitoring guidelines for WinS, aligning with the Sustainable Development Goal for Education (SDG4). Several national policies, directives, and strategic plans further reinforce this integration.

Considerable experience has been gained in developing effective WinS programs, with several South Asian countries conducting formative research to gain deeper insights into the barriers confronting girls in educational settings and the current MHM practices. These insights have informed the integration MHM components that are sensitive to gender issues into the available national WinS programs, driving advocacy efforts for more excellent leadership and involvement by Ministries of Education in the planning, monitoring, and

evaluation of Menstrual Hygiene Management. Additionally, those charged with MHM friendly WASH services are being closely monitored to ensure accountability, yet even with these advancements, gaps that are very critical still persist, including the need for more inclusive MHM programming targeting marginalized girls and girls who face geographical, caste, or ethnic disparities, disability-related challenges, disaster impacts, or economic deprivation. Another aspect that cannot be overlooked is strengthened monitoring of MHM services provided in schools and development of operative strategies for safe menstrual waste disposal.

In South Asia, many girls report non-attendance at school during menstruation, with parents often keeping their daughters at home. Emerging qualitative research from across the region suggests that over one-third of girls miss school for 1-3 days each month due to menstruation-related factors. Girls and girls in low and middle-income countries (LMICs) frequently encounter formidable hurdles in managing menstruation. These challenges encompass limited knowledge, inadequate access to quality menstrual materials, deeply ingrained menstruation-related taboos, and deficient water, sanitation, and hygiene (WASH) facilities. These multifaceted challenges can harm education, employment, health, and psychosocial well-being.

The World Health Organization (2016) emphasizes that ensuring that schools have clean water and a hygienic environment as a tool to advance the Sustainable Development Goals, particularly Universal Primary Education (UPE), child mortality reduction, and the promotion of gender equality. Substandard school sanitation conditions disproportionately affect students, especially menstruating girls, creating an unwelcoming educational environment. If addressed, these hygiene management challenges will continue to undermine the potential of girls and impede that as many United Nations Sustainable Development Goals as possible are attained.

Recognizing that providing sanitary products alone does not singularly resolve school attendance issues is crucial. It is resorting to overly simplistic strategies and risks undermining the legitimacy of the MHM subsector. In development programming, there is often a temptation to seek a quick fix, a "silver bullet" that supposedly keeps girls in school, often embodied in neatly packaged sanitary products. However, this approach overlooks the intricate nature of the problem and the diverse needs of adolescent girls. The objective extends beyond merely increasing the number of girls seated in classrooms; it encompasses nurturing an environment where girls feel safe, actively study, and, crucially, hold a sense of dignity while possessing the tools to uphold it.

In their complete systematic evaluation performed in the United Kingdom (UK), Julie and Paul (2016) delved into the quintessential trouble of Menstrual Hygiene Management (MHM) and its influence on the training and psychosocial well-being of girls and girls. They highlighted the incidence of unhygienic and ineffective MHM practices in low-resource settings, underscoring the destructive penalties for girls. The interventions in this area have been labeled into two groups: Hardware interventions, which tackle cloth deficiencies by way of presenting absorbents or enhancing Water, Sanitation, and Hygiene (WASH) facilities, and Software interventions that goal understanding deficits concerning menstruation and its management thru academic initiatives. The assessment emphasized that Health and Social research has solely currently begun to tackle the not noted importance of MHM as a fundamental improvement problem and a bold impediment to attaining gender equality. A synthesis of quantitative and qualitative research indicated that insufficient MHM led to school absenteeism, distraction, and disengagement amongst affected girls. Grant, Lloyd, and Mensch (2015) performed a find out about focusing on school absenteeism in the American context. Their research findings published that menstruation-related absenteeism accounted for a noticeably small component of girls absenteeism and did not

create an outstanding gender hole in absenteeism rates. Employing a descriptive research graph with a pattern dimension of 789 respondents, they find out about amassed records with the aid of questionnaires. Notably, the study about did no longer perceive school-level variants in menstruation-related absenteeism, suggesting that particular school environments no longer appreciably affect this phenomenon. However, a fascinating statement was once made that girls co-residing with grandmothers exhibited decreased odds of lacking school all through their menstrual periods. Agbone's study about (2017) in Nigeria headquartered on the accessibility, affordability, and fee of commercially accessible menstrual pads. Utilizing a correlation graph with a pattern of 652 respondents, structured questionnaires and interview schedules have been employed for records collection. The research consequences underscored regional disparities inside Nigeria, specially highlighting that rural girls confronted greater vast challenges in phrases of their capability to achieve sanitary substances as in contrast to their counterparts in the city set up. Affordability of the disposable pads remained a huge impediment for many girls, and even though they had been reachable in many regions, the girls' capacity to have the buy of pads covered in the household price range remained a large challenge. Furthermore, inadequate teaching concerning menstrual management and insufficient water, disposal, and non-public altering services in low- and middle-income areas left schoolgirls with restrained picks for keeping acceptable private hygiene at some point of menstruation. Notably, the find out about additionally discovered that most instructors believed that school management practices associated to menstrual hygiene appreciably influenced girls' school attendance, with insufficient lavatory amenities rising as a fantastic obstacle in the course of menstruation. While several observational research in Nigeria has described the destructive impact of MHM obstacles on girls' dignity, well-being, and engagement in school activities, there stays a vital role in confirming whether or not insufficient MHM facts and amenities drastically have an effect on quantifiable instructional and fitness outcomes, thereby influencing girls'

prospects. Pursuing proof in this area faces challenges stemming from the absence of standardized research methods, tools, and ample research funding, which should be addressed. In Uganda, Masanju (2015) embarked on a study about inspecting the renovation of reusable pads and cloths. Employing an exploratory design, facts was once amassed via questionnaires and analyzed the usage of SPSS. They find out about printed that girls did not often dry the substances used for safety in the solar after washing, alternatively, hid them in drawers or in the roof rafters. It used to be referred to that this exercise used to be influenced through the perceptions about menstrual blood being viewed with the aid of others and beliefs about menstruation as a whole. Building upon this, Rajanbir, Kanwaljit, and Rajinder (2018), in a find out about focusing on menstrual hygiene, management, and disposal in growing countries, emphasized the significance of hygienically washing and sun-drying reusable material pads. They highlighted that the sun's warmth used to be a herbal sterilizer, rendering the cloths or material pads protected for future use. Additionally, they underscored the want to keep fabric pads in clean, dry locations to forestall contamination, emphasizing the stability between the cost-effectiveness, availability, and eco-friendliness of fabric pads and the essential of keeping suitable hygiene practices for their re-usability. Another vast element to ponder is how the usage of sanitary pads and their disposal practices influence girls. This thing used to be a compelling motive why girls and girls favored washing garments earlier than disposing of them. However, sanitary pads introduced a great downside in this regard. This trouble highlights the want for a nearer examination of sanitary pad utilization and disposal practices. There desires to be greater context-specific research on Menstrual Hygiene Management (MHM) in most areas of Uganda, especially inside school settings. Surprisingly, there are no posted research on MHM in the context of schools. Despite elements of menstruation being covered in fitness schooling delivered in most important and secondary schools via the National School Health Programme (UKS), restricted records advise that many girls have to be geared up to navigate menarche.

Additionally, provision of integral amenities like water, and applicable sanitation, in school stays a power challenge. As of 2016, the Ministry of Education and Culture mentioned that solely one-fifth of the public predominant school in Uganda's great community had totally purposeful school toilets. In every other pertinent study about by means of Konani (2014) carried out in Kenya, a descriptive research sketch used to be employed with a pattern dimension of 453 respondents. They study about gathered facts, the usage of questionnaires, and center of attention team dialogue guides. Konani's investigation published that insufficient clean, functional, private, and gender-specific WASH facilities, concern of menstrual blood leakage, constrained get admission to to sanitary materials, and inappropriate responses from male school students and instructors had been often noted elements related with bad Menstrual Hygiene Management (MHM) and menstruation-related absenteeism in the taking part Kenyan schools. Moreover, they study about observed that fatigue and menstrual aches decreased awareness and participation among girls students. These ordinary episodes of diminished engagement and absenteeism had repercussions, culminating in bad tutorial performance, improved dropout rates, and diminished academic accomplishments. These penalties have an impact on gender equality, financial prospects, and ordinary fitness outcomes. However, school additionally current a integral avenue for bettering MHM.

Schools are acknowledged as influential platforms for disseminating educational interventions to improve MHM knowledge and practices while dispelling harmful misconceptions and stigma. In Kenya, there needs to be more comprehensive insights into MHM-related knowledge, attitudes, practices, and their impact on girls. Consequently, there is a pressing need for an evidence base to inform MHM programming and interventions. A school-based survey was conducted among adolescent girls in Kenya to address this informational void. The survey's objectives were to gauge the prevalence of MHM practices,

examine the link between menstruation and school absenteeism, and identify factors contributing to absenteeism and also inadequate MHM facilities, as well as to identify strategic goals for interventions in policies and programs. Although the referenced studies generally reported limited or negligible effects of sanitary facilities on girls' school attendance, they each unveiled crucial findings in the realm of MHM. Notably, the Nigerian study indicated that puberty education alone could positively influence girls' school attendance, with sanitary pads potentially contributing to preventing vaginal infections. Furthermore, in each study, girls consistently expressed reduced embarrassment when accessing sanitary products.

The shame and stigma girls encounter due to poor Menstrual Hygiene Management are manifestations of a more profound issue an entrenched problem of gender inequality exacerbated by poverty that permeates all facets of girls' lives, including their education. While MHM may not be a panacea for dismantling the complex structure of gender inequality, it undeniably constitutes an integral component of an adolescent girl's life intricately linked to her sense of dignity. Consequently, MHM must be central in programs that enable girls to lead secure, healthy, and flourishing lives. The identified gaps in the existing literature underscored the researcher's imperative to evaluate the impact of menstrual hygiene management sanitation systems within schools on girls' attendance.

2.3. Girls Socio-Cultural Practices, Attitudes and Perceptions on Menstrual Management

Menstruation, a crucial physiological process, occurs in the majority of girls during their puberty. Managing menstruation in unhygienic conditions or inappropriate environments has been associated with adverse health and social consequences. On an individual level, insufficient menstrual hygiene management (MHM) places adolescent girls and girls at risk

of urogenital infections and psychosocial stress. It limits their access to education and employment opportunities (Scott & Montgomery, 2016).

Numerous cultures harbor beliefs and myths surrounding menstruation. Invariably, social norms, unwritten rules, and practices dictate how menstruation is managed and how menstruating girls are treated. Most cultures have clandestine codes and rituals concerning menstruation, some of which offer support, while others carry potentially harmful implications. Many of these myths and social norms impose restrictions on the participation of girls and girls in society, making their daily lives challenging and constraining their freedom. For instance, in certain cultures, girls and girls are advised not to bathe during their menstrual cycle (for fear of infertility), refrain from touching a cow (to prevent its infertility), avoid looking in a mirror (lest it loses its luster), or touching a plant (Scott & Montgomery, 2016).

A healthy adolescence serves as the pathway to a healthy adulthood. As highlighted by Mallehappa et al. (2021), adolescents constitute 20% of the global population. Around the world, diverse beliefs and perceptions regarding menstruation exist, which either hinder or promote the health of adolescent girls. Unfortunately, adolescents often receive minimal information due to limited support from parents and school teachers and societal restrictions. Misconceptions about menstruation and related hygiene prevail in various cultures, causing many schoolgirls in these regions to struggle with menstrual management. In countries like India, many underprivileged girls use unsanitary materials such as dirty cloth, husks, and dried leaves, resulting in injuries and infections that lead to school absenteeism (Santina et al., 2020).

Limited research has been conducted on menstruation and related hygiene practices. Anuradha (2020) conducted a study on menstrual hygiene in South Asia, revealing that most menstruating girls lacked proper hygiene practices during menstruation. Nair et al. (2011)

conducted a school study that reported symptoms suggestive of reproductive tract infections (RTIs) in 36% of girls. Additionally, a study in Thiruvananthapuram found that only 45.5% of girls used sanitary pads. Among cloth users, 75% dried their materials in sunlight, while 76% disposed of them by burning them. Another study in Kochi, conducted by Unni et al., revealed that only 8% of girls were aware of all aspects of maintaining menstrual hygiene (Ten VT, 2019).

Cultural, religious, and traditional beliefs exert significant influence, often imposing various restrictions on girls and girls during their menstrual periods. In some communities, deeply rooted traditions prohibit girls and girls from using water sources while menstruating. A stark illustration of this phenomenon is found in certain areas of Gujarat, India, where a staggering 91% of girls in South Asia reported refraining from using toilets during menstruation, primarily driven by the fear of staining the facilities (Scott & Montgomery, 2016).

Diverse cultural perspectives shape beliefs about menstruation, with some resorting to derogatory labels such as "the curse," "on the rag," "weeping womb," "bloody scourge," "the red plague," "under the weather," and "being unwell." These labels often come with associated local names, like the "Red" (Costos, 2002). These cultural attitudes have a profound impact on various aspects, including teacher attitudes towards menstruation management, school menstrual etiquette, parental views, and the broader cultural influences on school attendance among primary school girls in the Kangeta Division. Consistent with findings by Marco and Betti, girls in these communities reported being prevented from engaging in activities like cooking and serving food due to concerns about dirtiness and impurity (Water et al., 2009).

The global embarrassment surrounding menstruation is a nearly universal phenomenon, cutting across different cultures worldwide. To navigate this societal discomfort, many

cultures employ code words, euphemisms, and phrases as linguistic substitutes when discussing menstruation (Bharadwaj & Patkar, 2004). While empirical evidence regarding boys' feelings and thoughts about menstruation is limited (Chang, 2011), girls often take precautions to prevent boys from discovering their menstruation status. This includes discreet actions like keeping sweaters around their waists to avoid any accidents, and most girls tend to avoid revealing this aspect of their lives to their fathers (Marni, 2020).

These cultural norms significantly impact the daily lives of girls, shaping their behaviors and interactions within their communities and schools. The fear of staining facilities or being perceived as impure creates barriers to accessing essential resources like toilets and negatively influences girls' participation in various activities. Teacher attitudes and school menstrual etiquette, influenced by these cultural beliefs, contribute to the overall atmosphere that may perpetuate stigma and limit girls' engagement in school life during their menstrual periods.

In Kangeta Division, where cultural beliefs play a pivotal role, understanding these dynamics is crucial for developing effective interventions that promote menstrual hygiene management and ensure girls' continued school attendance. Educational programs that address cultural misconceptions involving teachers, parents, and the wider community can contribute to dismantling stigmas and fostering a more inclusive and supportive environment for girls.

The influence of cultural, religious, and traditional beliefs on menstruation is a complex and pervasive issue impacting various aspects of girls' lives. Acknowledging and addressing these cultural norms is essential for creating environments where girls can manage menstruation with dignity and without hindrance to their education. Culturally sensitive interventions that involve the community can play a vital role in challenging these beliefs,

promoting understanding, and fostering an atmosphere where girls can confidently navigate their menstrual experiences.

Cultural norms and religious taboos surrounding menstruation often intersect with traditional beliefs related to evil spirits and the shame and embarrassment associated with sexual reproduction. For instance, in Bangladesh, it is customary for girls to bury their menstrual clothes so that evil spirits do not use them to cause harm to the girls. In Surinam, there is a belief that menstrual blood carries danger, and malicious individuals can inflict harm on menstruating girls or girls through black magic, known as "wisi." There is also a belief that menstrual blood can be used by a girl to exert control or manipulate a man. Among Aboriginal communities, girls healers employ cloths soaked in menstrual blood to treat wounds and bruises, believing that this accelerates the healing process and prevents scarring.

In Sierra Leone, a study by Smith (2020) on menstruation revealed that some believe sanitary napkins can render someone sterile. Additionally, there is a superstition that if another person sees a menstrual cloth, it may bring curses upon the owner. Followers of the Celestial Church, a religious group, believe that a girls or girl should refrain from touching any juju (charm) during menstruation, as doing so would render it ineffective.

Tamiru, Mushi, and Ali (2015) conducted a "Towards a Sustainable Solution for School Menstrual Hygiene Management" survey in Ethiopia, Uganda, South Sudan, Tanzania, and Zimbabwe. In Ethiopia, menstruation is referred to as "Yewer Abeba," meaning monthly flower officially, and by different tribes as "Idif," meaning dirt, and "Gadawo," meaning disease of the abdomen. In the Central Region of Uganda, it is called "ensonga" or the 'issue,' while in Tanzania, it is known as "Hedhi," signifying the blood flow. South Sudanese refer to it as "Ada shaharia" in Arabic, translating to the usual monthly. The local terminology in Uganda and South Sudan highlights the secretive nature of menstruation, underscoring how it is perceived and handled across different communities. In all five countries, menstruating

girls are considered unclean or impure, leading to their exclusion from public gatherings, especially in religious settings like churches and mosques. They are often required to separate themselves in a separate dwelling for an average of seven days until they are deemed 'clean.' Interviews conducted in three districts of Tanzania (Sengerema et al.) and Masvingo district in Zimbabwe revealed that menstruating girls are prohibited from touching water sources, animals, cooking, washing dishes, handling plants, or passing through planted fields, as it is believed they will pollute these elements. In South Sudan, girls are not allowed to use latrines during menstruation, and they are prohibited from bathing until the menstrual flow ceases (Neginhal, 2010).

Cultural and religious traditions, as well as local customs, strongly reinforce challenges related to menstruation. For example, baseline survey data from Tanzania indicated that some children were instructed not to use disposable sanitary pads due to concerns of causing cancer. They were also advised against disposing of used materials in open spaces, as it was believed they could be used in witchcraft, potentially leading to harm or infertility. Additionally, there is a perception that discussing menstrual hygiene management (MHM) issues with fathers could lead to their demise. Across all five surveyed countries, there is a prevailing belief that engaging in sexual activity can alleviate the pain associated with menstruation. The data from the baseline survey also indicated that as girls reach adolescence, parents tend to encourage early marriage. In all five countries, girls are considered assets to their families believed to bring good fortune. Data from Tanzania and South Sudan further highlighted that early marriage and pregnancy significantly contribute to girls' school dropout rates.

Conversely, the focus group discussions (FGDs) involving teachers and parents, particularly girls teachers and mothers, confirmed that discussing menstrual matters with their husbands and daughters was considered shameful and taboo. During menstruation, it was customary

for girls to sleep separately from the rest of the family until their period concluded. The survey findings indicated that more than 80 percent of the girls possessed general knowledge about puberty understanding the stages of bodily changes, yet having limited insight into managing these transformations, including menstruation. On average, 66 percent of the girls had no prior knowledge of menstruation before its onset. During the FGDs, schoolgirls shared that they had received little to no specific information about menstruation, particularly its physiological basis—such as the origin of menstrual flow and how to manage it—until they experienced it personally. Respondents described the onset of menarche as a shocking or frightening event. Numerous studies conducted, particularly in low-income countries, corroborate that many girls commence menstruating without understanding what is occurring or why (Jothy & Kalaiselvi, 2018).

A survey conducted by Multi-Media Skills & Health Consult (MSHC) in 2014 explored Menstrual Hygiene Management (MHM) practices, attitudes, and knowledge in Kenya, specifically focusing on the Eastern Equatorial State of South Sudan. This research aimed to provide a comprehensive understanding of the challenges and opportunities related to Water, Sanitation, and Hygiene (WASH) and menstrual hygiene management in the region. The mixed-methods approach included questionnaires, focus group discussions (FGDs), observation checklists, and interviews involving various stakeholders such as schoolgirls, boys, teachers, parents, Parent-Teacher Associations/School Community Management Committees (PTAs/SCMs), local leaders, and Chiefs. Data was collected from 1280 respondents across 49 primary and secondary schools in Eastern Equatorial State, achieving a response rate of 71.1%.

The baseline assessment findings highlighted a concentration of school enrollment for both boys and girls in lower classes (P.1 – P.4), with a noticeable decline in upper classes (P.5– P.8). Detailed analysis by gender revealed a relatively low number of girls in upper classes,

and in some schools, no girls were enrolled in these classes. The assessment exposed that a significant proportion of girls possessed limited knowledge about menstruation, with 62.9 percent perceiving menstruation as a disease and 59.9 percent believing that someone is unhealthy during menstruation. Furthermore, issues related to menstruation were treated as closely guarded secrets and taboos, with men not supposed to have any knowledge of these matters.

In the Eastern Equatorial State of South Sudan, numerous substances and strategies have been used with the aid of girls and female for menstrual hygiene management, ranging from contemporary to usual materials, some of which are viewed the least appropriate globally. The evaluation stated the use of substances such as goat's skin, bark cloth, soil, rags, portions of mattresses, digging holes in the ground, leaves from trees, and ordinary herbs like "bene." Additionally, cultural elements performed a good sized role, with 42.7 percentage of responding girls now not carrying underwear, as it is historically prohibited for female inside tribes like the Toposa. The findings underscored that menstrual hygiene management poses a full-size undertaking for girls, impacting school attendance. Recommendations encompass capacity-building for teachers, in particular male teachers, on MHM problems and lifestyles competencies education. Extensive neighborhood focus campaigns concentrated on mother and father on MHM and the price of training are urgently needed. The lack of menstrual hygiene kits necessitates exploring reasonable techniques for producing reusable sanitary pads to beautify get right of entry to for female and girls. Advocacy efforts are additionally indispensable to designing splendid sanitation services that cater to schools' menstrual hygiene management. In a separate study, Korir and colleagues (2018) carried out a comprehensive comparison of Menstrual Hygiene Management (MHM) practices amongst essential school female in a pastoralist neighborhood in Kenya, particularly in Kajiado County. This cross-sectional survey centered 320 foremost school female with a common

age of 14.9 years, predominantly from households the place about 69.4 percentage of dad and mom have been self-employed pastoralists. The research employed structured questionnaires to accumulate records on socio-demographics, knowledge, perceptions, and practices associated to MHM. The findings shed mild on the special challenges confronted by way of girls in a pastoralist community, the place ordinary practices and socio-economic elements influenced their menstrual hygiene practices. The study about emphasized the significance of perception the particular context and cultural nuances that structure MHM practices in specific communities. These research at the same time make contributions to the developing physique of know-how on MHM in numerous contexts, emphasizing the want for tailor-made interventions that reflect on consideration on cultural, economic, and regional factors. Addressing MHM challenges requires a multifaceted strategy involving education, neighborhood engagement, and coverage advocacy to create sustainable upgrades in menstrual hygiene practices and beautify girls' typical well-being and academic experiences. The findings published that 51.6 percentage of the female exhibited accurate information about menstruation, whilst 45.5 percentage held numerous perceptions about this herbal process. Regarding menstrual absorbents, a giant share (80.9%) of the female used sanitary towels. However, 40.3% of them delayed altering these absorbents for over 6 hours. The find out about additionally uncovered that 28.8% of individuals exhibited bad MHM practices, and 32.2 percentage hid their menstruation experiences. Factors related with insufficient MHM practices, as recognized through invariable analysis, covered age ($p=0.016$), faith ($p=0.037$), lack of open discussions about menstruation ($p=0.001$), absence of sanitary pads ($p<0.0001$), insufficient latrine privacy ($p=0.031$), inadequate get entry to to water ($p=0.001$), and situations of teasing by using boys ($p=0.016$). Upon conducting logistic regression, it was once discerned that the elements independently influencing MHM practices had been insufficient latrine privacy ($p=0.031$) and the worry of being teased through boys ($p=0.016$). In summary, the find out about concluded that about one-third of

pubescent pastoralist girls displayed suboptimal MHM practices, chiefly influenced via socio-cultural elements that avoid menstrual hygiene management.

