



The Influence of School Based Menstrual Hygiene Management Programs on School Attendance among Girls in Public Primary Schools in Kisumu West Sub-County, Kisumu County, Kenya

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Abstract: *Most governments have prioritized Menstrual Hygiene Management (MHM) practices for safe schools. However, girls and women in Low and Middle-Income Countries (LMIC) still face significant challenges in managing their menstruation. This study examined the influence of school based MHM Programs on school attendance among girls in public Primary schools in Kisumu west sub-county, Kisumu County, Kenya. The study was anchored on the Sanitary Hardware theory. The study employed descriptive survey research design where both qualitative and quantitative methods were used. Questionnaires were administered to a selected sample of 356 respondents drawn from a target population of 3233. The sample size was arrived at using the Yamane (1967) formula. The respondents consisted of class 6-8 girls, teachers, Head-Teachers, and MoE officials who were key informants for the study. The collected data was filtered, organized, coded and later analyzed using Statistical Package for Social Sciences (SPSS) version 22 software. Analysis was done in form of descriptive and inferential statistics. From the findings, the F ratio is 111.855, which means that improvement due to fitting the model is much greater than the model inaccuracies ($F(1, 336) = 111.855, p=0.001$). This implies that Menstrual Hygiene Management school-based programs are useful predictor of school attendance. The researcher therefore recommends that schools should be able to ensure consistent availability of water for use by girls during menstruation. They should be empowered to involve themselves in making reusable pads to assist those who cannot afford disposable pads use locally available materials in menstrual management.*

Keywords: *Menstrual Hygiene Management, School based programs, Girls, Kisumu*

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1. Introduction

The World Health Organization (WHO) and United Nations International Children Emergency Funds (UNICEF) (2014) define Menstrual Hygiene Management (MHM) as women and adolescent girls using clean menstrual management material to absorb or collect menstrual blood and the ability to change in privacy as often as necessary for the duration of the menstruation period. Torondel (2018) refers to MHM as the specific hygiene and health requirements of girls and women during menstruation including the information, materials and facilities needed to manage menstruation effectively and privately. The WHO (2020) included menstruation in its adolescent health agenda, the UN Population Fund launched an Africa-focused menstrual health consortium, and the UK Government funded the development of a global guidance document to improve humanitarian response to displaced girls and women and is also focusing on period poverty and period equity.

In Africa, little attention has been given to understanding how MHM contributes to school absenteeism and other gender disparities. In Zambia, about 44% of girls are reported to drop out of school before completing their secondary education (Zamawe, 2015). One reason for this interruption could be inadequate provision for MHM facilities that does not allow all girls to attend school with dignity and comfort during their menstrual period. The 'School Led Total Sanitation' (SLTS) program is one notable initiative that has been implemented in rural schools of Zambia. SLTS programs promote sanitation and hygiene behaviors and provide improvements to the sanitation infrastructure, including MHM friendly facilities. Schools with such programs most likely have ventilated improved toilets with a covered pit and a designated hand washing facility with a cleaning agent (soap/ash).

Regionally, the impact of MHM interventions on education and psychosocial outcomes was reviewed by Hennegan & Montgomery (2016) in Ugandan Schools, and the distribution of sanitary pads alone did not show a significant effect on the reduction of school absenteeism but combined with puberty education it caused more presence in the school. According to Hennegan & Montgomery (2016), 54.51% of female students had been absent for an average of two days during their last period. Responding girls who did not use sanitary napkins were 5.37 times more likely to miss school. Changing absorbents three times a day or more was the aspect of MHM that was related to a higher attendance rate. The main reasons for absenteeism were shame, fear of leakage, the lack of sanitary napkins or adequate underwear and a private place to change in school. Girls reported teasing by boys, younger children, and even teachers and other girls.

