

Menstrual Hygiene Management in Secondary schools in Tanzania

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ABSTRACT

Menstrual hygiene management was studied in 12 secondary schools of Kinondoni and Bagamoyo district in Tanzania. The schools were selected by cluster sampling technique among public and private schools. Data were collected through questionnaire, Focus Group Discussion (FGD), semi-structured interviews and guide checklist for observation. A total of 149 girls participated in the survey and out of them, 84 participated in the FGD. A total of 23 head/deputy head of schools and matrons participated in semi-structured in-depth interview. The information sought included menstrual hygiene management (MHM) facilities, practices and education. The results indicate that all surveyed schools offered some sort of MHM education to girls and 3 schools out of 9 co-education schools involved in the study, provide some education about MHM to boys. A large majority of girls still need more information on MHM and prefer this information be provided at school. Lack of soap, hand wash facilities, privacy in toilet and free pads to attend emergency needs were identified as main problems. A supportive environment for MHM has to be provided in schools and to achieve this; instruction about MHM should be incorporated into compulsory health education in both primary and secondary schools curricula with separate sessions for girls and boys. Moreover, there is an urgent need for girl's friendly toilet designs and appropriately final disposal facilities for menstrual products in schools. The efforts do not always mean large investments in infrastructure but in many instances, it suffices with just small investment.

Keywords: *Menstrual hygiene management, secondary schools, developing countries*

1. INTRODUCTION

Menstruation or bleeding is a natural process, which begin to occur for girls between the ages of 9 and 16 years with a mean of 13 years (Dasgupta and Sarkar, 2008; Jones et al., 2013; Donimirski, 2013). The menstruation period usually lasts for an average of five days, but may vary from three to over seven days. The duration and heaviness of a period influences its management, menstrual products used and frequency of change.

Menstrual hygiene management (MHM) is practiced differently in accordance with cultural, social, educational and economic status of the community. Young girls in developing countries often receive minimal instruction on menstrual hygiene management because menstruation is seen as taboo by many communities, which makes it extremely difficult for adolescent girls to acquire necessary information and support from parents and school teachers (Kirk and Sommer, 2006; Shannon et al., 2011; Zinash *et al.*, 2011). Shannon et al. (2011) conducted research in Kenya and observed that young girls are not generally taught how to control or manage their menstruation, which is a monthly aspect of their lives and has a tremendous impact on the ways a girl views herself and her roles within society. As a result their experience has been confusing, frightening, and shame-inducing (Tjon Ten, 2007; Sommer, 2009; McMahan et al., 2011) and can result in stress, fear and embarrassment, and social exclusion during menstruation (WaterAid, 2009). Men and boys also need to be involved in menstrual hygiene management as they have an important role

to play in supporting women and girls in their menstrual hygiene management, as fathers, brothers, uncles, peers or colleagues (Onyegegbu, 2009). Findings showed that, educating boys (particularly from adolescence) on the challenges and struggles girls face could help reduce teasing and help them become more understanding and supportive husbands and fathers.

Menstruation can cause discomfort and high incidences of pain for a majority of women. It can also cause shifts in mood, depression, vomiting, pyrexia, endometriosis, haemorrhage, migraines, anemia and fibroids (Dalton, 1964; Donimirski, 2013). Menstruation can potentially cause cancer if cells mistakenly divide uncontrollably (Donimirski, 2013). Poor management of menstruation can result in health problems such as infections of urinary or reproductive tracts (Bhatti and Fikree, 2002), although the route of transmission and the strength of the effects have not been adequately established (Sumpter and Torondel, 2013). The potential risk of contracting blood-borne diseases such as HIV or Hepatitis B through unprotected sex is also increased during menstruation because the highest concentrations of virus are found in blood (UNAIDS et al., 2004). As a result many girls suffer from these diseases and their complications can even lead on to the infection being transmitted to the offspring when they conceive (Shanbhag et al., 2012). Therefore hygiene related practices of girls during menstruation are of considerable importance, as it

has a health impact in terms of increased vulnerability to health (Pilliteri, 2012).

Many school girls and women teachers in developing countries struggle to find appropriate places and facilities in their school to deal with menses, which may impact their school participation, performance and attendance (Bista, 2004; UNICEF, 2005; Nahar and Ahmed, 2006; Sommer, 2010; Sommer, 2011; Pilliteri, 2012; Kabir et al., 2012). UNICEF (2005) estimated that about 10% of school-age African girls do not attend school during menstruation, or drop out at puberty because of the lack of clean and private sanitation facilities in schools. A study undertaken by WaterAid in 2011 in urban secondary school in Malawi revealed that all girls experienced difficulties in dealing with menstruation at schools because of poor toilet conditions (Pilliteri, 2012). In Nepal, WaterAid (2009) reported that many girls often performed poorly in school menstruation because they worry that boys would realize their condition. Similar findings were reported by a survey carried out by WaterAid in India, in which 28% of girls did not attend school during menstruation due to lack of facilities. In Uganda, FAWE U (1999) reported that 1 in 3 girls missed all or part of a school day during their menstrual cycle.