The present investigation will explore this variable's moderating impact on the relationship between MHM practices and school attendance. It is essential to acknowledge that this relationship does not exist in isolation but within an environment shaped by various factors, including the socio-cultural experiences of girls.

2.4. Knowledge Gap

From the literature reviewed, it is clear that the effect of Menstrual Hygiene Management practices on school attendance amongst female in main schools in Kisumu West Sub County has now not but been conducted. If so, it is no longer in the public domain. A collection of researches have been carried out in the world on MHM however now not especially on MHM practices in the Primary school inside Kisumu West Sub County. Further, most governments, and the Kenya authorities included, are regarded to increase a set of proper insurance policies however the mission is usually with implementation (Kenya Institute of Policy, 2018). The research, therefore, addressed the difficulty of MHM practices and School attendance amongst girls in fundamental schools in Kisumu West Sub County, Kisumu County, Kenya.

2.5 Theoretical Framework

2.5.1 Sanitary Hardware Theory

This theory was developed by Hennegan & Montgomery (2016). The theory emphasizes that interventions to improve menstrual hygiene should prioritize the provision of menstrual hygiene products and related facilities. This includes distributing pads, tampons, and creating modern menstrual-friendly toilets, waste bins, and associated infrastructure. The authors highlight the prevalence of unhygienic menstrual hygiene management in low-resource contexts and its negative consequences for girls and girls. They categorize

interventions into hardware (material provisions like absorbents and WASH facilities) and software (education to address knowledge deficits) approaches.

The theory's strength lies in its practical approach, prioritizing tangible solutions such as providing hygiene products and improving facilities. It effectively addresses material deprivations, like the lack of pads and other absorbent materials, as well as proper sanitation facilities, that affect the proper management of menstrual hygiene. The theory is based on empirical research and acknowledges the documented negative consequences of poor menstrual hygiene management. On weaknesses the theory primarily focuses on hardware interventions and does not give adequate attention to psycho social support, which is also crucial for effective menstrual hygiene management. It may oversimplify the complex factors influencing menstrual hygiene practices, potentially neglecting cultural, social, and economic aspects. The theory may not account for variations in menstrual hygiene practices across different contexts and cultures.

While the theory provides valuable insights into addressing menstrual hygiene issues, it could benefit from a more comprehensive approach that considers both hardware and software aspects in equal measure. Neglecting psychosocial support is a notable limitation. The sanitary hardware theory, despite its merits, faces several criticisms. Firstly, it tends to adopt a rather narrow focus, concentrating primarily on tangible aspects like the distribution of sanitary products and the enhancement of sanitation facilities. This limited perspective overlooks the multifaceted nature of menstrual hygiene management (MHM), ignoring the sociocultural, economic, and psychological dimensions that influence MHM practices.

Moreover, critics argue that the theory may lack cultural sensitivity. It often fails to consider the diverse cultural contexts and unique challenges associated with MHM in various regions and communities. What works effectively in one setting may prove ineffective or culturally inappropriate elsewhere, emphasizing the need for context-specific approaches. Another

significant critique is the theory's relative neglect of psychosocial aspects. While the physical aspects of MHM are addressed, it often disregards the critical role of psychosocial support, education, and awareness in combatting the stigma, shame, and misinformation surrounding menstruation.

Sustainability concerns also emerge as a criticism. The theory places considerable emphasis on the provision of sanitary products and infrastructure but may not adequately consider long-term sustainability factors, such as cost-effectiveness, community engagement, and infrastructure maintenance.

Furthermore, gender dynamics, a crucial aspect of MHM, are not always sufficiently accounted for in the theory. Menstrual hygiene is inherently tied to gender, including power dynamics, gender roles, and equity considerations. Neglecting these aspects can limit the theory's effectiveness in addressing the underlying causes of MHM challenges.

Lastly, some argue that the theory lacks a holistic approach. MHM is a complex issue that demands a comprehensive understanding. While the sanitary hardware theory addresses important components, it should be integrated with other theories or approaches that encompass the broader ecosystem of factors influencing MHM. This integrated approach would lead to more well-rounded and sustainable interventions. In summary, the sanitary hardware theory, while valuable, should be applied alongside a more comprehensive understanding of the sociocultural, psychosocial, and gender-related dimensions of MHM. This approach would enable the development of more effective and sustainable solutions to address the challenges associated with menstrual hygiene.

The theory can be applied to guide interventions aimed at improving menstrual hygiene management, especially in low-resource contexts. It can inform the design of programs that focus on the provision of sanitary products and sanitation facilities. However, it should be

complemented with a broader understanding of the psychosocial aspects of menstrual hygiene to create more holistic interventions. In the context of your study on MHM practices and their impact on school attendance among menstruating girls in public primary schools, this theory can be employed to address hardware-related issues, such as the provision of sanitary products and girl-friendly sanitation facilities. However, it should be combined with another theory or approach that addresses the psychosocial support aspects to create a more comprehensive understanding of the variables influencing school attendance.

2.4.2. Knowledge-Attitude-Behaviour Theory

The Knowledge-Attitude-Behavior (KAB) theory extends the application of cognitive theory in health education, drawing on McGuire's information-processing model (1985). This model suggests that navigating the knowledge-attitude-behavior continuum involves individuals processing information and considering various elements within a communication framework, including the source, message, channel, receiver, and destination. Particularly relevant in health promotion campaigns, the theory posits that knowledge and information lay the groundwork for shaping active and accurate beliefs and attitudes, with attitudes serving as driving forces behind behavioral modifications (Du & Yuan, 2009). Notably, research has established significant correlations between the occurrence, development, and prognosis of negative health conditions (Coleman & Newton, 2005).

In the context of Menstrual Hygiene Management (MHM), interventions aimed at behavior change can either positively or negatively impact school attendance. This study contends that enhancing MHM practices necessitates acquiring the right health knowledge and developing effective health skills to improve girls' well-being within and outside the school environment. The theory posits that attitudes are pivotal in driving behavior change, emphasizing the importance of fostering positive attitudes towards MHM practices.

However, achieving these goals requires recognizing and addressing the self-management needs of girls, enabling them to identify and address their own MHM challenges (Lorig & Holman, 2003).

The study findings underscore the importance of both school stakeholders, including management and interventionists, and the girls themselves recognizing existing MHM problems and the issues of utmost concern to students. This recognition is crucial for implementing effective strategies tailored to address specific challenges and improve MHM practices. The KAB theory, with its emphasis on knowledge, attitudes, and behavior, provides a comprehensive framework for understanding and promoting positive changes in MHM practices among girls.

Furthermore, the information-processing model inherent in the KAB theory aligns with health promotion campaigns, emphasizing the need for effective communication strategies. Recognizing the role of various elements, such as the source, message, channel, receiver, and destination, becomes essential in crafting MHM interventions that resonate with the target audience. Clear and targeted communication is vital for disseminating knowledge about MHM, fostering positive attitudes, and ultimately driving the desired behavior change.

The KAB theory offers valuable insights into the complexities of MHM interventions, emphasizing the interconnectedness of knowledge, attitudes, and behavior. By adopting this theory, the study positions itself to explore and address the multifaceted aspects of MHM, recognizing the pivotal role of attitudes in driving behavior change. The study aligns with established research linking health knowledge to behavioral outcomes and aims to contribute to the growing body of evidence supporting effective MHM interventions.

In the context of Menstrual Hygiene Management (MHM), behavior change interventions can either positively or negatively impact school attendance. This study argues that

improving MHM practices hinges on acquiring the right health knowledge and developing health skills to enhance girls' well-being, both within and outside the school environment. Achieving this may require emphasizing self-management to enable girls to recognize and address their own MHM issues (Lorig & Holman, 2003). The study findings highlight the importance of recognizing MHM challenges, both by stakeholders such as school management and interventionists and by the girls themselves, to implement effective strategies.

According to Lorig and Holman (2003), a combination of these measures can lead to improvements in girls' school attendance and overall well-being. This theory effectively addresses the first research objective, which explores the connection between knowledge, attitudes, practices on MHM, and girls' school attendance in public primary schools in Kisumu West sub-County. However, it falls short in addressing the impact of school-based MHM programs on school attendance and evaluating the effect of menstrual hygiene management sanitation systems on girls' school attendance in the same region. These gaps in knowledge were addressed by the Multi-stakeholder Decision theory, as described below.

2.4.3. Multi-stakeholder Decision Theory

The Multi-stakeholder Decision Theory, proposed by Samoson et al. (2018), posits that each stakeholder has a vested interest in promoting initiatives and brings unique capacities to the challenge. This theory recognizes the "nested nature" of a multi-stakeholder approach, acknowledging participation at four levels: individual motivations, organizational dynamics, country context, and international pressures. In the context of this study, the theory provides a framework for analyzing emerging Menstrual Hygiene Management (MHM) problems, considering evidence from various stakeholders and recognizing the substantial but context-specific barriers facing MHM.

Potential challenges inhibiting effective MHM implementation encompass weak stakeholder participation, difficulty reaching consensus on key decisions, imbalances of power and capacity across stakeholder groups, and a lack of broader social and political legitimacy. Weiss (2014) suggests complementing stakeholder analysis with management approaches to examine societal, organizational, and individual dilemmas. The Plan International MHM model serves as a practical example of a multi-dimensional approach that aims to improve knowledge, attitudes, and practices among various groups, including boys, girls, girls, and men. Collaborators such as teachers, Village Health Teams, government agencies, volunteers, and drama groups work together to implement MHM programs effectively. Notably, Plan International's public-private partnership with AFRIPads demonstrates an innovative approach to ensuring improved access to affordable, hygienic pads through established Village Savings and Loan Association members (Global Health, 2018).

While the Multi-Stakeholder Decision Theory holds promise for promoting collaborative and inclusive decision-making processes, it has challenges and limitations. The theory's emphasis on involving multiple stakeholders can potentially make decision-making processes more time-consuming and complex. Gathering diverse perspectives, reaching consensus, and accommodating various interests may slow down the decision-making process, impeding timely responses to pressing issues. Additionally, the theory assumes equal access to resources, information, and decision-making power among all stakeholders. However, power imbalances often exist, with certain groups having more influence and resources. This can result in unequal participation and decision outcomes that may not fully represent the interests of marginalized or less empowered stakeholders.

To address these challenges, it is crucial to implement the Multi-stakeholder Decision Theory in a way that considers the contextual nuances of MHM. This involves recognizing and mitigating power imbalances, ensuring effective communication channels, and fostering

an inclusive environment for meaningful stakeholder participation. The application of this theory should be flexible, adapting to the unique challenges and opportunities presented by the specific context in which MHM programs are implemented. By doing so, the theory can serve as a valuable tool for promoting collaborative efforts and informed decision-making processes that contribute to the success of MHM initiatives.

Effective conflict resolution is essential in multi-stakeholder decision-making, but it can take time to achieve. Conflicting interests and deep-seated disagreements among stakeholders may hinder progress. Moreover, the theory needs to provide explicit guidance on how to address power dynamics and navigate conflicts effectively, leaving room for potential disputes to derail the decision-making process.

The theory's focus on inclusivity is commendable, but it can take time to practically involve all relevant stakeholders, particularly in complex issues like menstrual hygiene management. Identifying and engaging every stakeholder group can be resource-intensive and may only sometimes be feasible, leading to potential gaps in representation. While adaptive management is a valuable aspect of the theory, it may be challenging to implement in practice. Constantly adjusting decisions and interventions based on ongoing feedback and monitoring requires dedicated resources and may lead to instability and uncertainty, especially in resource-constrained contexts.

Finally, the theory's effectiveness relies heavily on the willingness of stakeholders to cooperate and collaborate. In situations where stakeholders have conflicting interests or need more motivation to work together, the theory's potential benefits may not be fully realized. In conclusion, while the Multi-stakeholder Decision Theory offers a valuable framework for inclusive and collaborative decision-making, it is essential to recognize its challenges.

These include potential delays in decision-making, unequal power relations, difficulties in conflict resolution, resource-intensive inclusion efforts, and the need for sustained cooperation. It is important to recognize and proactively address these limitations to maximize the effectiveness of the theory in treating complex problems such as menstrual hygiene management. At an organizational level, school health club boys and girls have been empowered to make reusable sanitary napkins on-site to facilitate the supply of emergency sanitary napkins for use in schools. It will be incorporated into weekly arts and crafts sessions. A multidimensional approach to MHM includes girls' education, health, livelihoods, gender equality, and the environment (Global Health, 2018).

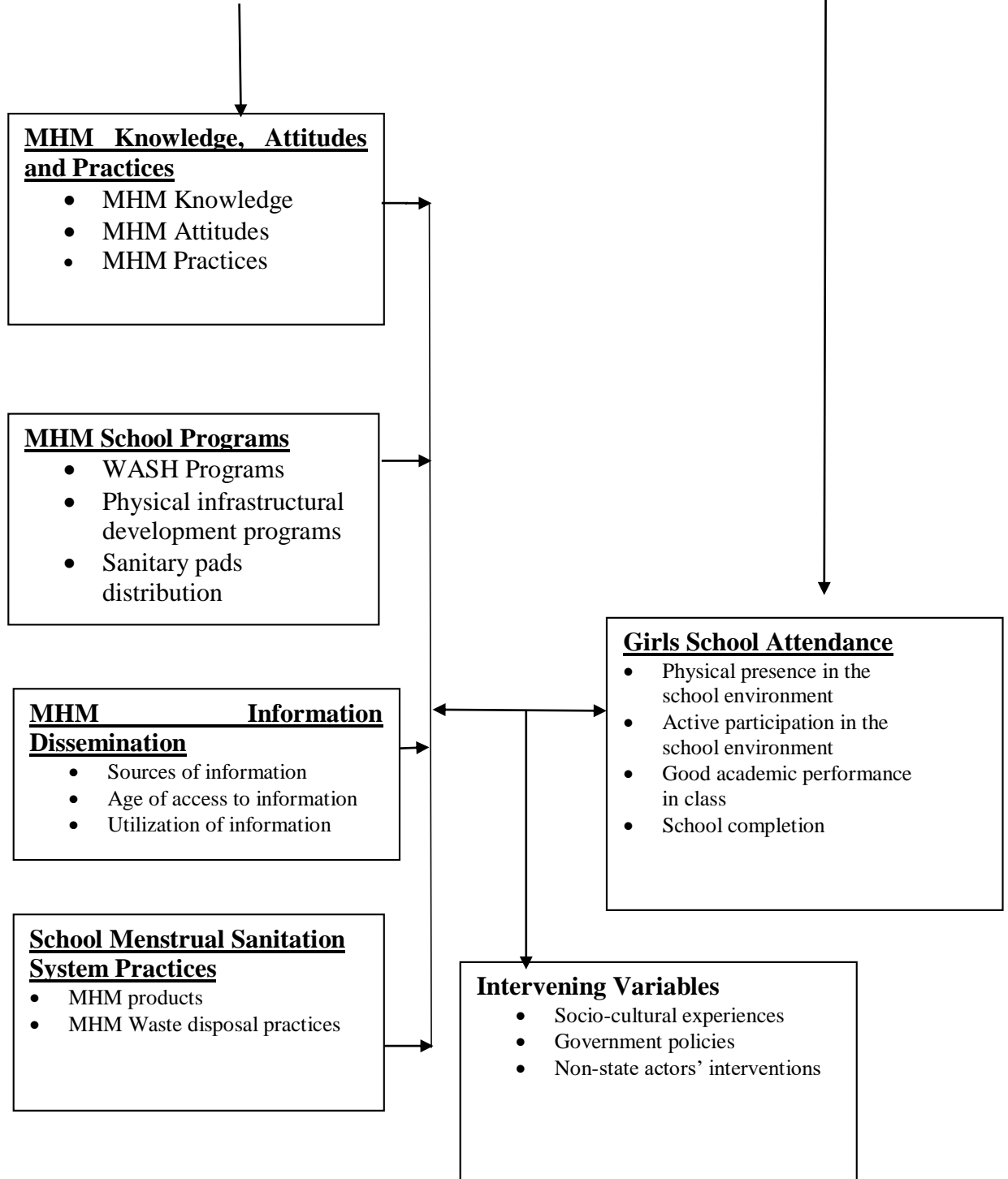
In this study, the theory was able to address the questions raised by objective 2 and focused on objective 4, which was to assess the impact of a school-based MHM program on girls' enrollment in public primary schools in Kisumu Western sub-county. On the evaluation of the impact of school menstrual hygiene management hygiene system on the enrollment of girls students in public primary schools in West Kisumu sub-county.

2.6 Conceptual Framework

Independent Variable

Dependent Variable

Menstrual Hygiene Management Practices



Source: Researcher (2021)

Figure 1.0: Conceptual Framework

This conceptual framework presents menstrual hygiene management practices as the independent variable and school attendance is the dependent variable. From figure 1.0 above, MHM Knowledge, Attitudes and Practices were measured by MHM Knowledge, MHM Attitudes and MHM Practices. Physical infrastructural development programs and sanitary pads distribution MHM Information dissemination was measured by sources of information, age of access to information and impact of information. School menstrual sanitation system practices were measured by commonly used MHM products and MHM waste disposal practices.

Girls School Attendance which is the study's dependent or outcome variable was achieved by measuring regular physical presence in the school environment, active participation in the school environment, good academic performance and school completion. The researcher argues that the independent variable or dependent variable could be affected by socio-cultural experiences, government policies and non-state actors' interventions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This section describes the research format and methodology adopted in the study, research area, research design, philosophical paradigm, target group, pattern and sampling procedure, research instrument, pilot study, validity and reliability. Instrument description, records series procedures, and study about variables in operationalization, statistics evaluation and presentation, diagnostic tests, ethical considerations, and chapter summary

3.2. Research Design

A descriptive research plan used to be used in this study. A descriptive survey research sketch describes the cutting-edge scenario (Kombo & Tromp, 2016). However, descriptive research is centered on extra than simply describing the state of affairs as it is; however additionally goes past analyzing, explaining, identifying, and proposing options (Babbie, 2010). The power of this graph is that it can gather records on a confined variety of variables from a massive variety of subjects and can be used with many exclusive topics and populations (Dulock, 2016). This format was once chosen due to the fact it gives a possibility for researchers to observe, evaluate, and describe menstrual hygiene management practices and there have an effect on on girls' school enrollment in public most important schools in Kisumu West sub-county. The researcher employed this plan to systematically collect, collate, analyze, and interpret statistics based totally on the study about records collection tools. The find out about employed the use of blended techniques of each qualitative and quantitative strategies in records collection. The researcher used pragmatism as the philosophical paradigm of the find out about based totally on the premise of utilising the fantastic techniques to look at the trouble and the usage of a couple of sources of records and expertise to reply the research question; this is in line with Creswell (2003), who states that

pragmatism is no longer dedicated to any one device of philosophy or truth and that pragmatist researchers focal point on the 'what' and 'how' of the research problem, based totally on the trust that truth is always altering amid the waft of continuously altering situations. The time period 'paradigm' can also be described as a free series of logically associated assumptions, concepts, or propositions that orient wondering and research (McNaughton et al., 2011). The researcher, as a substitute than use a single research paradigm, employed the framework that is most relevant to the research. Pragmatism in a research paradigm helps the use of a combine of distinctive research strategies as properly as modes of evaluation and a non-stop cycle of abdicative reasoning whilst being guided exceptionally through the researcher's wish to produce socially beneficial knowledge. Pragmatism in this find out about served as a cause for formal research sketch as nicely as a extra grounded method to research in line with Felizer (2010). Early pragmatists “rejected the scientific concept that social research has the capability to attain ‘truths’ about the actual world via a single scientific method” (Mertens, 2015). Since the research query is “central,” the information series and analysis strategies chosen are the most in all likelihood to furnish perception into the query besides any philosophical constancy to any choice model. This research paradigm is splendid for this find out about due to the fact it focuses on the penalties of actions; it is problem-centered, pluralistic, oriented towards real-world practice, and can be utilized the usage of a blended model.

Therefore, the researcher used data collection tools from mixed methods engineering models because the study is a social science with a systematic approach to conducting it.

3.3. Study Area

The study was conducted in Kisumu West sub-county, a constituency in Kenya, which is also one of the seven sub-counties of Kisumu County. The sub-district was created for the 1997 election, when the larger Kisumu City constituency was divided into the Kisumu City

East and West constituencies and had 11 largely rural wards, with a population of 131,246 people on an area of 212.90 (km²).

The sub-district has 109 primary schools (81 public schools and 28 private schools). Additionally, the researcher chose Kisumu West due to its unique location as a semi-urban area with both urban and rural characteristics, which could provide a good comparison.