In Kenya, high poverty levels force millions of adolescent girls out of school because they cannot afford sanitary protection, among other challenges. According to Kenya's Ministry of Education (2019), thousands of Kenyan school girls miss one and a half school months of class each year due to their menstrual cycles. School absence lowers girls' academic performance and self-esteem and extends gender disparities in educational achievements. Deliberate efforts ought to be put in place to curb this eventuality. Many girls who cannot afford sanitary pads endanger their health by resorting to unhygienic solutions, such as: leaves, old cloth, sponges, soil or feathers. Consequently, existing programs that aim at retaining girls in school tend to be labor-intensive community engagement efforts where the gains may be small, progress slow and outcomes uncertain. The programs include those by local Non-Governmental Organisations (NGOs), churches and well-wishers who occasionally distribute sanitary towels to schools. Sanitation and Hygiene (WASH) facilities are common challenges that can negatively affect Education, Employment, Health and psychosocial outcomes (UNICEF, 2016). A wide survey in Kenya by the Kenya Demographic Health Survey (KDHS) (2014), reported that school latrine coverage stood at (49.5%). Many schools (68.9%) lack clean and private changing rooms. Many girls (63.6%) cannot access or afford appropriate absorbent materials and often resort to crude methods. Besides, menstruation is surrounded by divergent religious beliefs and cultural perceptions that influence MHM practices. Therefore, this study sought to examine The Influence of School Based Menstrual Hygiene Management Programs on School Attendance among Girls in Public Primary Schools in Kisumu West Sub-County, Kisumu County, Kenya.

Objective of the study

This study was guided by the following specific objective:

To examine the influence of school based MHM Programs on school attendance among girls in public Primary schools in Kisumu west sub-county, Kisumu County Kenya.

Research Hypothesis

This study was guided by the following research hypothesis:

H₀₁: 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.

2. Literature Review

School management, teachers and parents are increasingly aware of the MHM needs of girls and female staff. School-based health and nutrition services or counseling services support girls to get advice on menstruation, request painkillers or sanitary materials, or find space to rest. There are many initiatives to promote locally made, reusable sanitary materials. Brands of sanitary pads are widely available across the region, but in many places, the supply chain is weak. National government engagement and leadership on MHM varies across the region. There are several activities at pilot scale, rather than a comprehensive response. For instance, the country monitors MHM in national monitoring systems. Hard-to-reach women and girls face multiple MHM challenges in school, especially those marginalized by geography, caste or ethnicity, disability, disasters and the ultra-poor (Buer, 2018).

Water, sanitation, and hygiene (WASH) interventions aimed at keeping girls in school in sub-Saharan Africa through the provision of sanitary materials, water, soap, and privacy show a mixed impact on school absenteeism. For instance, a study by Mwangi (2014) in Kenya on School absenteeism found that cleanliness of school latrines reduced the odds of absenteeism and one in ten school-aged girls in low and middle-income families fail to attend school during menstruation or drop out of school at puberty due to the absence of menstrual hygiene management (MHM) facilities. Quantitative studies found moderate to non-significant improvements to school attendance associated with MHM interventions. Nonetheless, WASH for MHM should be considered as a basic right to ensure girls' comfort, self-confidence, and school attendance to reduce gender disparities in Education, health, and socio-political and economic participation.

Pubescent girls from Kisumu West Sub County in Kisumu County face diverse "Menstrual Hygiene Management" (MHM) challenges (Plan international Kisumu, 2018). Further, according to the aforementioned report, many of the schools in this sub county are not attuned to girls' menstruating needs; since most of the schools have inadequate water, sanitation and hygiene facilities (WASH) for girls. The above points to a serious school level gap in effective implementation of MHM best practices thus the need for this current study. Studies have been conducted in other areas, but no records are available on similar studies having been carried in public Primary schools in Kisumu West sub county, Kisumu County, Kenya. In addition, the researcher chose Kisumu West because its unique positioning as a semi urban area with both urban and rural characteristics gave good comparison.

Kuyote (2014) conducted a study on Menstrual Hygiene Management using a relative sample of 567 respondents

with quantitative techniques. From the findings, little attention has been given to understanding how MHM contributes to school absenteeism and other gender disparities in Zambia. One notable program that has been implemented in rural schools of Zambia is the 'School Led Total Sanitation'(SLTS) program. SLTS programs promote sanitation and hygiene behaviors and provide improvements to the sanitation infrastructure including MHM friendly facilities. Schools with such programs will most likely have ventilated improved toilets with a covered pit and a designated hand washing facility with a cleaning agent (soap/ash). Understanding the differences between MHM practices across schools with and without SLTS can provide important insights on the effectiveness of SLTS for MHM.

A study by Mulangwa (2015) on Menstrual Hygiene Management practices in Rwanda, using descriptive research design, with questionnaires and focus group discussions, explains that across the country, women and girls typically use cotton cloths, sanitary pads or other absorbents, rather than products that can be inserted into the vagina such as tampons or menstrual cups, to manage blood flow during menstruation. Although there has been the widespread promotion of sanitary pads in some countries and some government programs provide pads for girls in schools, long-term adoption rates are mixed due to the ongoing costs and the lack of disposal options in schools. The accessibility, affordability, and cost of commercially available pads vary across regions within the country. Typically, rural girls have lower access compared to urban girls. International and national disposable pad brands are available in most regions in Rwanda, though many girls cannot afford them or cannot persuade parents and other family members to prioritize their purchase.

School plays an important role in children's and adolescents' personal, social and academic development (Dube & Orpinas, 2018). Most students attend school without a problem, but some skip classes, arrive late, miss whole schooldays, or fail to attend school for a long period. School non-attendance might lead to serious short-term and long-term consequences (Kearney, 2018; Thambirajah et al., 2018). The short-term consequences may include deteriorating school performance.

The long-term consequences may include more serious negative effects on school performance, dropping out of school, impaired social functioning, employment problems, and mental health problems (Brandibas et al., 2014). According to Reid (2015), poor school attendance can create a cycle that is hard to break. To prevent long-term non-attendance, schools and teachers have to identify and address illegitimate school non-attendance at an early stage (Kearney, 2017; Thambirajah et al., 2018). Early intervention is important to avoid negative social, psychological and

academic consequences (Lyon & Cotler, 2017). There is inadequate research and knowledge about the different reasons for school non-attendance, including somatic symptoms, subjective health complaints, truancy and school refusal, and about the prevalence of these different reasons. Such knowledge is important to determine the need for stronger action to reduce school non-attendance and to identify how these measures should be framed.

The reasons for school non-attendance can be roughly differentiated into legitimate and illegitimate reasons. Such research also highlighted that there are other voiced or measured impacts of poor MHM services in schools, whereby girls report lower participation in school activities, reduced levels of concentration and confidence, and poorer mental and social well-being. For example, 31% of girls in Pretoria schools reported that menstruation affected their school performance. Approximately 80% of school non-attendance is considered legitimate, legal, or authorized (Kearney, 2018). Legitimate school non-attendance is primarily due to illness but may also be attributable to holidays and emergencies in the family (Kearney, 2008; Kearney & Silverman, 1996; Thambirajah et al., 2018). However, non-attendance that is considered legitimate might also include subjective health complaints, such as headaches, dizziness, musculoskeletal complaints, or gastrointestinal symptoms.

Given the widely recognized positive impacts of school based MHM awareness and provision of supplies on school attendance and learning achievements, many developing countries are beginning to develop such programs. While some programs have successfully reduced absenteeism, to the authors' knowledge, no studies have examined the influence of menstrual hygiene management practices on school attendance among schools in Kisumu West sub county, Kisumu County, Kenya. The main aim of the present study is to assess the influence of school based menstrual hygiene management programs on school attendance.

Several studies have indicated a situation of dire gaps on this subject. Punjan (2017) conducted a study on school based Menstrual Hygiene Management programs in India. From the results, there is a lack of information for understanding which materials could be promoted or used that is easier to destroy compost or recycle. However, even where progress has been made, there is still inadequate infrastructure, for example, 49% of schools lack adequate buildings and 76% lack electricity; hence many have poor or insufficient washing facilities. Although there are usually separate toilets for girls, only 34% of girls report using the toilet for changing and cleaning sanitary materials. The reason most cited was the lack of disposal options followed by the lack of privacy or water. Overall, many girls' toilets in schools in the region are not fully equipped to manage practical MH needs. Gaps remain

with regards to infrastructure, including poorly constructed toilets, missing doors/locks, poor or no lighting, no hand washing facilities, products (no soap, toilet paper/cleansing materials, emergency absorbents, etc.) and services (no running water, uncleaned toilets, waste disposal options). The current study endeavored to address this gap. This study endeavored to examine school based MHM Programs and school attendance, among girls in public Primary schools in Kisumu West sub-county, Kisumu County, Kenya.