See the Kisumu West sub-district map in Appendix 5.

3.4 Population of the Study

3.4.1 Target Population

The target population for this study included all girls in elementary school, all classroom teachers, all primary school principals, and Ministry of Education officials in Kisumu West Sub-County. The accessible population was 3,233 people, including 5 civil servants from the Kisumu West sub-county education office, 81 primary school principals from the Kisumu West sub-county, 2,534 students aged 6 to 8 years, and 613 teachers of the 81 primary schools in the Kisumu West sub-county (Kisumu District Principal Office, 2020). The teachers were chosen because they provide direct support to girls of menstruating age. Girls in grades 6 through 8 were selected because they were judged to be able to understand the research questions better than other students and because they were likely to be proactive about menstrual issues and better able to provide necessary relevant information for the study. This is presented in table 3.1 below.

Table 3.1: Target Population Matrix

No.	Category	Target population	Sample size
1	MoE Officials	5	1
2	Head teachers	81	9
3	Class 6-8 girls	2534	279
4	Teachers	613	67
5	Total	3233	356

Source: County Director of Education’s Office Kisumu County, (2020).

3.5 Sample and Sampling Procedures

A representative sample size of the study population was selected using appropriate sampling procedures. The researcher used a stratified sampling procedure to classify respondents into girls students in grades 6 to 8, teachers, principals, and Ministry of Education (MoE) officials. Stratified sampling involves grouping respondents based on the similarity of characteristics among them. The sample was calculated using Yamane (1967) formula:

$$n = \frac{N}{1 + (N \times e^2)}$$

Where: N= the population; n = sample size and e=

Tolerance level of confidence or probability level of $\alpha=0.05$

$$n = \frac{3233}{1 + (3233 \times 0.05 \times 0.05)} = 355.959 \text{ thus } 356 \text{ respondents.}$$

Hence, the study sample was 356 respondents from a target population of 3233.

To get the sample portion, the researcher took the sample size over the total population $356/3233 = 0.11011$ thus the sample proportion for each stratum was determined by the general proportion. The distribution of the sampled respondents is presented in table 3.2.

Table 3.2: Sample Size Distribution for questionnaires

No.	Category	Target population	Proportion	Sample size	Tool Used
3	Class 6-8 girls	2534	0.11011	279	Questionnaire
4	Teachers	613	0.11011	67	Questionnaire

Source: Author (2020)

The Primary schools in Kisumu West sub-county had been divided into Public, Private, Special Needs, and Boarding schools. For functions of this research, solely public school have been subjected to random decision after being grouped into zones. The sub-county has a whole of six zones, a quantity of schools has been chosen from every area based totally on the complete wide variety of schools in the zone. The wide variety of students have been chosen proportionately primarily based on the complete variety of classification 6-8 students in the one. The quantity members in every school had been additionally chosen proportionally based totally on the complete range of students in the school, and in the end the true participant in the school have been picked in the ratio 1:2:3 for type 6, 7 and, eight respectively. The 67 teachers were chosen from the participating schools as per the zones.

Table 3.3: Sample Size Distribution for key informant interviews

No.	Category	Target population	Proportion	Sample size	Tool Used
1	MoE Officials	5	0.11011	1	KII
2	Head teachers	81	0.11011	9	KII

Source: Author (2020)

3.6 Research Instruments

The questionnaire and Interview guide were used to collect data for the study. (See Appendix II and III).

3.6.1 Questionnaire

As part of the study, a survey was administered to girls students and teachers in grades 6 to 8 at selected schools. A survey is a data collection tool that consists of a series of questions and other prompts to collect information from respondents (Abawi, 2014). The questionnaire items were grouped into her two parts, the first part dealt with the respondents' background information and the second part dealt with the purpose of the study, as shown in Appendix II.

The survey used a Likert scale to rate study responses with an average value ranging from 1 to 5 (1=strongly disagree, 2=disagree, 3=somewhat agree, 4=agree, Agree, and 5=Completely agree).

The set of questionnaires were administered by the researcher to the respondents and retrieved immediately after filling.

3.6.2 Interview Guide

This study also employed interview schedules (Appendix 4) to collect qualitative data from the MoE officials and head teachers. Interviews were used to enable the researcher get more in-depth information. They were also convenient because the targeted respondents who were ministry of education officials and heads of schools were busy in most cases.

3.7 Pilot Study

The researcher conducted a pilot take a look at of the instrument by using distributing interview schedules and questionnaires to chosen school in neighboring Siaya County. The researchers selected this place for the pilot study about due to the fact its culture, monetary activities, and universal environmental stipulations are comparable to these of the find out about area, as nicely as the characteristics, challenges, hygiene patterns, and widespread

experiences of the girls. Because it was once the same. Respondents from the pilot find out about did now not take part in the major study. Teachers in each area additionally had comparable traits in phrases of tutorial and expert qualifications. According to Kothari (2004), 10% of the pattern constituted a full-size pilot sample, and 10% (10%) of the pattern populace 321, i.e., 32 respondents used for testing. Starting with pretesting, the questionnaire and interview agenda had been reviewed to make certain readability and relevance of questions and to permit for exact query drift when used in the major study. Some content material that was once inappropriate used to be eliminated and tough questions have been simplified to keep away from misinterpretation. As until now reported, an interview information used to be additionally developed and tested. This eliminated records no longer applicable to the study about and elevated the great of the instrument. In general, the pilot study about helped spotlight any challenges that may also occur from the tool. This helped the researchers modify the tool by adjusting the number of questions, making them clearer, and arranging them in an orderly manner, as shown in the pilot study.

3.8 Reliability and Validity of Research Instruments

This section describes the standardization of instruments through reliability and validity that can be used to demonstrate and communicate the accuracy of the research process and the reliability of research results (Roberts & Paula, 2006). According to Mugenda and Mugenda (2003), reliability and validity are important as they determine the quality of research. These are measures of the 'relevance' and 'accuracy' of a tool that allows researchers to provide useful, non-misleading information to those using the tool.

3.8.1 Reliability of Research Instruments

The reliability of a research instrument refers to the degree to which a particular technique applied to the same subject produces the same results every time (Babbie, 2010). According to Fraenkel and Wallen (2010), a useful rule of thumb for research purposes is that reliability

should be 0.70, preferably higher. Kirk and Miller (2012) identify three types of reliability that quantitative research refers to. These relate to iii) similarity of measurements within a given period. According to Kathuri and Pals (2013), equipment reliability ensures that i) the responses are consistent across all variables (consistency), ii) the individual's responses do not change when the device is administered a second time (stability) and iii) errors in the management or evaluation of the equipment are excluded. Gay and Airasin (2000) also state that instrument reliability is important, and values of 0.7 or higher are considered satisfactory. In this study, the method of Fraenkel and Wallen (2010) was adopted, so the reliability was measured as 0.70 or above for the instrument to be considered reliable.

3.8.2 Validity of Research Instruments

The validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Robson, 2011). It is the degree to which the effects are truthful, that is, it requires the lookup instrument, say a questionnaire, to measure the principles below the find out about effectively (Pallant, 2011). Valid instruments are these having content material applicable to the study, referring to “correctness, soundness of outcomes or conclusion reached in a study” (Kothari, 2008). According to Patton (1999), triangulation refers to the use of more than one strategies or statistics sources in qualitative lookup to advance a complete perception of phenomena. It has additionally been seen as a qualitative lookup approach to take a look at validity via the convergence of records from extraordinary sources. In this study, the instrument was once furnished to experts, along with the researcher's supervisor in the department, to decide compliance with face and content material validity. The experts' suggestions were used to make the necessary changes to improve the validity of the instruments used in the study.

3.9 Data Collection Procedure

Approval for the study was acquired from the National Council for Science, Technology, and Innovation (NACOSTI) thru the ministry earlier than going on-site to accumulate statistics in chosen public principal schools in the Kisumu West sub-county. Upon approval, the researcher headed to the subject for statistics series after receiving a letter of suggestion from the Kisumu County Director of Education. The researcher visited the major of the school, who brought the girls (grades 6 to 8) thru their type instructors and the school's counseling branch. The researcher sought permission from the school principal for classroom teachers to participate if the respondents were to participate in the study.

3.10 Data Analysis

The gathered data were analyzed through each descriptive and inferential information the usage of the Statistical Package for the Social Sciences (SPSS) model 23.1. Descriptive analyses covered frequencies and percentages, means, and popular deviations for all variables considered. Inferential records have been used in the shape of correlation and multiple regression analyses. In this study, the t-test used to be used to check the hypotheses with a self-belief stage of 95% ($\alpha=0.05$). Additionally, the coefficient of dedication (R^2) used to be used to check the contribution of every unbiased variable to the established variable. The research results were presented in the form of statistical tables. The following multiple regression model was adopted.

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + \varepsilon$$

Where:

Y represents school attendance among girls

B_0 represents Constant

X_1 represents school based MHM Programmes

X_2 represents information dissemination on menstrual hygiene management practices

X_3 represents school menstrual sanitation systems

X_4 represents Government MHM Policies

ε represents Error Term

$B_1 B_2 B_3$ represents Regression coefficients of independent variables

Qualitative data was analyzed thematically as per the study objectives. For instance, observation guides data was analyzed using observational analysis.

3.11. Diagnostic Tests

Diagnostic checking out is required earlier than performing ordinary linear regression analysis. These assessments are based totally on a variety of assumptions usually made concerning an unobservable error or disturbance phrases and the generalizability of consequences (Brooks, 2014), consisting of linear relationships between parameters, the use of random sampling, and entire Non-collinearity, and unidimensionality; specs consist of Relationships between variables, independence of data, everyday distribution and equal variance. The researchers conducted diagnostic tests to determine the above aspects of the collected data.

3.12 Ethical Considerations

Ethics is a department of philosophy that offers with morality (Polit & Beck, 2004). It used to be essential to reflect on consideration on moral troubles considering the fact that the researcher was once engaged with human participants. The confidentiality of all respondents used to be upheld by means of confining the respondents' small print to the research. The researcher certain them of retaining the data related with the lookup confidential. The researcher in addition viewed the proper to anonymity. Although qualitative lookup can't warranty entire anonymity, the researcher ensured anonymity by way of encouraging respondents now not to disclose their names in the questionnaire. The names of members who incorrectly stuffed out their names on the survey have but to be published. The

researcher got consent from the members and explained the significance of the researcher about earlier than commencing facts collection. The school important signed the consent structure on behalf of the minor. Respondents in this research about have been additionally thoroughly knowledgeable about the tactics to be observed in the study about and the anticipated size of participation. These views guided the individuals on whether or not to be worried in the lookup or not. Further, the researcher dedicated now not to intrude with any participant or the statistics gathered and to avoid falsification of data. The researcher went to the area to generate statistics upon acquiring permission from the school and after acquiring the lookup allow from the National Council of Science, Technology and Innovation (NACOSTI). The records generated used to be used to analyze, interpret, and make recommendations. The researcher persistently stated confidentiality in managing the information.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter offers the analysis, findings, and dialogue primarily based completely on the research pursuits of the study: to seem to be into knowledge, attitudes, and practices regarding menstrual hygiene management and faculty attendance and to think about the have an effect on of school-based MHM programs on school attendance. Presentation of the consequences to determine the have an effect on of the dissemination of statistics on menstrual hygiene management practices on school attendance in public predominant schools in Kisumu West sub-county, Kisumu County, Kenya, and to determine the have an have an effect on of faculty menstrual hygiene management, hygiene systems, and attendance of girls in public predominant schools. Evaluate. This chapter affords the empirical findings and results the utilization of descriptive analysis, Pearson correlation analysis, and regression evaluation. Data have been accrued the usage of questionnaires and key informant interviews, then coded and analyzed the usage of Statistical Package for the Social Sciences (SPSS) primarily based on every impartial variable and discussed and analyzed the use of tables.

4.2. Response Rate

4.2.1. Response Rate for pupils

In this study, the researcher allotted 279 questionnaires to the chosen respondents (students) and requested them to fill in the applicable information. Of these, 242 surveys had been efficaciously done and lower back as requested, ensuing in a response fee of 86.74%. The response fee used to be 86.74%, exceeding the encouraged minimal threshold of 75% (Nachimias & Nachimias, 2005).

Detailed information is presented below.

Table 4.1: Questionnaire Return Rate

Questionnaire	Number	Percentage %
Administered	279	100.00
Returned	242	86.74
Not returned	37	13.26

Source: Research Data (2021)

4.2.2. Response Rate for teachers

Sixty-seven questionnaires had been administered to respondents, of which sixty-five had been returned, ensuing in a response fee of 97.01%. Mugenda and Mugenda (2004) argue that a response charge of 50% or greater is ample for analysis. Babbie (2004) additionally claims that a 60% response price is good, and a 70% response price is very good. Based on this understanding, the facts from the questionnaire was once used in the analysis. A drop-and-pick approach was once used to administer the questionnaire, which in part contributed to the excessive response charge done in this study. The high response rate was also due to the fact that respondents were not required to disclose a traceable identity, thus guaranteeing anonymity and confidentiality.

Table 4.2 shows this information.

Table 4.2: Response Rate

Questionnaire	Number	Percentage %
Administered	67	100.00
Returned	65	97.01
Not returned	02	2.99

Source: Field Data (2020)

4.3 Validity Test

Validity refers to how accurately a tool measures what it is intended to measure. The high validity of a research instrument means that the instrument produces results that correspond to real characteristics, properties, and variations in the physical or social world. High reliability indicates that the measurement is valid. Researchers use this tool to assess how relevant the content of a survey tool is to the study and whether items intended to measure a particular variable actually measure the intended variable, conducted both content and construct validity tests. The findings were as shown in section 4.3.1 and 4.3.2 respectively.

4.3.1 Content Validity

The researcher subjected the questionnaire tools to experts (supervisors, and other academic staff) in the research area so as to ensure that the content is relevant to the study. The experts reviewed the research tools and approved that the content was adequate and relevant to the study.

4.3.2 Construct Validity

Construct validity was assessed using Kaiser-Meyer-Olkin (KMO) and Bartlett's tests. The KMO was used to assess adequacy of the sampled research items used to measure each study variable.

Table 4.3: Kaiser-Meyer-Olkin (KMO) and Bartlett's tests Results

Variable	Number of items	KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity	Approx. Chi-Square	Degrees of freedom	p-value
School attendance	12	0.791	148.371	21	0.000	
Menstrual Hygiene Management Knowledge, Attitudes and Practices	18	0.795	159.080	21	0.000	
School based MHM Programs	14	0.764	152.695	21	0.000	
Information dissemination on menstrual hygiene management practices	12	0.850	135.456	21	0.000	
School menstrual hygiene management sanitation systems	16	0.832	140.094	21	0.00	

Source: Field Data (2021)

The KMO coefficient ranges between 0 and 1 with a value of 1 showing flawless whereas an esteem of showing insufficient number of things measuring the variable. Agreeing to Mooi (2014), a least limit of 0.7 KMO coefficient is considered as a great indicator of testing adequacy. All the factors as appeared in Table 4.2 over had KMO values over the least edge esteem 0.7 (Mooi, 2014); school participation had 0.791, Menstrual Cleanliness

Management Information, Attitudes and Practices had 0.795, School based MHM Programs had 0.764, Data spread on menstrual hygiene management practices had 0.850 and school menstrual hygiene management sanitation frameworks variable had 0.832 (see table 4.2). This shows that the number of things measuring each of the factors were satisfactory to allow substantial results.

For all the factors, the Bartlett's Test of Sphericity test comes about were critical as portrayed in table 4.3 over: ($\chi^2 (21) = 148.371, p=0.000 < 0.05$) for school participation , ($\chi^2 (21) = 159.080, p=0.000 < 0.05$) for Menstrual Cleanliness Management Information, Demeanors and Hones, ($\chi^2 (21) = 152.695, p=0.000 < 0.05$) for school based MHM Programs , ($\chi^2 (21) = 135.456, p=0.000 < 0.05$) for data dispersal on menstrual cleanliness management hones and ($\chi^2 (21) = 140.094, p=0.000 < 0.05$) for school menstrual cleanliness management sanitation frameworks; this shows that the things measuring each of the factors were coming from a populace with break even with change. The study thus concludes that the data collected using the questionnaire was valid for further analysis.

4.4 Reliability Test

The study conducted a reliability test to evaluate reliability of the Likert scale utilized within the ponder survey for the things measuring the factors. Due to the nature of the 5-point Likert scale utilized, the consider grasped the Cronbach's Alpha. A least limit Cronbach's Alpha coefficient of 0.7 is satisfactory to relay on the scale for further analysis (Gill et al, 2010). The findings are depicted below.

Table 4.4: Reliability Test Results

Variables (Constructs)	Number of items	Cronbach's Alpha
School attendance	12	0.884
Menstrual Hygiene Management Knowledge, Attitudes and Practices	18	0.888
School based MHM Programs	14	0.885
Information dissemination on menstrual hygiene management practices	12	0.891
School menstrual hygiene management sanitation systems	16	0.889
Overall	72	0.924

Source: Field Data (2021)

According to Table 4.4, the Alpha coefficients were above the minimum of 0.7 for all constructed variables. The study data included School attendance, Menstrual Hygiene Management Knowledge, Attitudes and Practices, School-based MHM Programs, Information dissemination on menstruation management practices, and School sanitation systems. All other reported results to match within the range of 0.88.8 Alpha (Gilletal., 2010). This proved that the items studied had a 5-point Likert scale that was reliable and could be used for further analysis.

4.5. Demographics Characteristics

4.5.1 Demographic Characteristics of Pupils

The study assessed the demographic characteristics of the selected respondents (pupils) which included: age, class, and length of stay in the current school. Majority of the

respondents were between the ages of 8-13 years, and had been in the current school for 6 years.

4.5.2. Demographics of Teachers

The study was interested in understanding the demographic characteristics of teachers in selected primary schools in the study area. The results are as shown in Table 4.5 below.

Table 4.5: Demographics of Teachers

Gender	Count	Percentage
Girls	26	40
Male	39	60
Total	65	100

Level of Education		
O level	1	1.5
Certificate	7	10.8
Diploma	40	61.5
Degree	13	20
Post graduate	3	4.7
Total	65	100

Age		
18-35 years	15	23.1
36-45 years	40	61.5
46-55 years	10	15.4

Above 55 years	4	6.2
Total	65	100
<hr/>		
Number of years worked		
Less than a year	0	0
From 1 to 5 years	29	44.7
From 6 to 10 years	30	46.2
Above 10 years	6	9.2
Total	65	100
<hr/>		

Source: Field Data (2021)

According to Table 4.5, the male gender was more prevalent than the girls gender in teacher respondents, with 60% of the total respondents being male and 40% being girls. According to the research, 23.1% of participants were aged between 18 and 35 years, while 61.5% identified as being in the 45-year-old age range, 15.4% reported being between 45 and 55 years old, and 6.2% belonged to those over 55 years old. A significant proportion of respondents were between 18 and 45 years old, while only a small percentage were above 46 years. Age plays a crucial role in research as adults are expected to respond more responsibly and from an informed perspective than younger individuals.

It also found that one of them had an O-level certificate, 10.8% of the total respondents possessed certificates, 61.5% of total participants held their diplomas, and 20.0% held a bachelor's degree. Table 4.5 reveals that only a minority of those surveyed had postgraduate qualifications.

Among the total respondents, 44.7% had worked with an institution for 1 5 years, 46.99% had been employed for 6 10 years or 9.2 per cent of their time at the school, and none of

them had work experience lasting less than one year. Almost all had been teachers for 10 years. What was the pattern? Longer tenure in education entails experience, institutional knowledge, and enhanced comprehension of the functions and amenities offered by different institutions.

4.6. Menstrual Hygiene Management on School Attendance among Girls in Primary Schools

Descriptive analysis protected description of frequencies, percentages, advice and substantial deviation and the findings have been delivered in tables as below. The statements have been anchored on a five-point Likert-type scale ranging from 5=Strongly Agree to 1=Strongly Disagree and respondents had been requested to factor out the extent to which they agreed to the questionnaire statements in the course of data collection. Descriptive records covered percentage, frequency, suggest and popular deviation.

4.6.1 Pupils' Understanding of Menstrual Hygiene Management on School Attendance in Primary Schools

The research assessed the influence of MHM practices on school attendance among girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya. In this study 5=Strongly Agree (SA), 4= Agree (A), 3= Somehow Agree (SHA), 2=Disagree (D), 1=Strongly Disagree (SD). The findings of table 4.6 are shown as below.

Table 4.6: Menstrual Hygiene Management on School Attendance in Primary Schools.