Sanitary Hardware Theory

This study was guided by the Sanitary Hardware Theory. This theory was developed by Hennegan and Montgomery (2016). The theory asserts that interventions aimed at enhancing menstrual hygiene should prioritize provision of menstrual hygiene products and related facilities. Emphasis is put on distribution of pads, tampons and making of modern menstrual friendly toilets, bins and related infrastructure.

Hennegan & Montgomery (2016) further state that unhygienic and ineffective menstrual hygiene management has been documented across low resource contexts and linked to negative consequences for women and girls. In their review, they noted that interventions to address MHM had been categorized into two groups; Hardware interventions designed to address material deprivations such as the provision of absorbents or improved Water, Sanitation and Hygiene (WASH) facilities; Software interventions to address deficits in knowledge of menstruation and management by providing Education. The study used this theory to address the independent variable of MHM school-based programs and its effect on school attendance among menstruating girls in public Primary schools in Kisumu West sub-county, Kisumu county-Kenya.

3. Methodology

This study was carried out in Kisumu West Sub County in Kenya. It is one of the seven sub counties of Kisumu County, established for the 1997 elections, when the larger Kisumu Town Constituency was split into Kisumu Town East and West Constituencies. The sub county has eleven wards with a population of 131,246 within an area of 212.90 km². The sub- County has 109 Primary schools, (81 Public and 28 Private).

The study employed descriptive survey research design where interview guides and both qualitative and quantitative methods. Questionnaires were administered to a selected sample of 356 respondents drawn from a target population of 3233. The sample size was arrived at using the Yamane (1967) formula. The respondents consisted of class 6-8 girls, teachers, Head-Teachers, and MoE officials who were key informants for the study. Data was collected using structured

questionnaires and interview schedules. The Instruments were pilot tested in Siaya County schools on ten percent of the sample population to enable the researcher to evaluate the reliability and validity of the instruments. The collected data was filtered, organized, coded and later analyzed using Statistical Package for Social Sciences (SPSS) version 22 software. Analysis was done in the form of descriptive and inferential statistics. Descriptive statistics included means, standard deviations, frequencies and percentages while inferential statistics included coefficient of determination and analysis of variance. Quantitative findings were presented in statistical tables accompanied by relevant discussions while qualitative

findings were presented thematically based on the study objectives.

4. Results and Discussion

The objective of this study was to examine the influence of school based MHM Programs on school attendance. The study begun by assessing whether schools implemented any government policy on Menstrual Hygiene Management

School based MHM Programs for pupils

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

Table 1: 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	97	40.08
2	Throw in an open field near the school	19	7.85
3	Put in the sanitary disposal bins in the girls' toilets	86	35.54
4	Keep in my bag and throw at home	36	14.88
5	Others (Specify).....	4	1.65
	Total	242	100

From the findings 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%), Those who kept in their bags and threw at home were 36 (14.88%) and finally 4 (1.65%) had other ways of disposing used sanitary towels.

Descriptive statistics of the school based MHM programs was assessed. The respondents were asked to rate the school based MHM Programs of their respective schools and came up with the results below.

Table 2: Descriptive Statistics of School based MHM Programs

Statement	Strongly disagree	disagree	Undecided	Agree	Strongly agree	Mean	Std. dev.
We have lessons for Menstrual Hygiene management in my school	10 4%	156 64%	30 12%	14 6%	32 13%	2.595	1.115
I received pads from school in my last menstrual period	4 2%	140 58%	52 21%	20 8%	26 11%	2.686	1.033
I normally change pads at school during my menstruation	8 3%	133 55%	44 18%	20 8%	36 15%	2.760	1.148
My school latrines have privacy where you can change during menstrual periods	12 5%	12 5%	144 60%	56 23%	18 7%	3.231	.854
I missed a class during menstruation in the last three months	8 3%	12 5%	148 61%	56 23%	18 7%	3.264	.804
We are taught about menstruation frequently in school	6 2%	16 7%	148 61%	28 12%	44 18%	3.364	.940
Average level of School based MHM Programs effectiveness	Mean(%Mean) 3.019 (60.38%)	Std. Dev. .703		Std. Error of mean .064	Min .143	Maximum 5.000	