Statement	SD	D	SHA	A	SA	Mean	Std. dev
Some girls in our school miss school because of menstruation	8 3%	26 11 %	142 59%	20 8%	46 19 %	3.289	1.004
When girls are given menstruation products like pads, they don't miss school	8 3%	138 57 %	52 21%	18 7%	26 11 %	2.653	1.047
When girls are provided with adequate MHM washing areas they don't miss school	28 12%	144 60 %	34 14%	12 5%	24 10 %	2.421	1.086
When girls are provided with adequate water for washing during their periods, they don't miss school	10 4%	22 9%	142 59%	56 23%	12 5%	3.157	.817
Menstrual hygiene management practices influence school attendance in my school	10 4%	14 6%	144 60%	60 25%	14 6%	3.223	.811
Average level of School attendance	Mean(%Mean)	Std. Dev	Std. Error of mean	Minimum	Maximum		
	2.932 (58.64%)	.654	.059	1.571	5.000		

Source: Field Data (2021)

The study sought to find out whether or not some girls pass over school due to the fact of menstruation. In this context, the majority, 59% (142) of the respondents, one way or the other, agreed that some girls in their school go away out school due to the reality of menstruation, revealing that this range of respondents may additionally have attributed the reason for absence to special factors distinct than menstruation. In comparison, 8% (20) and 19% (46) agreed and strongly agreed, respectively, that girls miss school due to the reality of menstruation. Only 3% (8) and 11% (26) strongly disagreed and disagreed that some girls in their school omitted school due to the truth of menstruation. The findings reveal that menstruation influences school attendance. The findings moreover indicated that 57% (138) of these who answered disagreed with the thought that when girls are given menstruation merchandise like pads, they don't ignore over school. This implies that lacking school may also prefer to be prompted thru distinct factors previous menstruation. They find out about moreover examined whether or not when girl is provided with ample MHM washing areas,

they don't omit school. From the results, 57% (138) of these who spoke back disagreed that when girls are provided with sufficient MHM washing areas, they don't ignore over school; this indicated that most respondents believed that washing areas on their very own is no longer adequate to have an effect on most beneficial university attendance. Here, 3% (8) strongly disagreed that when girls are furnished with ample MHM washing areas, they don't omit over school, whilst 21% (52) one way or the different agreed that when girls are furnished with sufficient MHM washing areas, they don't go away out school, indicating that the respondents might also prefer to no longer authoritatively factor out that provision of washing areas through myself might also favor to beautify university attendance. 11% (26) strongly agreed that when girls are provided with sufficient MHM washing areas, they don't miss school. They find out about moreover whether or not or no longer when girls are provided with sufficient water for washing at some stage in their intervals; they don't miss school. In this case, 4% (10) strongly disagreed, 9% (22) disagreed, 59% (142) one way or the different agreed, 23 % (56) agreed, and 5% (12) strongly agreed. This gave an advice of 3.157 and an ordinary deviation of .817, indicating that most respondents believed that water for washing on my own used to be no longer adequate to have an effect on most beneficial university attendance. The researcher sought to decide whether menstrual hygiene management practices affect school attendance. The majority of the respondents 60% (144) typically disagreed that menstrual hygiene management practices impact school attendance in their school, 12% (28) strongly disagreed that menstrual hygiene management practices have an effect on school attendance in their school, whilst 14% (34) of the respondents come what may admitted that menstrual hygiene management practices have an effect on school attendance in their school, 5% (12) of the respondents agreed that menstrual hygiene management practices affect school attendance in their school, and 10% (24) of the respondents strongly agreed that menstrual hygiene management practices impact school attendance in their school. On average, the typical stage of school attendance was once

58.64% (Mean = 2.932, Std. dev = 0.654) rated moderate. Findings from interviews published that menstruation influences school attendance for the reason that girls have to go lower back domestic and trade which effects in time losing and lacking sure elements of the curriculum. One of the interviewees stated that; “Menstruation impacts the girls psychologically. Their overall performance is additionally affected mainly for girls who have simply began experiencing their menstrual cycle. However, there are a wide variety of NGOs focused on girls, such as a Japanese NGO that gives re-usable pads for girls and Plan International in the place that helps menstruating girls”. This partnership with NGOs is an intervention probable to decrease absenteeism amongst school going girls, however, it is mentioned that they solely companion with school in chosen components of the location and consequently the have an effect on is limited.

4.6.2. Teachers Understanding of Menstrual Hygiene Management on School Attendance among Girls in Primary Schools

The respondents were asked to indicate the extent of agreement with each of the statements. The pertinent results are presented in Table 4.7, where 1 is strongly disagreed, 2-disagreed, 3-somehow agreed, 4-agreed and 5 –strongly agreed.

Table 4.7: Pertinent results on school attendance

Statements	1	2	3	4	5	Mean	StdDev
Some girls in our school miss school because of menstruation	4.7 (3)	9.2 (6)	16.9 (11)	60 (39)	9.2 (6)	3.60	0.98
When girls are given menstruation products like pads, they don't miss school	3.1 (2)	9.2 (6)	29.2 (19)	44.7 (29)	13.8 (9)	3.57	0.95
When girls are provided with adequate MHM washing areas they don't miss school	1.5 (1)	6.2 (4)	6.2 (4)	21.5 (14)	64.7 (42)	4.42	0.97
When girls are provided with adequate water for washing during their periods, they don't miss school	9.2 (6)	7.7 (5)	3.1 (2)	38.5 (25)	41.5 (27)	3.95	1.27
Menstrual hygiene management practices influence school attendance in my school	4.7 (3)	9.2 (6)	16.9 (11)	60 (39)	9.2 (6)	3.60	0.98
Overall						3.83	1.03

Source: Field Data (2021)

Respondents had been requested to state whether or not some girls in their school leave out school due to the fact of menstruation. As tabulated, respondents determined as follows: 4.7% (3) strongly disagreed, 9.2% (6) disagreed, 16.9% (11) in some way agreed, 60.0% (39) agreed and 9.2% (6) strongly agreed that some girls in their school pass over school. Therefore, the majority of the respondents, that is 69.2% (45), usually agreed that some girls in their school omit school due to the fact of menstruation. However, 30.8% (20) usually disagreed. The study about additionally sought to inspect whether, when girls are given menstruation merchandise like pads, they don't pass over school. It used to be realized that 3.1% (2) strongly disagreed, 9.2% (6) disagreed, 29.2% (19) one way or the other agreed, 44.7% (29) agreed and 13.8% (9) strongly agreed that when girls are supplied with menstrual hygiene merchandise like pads, they don't leave out school. As indicated through the

excessive share of 58.4% (38), majority of the respondents agreed that when girls are given menstruation merchandise like pads, they don't omit school.

The 0.33 object underneath this theme used to be to set up whether or not when girl is furnished with sufficient MHM washing areas they don't leave out school. It was once set up that 1.5% (1) strongly disagreed, 6.2% (4) disagreed, 6.2% (4) by some means agreed, 21.5% (14) agreed and 64.7% (42) strongly agreed that when girls are furnished with ample MHM washing areas, they don't pass over school. As indicated by way of the excessive proportion 86.1% (56), majority of respondents agreed that when girls are supplied with ample MHM washing areas they don't leave out school.

The fourth object underneath this theme was once to set up whether or not when girls are supplied with sufficient water for washing throughout their periods, they don't leave out school. It was once discovered that 9.2% (6) strongly disagreed, 7.7% (5) disagreed, and 3.1% (2) by some means agreed, 38.5% (25) agreed and 41.5% (27) strongly agreed that when girls are supplied with ample water for washing they don't leave out school. Generally, it used to be evident that 80.0% (52) of respondents agreed that when girls are supplied with ample water for washing at some point of their periods, they don't leave out school. The results sought to set up whether or not menstrual hygiene management practices have an impact on school attendance in their school. The responses had been as follows: 4.7 (3) strongly disagreed, 9.2% (6) disagreed, 16.9% (11) one way or the different agreed, 60.0% (39) agreed and 9.2% (6) strongly agreed. Therefore, the majority of respondents that is 69.2% (45) in many instances agreed that menstrual hygiene management practices have an impact on school attendance in their school.

Some of the methods advised through way of respondents in which the school can beautify the menstruating girls' school attendance protected provision of free menstrual hygiene management merchandise to deserving girls, sensitizing school students every girls and boys

on menstruation, making positive appropriate MHM sanitation in the school as right as imposing programs and initiatives that adorn MHM in the school. One of the respondents cited that, “it is critical to beautify the self-assurance of the menstruating ladies by using the usage of making positive that others do now not stigmatize them. This can be accomplished via making certain the pupils, every boys and girl are given right and nicely timed facts about menstruation and making certain that they embody this phenomenon as natural and a noble part of expand for the girl child”. The above findings assist the find out about through way of the Kenya Ministry of Health in 2018 on faculty absenteeism via pupils in predominant schools which placed out that School absenteeism want to be addressed in Kenya, given that 13.8 % of enrolled Kenyan children have been absent on any given day (MoE, 2018). The rate of schooling, parental influence, early marriage, pregnancy, menstruation, and household chores are recognized as contributors to absenteeism (Ministry of Health, 2016). Lastly, amongst the preventable medical factors of absenteeism, malaria illness payments for 13% to 50% of faculty days unnoticed in Kenya. Various interventions aiming to beautify important school enrollment and attendance have been tested. Comprehensive school support, which consists of ingredients supplementation, school fees, uniforms, and a school-based helper, for orphans in Kenya, substantially reduced dropout and absence rates. The provision of free sanitary pads to schoolgirls in Kenya has accelerated girls' attendance levels, concentration, and self-belief. Wafula (2014), in a find out about on MHM and school attendance in Kenyan schools discovered out that imparting school students with facts about MHM correctly expanded principal school attendance. Given the broadly diagnosed nice influences of school-based MHM recognition and provision of resources on school attendance and reading achievements, many creating international locations are establishing to strengthen such programs. While some packages have efficaciously decreased absenteeism, to the authors' knowledge, no research have examined the impact of menstrual hygiene management practices on school attendance amongst schools in Kisumu West sub

county, Kisumu County, Kenya. The primary purpose of the current find out about used to be to determine the have an impact on of menstrual hygiene management practices on school attendance.

4.7. Menstrual Hygiene Management Knowledge, Attitudes and Practices and School Attendance among School Girls

Analysis on MHM Knowledge, Attitudes and Practices on School Attendance used to be as soon as delivered in structure of frequencies, percentages, endorse and elegant deviation as demonstrated below. The statements had been anchored on a five-point Likert-type scale ranging from 5=Strongly Agree to 1= Strongly Disagree and respondents had been requested to factor out the extent to which they agreed to the questionnaire statements all via records collection. The find out about begun via the use of assessing who used to be the first individual to inform the respondent about menstruation. The consequences are introduced in table 4.8 below.

Table 4.8: Sources of menstrual Information by Girls

Source of Menstrual Information	Frequency	Percent (%)
Elder sisters	89	36.8
Friend	79	32.6
Teacher	36	14.9
Mothers	32	13.2
Others	6	2.5
	242	100.0

Source: Field Data (2021)

Analysis from table 4.8 published that Majority of the respondents obtained facts from their elder sisters 89(36.8%), then friend 79(32.6%), teacher 36(14.9%) and then mothers 32(13.2%) whilst others was once 6(2.5%). The learn about in addition assessed the have an

impact on of Menstrual Hygiene Management Knowledge, Attitudes and Practices amongst girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya. Results had been as depicted below. 5= Strongly Agree (SA), 4= Agree (A), 3= Somehow Agree, 2=Disagree (D), 1=Strongly Disagree (SD).

Table 4.9. MHM Knowledge, Attitudes and Practices among School Girls

Statement	1	2	3	4	5	Mean	StdDev
I had heard about menstruation before my first menstrual period	138 57%	18 7%	22 9%	16 7%	48 20%	2.248	1.634
I freely discuss with my family and/or other girls about menstruation	136 56%	16 7%	34 14%	38 16%	18 7%	2.116	1.415
Girls sometimes don't go to school during menstrual period	10 4%	16 7%	160 66%	48 20%	8 3%	3.116	.744
I feel comfortable to talk about menstruation with my friends who are girls	6 2%	150 62%	32 13%	18 7%	36 15%	2.702	1.145
I used pads during my last menstrual period	16 7%	162 67%	20 8%	12 5%	32 13%	2.512	1.134

Source: Field Data (2021)

These findings confirmed that most of the respondents 138 (57%) strongly disagreed that they had heard about menstruation earlier than their first menstrual period, and this implied that most students had no longer heard about menstruation earlier than their first menstrual period. 18 (7%) of the respondents disagreed that they had heard about menstruation earlier than their first menstrual period, whilst 22 (9%) of the respondents by hook or by crook agreed that they had heard about menstruation earlier than their first menstrual period, 16(7%) and forty-eight (20%) of the respondents agreed and strongly agreed respectively, that they had heard about menstruation earlier than their first menstrual period. The find out about additionally sought to look into whether or not they freely mentioned with their household and/or different girl about menstruation. A majority 136 (56%) of the respondents strongly disagreed that they freely talk about with their household and/or different girl about

menstruation, 34(14%) of the respondents come what may agree whilst 38 (7%) and 18 (20%) agreed and strongly agreed respectively, that they freely talk about with their household and/or different girl about menstruation. These findings exhibit that the theme of menstruation is no longer a very frequent rely of dialogue in most households. When requested about whether or not or no longer girl from time to time don't go to school for the length of menstrual period, majority 160(66%) in some way agreed that girl each and every so regularly don't go to school for the period of menstrual period, this implied that school attendance is affected thru menstruation and probably distinctive factors as well. sixteen (7%) and forty-eight (20%) of the respondents disagreed and strongly disagreed that girl as soon as in a whilst don't go to school for the duration of menstrual period. On whether or not or no longer they experience at ease to talk about menstruation with their friends who are girls, 6 (2%), one hundred fifty (62%) strongly disagreed and disagreed respectively while 32 (13%), 18 (7%) and 36 (15%) by means of some ability agreed, agreed and strongly agreed respectively that they feel cozy to talk about menstruation with their friends who are girls. Most of the respondents 7% and 67% disagreed and strongly disagreed respectively that they used pads at some stage in their closing menstrual period, at the same time as 20 (8%), 12 (5%), and 32 (13%) come what may additionally agree, agreed and strongly agreed that they used pads for the length of their remaining month-to-month period.

These findings validated that most of the respondents 138 (57%) strongly disagreed that they had heard about menstruation beforehand than their first menstrual period, and this implied that most students had no longer heard about menstruation beforehand than their first menstrual period. 18 (7%) of the respondents disagreed that they had heard about menstruation beforehand than their first menstrual period, at the same time as 22 (9%) of the respondents with the aid of hook or through criminal agreed that they had heard about menstruation formerly than their first menstrual period, 16(7%) and forty-eight (20%) of the

respondents agreed and strongly agreed respectively, that they had heard about menstruation previously than their first menstrual period. The discover out about moreover sought to appear into whether or not or no longer they freely referred to with their family and/or unique girls about menstruation. A majority 136 (56%) of the respondents strongly disagreed that they freely speak about with their family and/or specific girl about menstruation, 34(14%) of the respondents come what can also agree at the same time as 38 (7%) and 18 (20%) agreed and strongly agreed respectively, that they freely speak about with their family and/or unique girl about menstruation. These findings show off that the theme of menstruation is no longer a very standard be counted of speak in most households. When requested about whether or not or now not or no longer girls from time to time don't go to faculty for the size of menstrual period, majority 160(66%) in some way agreed that girls every and each so in many instances don't go to faculty for the duration of menstrual period, this implied that faculty attendance is affected via menstruation and probable one of a kind element as well. sixteen (7%) and forty-eight (20%) of the respondents disagreed and strongly disagreed that girl as quickly as in a while don't go to school for the length of menstrual period. On whether or not or no longer or no longer they journey at ease to speak about menstruation with their friends who are girls, 6 (2%), one hundred fifty (62%) strongly disagreed and disagreed respectively whilst 32 (13%), 18 (7%) and 36 (15%) by using ability of some potential agreed, agreed and strongly agreed respectively that they sense relaxed to discuss about menstruation with their friends who are girls. Most of the respondents 7% and 67% disagreed and strongly disagreed respectively that they used pads at some stage in their closing menstrual period, at the identical time as 20 (8%), 12 (5%), and 32 (13%) come what might also moreover agreed, agreed and strongly agreed that they used pads for the size of their closing month-to-month period. On average, the normal stage of satisfaction in the Menstrual Hygiene Management Knowledge, Attitudes and Practices used to be 48.4% and used to be as quickly as rated moderate. This suggests a majority of school students choose

enchantment on their Menstrual Hygiene Management Knowledge, Attitudes and Practices of majority of school going girls are no longer great for that reason want for improvement. Some of the strategies recommended with the useful resource of respondents in which the faculty can use to enhance on school students MHM knowledge, attitudes and practices are by way of capacity of structured sensitization functions and feasible constant evaluations. Findings from the schooling officer printed that each and every male and ladies instructors are involved in faculty MHM programs. He in addition asserted that there is an authority's insurance plan that helps provision of sanitary towels. He referred to that "Teachers are most commonly obliged to aid school students when there is pick out wondering about the fact that the supply from the authorities is no longer each day and most times, it delays. The very needy school students are generally the accountability of the instructors as they show up in boost to the furnish from the government". Further, he alluded to the certainty that girl who have begun menstruating are uncovered and their grasp on menstrual hygiene management is popular courtesy of their expert teachers. Non-governmental firms like Umoja Foundation and Plan International have been moreover referred to be partnering with schools to create focus on the MHM. The partnership with NGOs is a delivered advantage, however, the officer referred to that these businesses are no longer successful to gain all faculties and subsequently they have an effect on is limited. According to one of the respondents (Head teacher), while talking about the teachers' and pupils' way of thinking towards menstruation, he referred to that girl are open to discussions, teaching is executed in the assembly and boys are involved, even although a few girls are although shy and are now and once more embarrassed by means of the usage of troubles related to MHM. He additionally stated that some students use industrial pads whilst others use standard pads and that as a school there are weekly fitness membership conferences to beautify the know-how of the students on things menstruation. The training officer additionally pronounced that, over a duration of time, the difficulty of menstruation has been

normalized in some establishments and the help from instructors has typically expanded the mind-set of girl toward menstrual. On practices, one of the respondents stated that there is steady furnish of pads via well-wishers and the government, emergency pads are supplied to girls to trade and come lower back to type and shares are reachable for emergencies. The respondent additionally stated that there has been no information of instances of girls lacking school at some stage in menses, and that water and cleaning soap was once constantly handy for them to wash. However, it used to be determined that in some schools, water factors are restricted and in the open and as a result occasionally the girl have to rush domestic trade and come returned to school, this forces them to leave out some instructions which in the long run would have an effect on their universal tutorial achievement. The respondent additionally stated that instructors are fine and talk about menstrual hygiene freely with the girls. Some schools have “Cater and Better” utility by way of way of an NGO that offers sanitary towels and pants for ladies plus vests and pants for boys all via their conferences with the pupils. Some head instructors in contrasting the above narrative printed that so far, no insurance file is available involving Menstrual Hygiene Management. The handy file is on School Health in universal and may also additionally contact on MHM. On whether or not or no longer the authorities has a computer for making certain that school impart records on Menstrual Hygiene Management to the students in Primary faculties the respondents indicated that there is no clear system. Teachers are estimated to trap these statistics internal their instructing as rising issues or pertinent and current day issues. A volume of schools handle menstruation by Guidance and Counseling or Health Clubs in school. On the impact of the information dissemination on the pupils’ attitude towards menstruation, one of the respondents said that *“the information translates into empowering the pupils giving them alternatives to take care of themselves. Given the information and choices improves their attitude and self-esteem”* (Interviewee 09).

4.7.2. Menstrual Hygiene Management Knowledge, Attitudes and Practices and School Attendance by Teachers

The respondents were asked to indicate the extent of agreement with each of the statements. The pertinent results are presented in Table 4.10 where 1 is strongly disagree, 2-disagree, 3-Somehow Agree, 4-agree and 5 –strongly agree.

Table 4.10: Pertinent results on MHM knowledge, attitudes and Practices and School Attendance

Statements	1	2	3	4	5	Mean	Stdev
I teach my pupils menstrual hygiene management	4.7 (3)	9.2 (6)	16.9 (11)	60 (39)	9.2 (6)	3.60	0.98
Some pupils don't attend school when they are on their periods	3.1 (2)	9.2 (6)	29.2 (19)	44.7 (29)	13.8 (9)	3.57	0.95
Pupils share with me their experience during their menstrual period	1.5 (1)	6.2 (4)	6.2 (4)	21.5 (14)	64.7 (42)	4.42	0.97
My pupils (girls) understand Menstrual Hygiene Management	9.2 (6)	7.7 (5)	3.1 (2)	38.5 (25)	41.5 (27)	3.95	1.27
Am actively involved in ensuring that girls in my school know about menstruation	4.7 (3)	9.2 (6)	16.9 (11)	60 (39)	9.2 (6)	3.60	0.98
Menstruation is a topic I easily/openly handle with the girls in my school	4.7 (3)	9.2 (6)	16.9 (11)	60 (39)	9.2 (6)	3.60	0.98
I have encountered a situation where a pupil dropped out of school due to menstruation	3.1 (2)	9.2 (6)	29.2 (19)	44.7 (29)	13.8 (9)	3.57	0.95
Overall						3.76	1.01

Source: Field Data (2021)