Respondents were asked to state whether they have lessons for Menstrual Hygiene management in their school. As tabulated respondents gave the following responses: 4.0% (10) strongly disagreed, 64.0% (156) disagreed, 12.0% (30) were undecided, 6.0% (14) agreed and 32.0% (32) strongly agreed that they teach their pupils menstrual hygiene management. Therefore, majority 68.0% (166) of the respondents generally agreed that they have lessons for Menstrual Hygiene management in their school. However, 30.8% (20) generally disagreed with this assertion.

The study also sought to investigate whether the respondents received pads from school in their last menstrual period. It was realized that 2.0% (4) strongly disagreed, 58.0% (140) disagreed, 21.0% (52) were undecided, 8.0% (20) agreed and 11.0% (26) strongly agreed. As indicated by the high percentage 58.4% (38), majority of the respondents agreed that they received pads from school in their last menstrual period.

The third item under this theme was to establish whether the respondents normally change pads at school during their menstruation. It was established that 3.0% (8) strongly disagreed, 55.0% (133) disagreed, 18.0% (0) were undecided, 8.0% (20) agreed and 15.0%

(36) strongly agreed. As indicated by the high percentage 58.0% (141), majority of respondents agreed that they normally change pads at school during their menstruation.

The fourth item under this theme was to establish whether their school latrines have privacy where they can change during menstrual periods. It was found that 5.0% (12) strongly disagreed, 5.0% (12) disagreed, 60.0% (144) were undecided, 23.0% (56) agreed and 7.0% (18) strongly agreed. Generally, it was evident that 60.0% (144) of respondents were undecided that their school latrines have privacy where they can change during menstrual periods.

The study sought to establish whether they have missed a class during menstruation in the last three months. The responses were as follows: 3.0 (8) strongly disagreed, 5.0% (12) disagreed, 61.0% (148) were undecided, 23.0% (56) agreed and 7.0% (18) strongly agreed. Therefore, majority of the respondents 61.0% (148) generally were undecided that they missed a class during menstruation in the last three months. Some of the suggested ways in which the schools can improve on MHM programs include allocating budget estimations towards MHM programs, involving all stakeholders in MHM as well as punishing offenders of MHM practices like those who dispose their used pads wrongly and

those who fail to issue pads to needy pupils as instructed.

The education officer said that MHM falls under sex-education, which is quite an emotive topic, especially concerning who, how and when sex-education is to be carried out. Organizations have come up to carry out activities without altering the actual school curriculum. Some come up with a proposal of wanting to incorporate matters menstrual health within games and sporting activities in school. The education officer identified the following as some of the challenges they face as administrators in implementing the government policy on MHM; Some parents can't afford pads and at times share with the girls the pads they get from government. Menstruation is a topic in class 6 but there is no special training for teachers, the provision of sanitary towels is inconsistent, the government sometimes delays and some schools have poor facilities and girls have to go back home to change which is time wasting and so they end up missing some lessons. Other challenges included illiteracy among parents who do not understand how to educate their children on MHM issues, language barrier that affects understanding of English and Kiswahili, lack of role models among staff who can take up the challenge in the absence of the only Health Teacher.

On the MHM related programs the head teachers revealed that the Government recommends to schools' programs to be implemented. The head teachers said that Menstrual Hygiene Management is silent in schools. One of the respondents said, "*The curriculum relating to MHM needs and improvement*". They also said that they need some capacity building in order to have a structured way of incorporating MHM in the curriculum. The government expects that there must be bathrooms for the girls with portable disposal bins to cater for menstruating girls. The government intervenes through funding with a vote head for Sanitation improvement although it's not adequate especially if the enrolment is low. The government partners with organizations to provide sanitary towels e.g., KCB, Safaricom etc. In the last two years the distribution

The findings are as follows.

of sanitary towels has been regular although it targets the girls in upper primary, which is a disadvantage to the girls who may start experiencing menstruation while still in the lower classes.