In Table 4.10 above, respondents gave the following responses: 3(4.7%) strongly disagreed, 6(9.2%) disagreed, 11(16.9%) by means of some ability agreed, 39(60%) agreed, and 6 (9.2%) strongly agreed that they educate their school students' menstrual hygiene management. Therefore, the majority, 45(69.2%) of the respondents commonly agreed that they educate their school students menstrual hygiene management. However, 20(30.8%) typically disagreed with this assertion. They learn about moreover sought to look at whether

or not or no longer some pupils don't attend faculty when they are on their periods. The responses posted that 3.1% (2) strongly disagreed, 6(9.2%) disagreed, (19)29.2% have been with the aid of hook or with the aid of criminal agree, 29(44.7%) agreed. As indicated by way of the immoderate percentage of 58.4%, the majority of the respondents agreed that some school students don't attend school when they are on their periods. The 1/3 object beneath this theme was once as soon as to set up whether or not or now not school students share with them their ride at some factor all through their menstrual period. It used to be set up that 1 (1.5%) strongly disagreed, 4 (6.2%) disagreed, 4 (6.2%) have been by using hook or through criminal agreed, 14 (21.5%) agreed, and forty-two (64.7%) strongly agreed. As indicated by the immoderate percentage of fifty-six (86.1%), the majority of respondents agreed that school students share with them their experience all thru their menstrual period. The fourth object below this theme used to be to set up whether or not or no longer have their pupils (girls) apprehended Menstrual Hygiene Management. It used to be decided that 6 (9.2%) strongly disagreed, 5 (7.7%) disagreed, two (3.1%) in some way agreed, 25 (38.5%) agreed and 27 (41.5%) strongly agreed. Generally, it used to be as soon as evident that fifty-two (80.0%) of respondents agreed that their students (girls) apprehend Menstrual Hygiene Management. They find out about placing up whether or not or now not they are actively worried with making certain that girl in their school know Menstruation. The responses have been as follows: three (4.7%) strongly disagreed, 6 (9.2%) disagreed, eleven (16.9%) one way or the different agreed, 39 (60.0%) agreed, and 9.2% (6) strongly agreed. Therefore, the majority of the respondents forty-five (69.2%), typically agreed that they are actively involved about making positive that girl in their faculty apprehend about Menstruation. Respondents have been requested to the U. S. A. on whether or not or now not menstruation is a challenge remember they easily/openly deal with the ladies in their school. They spoke again as follows: three (4.7%) strongly disagreed, 6 (9.2%) disagreed, eleven (16.9%) in some way agreed, 39 (60.0%) agreed, and 6 (9.2%) strongly agreed. Therefore, the majority,

forty-five (69.2%) of the respondents, usually agreed that Menstruation is a concern be counted they easily/openly control with the ladies in their school. However, 20 (30.8%) generally disagreed with this assertion. They locate out about moreover sought to look into whether or not or no longer had they encountered a situation the region a scholar dropped out of faculty due to Menstruation. It was once as soon as realized that two (3.1%) strongly disagreed, 6 (9.2%) disagreed, 19 (29.2%) by means of hook or by means of criminal agreed, 29 (44.7%) agreed, and 9 (13.8%) strongly agreed. As indicated by means of the immoderate share of 38 (58.4%), the majority of the respondents agreed that they have encountered a situation the vicinity a scholar dropped out of faculty due to menstruation. The generic name(s) school students used to refer to Menstruation covered kunyasha that capability 'to rain' munyesho that potential 'rain', periods, damu which capability 'blood', mambo to endorse 'things' and mvua a Kiswahili phrase for 'rain'. Some of the techniques in which the faculty can aid them in bettering students' MHM knowledge, attitudes, and practices are by sensitization forums, peer crew discussions, talking compound shows, and making positive that the entire phenomenon is normalized and recognized by means of the usage of its perceive so that it does now not appear to be like a taboo. Other lookup useful resource the above findings like Pilitteri (2017), who examined the MHM cultural practices, attitudes, and perceptions of girls/girls in the Mzimba and Salima districts of Uganda, the use of blended methods approach with questionnaires and middle of interest crew communicate publications as gear for statistics collection. The findings suggest that girl had a relatively larger diploma of grasp than boys, and data in girl used to be associated to greater MHM practices and lowered absenteeism. Interestingly, prolonged MHM understanding of boys used to be associated to horrible consequences for girls, such as teasing and absenteeism. The use of disposable pads was once as soon as positively associated to school attendance at some stage in menses. In every district, girl in menses have been regarded unclean and restrained from pretty a few activities. While the excessive first-rate of real MHM practices

no longer differed, girl unnoticed greater faculty days in the path of menses and knew greater about MHM in one district (Salima). In addition, some socio-cultural variants grounded in documents sources have been observed: grandmothers traditionally carried out the role of giving statistics on MHM for the period of initiation rites in Mzimba, whereas girl in Salima relied larger on mothers and girl teachers. However, the findings the usage of Osea (2018) in a lookup at the influence of menstruation on the Academic Performance of High School Girls: A Case about Human Dignity in Migori County, Kenya, contrasted the above findings. The find out about employed the use of descriptive lookup diagrams with questionnaires and interview guides to accumulate data. From the analyzed results, households, in most cases mothers, try to instruct their daughters about menstruation and its management in a manner that will make sure that their privacy, intimacy, and dignity are protected and respected. Therefore, the undertaking on MHM in Kisumu West Sub County is legitimate, and the files from respondents are an indication that MHM on girls' school attendance wants to be given larger attention. The findings of this find out about concur with findings with the resource of Freidenfelds (2010) and Rice (2014) that in America, the management of menstruation used to be exceedingly underdeveloped in contrast to contemporary Western menstruation practices. A subculture of myths, rituals, and superstitions surrounding menstruation is mainly deeply embedded in the Western menstruation literature. The myths encompass warnings to keep away from swimming, over-exertion, and 'mental shock have been frequent and intercourse for the duration of menstruation used to be believed to be "unhealthy, unpleasant, and even immoral". From the African society perspective, menstruation was such a taboo topic, girls were often not talked to about it until after menarche, when it started as a surprise. During the study, many girls who did know about menstruation before menarche studied from their classmates, or books. A study conducted by Dammary (2016), found that Italian immigrants to the U.S. had rarely informed their

daughters of menstruation at all due to the common cultural beliefs placed on “...*girls virtue and purity...*” which has also been among the Jewish mothers.

From the above findings, menarche comes with a shock and for some girls the experience of menarche is uneventful; however, for many girls, the onset of menses is a confusing and difficult or often traumatic transition as she attempts to navigate through the adjustment to her daunting new normal.

The researcher was interested in understanding the extent of variance of Menstrual Hygiene Management Knowledge, Attitudes and Practices on school attendance. Table 4.17 shows the analysis results.

Table 4.11. Regression Results of Menstrual Hygiene Management Knowledge, Attitudes and Practices and School Attendance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.662 ^a	.438	.436	.69704	.438	261.510	1	305	.000

a. Predictors: (Constant), mean visionary

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		Beta	Std. Error			
1	(Constant)	1.049	.160		6.566	.000
	Menstrual Hygiene Management Knowledge, Attitudes and Practices	.677	.042	.662	16.171	.000

a. Dependent Variable: School Attendance

Source: Field Data (2021)

The results in Table 4.11 revealed a coefficient of determination (R^2) of 0.438. This means that Menstrual Hygiene Management Knowledge, Attitudes and Practices can explain up to 43.8 % of the variance in School Attendance. The F test gave a value of $(1, 336) = 262.510$, $p < 0.05$, which supports the goodness of fit of the model in explaining the variation in the

dependent variable. It also means that Menstrual Hygiene Management Knowledge, Attitudes and Practices is a useful predictor of School Attendance.

The unstandardized regression coefficient (β) value of Menstrual Hygiene Management Knowledge, Attitudes and Practices was 0.677, $p < .005$. This indicated that a unit change in Menstrual Hygiene Management Knowledge, Attitudes and Practices would result to change in School Attendance by 0.677 significantly. The regression equation to estimate the School Attendance as a result of Menstrual Hygiene Management Knowledge, Attitudes and Practices was hence stated as:

$$\text{School Attendance} = 1.049 + 0.677X_1 + \varepsilon$$

The first null research hypothesis posited H_01 : There is no significant effect of Menstrual Hygiene Management Knowledge, Attitudes and Practices on School Attendance was rejected using both r and R^2 . From the results, Menstrual Hygiene Management Knowledge, Attitudes and Practices had significant positive effect on School Attendance with $p < 0.01$ and it significantly accounted 43.8% variance on School Attendance. Therefore, the first null hypothesis is rejected as Menstrual Hygiene Management Knowledge, Attitudes and Practices has significant effect on School Attendance.

4.8. School-based Menstrual Hygiene Management Programs on School Attendance

The study begun by assessing whether schools implement any government policy on Menstrual Hygiene Management.

4.8.1. School-Based Menstrual Hygiene Management Programs for Pupils

The study examined the method of disposal of the used pads commonly used at school. The responses were as follows.

Table 4.12. Method of disposal of the used pads commonly used at school

Statement	Frequency	Percentage
Dispose the used cloth pieces or sanitary napkins into pit latrines	97	40.08
Throw in an open field near the school	19	7.85
Put in the sanitary disposal bins in the girls' toilets	86	35.54
Keep in my bag and throw at home	36	14.88
Others (Specify).....	4	1.65
Total	242	100

Source: Field Data (2021)

From the findings, a majority of the respondents disposed their used pads into pit latrines 97(40.08%), some threw in an open field near the school 19(7.85%), others put in the sanitary disposal bins in the girls' toilets 86 (35.54%), kept in their bags and threw at home 36 (14.88%), while 4(1.65%) had other ways of disposing used sanitary towels. The respondents were asked to rate the school based MHM Programs of their respective schools and came up with the results below.

Table 4.13: Descriptive Statistics of School based MHM Programs and School Attendance

Statement	1	2	3	4	5	Mea n	Std. dev
We have lessons for Menstrual Hygiene management in my school	10	156	30	14	32	2.59	1.115
	4%	64%	12%	6%	13%	5	
I received pads from school in my last menstrual period	4	140	52	20	26	2.68	1.033
	2%	58%	21%	8%	11%	6	
I normally change pads at school during my menstruation	8	133	44	20	36	2.76	1.148
	3%	55%	18%	8%	15%	0	
My school latrines have privacy where you can change during menstrual periods	12	12	144	56	18	3.23	.854
	5%	5%	60%	23%	7%	1	
I missed a class during menstruation in the last three months	8	12	148	56	18	3.26	.804
	3%	5%	61%	23%	7%	4	
We are taught about menstruation frequently in school	6	16	148	28	44	3.36	.940
	2%	7%	61%	12%	18%	4	
Average level of School based MHM Programs effectiveness	Mean(%Mean)	Std. Dev.	Std. Error of mean	of	Min	Maximum	
	3.019 (60.38%)	.703	.064		.143	5.000	

Source: Field Data (2021)

Respondents have been requested to kingdom whether or not or no longer have they had education for Menstrual Hygiene management in their school. As indicated in Table 4.13 above, 10 (4.0%) strongly disagreed, 156 (64.0%) disagreed, 30 (12.0%) with the aid of hook

or by means of criminal agreed, 14 (6.0%) agreed, and 32 (14.0%) strongly agreed that they have education on menstrual hygiene management. Therefore, the majority of 166 (68.0%) of the respondents regularly agreed that they have lessons for Menstrual Hygiene management in their school. However, 32 (30.8%) generally agreed with this assertion. The learn about in addition sought to seem to be into whether or not or no longer or no longer the respondents bought pads from school in their closing menstrual period. It used to be realized that four (2.0%) strongly disagreed, one hundred forty (58.0%) disagreed, fifty-two (21.0%) one way or the unique agreed, 20 (8.0%) agreed, and 26 (11.0%) strongly agreed. As indicated with the aid of the excessive share of a hundred and forty-four (60%), a majority of the respondents agreed that they acquired pads from faculty in their closing menstrual period. The 1/3 object under this theme used to be as quickly as to set up whether or not or no longer or now no longer the respondents oftentimes alternate pads at school at something at some stage in their menstruation. It was once as soon as quickly as set up that 3.0% (8) strongly disagreed, 133 (55.0%) disagreed, forty-five (18.0%) by way of the use of hook or with the aid of capacity of crook agreed, 20 (8.0%) agreed, and 36 (15.0%) strongly agreed. As indicated thru the use of the immoderate proportion 141 (58.0%), the majority of respondents disagreed that they generally alternate pads at school for the duration of their menstruation. The fourth object underneath this theme used to be to set up whether or not or now not or now not their school latrines have privacy, the place they can trade at some aspect at some point of menstrual periods. It used to be placed that 12 (5.0%) strongly disagreed, 12 (5.0%) disagreed, one hundred and forty-four (60.0%) one way or the one of a kind agreed, fifty-six (23.0%) agreed, and 18 (7.0%) strongly agreed. Generally, it used to be evident that a majority of respondents, that is, a hundred and forty-four (60.0%) respondents, by using ability of some means, agreed that their faculty latrines have privacy areas they can alternate at some aspect all via menstrual periods. They learn about looking for to set up whether or not or now not or now no longer they have not noted a classification in the route

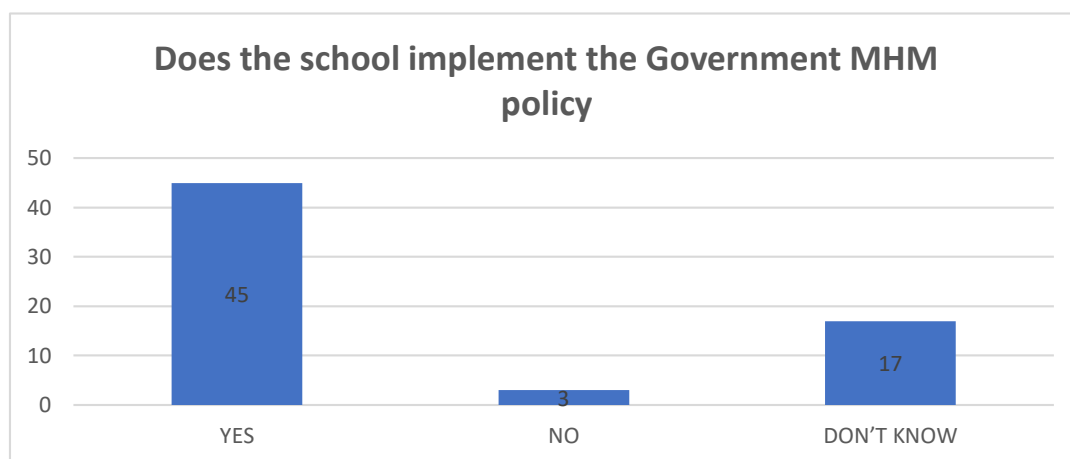
of menstruation in the closing three months. The responses have been as follows: eight (3%) strongly disagreed, 12 (5.0%) disagreed, 148 (61.0%) in some way agreed, fifty-six (23.0%) agreed, and 18 (7.0%) strongly agreed. Therefore, a majority of the respondents, 148 (61.0%), with the aid of way of some means, agreed that they left out a type all by menstruation in the ultimate three months. Respondents had been requested to kingdom whether or not or now not or no longer they are taught about menstruation generally in school. They determined as follows: 6 (2.0%) strongly disagreed, sixteen (7.0%) disagreed, 148 (61.0%) with the useful resource of some doable agreed, 28 (60.0%) agreed, and forty-four (9.2%) strongly agreed. Therefore, the majority 148 (61.0%) of the respondents commonly had been one way or the extraordinary agreed that they are taught about menstruation oftentimes in school. However, 22 (9%) in many instances disagreed with this assertion. Some of the cautioned techniques in which the faculty can embellish MHM functions embody allocating cost vary estimations toward MHM programs, involving all stakeholders in MHM as correct as punishing offenders of MHM practices like these who dispose of their used pads wrongly and these who fail to trouble pads to needy school students as instructed. The education officer noted that MHM falls beneath intercourse education, which is a noticeably emotive topic, in special associated to who, how, and when intercourse training is to be carried out. Organizations have come up to raise out things to do without alter the proper school curriculum. Some come up with a thinking of looking to consist of things about menstrual fitness internal video games and carrying things to do in school. The schooling officer referred to that as administrators, they confronted tremendous challenges in imposing the authority's insurance plan on MHM; "Some ladies file sharing pads, issued at faculty with the aid of way of the authorities program, with their moms who can no longer come up with the money for pads, for themselves or their exceptional sisters". Some of the Headteachers, when interviewed, referred to that "Mensuration is a theme in category 6 on the different hand there is neither one-of-a-kind instructing for instructors nor

particular material and mission content material fabric material to be delivered to the pupils”. Most of the respondents in addition printed that the provision of sanitary towels is inconsistent, and the authorities can additionally cases prolong in handing over them. Some schools have been referred to as having horrible services, and the respondents posted that now and then, the lady have to return domestically to exchange, which is time losing, and so they furnish up lacking some lessons. Other challenges blanketed illiteracy amongst dads and moms who no longer apprehend how to teach their young adults on MHM troubles, in particular prior to the onset of their menses; language barrier that influences keep shut of English and Kiswahili; lack of attribute fashions amongst a crew of personnel who can take up the project of discussing MHM issues, in the absence of the totally Health Teacher. On the MHM-associated programs, the head instructors printed that the Government absolutely recommends to school the purposes to be implemented. The head instructors stated that Menstrual Hygiene Management is silent in schools. One of the respondents stated, “The curriculum bearing on to MHM needs and improvement”. They in addition noted that they desire some manageable to gather in order to have a structured way of incorporating MHM into the curriculum. The authorities be counted on that there have to be lavatories for the woman with transportable disposal packing containers to cater to menstruating girls. The authorities intervenes via funding with a vote head for Sanitation improvement, even though it’s no longer ample in precise if the enrolment is low, due to the fact the allocation is given per pupil. The authority’s companions with groups to grant sanitary towels such as KCB, Safaricom etc. In the final two years the distribution of sanitary towels has been normal although it hobbies the girl in greater primary, which is a downside to the woman who may additionally start experiencing menstruation at the same time as nevertheless in the minimize instructions.

The above findings replicate findings via Kuyote (2014) who carried out a learn about on Menstrual Hygiene Management the use of a relative sample of 567 respondents with quantitative techniques. From the findings, little activity has been given to perception how MHM contributes to faculty absenteeism and distinctive gender disparities in Zambia. One exceptional software program that has been carried out in rural schools of Zambia is the 'School Led Total Sanitation'(SLTS) program. SLTS purposes promote sanitation and hygiene behaviors and furnish enhancements to the sanitation infrastructure collectively with MHM best facilities. Schools with such purposes will most maybe have ventilated prolonged bathrooms with a blanketed pit and an actual hand washing facility with a cleaning agent (soap/ash). Understanding the editions between MHM practices all through faculty with and barring SLTS can provide indispensable insights on the effectiveness of SLTS for MHM. However, a comparable find out about by using Mulangwa (2015) on Menstrual Hygiene Management practices in Rwanda, the usage of descriptive lookup design, with questionnaires and focal point crew discussions contradict the above findings. The outcomes give an explanation for that though there has been the tremendous promoting of sanitary pads in some nations and some authorities applications grant pads for ladies in schools, long-term adoption prices are combined due to the ongoing prices and the lack of disposal picks in schools. The accessibility, affordability, and value of commercially accessible pads range throughout areas inside the counties. Typically, rural girl have decrease get admission to in contrast to city girls. International and countrywide disposable pad manufacturers are handy in most areas in Rwanda, although many female can't manage to pay for them or can't persuade mother and father and different household individuals to prioritize their purchase. From the above findings, school based MHM programs need to be improved and streamlined in many areas for greater impact among girls in primary schools in Kisumu West.

4.8.1. School based Menstrual Hygiene Management Programs for Teachers

The findings are as follows.



Source: Field Data (2021)

Figure 4.1: School Implementation of Government Policies

A majority (45%) of the respondents indicated that their schools do implement the government MHM policy. The respondents were also asked to indicate the extent of agreement with each of the statements from strongly disagree to strongly agree. The pertinent results are presented in Table 4.14.

Table 4.14. School based MHM Programs on school attendance.

Statements	1	2	3	4	5	Mean	St. dev
My school has a policy on Menstrual Hygiene Management	3.1 (2)	1.5 (1)	12.3 (8)	35.4 (23)	47.7 (31)	4.23	0.95
My school has a short-term program in support of menstrual Hygiene Management system	0.0 (0)	23.1 (15)	0.00 (0)	33.8 (22)	43.0 (28)	2.68	1.16
My school has a long-term program in support of menstrual Hygiene Management system	0.0 (0)	6.2 (4)	7.7 (5)	29.2 (19)	56.9 (37)	4.32	0.97
My school collaborates with agencies/ Organizations to support Menstrual Hygiene Management programs	4.6 (3)	4.6 (3)	7.7 (5)	30.8 (20)	52.3 (34)	4.26	0.96
There are programs for capacity building (trainings) for teachers on issues of Menstrual Hygiene Management in my school	3.1 (2)	1.5 (1)	12.3 (8)	35.4 (23)	47.7 (31)	4.23	0.95
Overall						3.94	1.00

Source: Field Data (2021)

From Table 4.14, 31(47.7%) of the respondents strongly agreed that their school has insurance plan on Menstrual Hygiene Management, even as 23(35.4%) agreed on the same. A suggestion of 4.23 and a well-known deviation of 0.95 knowledgeable that there is a magnificent deviation from the mean. A majority of the respondents, 54(83.1%), agreed that their faculty has insurance plan on Menstrual Hygiene Management. In regard to whether or not or no longer or no longer their faculty has a transient software program in the facts of

menstrual Hygiene Management system, from the findings, none strongly disagreed, 15(23.1%) disagreed, none one way or the distinctive agreed, 22(33.8%) agreed, and 28(43.0%) strongly agreed. The majority of the respondents, 50(76.8%), agreed that their faculty has a brief software program software to resource with the menstrual Hygiene Management system. A suggestion of 2.68 and a preferred deviation of 1.16 implied that there is outstanding dispersion from the mean. The penalties in addition posted that 19 (29.2%) and 37(56.9%) of the respondents agreed and strongly agreed, respectively, that their faculty has long-term software program application in help of menstrual Hygiene Management with a endorse of 4.32 and tremendous deviation of 0.97. This implies that there is a gorgeous deviation from the mean. The majority of the respondents, 56(86.1%), agreed that their faculty has a long-term software program in assisting Menstrual Hygiene Management. The findings installed that 30.8% of the respondents agreed that their school collaborates with agencies/ Organizations to aid with Menstrual Hygiene Management packages, and a greater 52.3% strongly agreed to the same. A recommendation of 4.26 and a favored deviation of 0.96 implied that there used to be some deviation from the mean. From the findings, 47.7% of the respondents strongly agreed that there are functions for functionality setting up (trainings) for instructors on troubles of MHM in their school, at the same time as 35.4% agreed on the same. An endorse of 4.23 and an enormous deviation of 0.95 advocated that there is a high-quality deviation from the advice 31(47.7%) of the respondents strongly agreed that there are purposes for manageable placing up (training) for instructors on troubles of Menstrual Hygiene Management in their school even as 23(35.4%) agreed on the same. A recommendation of 4.23 and a considerable deviation of 0.95 advocated that there is an excellent deviation from the mean. A majority of the respondents, from the findings, 54(83.1%) agreed that there are features for practicable organising (trainings) for instructors on troubles of Menstrual Hygiene Management in their school. Some of the approaches counseled by way of the usage of respondents in which the faculty

can enhance its MHM faculty diploma packages consist of coming up with increased inclusive MHM functions that seamlessly contain as many instructors and students as possible, if no longer all, an accelerated steady and sustainable desktop of providing MHM objects like pads, water and soap, surroundings pleasant and superb sanitation buildings with a properly waste disposal and administration system, and sensitizing instructors on how to efficaciously disseminate statistics on MHM.

4.8.3. Regression Results of School based MHM Programs and School Attendance

Regression analysis was conducted to reveal the proportion in school attendance in relation to School-based MHM Programs. Table 4.15 shows the analysis results.