The above findings mirror findings by Kuyote (2014) who conducted a study on Menstrual Hygiene Management using a relative sample of 567 respondents with quantitative techniques. From the findings, little attention has been given to understanding how MHM contributes to school absenteeism and other gender disparities in Zambia. One notable program that has been implemented in rural schools of Zambia is the 'School Led Total Sanitation'(SLTS) program. SLTS programs promote sanitation and hygiene behaviors and provide improvements to the sanitation infrastructure including MHM friendly facilities. Schools with such programs will most likely have ventilated improved toilets with a covered pit and a designated hand washing facility with a cleaning agent (soap/ash). Understanding the differences between MHM practices across schools with and without SLTS can provide important insights on the effectiveness of SLTS for MHM.

However, a similar study by Mulangwa (2015) on Menstrual Hygiene Management practices in Rwanda, using descriptive research design, with questionnaires and focus group discussions contradict the above findings. The results explain that although there has been the widespread promotion of sanitary pads in some countries and some government programs provide pads for girls in schools, long-term adoption rates are mixed due to lack of disposal options in schools. The accessibility, affordability, and cost of commercially available pads vary across regions within the counties. Typically, rural girls have lower access compared to urban girls. International and national disposable pad brands are available in most regions in Rwanda, though many girls cannot afford them or cannot persuade parents and other family members to prioritize their purchase.

Findings on School based MHM Programs for teachers

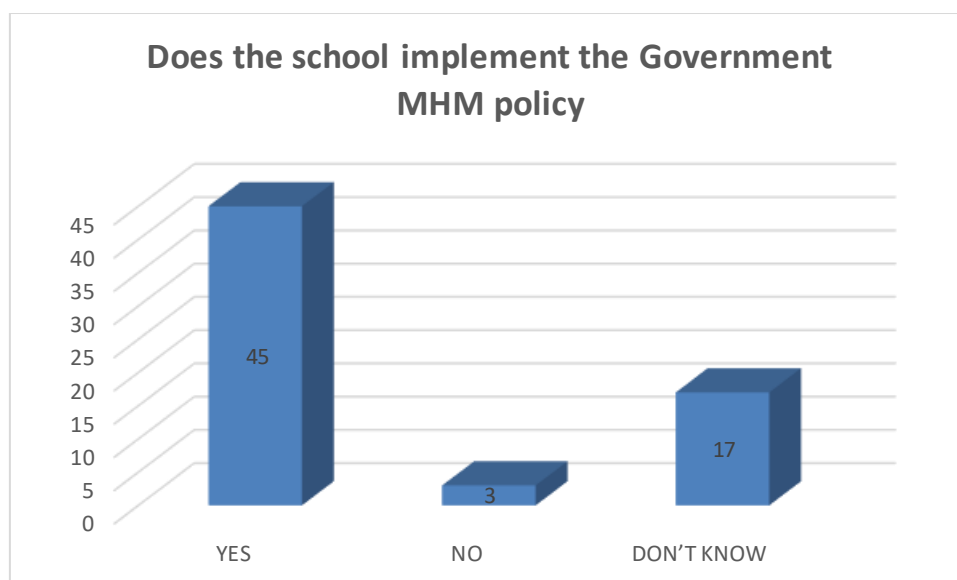


Figure 1: School implementation of government policies.

Majority 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 3

Table 3: School based MHM Programs on school attendance.

Statements	Strongly disagree	disagree	Undecided	4	5	Mean	Stdev
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	4.7 (3)	4.7 (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

From Table 3, 31(47.7%) of the respondents strongly agreed that their school has a policy on Menstrual Hygiene Management while 23(35.4%) agreed on the same. A mean of 4.23 and standard deviation of 0.95 suggested that there is a great deviation from the mean.

Majority of the respondents 54(83.1%) agreed that their school has a policy on Menstrual Hygiene Management.

Regarding whether their school has a short-term program in support of menstrual Hygiene Management system, from the findings none strongly disagreed,

15(23.1%) disagreed, none was undecided, 22(33.8%) agreed and 28(43.0%) strongly agreed. Majority of the respondents 50(76.8%) agreed that their school has a short-term program in support of menstrual Hygiene Management system. A mean of 2.68 and standard deviation of 1.16 implied that there is great dispersion from the mean.