Table 4.15. Regression Results of School based MHM Programs and School Attendance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.415 ^a	.172	.170	.84571	.172	69.888	1	336	.000
a. Predictors: (Constant), transactional contingent reward									
Model			Unstandardized Coefficients		Standardized Coefficients		t		Sig.
			B	Std. Error	Beta				
1	(Constant)		2.549	.129			19.698		.000
	Transactional contingent reward		.272	.033	.415		8.360		.000
a. Dependent Variable: School Attendance									

Source: Field Data (2021)

Table 4.15 consequences indicates a coefficient of determination (R²) of 0.172 that means that School primarily based MHM Programs provide an explanation for up to 17.2% of the variance in School Attendance. The adjusted R rectangular tries to produce an extra straightforward fee to estimate R rectangular for the population. The F-test gave a cost of F (1, 336) =69.888, p & t; 0.01, which helps the goodness of match of the model in explaining

the version in the based variable. It also capability that School based totally MHM Programs is a beneficial predictor of School Attendance. The unstandardized regression coefficient (Beta) price of School primarily based MHM Programs was once 0.272, p & t; .001. This indicated that a unit trade in School-based MHM Programs would end result to exchange in School Attendance through 0.272 significantly. The regression equation to estimate the School Attendance as an end result of School based totally MHM Programs was once therefore noted as:

$$\text{School Attendance (Y)} = 2.549 + 0.272X_2 + \varepsilon$$

From the model, School primarily based MHM Programs have widespread effective impact on School Attendance with p< 0.05 and it extensively accounted for 17.2% variance in School Attendance. Therefore, the second null hypothesis is rejected as School-based MHM Programs have significant effect on School Attendance.

4.9. Information Dissemination on MHM Practices on School Attendance

The respondents were asked to indicate the extent of agreement with each of the statements in order to assess the influence of information dissemination on MHM Practices on School attendance and their responses were rated as 5= Strongly Agree (SA), 4= Agree (A), 3= Somehow Agree (SHA), 2=Disagree (D), 1=Strongly Disagree (SD).

4.9.1. Information Dissemination on Menstrual Hygiene Management Practices for Pupils

The study assessed descriptive statistics of information dissemination on MHM practices among girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya. Respondents' rate on the information dissemination on menstrual hygiene management practices of their respective schools is as depicted in table 4.16 below.

Table 4.16. Information dissemination on menstrual hygiene management practices

Statement	SD	D	Somehow agreed	A	SA	Mean	Std. dev
I always talk about menstruation with my fellow pupils	14 6%	6 2%	136 56%	22 9%	64 26%	3.479	1.089
We normally include boys in our class/school when discussing menstruation	8 3%	18 7%	148 61%	48 20%	20 8%	3.223	0.832
We have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood	6 2%	158 65%	40 17%	20 8%	18 7%	2.529	0.958
Girls are shy to talk about menstruation	14 6%	160 66%	22 9%	26 11%	20 8%	2.496	1.042
Average satisfaction level in Information dissemination on menstrual hygiene management practices	Mean(%Mea n)	Std . Dev.	Std. Error of mean	Minimum	Maximum		
	2.767 (55.34 %)	.739	.067	1.286	5.000		

Source: Field Data (2021).

From the outcomes in Table 4.16 above, 56% and 61% one way or the other agreed that they constantly talk about menstruation with their fellow school students and that they typically consist of boys in their class/school when discussing menstruation respectively. The findings moreover show off that a majority of the respondents, 65% and 66% agreed that they have had cases the location boys/ a boy giggle at or tease a lady each and every time she stains her fabric with menstrual blood and that girls are shy to talk about menstruation respectively. On average, the common stage of satisfaction in the data dissemination on menstrual hygiene management practices used to be 55.34% (Mean = 2.767, Std. dev = 0.739) rated moderate. This factor out that records dissemination on menstrual hygiene management practices of majority of the schools are now not notable subsequently favor for improvement. The head instructors gave the following statistics in the route of the interviews; the Catholic Church provides month-to-month talks to pupils on matters MHM via companions like Umoja Foundation (NGO) that affords talks on matters

MHM and distributes sanitary towels, data is availed to school students thru the health teacher and talks by using the usage of PLAN project amongst others. However, they in addition noted that no longer can each teacher do G & C and teaching would be advisable to aid the instructor to be conscious of how to approach the topic. The head instructors mentioned that there is no clear insurance on the other hand the completely way to set up that the information is disseminated is if the lesson plans have MHM content material fabric infused. One of the respondents referred to that “when the girl has properly timed information on MHM then they will pay attention on their studies”. Some of the strategies in which the schools ought to make positive MHM information is availed to the students are, through the weekly science membership (“Get up and better”) conferences the vicinity instructors speak about MHM issues. An examine about that helps the above findings is a discover out about by means of capacity of Okafor (2015) on Menstrual Hygiene Management in Ghana which employed the use of interview schedules and structured questionnaires. Data used to be analyzed the utilization of descriptive and inferential statistics. The findings show off that the peer group view issue or factor of view emphasizes peer-to-peer examining of MHM techniques and practices through giving resource to cutting-edge corporations of lady to goal menstrual hygiene training. In southern phase of Ghana, the organizations led with the aid of friends have centered on formalization and amalgamation at the district degree and they get aid from both a neighborhood employee of a focal teacher. In the region, school textbooks typically solely current organic facts associated to menstruation.

4.9.2 Information Dissemination on Menstrual Hygiene Management Practices on School Attendance

The pertinent results are presented in Table 4.17.

Table 4.17: Information dissemination on MHM practices for teachers

Statements	1	2	3	4	5	Mean	Stdev
I always talk about menstruation with my pupils	13.8 (9)	1.5 (1)	6.2 (4)	23.1 (15)	55.4 (36)	3.15	0.99
I normally include boys in my class/school when discussing menstruation	12.3 (8)	1.5 (1)	4.7 (3)	16.9 (11)	64.6 (42)	3.17	0.91
I have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood	3.1 (2)	12.3 (8)	12.3 (8)	7.7 (5)	64.7 (42)	3.48	1.11
Girls are shy to talk about menstruation	7.7 (5)	10.8 (7)	13.8 (9)	46.2 (30)	21.5 (14)	3.37	1.17
There is a clear guideline in our school on how to disseminate information on menstrual hygiene to the pupils	13.8 (9)	1.5 (1)	6.2 (4)	23.1 (15)	55.4 (36)	3.15	0.99
Overall						3.26	1.03

Source: Field Data (2021)

From Table 4.17, 15(23.1%) of the respondents agreed that they in many instances discuss about menstruation with their students, even as 36(55.4%) strongly agreed. An advocate of 2.15 and a large deviation of 0.99 implied that there is a gorgeous deviation from the mean. A majority, 51(78.5%) of the respondents, agreed that they commonly discuss about menstruation with their pupils. 11(16.9%) of the respondents agreed that they generally consist of boys in their class/school when discussing menstruation, and 42(64.7%) strongly agreed on the same. An implication of 2.17 and a regular deviation of 0.91 knowledgeable that there is an awesome deviation from the suggestion; accordingly, the findings have been placed to be in the stunning direction. The majority, 53(81.5%) of the respondents, agreed that they commonly embody boys in their class/school when discussing menstruation

organizing whether or not or now not or no longer there have been instances the location boys/ a boy laughing at or teasing a girl on every tournament she stains her material with menstrual blood, 5 (7.7%) agreed even as forty-two (64.7%) strongly agreed. A recommendation of 2.48 and an elegant deviation of 1.11 indicated that there is a super deviation from the mean. Therefore, the majority of the respondents, forty-seven (72.3%), agreed that they had had instances of the vicinity boys/ a boy snickering at or teasing a girl on every and each event she stains her fabric with menstrual blood. On whether or not or now not or now no longer girls are shy to talk about menstruation, 30 (46.2%) of the respondents agreed, while 14 (21.5%) strongly agreed, with a imply of 2.37 and a giant deviation of 1.17. This implies that there is a top notch deviation from the mean. A majority of the respondents, as a consequence, forty-four (67.7%) agreed that girl are too shy to speak about menstruation. From the findings on whether or not or no longer or now not there is a clear guiding principle in their school on how to disseminate facts on menstrual hygiene to the scholars, 15(23.1%) respondents agreed that there is a clear guiding principle in their school on how to disseminate documents on menstrual hygiene to the school students while 36 (55.4%) strongly agreed. A propose of 3.15 and a favored deviation of 0.99 implied that there is an extremely good deviation from the mean. A majority of fifty-one (78.5%) of the respondents normally agreed that there is a clear tenet in their school on how to disseminate records on menstrual hygiene to the pupils. Some of the knowledgeable techniques by means of way of which the school can decorate its MHM facts dissemination to the school students used to be as soon as via the usage of way of organizing menstrual hygiene attention days, boards for sensitization on MHM properly, and the utilization of peer mentors for MHM. The interviews printed that the authorities desire a more structured approach for the instructors to disseminate facts to the pupils. It is hoped that the instructors will sneak into matters of menstrual fitness in the route of their everyday lessons. Since there is no unique content material fabric cloth associated with MHM, the authorities are now not in a role to

make effective the appropriate content material fabric material on MHM is delivered to the school students and how to do so successfully. Distribution of sanitary towels is now no longer every day, and some school do now not keep documents on the issuance of the same, so it is no longer perchance to set up whether or not or no longer or no longer the pads reap the based totally pupils. The above findings data inspecting the utilization of Malemba (2017) on the Menstrual Hygiene Management curriculum in Tanzania, which used questionnaires with a pattern dimension of 893 respondents; facts used to be analyzed the use of frequencies, percentages, correlations, and regressions. The penalties exhibit that some schools have succeeded in incorporating MHM in the curriculum, and this can be copied for many first-rate schools; however, the training of instructors and availing beneficial useful resource substances for schooling is very important. In spite of the fact that there are many times separate toilets for girls, a small proportion, that is, 34% of girls' file the utilization of the rest room for altering and cleansing sanitary materials. The purpose most noted used to be the lack of disposal selections decided with the useful resource of the use of the lack of privacy or water. Overall, many girls' toilets in school in the nearby are now no longer completely outfitted to manipulate clever MH needs. The discover out about posted that gaps proceed to be with regards to infrastructure together with poorly developed toilets, lacking doors/locks, terrible or no lighting, no hand washing facilities, merchandise (no soap, lavatory paper/cleansing materials, emergency absorbents, etc.), and alternatives (no on foot water, un cleaned toilets, waste disposal options, etc.). The study findings reflect a similar scenario in most of the schools in Kisumu West Sub County.

4.10. School Menstrual Hygiene Management Sanitation Systems on School

Attendance

The study assessed descriptive statistics of school menstrual hygiene management sanitation systems among girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya.

4.10.1. School Menstrual Hygiene Management Sanitation Systems by School Girls

The respondents were asked to indicate the extent of agreement with each of the statements in order to assess the influence of menstrual hygiene management sanitation systems on School attendance and their responses were rated as 5= Strongly Agree (SA), 4= Agree (A), 3=Somehow Agree(SHA), 2=Disagree (D), 1=Strongly Disagree (SD).

Table 4.18. Descriptive Statistics of School menstrual hygiene management sanitation systems

Statement	5	4	3	2	1	Mean	Std. dev.
My school has separate toilets for girls and boys	10	22	142	56	12	3.157	.817
	4%	9%	59%	23%	5%		
My school has enough water for girls to wash during menstruation	10	14	144	60	14	3.223	.811
	4%	6%	60%	25%	6%		
The available latrines have lockable doors	128	20	40	32	22	2.174	1.424
	53%	8%	17%	13%	9%		
My school has separate changing rooms for girls during periods	20	132	22	26	42	2.744	1.275
	8%	55%	9%	11%	17%		
The facilities in my school are sufficient for girls who are menstruating while in school	12	12	148	62	8	3.174	.782
	5%	5%	61%	26%	3%		
My school has a designed system for disposal of used pads	26	22	102	58	34	3.215	1.134
	11%	9%	42%	24%	14%		
Average satisfaction level in School menstrual hygiene management sanitation systems	Mean(%Mean)	Std. Dev.		Std. Error of mean	Minimum	Maximum	
	2.990 (59.8%)	.684		.062	1.429	4.857	

Source: Field Data (2021)

The findings in Table 4.18 exhibit that a majority of the respondents, 59% and 60% one way or the other agreed that their school has separate bogs for girls and boys, and that their school has ample water for girls to wash at some point of menstruation respectively. Also, a majority

of the respondents, 53% and 55% strongly disagreed and disagreed respectively that the accessible latrines have lockable doors, and that the school has separate altering rooms for girls throughout durations respectively. From the consequences 61%, 42% and 60% somewhat agreed that the amenities in their school are enough for girls who are menstruating whilst in school, their school has separate bathrooms for girls and boys, and the amenities in their school are enough for girls who are menstruating whilst in school respectively. On average, the average degree of delight in the school menstrual hygiene management sanitation structures was once 59.8% (Mean = 2.990, Std. dev. = 0.684) rated moderate. This suggests that school menstrual hygiene management sanitation structures amongst majority of the schools are now not high quality hence want for improvement. Some of the proposed approaches in which the school can enhance its MHM sanitation structures are taking part with non-public companions as properly as different stakeholders in order to enhance on the sanitation amenities so as to supply a conducive surroundings for menstruating girls. Findings from the schooling officer printed as follows; on how schools manipulate their sanitation systems, the respondent said; “schools are anticipated to have packing containers for disposing pads and they are anticipated to burn them, then again some schools use pit latrines as disposal factors and this poses the venture of standard desludging in view that pads fill the pits”. The respondent additionally alluded to the truth that from his assessments in faculties and reviews acquired from the school managements, the use of incinerators to burn pads is a challenge. Some directors file that, due to hazardous cultural beliefs, that burning menstrual blood is harmful, some girls remain with pads for the complete day, seeing that if they alternate and dispose in school, they stop up in the incinerator. However, some schools, have an area for girls to trade however no location to wash in most schools. The officer stated that students have to raise water for hand washing and cleansing bogs and different areas in the school. This is a project seeing that most of the students come from households the place they have to fetch water from the stream- a distance away- to use at

domestic so getting water to raise to school is a more burden. The protection of the water mainly for ingesting can't effortlessly be guaranteed, concluding that the services in most of the schools are no longer properly developed. However, some faculties have hooked up water tanks for roof catchment at some stage in the wet season and this ability that throughout the drought period, the students nonetheless have to deliver water from home. There are faculties who purchase detergent for hand washing and cleansing the latrines and the officer additionally affirmed that majority of the schools have separate bogs for boys and girl though some numbers do now not meet the WHO threshold of 1:30. Many of these bathrooms additionally lack lockable doorways and some are in negative stipulations as a result privacy is nonetheless compromised The Ministry of Education's suggestion to faculties on the MHM structures encompass separate bathrooms for boys and girl on contrary facets of the compound to make certain privacy, one door for 25 girls and a toilet and one door for 30 boys and a urinal, in accordance to the Education Officer. A few faculties are in a position to comply however about 95% do now not comply whilst many are unable to meet the required requirements citing insufficient finances. The ministry can also now not be in a role to put into effect suited MHM packages due to the fact there is no standardization of what is going on in schools, on account that every school operates in accordance to their immediately desires and the amenities additionally rely on the cash reachable in the school. The ministry of schooling does no longer have a clear mechanism of making sure that the requirements of sanitation services are met due to the fact of the variances in wishes and skills of the institutions, and so it is assumed that instructors will use their journey to do the proper thing. The authorities had initiated a School Improvement Program (SIP) on a pilot foundation which focused about 50 out of seven hundred schools in Kisumu County. MHM used to be a thing of the program, and this has been a beneficial intervention, alternatively it is but to be rolled out to the relaxation of the schools. The above findings are supported by using a find out about by means of Grant et al. (2015) in America on school absenteeism. The

findings indicated that menstruation-based absenteeism solely accounted for a small percentage of girl absenteeism and did not create a gender hole in absenteeism. The study employed the use of descriptive lookup format with a pattern of 789 respondents. Questionnaires have been used for facts collection. The study found out about no proof for school-level variance in menstruation associated absenteeism suggesting that absenteeism was once not touchy to school environments. The study found out about additionally located that these dwelling with grannies had been not going to pass over school throughout their periods. However, in any other study via Konani (2014) on Menstrual school settings in Kenya, the usage of descriptive lookup sketch with a pattern of 453 respondents; the findings oppose the above findings that absenteeism used to be now not touchy to school environments. The study found out about located out that lack of clean, functional, non-public and gender-specific WASH facilities, worry of blood leaking, bad get entry to sanitary substances and inappropriate reactions through male school students and instructors are frequently mentioned to be related with terrible MHM and absenteeism due to menstruation in the taking part Kenyan schools. In conclusion menstrual hygiene management sanitation structures have impact on school attendance amongst scholars in most important schools in Kisumu West Sub County. The research was interested in understanding how the MHM sanitation system worked in primary schools in the study area. Findings from the teachers are presented in Table 4.19.

Table 4.19. Effectiveness of School MHM Sanitation Systems in primary schools in Kisumu west sub-county.

Statements	1	2	3	4	5	Mean	Stdev
The school has separate toilets for girls and boys	6.2 (4)	4.7 (3)	10.8 (7)	36.9 (24)	41.5 (27)	4.03	1.13
My school has enough water for girls to wash during menstruation	4.7 (3)	4.7 (3)	12.3 (8)	38.5 (25)	40 (26)	4.05	1.07
The available latrines have lockable doors/ or locks	4.7 (3)	9.2 (6)	9.2 (6)	44.7 (29)	32.3 (21)	3.91	1.10
My school has separate changing rooms for girls during periods	1.5 (1)	3.1 (2)	13.8 (9)	53.8 (35)	27.7 (18)	4.03	0.83
The facilities in my school are sufficient for girls who are menstruating while in school	6.2 (4)	4.7 (3)	10.8 (7)	36.9 (24)	41.5 (27)	4.03	1.13
My school has a designed system for disposal of used sanitary materials	36.9 (24)	41.5 (27)	10.8 (7)	6.2 (4)	4.7 (3)	4.03	1.13
Overall						4.01	1.05

Source: Field Data (2021)

From Table 4.19, 24(36.9%) of the sampled respondents agreed that the school has separate bathrooms for female and boys, while 27(41.5%) strongly agreed with an imply of 4.03 and a latest deviation of 1.13 implying that there is an amazing deviation from the mean. Further, 25(38.5%) of the respondents agreed that their school has sufficient water for ladies to wash at some issue of menstruation, even as 26(40.0%) strongly agreed on the equal with a imply of 4.05 and current deviation of 1.07. Therefore, a majority of the respondents, 78.5%, agreed that their school has enough water for girls to wash at some stage in menstruation.29(44.7%) of the respondents agreed, and 21(32.3%) strongly agreed that the

latrines have lockable doors/ or locks. A majority of the respondents, 50 (76.9%), agreed that the on hand latrines have lockable doors/ or locks. 35(53.8%) of the respondents agreed that their school has separate altering rooms for girls at some stage in intervals, and 18(27.7%) of the respondents strongly agree with a recommendation of 4.03 and a well-known deviation of 0.83. A majority of the respondents 81.5% agreed that their school has separate altering rooms that female can use all through their periods.51(78.4%) of the respondents agreed that the offerings in their school are enough for girl who are menstruating while in school, 24(36.9%) of the sampled respondents disagreed that their school has a designed device for disposal of used sanitary components while 27(41.5%) strongly disagreed with a advise of 4.03 and preferred deviation of 1.13 implying that there is wonderful deviation from the mean. A majority of the respondents disagreed, 51(78.4%), that their school has a designed machine for disposal of used sanitary materials. Respondents proposed that for higher menstrual hygiene management, schools wish to behavior menstrual fitness and hygiene tips for boys and female and special contributors of staff. They referred to that there is a lack of perception and lack of goodwill, and braveness to renowned troubles of menstrual hygiene administration and MHM sanitation systems. Some respondents decried the lack of adequate menstruation safety choices and clean, secure, and personal sanitation offerings for lady instructors and female as undermining the perfect of privacy. They cautioned that lady ought to be skilled on the documents of menstruation and about the applicable disposal manageable of menstrual absorbent materials. On inspecting the have an effect on of school menstrual sanitation constructions on School Attendance, the find out about examined the following null hypothesis: H03: School menstrual sanitation constructions do no longer have a magnificent have an impact on faculty attendance in Kisumu West sub-county, Kisumu County, Kenya. The linear regression findings on testing the third null hypothesis (H₀₃) are as depicted below.

Table 4.20. Results on School menstrual sanitation systems and School Attendance

Model Summary						
Model	R	r-square	Adjusted r-square	Std. Error of the Estimate		
1	.813	.661	.658	.38198		
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	p-value
1	Regression	33.906	1	33.906	232.380	.000
	Residual	17.363	119	.146		
	Total	51.269	120			
Coefficients						
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	p-value
	(Constant)	1.660	.090		18.365	.000
	School menstrual sanitation systems	.525	.034	.813	15.244	.000

Source: Field Data (2021)

The ANOVA test findings, as confirmed in desk 4.20, recommend that F-Statistic is significant, $F(1, 119) = 232.380$, $p\text{-value} = \text{zero} \ll 0.05$; these supposed that there used to be as soon as a right healthy in linearly predicting the school attendance when given its school menstrual sanitation systems. The adjusted r-square used to be 0.658 (see model particular penalties of desk 4.16); this portrays that the model (school menstrual sanitation systems) used to be succesful of explaining 65.8% of the variant in the school attendance. The unstandardized beta coefficient for the school menstrual sanitation constructions is placed to be significant: $= 0.525$, $t = 15.244$, $p\text{-value}=0.000 \ll 0.05$. The Null speculation used to be as soon as quickly as rejected, and the conclusion used to be made that faculty menstrual hygiene management sanitation structures had a huge effect on school attendance. The day-to-day in the linear regression model used to be determined to be statistically significant; $=1.660$, $t = 18.365$, $p=0.000 \ll 0.05$ (see desk 4.16); an indication that barring the school menstrual sanitation systems, there are one-of-a-kind elements now no longer covered in the model that appreciably have an impact on school attendance. To predict the effect of MHM on the diploma of school attendance, the following model was once as soon as quickly as used: $\text{School Attendance} = 1.660 + 0.525X_4 + \varepsilon$ School menstrual sanitation

systems. From the results, Menstrual Hygiene Management sanitation structures had a right sized great have an impact on School Attendance with $p < 0.05$, and it relatively accounted for a 65.8% variance in School Attendance. A detect out about by using way of Chinyama (2019) on MHM in rural Zambia decided that ladies ought no longer to retain menstrual hygiene in School, which restrained their faculty attendance and participation. Findings, in addition, confirmed that female did now not apprehend some element about menstruation earlier than menarche and definitely acquired casual schooling on MHM when they attained menarche. This study's about fills this documents hole by using way of way of inspecting the effect of statistics dissemination on menstrual hygiene management practices on faculty attendance amongst ladies in public vital schools in Kisumu West sub- County. Like in East Africa, the have an impact on of MHM interventions on coaching and psychosocial penalties used to be reviewed with the aid of Hennegan & 1st Viscount Sir Bernard Law of Alamein (2016) in Ugandan Schools, and the distribution of sanitary pads by way of myself no longer famous a widespread have an effect on the good deal of faculty absenteeism then once more blended with puberty schooling it brought on greater presence in the School. According to Hennegan & 1st viscount Bernard Law Sir Bernard Law of Alamein (2016), 54.51% of school going girls had been absent for a universal two days at some issue in their closing period. Responding girls who did now not use sanitary napkins had been 5.37 conditions large in all chance of passing over School. Changing absorbents to three conditions a day or improved used to be the factor of MHM that used to be as soon as quickly as associated with a large attendance rate. The critical motives for absenteeism had been shame, worry of leakage, the lack of sanitary napkins or sufficient undies, and a private vicinity to alternate in School. Girls mentioned teasing from boys, youthful children, and even instructors and special girls. One of the reasons referred to for dropouts linked to menstruation used to be as soon as quickly as the embarrassment of being seen with the beneficial aid of incredible school going girls in a blood-stained dress, normally due to the

truth of having the first menses at faculty barring preceding preparation. Contrary, Sir Bernard Law et al., (2012) investigated the affiliation between cultural constraints and immoderate ranges of poverty, inadequate water and sanitation provision, and posit that these have been the troubles affecting MHM in the chosen growing countries.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents a summary of the findings, conclusions and recommendations and suggestions for further study as follows. The summary of the findings are organized as per the specific objectives of the study and the conclusion and recommendations from each specific objective is drawn.

5.2. Summary of Findings

The summary of findings is presented in the subsequent sections as follows.

5.2.1. Demographics Characteristics of Respondents

Demographic statistics of the instructors covered gender, age, instructional degree, and the wide variety of years they have labored in the contemporary institution. The outcomes indicated that 60% of the respondents had been male, while 40% of the complete respondents had been girls. Most of the schools in the find out about location have been male-dominated, and in some schools, the male teachers had to help the girls in the absence of the sole girls teacher. The researcher used the instructors in the school regardless of their sex. Age is a vital element in research due to the fact mature respondents are certain to reply greater responsibly and from a knowledgeable factor of view as antagonistic to youthful respondents. This finds out about captured mature, educated teachers. In phrases of educational qualifications, the outcomes published that one of the respondents had an O-level certificate, 10.8% of the complete respondents possessed a Certificate of the degree of education, 61.5% of the whole respondents had a Diploma stage of education, while 20.0% had a Bachelor's degree. From these outcomes, it grew to be evident that literacy ranges are

excessive, which used to be commendable in administering questionnaires as the respondents may want to without problems recognize and reply to the questions.

Regarding the length (years) of the respondents who continue to be in the institution, none of the respondents had labored with the organization for much less than a year, 44.7% of the whole respondents had labored for between 1-5 years, 46.2% of respondents had labored for between 6-10 years, while 9.2% of the respondents had labored for over 10 years. The majority of the respondents had taught between 1 to 10 years in the schools worried in the study. The lengthy tenure consists of its journey and higher statistics on a variety of troubles, and the researcher was once capable of faucet into their institutional memory. This consequently assisted the researcher in gaining responses from a human being with a wealth of experience. The information obtained from the respondents was therefore considered as having taken cognizance of the history of the schools involved in the study.

5.3. Menstrual Hygiene Management Knowledge, Attitudes and Practices and School Attendance

When asked whether or not they teach their school students about menstrual hygiene management, a majority of the respondents, that is, 69.2%, commonly agreed, whilst 20 (30.8%) generally disagreed that they teach their students about menstrual hygiene management. They discover out about moreover sought to seem to be into whether or not or no longer some school students (girls) don't attend school when they are on their periods. It was once as soon as realized that, as indicated with the aid of way of the immoderate share that is 38 (58.4%), the majority of the respondents agreed that some pupils (girls) don't attend school when they are on their periods. The third object beneath this theme used to be as soon as to set up whether or not or now not school students share with instructors their trip at some stage in their menstrual period. It used to be set up that a majority of respondents agreed that pupils share with them their day out during their menstrual period. The fourth

object under this theme was once to set up whether or not or no longer their students (girls) apprehend Menstrual Hygiene Management. It used to be decided that fifty-two (80.0%) of respondents agreed that their school students (girls) apprehend Menstrual Hygiene Management. They determined out about sought to set up whether or not or now not they are actively involved about making positive that girl in their school apprehend menstruation; a majority of the respondents forty-five (69.2%) typically agreed that they are actively involved in making positive that girl in their school know about menstruation. The discover moreover assessed descriptive facts on the Menstrual Hygiene Management Knowledge, Attitudes, and Practices amongst female in public Primary school in Kisumu West sub-county, Kisumu County, Kenya. On prior information about menstruation beforehand than the onset of their menses, most of the respondents 138 (57%) strongly disagreed that they had heard about menstruation in the past than their first menstrual period, whilst 18 (7%), and 22 (9%) of the respondents disagreed and via hook or by way of criminal agreed respectively, that they had heard about menstruation formerly than their first menstrual period, 19 (16%) and forty-eight (20%) agreed and strongly agreed respectively, that they had heard about menstruation before than their first menstrual length respectively. These findings for this reason printed that most of the students commenced their month-to-month intervals except prior knowledge about menses, a very all probability purpose why this would have an effect on their school attendance. The discover moreover sought to seem to be into whether or not or now not the female freely discuss about with their family and distinct female about menstruation and a majority, 136 (56%) strongly disagreed that they freely discuss about with their family and one of a kind female about menstruation. eight (7%) of the respondents disagreed, 34(14%) of the respondents one way or the different agreed, 38 (16%) of the respondents agreed, and 18 (7%) of the respondents strongly agreed that they freely speak about their family and unique girl about menstruation. From this study, a majority of the girls do no longer freely discuss about menstruation with households or

buddies, and this is an indication that this natural phenomenon is nevertheless considered as a secret and possibly to maintain female away from school and even family gatherings. On whether or not or no longer they experience at ease to talk about menstruation with their pals who are girls, 62% disagreed that they sense at ease to talk about menstruation with their pals who are girls. Also, on whether or not or now not they used pads in the direction of their remaining menstrual period, most of the respondents, 53% and 56%, disagreed and strongly disagreed, respectively, that they used pads all via their remaining menstrual period. On average, the wellknown stage of pleasure in the Menstrual Hygiene Management Knowledge, Attitudes, and Practices used to be 48.4% and used to be rated moderate. This suggests that the Menstrual Hygiene Management Knowledge, Attitudes, and Practices of the majority of the faculties are no longer top notch as a result, choose for improvement. Some of the strategies through which the schools decorate scholars' MHM knowledge, attitudes, and practices are via capability-constructing education and sensitization forums. Findings from the education officer printed as follows: menstrual hygiene management at school diploma is inclusive, and every male and lady teacher is actively involved. The instructors all assist the girls every time there is a need. He asserted that female are correct uncovered, and their information on menstrual hygiene management can be viewed as average. The education officer moreover proved that the authorities have insurance in the place that helps furnish sanitary towels to girls in schools. He used to be as soon as then once more non-committal on the consistency of the provision of these elements from the authorities; then again verified a partnership with non-governmental firms like Umoja foundation and Plan International, who visited schools and created recognition on MHM. Teachers had been moreover referred to to useful resource girls when there is a need. Further, he indicated that girls who have begun menstruating are uncovered due to the truth they are educated and their facts on menstrual hygiene management is average. He, in addition, asserted that school students have a lot of know-how in MHM due to their skilled teachers.

Non-governmental agencies like Umoja Basis and Plan International have been moreover noted to be visiting school and developing awareness on the MHM. The head instructors, in distinction to the above narrative, posted that so far, no insurance report is on hand associated to Menstrual Hygiene Management. They similarly indicated that there is no clear monitoring device that ought to be used via the authorities to make certain that schools impart know-how on MHM to scholars however faculties themselves locate methods to manipulate menstrual hygiene in the schools.

5.4. School-based Menstrual Hygiene Management Programs on School Attendance

They find out about begun by assessing whether or not school put into effect the authority's coverage of Menstrual Hygiene Management. A majority of the respondents indicated that their schools do put into effect the authority's MHM policy. The respondents have been additionally requested to point out the extent of settlement with every one of the statements from strongly disagree to agree strongly. In regard to whether their school has a momentary software for the help of Menstrual Hygiene Management, from the findings, a majority of the respondents, 50(76.8%), agreed that their school has a temporary application in assistance of Menstrual Hygiene Management. A suggestion of 2.68 and a fashionable deviation of 1.16 implied that there is gorgeous dispersion from the mean. The outcomes additionally printed that 19 (29.2%) and 37(56.9%) of the respondents agreed and strongly agreed, respectively, that their school has long-term software in assist of Menstrual Hygiene Management with a imply of 4.32 and widespread deviation of 0.97. This implies that there is a magnificent deviation from the mean. A majority of the respondents, 56(86.1%), agreed that their school has long-term software to assist with menstrual Hygiene Management. The findings confirmed that 47.7% of the respondents strongly agreed that their school collaborates with agencies/ Organizations to aid Menstrual Hygiene Management packages, while 35.4% agreed on the same. A majority of the respondents, from the findings

54(83.1%), agreed that there are applications for ability constructing (training) for instructors on troubles of Menstrual Hygiene Management in their school. Some of the suggested ways in which the school can improve its MHM school level programs include coming up with more MHM programs around, information, dissemination, sanitation systems, provision of items as well as waste management.

5.4.1. School based Menstrual Hygiene Management Programs for School Girls

The study commenced by investigating the presence of Menstrual Hygiene Management (MHM) lessons in schools. Findings revealed that a significant portion of respondents, with percentages of 64%, 58%, and 55%, expressed disagreement regarding the existence of MHM lessons in their school. This underscores a potential gap in educational initiatives related to menstrual hygiene.

Examining the provision of sanitary pads, 60% and 61% of respondents somewhat agreed that they received pads from school during their last menstrual period and typically changed pads at school, indicating a level of support in this aspect. However, further analysis showed that 58% and 2% disagreed and strongly disagreed, respectively, about the privacy of school latrines for changing during menstrual periods. This suggests concerns about the adequacy of facilities for maintaining privacy, which is crucial for effective MHM. Regarding the impact of menstruation on academic activities, 61% of respondents somewhat agreed that they missed a class during menstruation in the last three months. This highlights a potential disruption to regular school attendance and participation due to menstrual challenges.

Overall, the average satisfaction level with school-based MHM programs was 60.38%, indicating a moderate level of satisfaction. This suggests that, on average, respondents perceive the effectiveness of school-based MHM programs as moderate. It emphasizes the need for improvement in these programs to better meet the needs of students.

Respondents also provided suggestions for enhancing MHM programs in schools. Some proposed measures included allocating budget estimates specifically for MHM programs, involving all stakeholders in MHM initiatives, and instituting penalties for those violating MHM practices. These recommendations indicate a recognition of the multifaceted nature of MHM and the importance of a comprehensive approach involving various stakeholders for successful implementation.

The study reveals varying levels of awareness and satisfaction with school-based MHM programs. While some aspects, such as the provision of sanitary pads, show positive responses, concerns about the adequacy of facilities and the impact on academic activities indicate areas for improvement. The suggested measures for enhancement underscore the importance of a collaborative and well-funded approach to address the challenges associated with menstrual hygiene in schools effectively.

5.5. Information Dissemination on Menstrual Hygiene Management Practices on School Attendance

The findings for teachers and pupils are represented in subsequent sections as follows: Majority 51(78.5%) of the respondents agreed that they always talk about menstruation with their pupils. Majority 53(81.5%) of the respondents agreed that they normally include boys in their class/school when discussing menstruation. In establishing whether there have been cases where boys/ a boy laughs at or tease a girl whenever she stains her cloth with menstrual blood majority of the respondents 47 (72.3%) agreed that they have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood. On whether girls are shy to talk about menstruation majority of the respondents thus 44 (67.7%) agreed that girls are shy to talk about menstruation.

From the findings on whether there is a clear guideline in their school on how to disseminate information on menstrual hygiene to the pupil's majority 51 (78.5%) of the respondents agreed that there is a clear guideline in their school on how to disseminate information on menstrual hygiene to the pupils. Some of the suggested ways in which the school can improve its MHM information Dissemination to the pupils was by organizing for menstraul hygiene awarennes days, forums for sensitization on MHM as well as using peer mentors for MHM.

The education officer stated that the government does not have a structured method for the teachers to disseminate information on menstrual hygiene to the pupils. It is however assumed and hoped that the teachers would incorporate matters menstrual health in the course of their regular lessons. This therefore means that it is not possible to monitor the content delivered since there is no curriculum related to MHM. The officer also reported that the government has a program on issuance of sanitary pads to the girls in schools but this is not regular and some schools do not keep clear records on the same. The head teachers supported the findings from the education officer stating that the government policy on MHM is not clear and the only way to establish that the information on menstrual hygiene is disseminated is if the lesson plans have the MHM content infused.

On information dissemination on menstrual hygiene management practices for school girls, the study assessed descriptive statistics of information dissemination on MHM practices among girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya. From the results 2% and 62% were somehow agreed that they always talk about menstruation with their fellow pupils and that they normally include boys in their class/school when discussing menstruation. The findings also show that majority of the respondents, 65%, 66%, and 59% agreed that they have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood and those girls are shy to talk about menstruation.

On average, the overall level of satisfaction in the information dissemination on menstrual hygiene management practices was 55.34% (Mean = 2.767, Std. dev = 0.739) rated moderate.

The findings therefore indicate that information dissemination on menstrual hygiene management practices of majority of the schools is not satisfactory and therefore a deliberate effort needs to be put by the government to ensure the content on MHM practices is infused in the curriculum to ensure all pupils are sensitized and this would provide a clear way of monitoring the same. This indicates that information dissemination on menstrual hygiene management practices of majority of the schools is not satisfactory thus need for improvement and that it has an influence on school attendance among girls in public primary schools.

5.6. School Menstrual Hygiene Management Sanitation Systems on School

Attendance among Girls in Public Primary schools

Respondents have been given statements and had been required to state their stage of agreement. Majority of the respondents agreed (78.4%) that the school has separate bogs for girls and boys. Majority (78.5%) of the respondents agreed that their school has ample water for girls to wash throughout menstruation. Majority (76.9%) of the respondents agreed that the reachable latrines have lockable doors/ or locks. Majority (81.5%) of the respondents agreed that their school has separate altering rooms for girls throughout periods. Majority of the respondents agreed (78.4%) that the services in their school are ample for girls who are menstruating whilst in school. Majority of the respondents disagreed 51(78.4%) that their school has a designed gadget for disposal of used sanitary materials. Some respondents advised approaches schools can enhance is sanitation machine is to intentionally consist of the management of the sanitation structures in each year economic plans (Budget) by way of speaking the advantages of investing in sanitation to the school neighborhood and

specially to the budgeting team, and to make certain cash are allotted for set up and renovation of acceptable sanitation structures in schools. There used to be additionally a recommendation that students have to be trained on true hygiene habits. A variety of respondents additionally cautioned that schools want to have a regular grant of water and different hand washing substances and facilities. On school girls perception on School menstrual hygiene management sanitation structures on school attendance, the findings of the learn about confirmed that majority of the respondents had been one way or the other agreed that their school has separate loos for girls and boys, and that their school has sufficient water for girls to wash for the duration of menstruation respectively. Also, majority of the respondents, 53% and 55% strongly disagreed and disagreed respectively that the on hand latrines have lockable doors, and that the school has separate altering rooms for girls at some point of intervals respectively. From the outcomes 61%, 42% and 60% have been come what may agree that the amenities in their school are ample for girl who are menstruating whilst in school, their school has separate bogs for girls and boys, and the services in their school are adequate for girls who are menstruating whilst in school respectively. On average, the typical stage of pleasure in the school menstrual hygiene management sanitation structures used to be 59.8% (Mean = 2.990, Std. dev. = 0.684) rated moderate. This suggests school menstrual hygiene management sanitation structures amongst majority of the schools are now not positive as a consequence want for improvement. Some of the advice approaches in which the school can enhance its MHM sanitation structures are taking part with non-public companions as nicely as different stakeholders in elevating money to enhance school sanitation. Findings from the interviews printed that some schools control their sanitation structures with the aid of availing Bins for disposing used pads and burning the pads in incinerators even though some girls are probably to remain with the pads for the total day due to hazardous cultural beliefs. Although some schools have water tanks for roof catchment and a few schools have piped water, in most

schools, respondents published that scholars have to raise water from domestic for use in schools. Most of the schools have separate bathrooms for boys and girls however nevertheless about 70% of the schools do no longer meet the primary sanitation standards. On inferential information for the discover out about variables, regression assessment used to be used to inform the volume of variance accounted for by way of the use of one variable in predicting each and every different variable. The first null research hypothesis posited H01: There is no enormous influence of Menstrual Hygiene Management Knowledge, Attitudes, and Practices on School Attendance used to be rejected with the aid of the use of every r and R^2 . From the results, Menstrual Hygiene Management Knowledge, Attitudes, and Practices had an tremendous first-rate have an impact on on School Attendance with $p < 0.01$, and it notably accounted for 43.8% variance in School Attendance. Therefore, the first null hypothesis used to be as soon as rejected as Menstrual Hygiene Management Knowledge, Attitudes, and Practices have a sizable have an impact on on School Attendance. Regression evaluation can be used to inform the volume of variance accounted for by using one variable in predicting any different variable. The share of variance in School Attendance described with the resource of the unbiased variable (MHM practices) is 25.0% or $R^2 = 0.250$. From the findings, the F ratio is 111.855, which skill the functionality that enhancement due to turning into the model is an lousy lot improved than the model inaccuracies ($F(1, 336) = 111.855, p = 0.001$). This implies that Menstrual Hygiene Management records dissemination is a really helpful predictor of school attendance. Menstrual Hygiene Management files dissemination carried remarkable large predictive electrical energy whilst the ordinary carried high-quality and enormous value. The Beta coefficient of Menstrual Hygiene Management data dissemination used to be .344. This price is full-size ($B = .344, p = .001$), implying that a unit alternate in the Menstrual Hygiene Management data dissemination stage would end result in a big exchange in School Attendance by way of capacity of 0.344 units. That is, amplifying Menstrual Hygiene Management information dissemination with

the resource of a unit would end result to make it a greater in School Attendance by way of the usage of 0.344, and decreasing Menstrual Hygiene Management information dissemination with the resource of a unit would end result in increasing School Attendance thru 0.344. Therefore, the linear regression penalties indicated that there was once as soon as a statistically massive top notch relationship between Menstrual Hygiene Management data dissemination and School Attendance.

From the results, Menstrual Hygiene Management facts dissemination had a huge splendid have an impact on School Attendance with $p < 0.05$, and it significantly accounted for a 17.2% variance in School Attendance. On school menstrual records dissemination and School Attendance, a handy linear regression was once as soon as carried out to seem at how Menstrual Hygiene Management statistics dissemination influences School Attendance. Menstrual Hygiene Management information dissemination carried gorgeous large predictive electrical energy whilst the regular carried splendid and good sized value. The Beta coefficient of Menstrual Hygiene Management statistics dissemination used to be .344. This charge is huge ($B = .344$, $p = .001$), implying that a unit alternate in Menstrual Hygiene Management records dissemination diploma would end result in a widespread alternate in School Attendance via the use of 0.344 units. That is, amplifying Menstrual Hygiene Management statistics dissemination by using a unit would end result in School Attendance by means of way of 0.344, and limiting Menstrual Hygiene Management facts dissemination by way of capability of a unit would end result in School Attendance through 0.344. Therefore, the linear regression consequences indicated that there was once as soon as a statistically large superb relationship between Menstrual Hygiene Management records dissemination and School Attendance. From the results, Menstrual Hygiene Management statistics dissemination had a full-size gorgeous influence on School Attendance with $p < 0.05$, and it appreciably accounted for a 25.0% variance in School Attendance. On

inspecting the effect of school menstrual sanitation buildings on School Attendance, they studied about examined the following null hypothesis: H04: School menstrual sanitation constructions do now not have a good sized have an effect on on school attendance. The ANOVA test findings recommend that the F-Statistic is significant, $F(1, 119) = 232.380$, $p\text{-value} = 0.000 < 0.05$; these supposed that there used to be a right fit in linearly predicting the school attendance when given its school menstrual sanitation systems. The adjusted r-square used to be 0.658; this portrays that the model (school menstrual sanitation systems) was once as soon as in a function to give an explanation for 65.8% of the model in the school attendance. The unstandardized beta coefficient for the school menstrual sanitation buildings is positioned to be significant: $\beta = 0.525$, $t = 15.244$, $p\text{-value} = 0.000 < 0.05$. Null hypothesis was once as soon as rejected, and a conclusion used to be made that school menstrual hygiene management sanitation buildings had a large, remarkable impact on school attendance. The regular in the linear regression model was once observed to be statistically significant; $\beta = 1.660$, $t = 18.365$, $p = 0.000 < 0.05$; an indication that barring the school menstrual hygiene management sanitation systems, there are different elements no longer covered in the model that considerably have an effect on school attendance.