The results also revealed that 19 (29.2%) and 37(56.9%) of the respondents agreed and strongly agreed respectively that their school has a long-term program in support of menstrual Hygiene Management with a mean of 4.32 and standard deviation of 0.97. This implies that there is great deviation from mean. Majority of the respondents 56(86.1%) agreed that their school has a long-term program in support of menstrual Hygiene Management. The findings showed that 30.8% of the respondents agreed that their school collaborates with agencies/ Organizations to support Menstrual Hygiene Management programs and additional 52.3% strongly agreed to the same. A mean of 4.26 and standard deviation of 0.96 implied that there is some deviation from the mean. From the findings, 47.7% of the respondents strongly agreed that their school collaborates with agencies/ Organizations to support Menstrual Hygiene Management programs while 35.4% agreed on the same. A mean of 4.23 and standard deviation of 0.95 suggested that there is a great deviation from the mean.

31(47.7%) of the respondents strongly agreed that there are programs for capacity building (trainings) for teachers on issues of Menstrual Hygiene Management in their school while 23(35.4%) agreed on the same. A mean of 4.23 and standard deviation of 0.95 suggested that there is a great deviation from the mean. Majority of the respondents from the findings 54(83.1%) agreed that there are programs for capacity building (trainings) for teachers on issues of Menstrual Hygiene Management in their school. Some of the suggested ways respondents sighted in which the school can improve its MHM school level programs include coming up with more MHM programs, MHM items provision, information dissemination, sanitation systems and waste management.

Regression Results of School based MHM Programs and School Attendance

Regression analysis was used to tell the amount of variance accounted for by one variable in predicting another variable. Regression analysis was conducted to find the proportion in the dependent variable (School Attendance) which can be predicted from the independent variable (School based MHM Programs) **Table 4** shows the analysis results.

Table 4: 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	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										

Table 4 results shows a coefficient of determination (R^2) of 0.172 meaning that School based MHM Programs explain up to 17.2% of the variance in School Attendance. The adjusted R square attempts to produce a more honest value to estimate R square for the population. The F test gave a value of $F(1, 336) = 69.888, p < 0.01$, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that School based MHM Programs is a useful predictor of School Attendance. The unstandardized regression coefficient (Beta) value of School based MHM Programs was 0.272, $p < .001$. This indicated that a unit change in School based MHM

Programs would result to change in School Attendance by 0.272 significantly. The regression equation to estimate the School Attendance as a result of School based MHM Programs was hence stated as:

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

From the model, School based MHM Programs had significant positive effect on School Attendance with $p < 0.05$ and it significantly accounted for 17.2% variance in School Attendance. Therefore, the null hypothesis is rejected as School based MHM Programs has significant effect on School Attendance.

5. Conclusion and Recommendations

5.1 Conclusion

A number of the girls relied on sanitary towels provided by the government and partnering non-governmental organizations (for selected schools) which some had to share with their mothers who could not afford their own. This made some girls miss school due to lack of sanitary towels to use. This situation is caused by the abject poverty levels in the households where the girls are brought up. It's upon this background that the study concluded that school level MHM programs has a significant effect on school attendance among girls in public primary schools in Kisumu west sub county. A number of girls missed classes due to lack of privacy and proper changing rooms with water to wash after changing. A number had to go back home to change hence missing lessons. Even though schools had separate latrines for boys and girls, most of the girls confessed their reluctance to use them during their periods citing lack of doors/lockable doors to guarantee their privacy. This situation was said to be caused by inadequate funding towards school infrastructure projects. A number of the respondents did not have disposal options at school so preferred to stay at home during their periods. Therefore, this study reveals that menstrual hygiene management school based programs have a significant effect on school attendance among girls in public primary schools in Kisumu West Sub County. Since MHM School based programs have been found to have influence on the school attendance,

5.2 Recommendations

The study recommends that schools should ensure consistent availability of water for use by girls during menstruation. They should also endeavor to ensure provision of separate sanitation facilities for boys and girls. School should be empowered to involve themselves in making reusable pads since these will assist those who cannot afford disposable pads using locally available materials like locally produced cotton to enhance access to menstrual management items.

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