5.7 Conclusions of the Study

The following conclusions have been drawn based on the research findings for specific objectives of the study as shown below:

The study concluded that menstrual hygiene management knowledge, attitudes, and practices have a huge effect on school attendance amongst girls in public important school in Kisumu West Sub County. A few of the respondents(girls) confessed having heard about menstruation in the past than their first duration; on the different hand, the challenge of menstruation used to be no longer freely cited by using girls with friends or even households due to cultural boundaries and stereotypes nearer to menstruation. This confirms the

recommendation by the Knowledge-Attitude-Behavior Theory, which proposes that data and facts are the foundation for organizing active and proper beliefs and attitudes in the course of habits change. A range of the girl relied on sanitary towels furnished via the authorities and partnering non-governmental agencies (for chosen schools), which some had to share with their moms, who can also no longer have adequate cash on their own. This made some girls go away out school due to a lack of sanitary towels to use. This country of affairs is added about by means of way of the abject poverty tiers in the households the vicinity which girls are delivered. This is in line with what the Sanitary Hardware Theory through Hennegan and Bernard Law Bernard Law Montgomery (2016) emphasizes; that is, they favor to make on hand hardware offerings that improve the struggle for super MHM. It's upon this heritage that they locate out about the conclusion that school degree Menstrual Hygiene Management programs have an sizable effect on school attendance amongst girls in pubic most necessary school in Kisumu west sub-county. They find out about about printed that the authorities had no longer furnished a curriculum for Menstrual Hygiene Management to be used in schools, and so in almost all the schools, instructors resorted to talking about menstruation at some stage in the considerable health talks with the resource of the teacher in price of health and most instructors confessed the utilization of their initiative. They determined out moreover printed that the end result of the school functions need to no longer be evaluated, and this was once as soon as validated by using way of the training office, which confessed lacking a modality to set up the stage of implementation of Menstrual Hygiene Management applications at the school level. It used to be, in addition, printed that insurance on Menstrual Hygiene Management has now no longer been achieved, however school are truely going for walks under unsure Menstrual Hygiene Management guidelines. An extent of the instructors moreover proved that they desired the capability to assemble in order to be geared up with the relevant facts and techniques to disseminate the same to the girls. A large range of girls not noted instructions due to the lack of privacy and best altering rooms with water

to wash after changing. A volume had to go once more home to exchange, as a result missing lessons. Even though school had separate latrines for boys and girls, most of the girls confessed their reluctance to use them at some stage in their intervals, citing a lack of doors/lockable doorways to assurance their privacy. This state of affairs was once as soon as referred to be prompted via inadequate funding towards school infrastructure tasks, inflicting most main schools in the region to provide sanitation offerings that would be rated as sub-standard. A broad range of the respondents did no longer have disposal preferences at school, so they liked to proceed to be at home in the direction of their periods. In isolated cases, respondents cherished latest sanitation facilities with separate bathrooms for girl and boys and altering rooms entire with disposal containers and water and cleansing cleaning soap for washing for the period of menstruation. They have been supplied with enough MHM absorbent resources courtesy of partnerships with non-governmental organizations and, subsequently, no longer face the undertaking of having to go away out school at some stage in their periods. The previous contrast confirms the argument via the use of the Multi-Stakeholder Decision notion through capability of Samoson et al. (2018) that each stakeholder is perceived to have an interest in promotion the initiative and brings its distinctive capacities to the challenge. On the different hand, in accordance with the Kenya Ministry of Health (2020), The Kenya Menstrual Hygiene Management Policy (2019-2030), which was once approved on the twenty-first of November 2019 and launched via the Cabinet Secretary for Health, Hon. Mutahi Kagwe on twenty-eighth May 2020, marks a milestone in the Country's action towards widely wide-spread get proper of entry to accelerated sanitation and hygiene and easy and healthful environment in the wake of the new Constitution of Kenya 2010 and the adoption of the 2030 Agenda for Sustainable Development on twenty-fifth September 2015. The mission of this insurance is to make positive that all girls and girls in Kenya can manage menstruation hygienically, freely, and with dignity besides stigma or taboos, and with entry to the ideal records on MHM, menstrual

products, offerings, and facilities; and to safely dispose of menstrual waste. This is an indication that the problems this is about are moreover an undertaking for exclusive students, and it will be of magnitude to the menstruators in this u. s. a. That a clear roadmap is availed for the implementation of this insurance and monitoring and evaluation of the have an influence on of the same.

Therefore, this study reveals that menstrual hygiene management practices have a significant effect on school attendance among girls in public primary schools in Kisumu West Sub County

5.8. Recommendations of the Study

Since MHM practices have been found to have influence on the school attendance, the researcher therefore recommends that;

- i. Menstrual hygiene management knowledge, attitudes, and practices have a full-size impact on school attendance amongst girls in public fundamental schools in Kisumu West Sub County. It's, in addition, cautioned that the subject matter of menstruation has to be freely mentioned by way of the girls with pals or even household even earlier than the first period. The authorities ought to put in location a curriculum to be used by the instructors and have a clear monitoring device to make certain girls and boys acquire correct and well-timed facts on menstruation and menstrual hygiene management. Schools need to additionally be in a position to aid to make sure constant availability of water for use via girls at some point of menstruation. They need to additionally pastime to make sure provision of separate and widespread sanitation services for boys and girls. Schools must be empowered to contain themselves in making reusable pads considering the fact that these will aid those who do not have enough money for disposable pads; the usage of domestically on-hand

substances like regionally produced cotton to beautify get right of entry to menstrual management items.

- ii. School-based Menstrual Hygiene Management Programs have a great impact on school attendance amongst girls in main public schools in Kisumu West Sub County. It is cautioned that there is a want for enhancement of school primarily based Menstrual Hygiene Management packages by, amongst different interventions, allocating price range estimates in the direction of Menstrual Hygiene Management Programs in schools with an effort to make sure provision of general services and perchance ordinary grant of sanitary absorbent materials. It is additionally essential to put in location equipment to make certain implementation, monitoring, and comparison of any school primarily based MHM applications to assist in determining the effect of the applications on school attendance amongst menstruating girls in essential schools. Information dissemination on menstrual hygiene management practices has an influence on school attendance among girls in public primary schools in the study region. For majority of the schools, information dissemination on menstrual hygiene management is not satisfactory and therefore a deliberate effort needs to be put by the government to ensure the content on MHM practices is infused in the curriculum to ensure all pupils are sensitized and this would provide a clear way of monitoring the same. From the research findings, it would also be advisable for the government to initiate a program to build capacity of teachers on how to deliver this information to pupils. The schools should also have deliberate moves to destigmatize menstruation by creating ‘talking walls’ with positive messages about menstruation with an aim of making the menstruators feel more at ease with this phenomenon.

iii. School menstrual hygiene management sanitation systems has a significant positive influence on school attendance. On how schools manage their sanitation systems, schools are expected to have bins for disposing pads and they are expected to burn them, however some schools use pit latrines as disposal points and this poses the challenge of frequent desludging since pads fill the pits. The use of incinerators to burn pads as a disposal option is a challenge and due to harmful cultural beliefs, that burning menstrual blood is harmful, some girls are likely to stay with pads for the whole day or go back home to dispose of the used pads, majorly to avoid subjecting the pads to burning in the incinerator. In some schools, there is a place for girls to change but no place to wash in most schools. It may therefore be necessary to involve stakeholders and partners for provision of resources to improve infrastructure related to MHM and demystifying the myth of burning of used sanitary pads as a healthy and environmentally friendly option of disposing of used pads. This is in line with the proposal in the multi-stakeholder decision theory which accounts for the ‘nested nature’ of multi-stakeholder approach and considers issues of personal motivations of individual members, the organizational dynamics for the multi-stakeholder approach as a whole, the country context and institutional constraints, and international pressures from the support institution and donor community.

5.9. Suggestions for Further Study

- i) The researcher can conduct another study in a different geographical environment and/or using other measures of MHM practices and school attendance for girls in public and private primary schools.
- ii) Research can be conducted on the effect Parents/Government/School partnerships on menstrual hygiene management practices in schools
- iii) Research can be done on how socio-cultural barrier can inhibit the sharing of information on Menstrual Hygiene Management

iv) A study can be conducted to assess the sustainability of Menstrual Hygiene Management programs for schools

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

March 2021

Dear Respondent,

RE: DATA COLLECTION

I am a PhD student currently pursuing a Doctor of Philosophy in Gender and Development studies from Kisii University. As part of the course, I am expected to conduct a comprehensive research on “Menstrual Hygiene Management Practices on School Attendance among girls in Public Primary Schools in Kisumu West Sub County, Kisumu County Kenya.” This is to request you to participate in the exercise as a respondent.

The information gathered from this research shall be used for strictly academic purposes and the recommendations made impact the menstrual hygiene management practices in schools within the sub county, the county council and the country as a whole. This information provided shall be treated with utmost confidentiality and purpose of this research shall not be shared with any other entity or person for other reasons. Much appreciation for your cooperation

Yours sincerely,

Pamela Akech Ombogo

PhD STUDENT

APPENDIX II: QUESTIONNAIRE FOR PUPILS

Questionnaire No _____

SECTION A: KNOWLEDGE, ATTITUDES AND PRACTICES

In this section please tick (√) the most appropriate response for each of the questions in the table below, where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

Statement	1	2	3	4	5
I had information about menstruation before my first experience					
I freely discuss with my family and/or other girls about menstruation					
Girls sometimes don't go to school during menstrual period					
I feel comfortable to talk about menstruation with my friends who are girls					
I used pads during my last menstrual period					

SECTION B: SCHOOL LEVEL MHM PROGRAMS

In this section please tick (√) the most appropriate response for each of the questions in the table below, where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

	Statement	1	2	3	4	5
1	We have implemented the WASH (Water, Sanitation and Hygiene) program in our school					
2	External speakers come to speak to girls about menstrual hygiene and its management					
3	We receive sanitary towels from sponsors and donors through our school management					
4	We contribute funds towards buying sanitary towels for the needy girls in our school					
5	School level MHM programs enable girls attend school regularly even during their menses					

SECTION C: MHM KNOWLEDGE DISSEMINATION

In this section please tick (✓) the most appropriate response for each of the questions in the table below, where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

	Statement	1	2	3	4	5
1	I always talk about menstruation with my fellow pupils					
2	We normally include boys in our class/school when discussing menstruation					
3	We have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood					
4	Girls are shy to talk about menstruation					

SECTION D: MHM SANITATION SYSTEMS

In this section please tick (✓) the most appropriate response for each of the questions in the table below, where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

Statement	1	2	3	4	5
My school has separate toilets for girls and boys					
My school has enough water for girls to wash during menstruation					
The available latrines have lockable doors					
My school has separate changing rooms for girls during periods					
The facilities in my school are sufficient for girls who are menstruating while in school					
My school has a designed system for disposal of used pads					

SECTION E: SCHOOL ATTENDANCE

In this section please tick (✓) the most appropriate response for each of the questions in the table below where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

	Statement	1	2	3	4	5
1	Some girls in our school miss school because of menstruation					
2	When girls are given menstruation products like pads they rarely miss school					
3	When girls are provided with adequate MHM sanitation facilities they rarely miss school					
4	When girls are provided with adequate MHM waste disposal facilities they rarely miss school					
5	Menstrual hygiene management practices influence school attendance					

APPENDIX III: QUESTIONNAIRE FOR TEACHERS

I am a PhD student currently pursuing a Doctor of Philosophy in Gender and Development studies from Kisii University. As part of the course, I am expected to conduct a comprehensive research on **“Menstrual Hygiene Management Practices on School Attendance among girls in Public Primary Schools in Kisumu West Sub County, Kisumu County Kenya.”** This is to request you to participate in the exercise as a respondent.

The information gathered from this research shall be used for strictly academic purposes and the recommendations made impact the menstrual hygiene management practices in schools within the sub county, the county council and the country as a whole. This information provided shall be treated with utmost confidentiality and purpose of this research shall not be shared with any other entity or person for other reasons. Much appreciation for your cooperation

. Thanks in advance for your cooperation.

SECTION A: BACKGROUND INFORMATION

In this section, please tick (√) the most suitable response where applicable.

1. Gender: Male () Girls ()

2. Age : below 25 () 25-29() 30 – 34() 35-50 (), Above 50yrs

3. Education Level:

Secondary () Certificate() Diploma () Undergraduate () Postgraduate()

Any other, (specify).....

4. Length of stay in your current station?

Below 4 years () Between 4 and 10 years () Between 10

and 15 years () Over 15 years ()

SECTION B: KNOWLEDGE, ATTITUDES AND PRACTICES

In this section please tick (√) the most appropriate response for each of the questions in the table below where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agree, SA (5).**

	Statement	1	2	3	4	5
1	I teach my pupils menstrual hygiene management					
2	Some pupils don't attend school when they are on their periods					
3	Pupils share with me their experience during their menstrual period					
4	My pupils (girls) understand Menstrual Hygiene Management					
5	Am actively involved in ensuring that girls in my school know about menstruation					
6	Menstruation is a topic I easily/openly handle with the girls in my school					
7	I have encountered a situation where a pupil dropped out of school due to menstruation					

SECTION C

MHM SCHOOL LEVEL PROGRAMS

a) Method of disposal of the used pads commonly used at school

No.	Statement	Frequency	Percentage
1	Dispose the used cloth pieces or sanitary napkins into pit latrines		
2	Throw in an open field near the school		
3	Put in the sanitary disposal bins in the girls' toilets		
4	Keep in my bag and throw at home		
5	Others (Specify).....		
	Total		

b) In this section please tick (√) the most appropriate response for each of the questions in the table below:

Stronglydisagree, SD (1),Disagree, D (2),Somehow agree, U (3),Agree, A (4), Stronglyagreed, SA (5).

Statement	1	2	3	4	5
My school has a policy on Menstrual Hygiene Management					

My school has a short-term program in support of menstrual Hygiene Management system					
My school has a long-term program in support of menstrual Hygiene Management system					
My school collaborates with agencies/ Organizations to support Menstrual Hygiene Management programs					
There are programs for capacity building (trainings) for teachers on issues of Menstrual Hygiene Management in my school					
My school has a policy on Menstrual Hygiene Management					
My school has a short-term program in support of menstrual Hygiene Management system					
My school has a long-term program in support of menstrual Hygiene Management system					
My school collaborates with agencies/ Organizations to support Menstrual Hygiene Management programs					

My school has a policy on Menstrual Hygiene Management					
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SECTION D: MHM KNOWLEDGE DISSEMINATION

In this section please tick (✓) the most appropriate response for each of the questions in the table below, where: **Strongly disagree, SD (1), Disagree, D (2), Somehow agree, U (3), Agree, A (4), Strongly agreed, SA (5).**

Statements	1	2	3	4	5
I always talk about menstruation with my pupils					
I normally include boys in my class/school when discussing menstruation					
I have had cases where boys/ a boy laugh at or tease a girl whenever she stains her cloth with menstrual blood					
Girls are shy to talk about menstruation					
There is a clear guideline in our school on how to disseminate information on menstrual hygiene to the pupils					

SECTION E: MHM SANITATION SYSTEMS

In this section please tick (√) the most appropriate response for each of the questions in the table below where:**Stronglydisagree, SD (1),Disagree, D (2),Somehow agree, U (3),Agree, A (4), Stronglyagreed, SA (5).**

	Statements	1	2	3	4	5
1	The school has separate toilets for girls and boys					
2	My school has enough water for girls to wash during menstruation					
3	The available latrines have lockable doors/ or locks					
4	My school has separate changing rooms for girls during periods					
5	The facilities in my school are sufficient for girls who are menstruating while in school					
	My school has a designed system for disposal of used sanitary materials					

SECTION F: SCHOOL ATTENDANCE

In this section please tick (√) the most appropriate response for each of the questions in the table below where:**Stronglydisagree, SD (1),Disagree, D (2),Somehow agree, U (3),Agree, A (4), Stronglyagree, SA (5).**

	Statement	1	2	3	4	5

1	Some girls in our school miss school because of menstruation					
2	When girls are given menstruation products like pads they rarely miss school					
3	When girls are provided with adequate MHM sanitation facilities they rarely miss school					
4	When girls are provided with adequate MHM waste disposal facilities they rarely miss school					
5	Menstrual hygiene management practices influence school attendance					

APPENDIX IV: INTERVIEW SCHEDULE FOR HEAD TEACHERS AND MOE OFFICIALS

I am a PhD student of Kisii University pursuing a Doctor of Philosophy in Gender and Development Studies. As part of the course, I am expected to conduct research on **“Menstrual Hygiene Management Practices on School Attendance among Girls in Public Primary Schools in Kisumu West Sub County, Kisumu County, Kenya.”** This is to humbly request you to participate in the exercise as a respondent. All the information gathered from this research was strictly used for academic purposes and the recommendations made impacted the menstrual hygiene management practices in schools within the sub county, the County as well as the Country as a whole. The information provided was treated with utmost confidentiality and purpose of this research only and shall not be shared with any other entity or person for any other reason. You are free to participate or decline to participate in this study. Thanks in advance for your cooperation.

BACKGROUND

Age: Below 40yrs (), Between 40-50 yrs (), Above 50 yrs

Qualifications: Certificate (), Diploma (), Degree (), Post Graduate ()

A: MHM KNOWLEDGE, ATTITUDES AND PRACTICES

- i) What is the knowledge of your studyers and teachers on menstrual hygiene management?
- ii) What is the attitude of your studyers and teachers on menstrual hygiene management?
- iii) What is the practice of your studyers and teachers on menstrual hygiene management?

B: MHM SCHOOL PROGRAMS

- i) Which MHM programs does the school implement?

ii) Are there special programs in place for menstruating girls?

iii) What are some of the challenges you face as an administrator in implementing the government policy on MHM?

C: MHM INFORMATION DISSEMINATION

i) In which ways does the school disseminate MHM information?

D: MHM SANITATION SYSTEMS

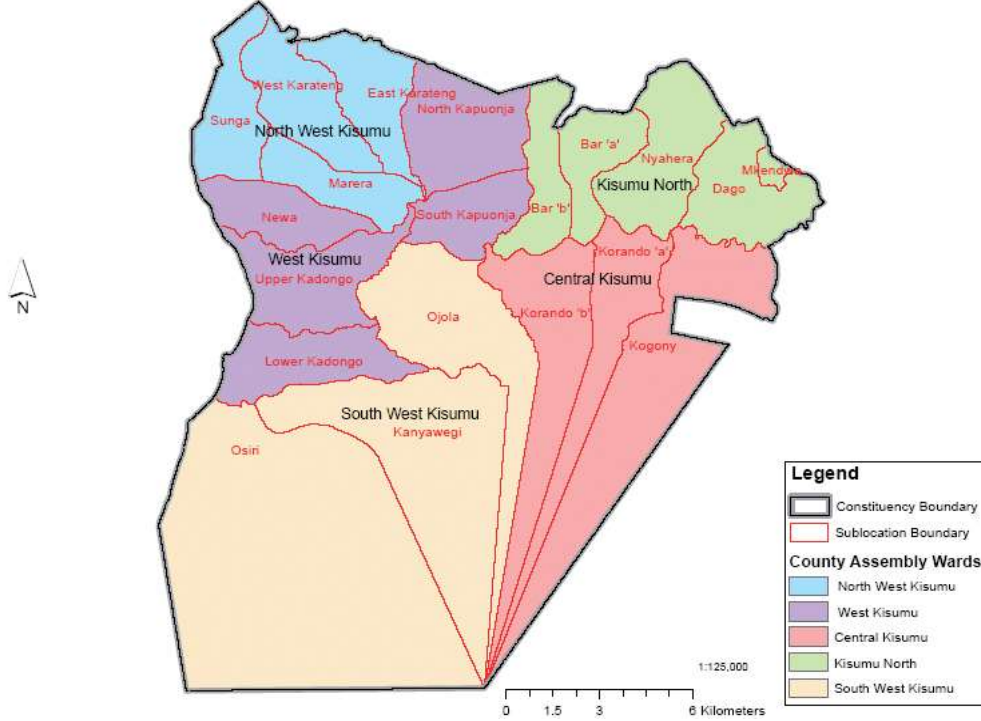
i) In which ways does the school manage its Sanitation Systems?

E: SCHOOL ATTENDANCE

i) How is your school attendance and especially among the menstruating girls?

APPENDIX V: MAP OF KISUMU WEST SUB COUNTY

IEBC REVISED KISUMU WEST CONSTITUENCY COUNTY ASSEMBLY WARDS



Source: IEBC, 2017

APPENDIX VI: LETTER OF AUTHORIZATION



KISII UNIVERSITY
OFFICE OF THE COORDINATOR, SASS POST GRADUATE STUDIES

Telephone: 05830826
Email: sass@kisiiuniversity.ac.ke

P.O Box 408-40200
KISII, KENYA

MEMO

TO: DIRECTOR, SCHOOL OF POSTGRADUATE
FROM: COORDINATOR, SASS POST GRADUATE STUDIES
REF: KSU/SASS/ /030/032
DATE: 26th March, 2021

RE: PAMELA AKECH OMBOGO REG NO: DIG/90027/15

The above named candidate has effected necessary corrections suggested at the School defenses held on 28th January, 2021, at SASS Lecturers' Lounge and can now proceed to the field for data collection.

Thank you.



George Abert, PhD
COORDINATOR SASS POST GRADUATE STUDIES

APPENDIX VII: NACOSTI RESEARCH PERMIT

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 958529	Date of Issue: 25/May/2021
RESEARCH LICENSE	
	
<p>This is to Certify that Miss.. PAMELA AKECH OMBOGO of Kisii University, has been licensed to conduct research in Kisumu on the topic: MENSTRUAL HYGIENE MANAGEMENT PRACTICES ON SCHOOL ATTENDANCE AMONG GIRLS IN PUBLIC PRIMARY SCHOOLS IN KISUMU WEST SUB COUNTY, KISUMU COUNTY, KENYA for the period ending : 25/May/2022.</p>	
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APPENDIX VIII: PLAGIARISM REPORT

MENSTRUAL HYGIENE MANAGEMENT PRACTICES AND SCHOOL ATTENDANCE AMONG GIRLS IN PUBLIC PRIMARY SCHOOLS IN KISUMU WEST SUB-COUNTY, KISUMU COUNTY, KENYA

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