In Nepal there are cultural taboos which discourage women from teaching during menstruation (WaterAid, 2009). It is very likely that women teachers elsewhere are frequently absent during menstruation due to the inability of the school infrastructure to meet their health and hygiene needs. Given the unavailability of substitute teachers due to teacher shortages all over the developing world, this means that teachers' instruction time in school will be reduced by 10-20% (World Bank, 2005). Both disposable and reusable menstrual management materials are already finding their way into sanitation systems in developing countries (Bharadwaj and Patkar, 2004; Kjellen et al., 2011; Sommer, 2011). Sewage backups, quick fill of pit latrines and land pollution is common as a result of improper menstruation product disposal (Shoemaker, 2008). UNICEF (2010) stresses the importance of school toilets, which are built to accommodate menstruating girls' specific needs for privacy, space, washing facilities and correct disposal or cleaning of menstrual pads.

Various studies have shown that girls who attend schools without appropriate water supply and sanitation facilities prefer to remain at home during menstruation (LaFraniere, 2005; Nahar and Ahmed, 2006; WaterAid, 2009). Studies in Uganda, Kenya and Zimbabwe which was conducted between 2009 and 2011, highlights the challenges to physical management of menstruation in low income settings, and in particular the prevalence of overcrowded and overflowing toilet cubicles currently existing in many sub-Saharan African schools (Rockefeller, 2011). In accordance with LaFraniere (2005), over 50% of primary school pupils in Ethiopia lack proper latrines and water supply facilities, which are not only inadequate, but also poorly managed. A baseline study conducted by Netherlands Development Organization, SNV in 4 districts in Southern Ethiopia revealed that, the school environment is not conducive for menstrual hygiene management because 90% of

the schools lack water supply, separate toilet for boys and girls and the existing toilets lack privacy (Zinash *et al.*, 2011). In a study of every school in 16 districts in Tanzania undertaken in 2009, it was identified that 52% of all schools had no doors on their latrines, 92% had no functional hand washing facilities and 99% had no soap (SNV/Water Aid/UNICEF, 2011) all of which would make it very difficult for a young girl to easily manage her menstrual period.

The rapid increase in secondary school enrolment since Secondary Education Development Program (SEDP) in 2004 which aimed to enroll all those who passed primary education examination has put a heavy burden on existing infrastructure particularly WASH facilities (SNV/Water Aid/UNICEF, 2011). As a result the number of schools and pupils in Tanzania has increased tremendously in recent years, particularly in community schools (Mlozi et al., 2013) Increase in number of students was not accompanied with increase in sanitary facilities, including menstruation facilities. This is partly because, until recently, MHM has been largely overlooked by the Water, Sanitation and Hygiene (WASH) sector in general, and Tanzania in particular (Guya, 2013). Failure to provide appropriate menstrual hygiene facilities at home or school could prevent WASH services being used as intended (Shoemaker, 2008). In recent years, some governments, institutions and NGOs have realized that without addressing the problems associated with menstruation, the achievement of at least three MDGs (no. 2, 3 and 7) will be hampered (Tjon Ten, 2007), female school drop-out rates will remain high and the dignity of schoolgirls will be compromised. In a recent research work in Mwanza-Tanzania, Ntumwa and Rwambali (2013) studied factors influencing school dropout in community secondary schools, but they did not consider menstruation as one of the factors. It is possible that the silence and stigma surrounding menstruation made it a low priority in their study. The main objective of this research is to assess menstruation hygiene management in secondary schools in Kinondoni district. The research work covers determination of hygienic practices done by girls at school during menstruation, determination of menstrual health and hygiene education provided at schools and assessment of menstruation management system option(s) available in secondary.

2. METHODS AND MATERIALS

Study site and population

The research was carried between March and July 2013 in 12 secondary schools of Kinondoni and Bagamoyo districts (Fig. 1). Kinondoni, which has an area of 531km², is the northernmost of three districts in Dar es Salaam. It is found at latitude 6° 42' 43" S and longitude 39° 07' 54" E. To the east it is bordered with the Indian Ocean, to the north, and west the Pwani region and to the south Ilala district. In accordance with Tanzanian National Census conducted in 2012, the population of Kinondoni municipality is 1,775,049 up from the population of 1,083,913 in 2002, which is equivalent to population growth rate of about 5.06% annually (URT census, 2013). Kinondoni has total of 143 secondary schools out of which 46 are public-owned and 97 are private-owned by individuals, organizations,

army and religious institutions (Table 1). The schools have been divided into 4 academic zones; Kawe, Kinondoni, Magomeni

and Kibamba.

Table 1: Distribution of secondary schools in Kinondoni district academic zones

Zone	Single boys		Co-education		Single girls		Total	
	Public	Private	Public	Private	Public	Private	Public	Private
Kawe	0	3	11	25	0	11	11	39
Kibamba	0	2	12	14	0	5	12	21
Kinondoni	0	1	12	13	0	2	12	16
Magomeni	0	0	11	17	0	4	11	21
Total	0	6	46	69	0	22	46	97

Sampling Techniques

The schools were selected by stratified random sampling technique in 4 zones where random sampling were made from each stratum made for this purpose. The strata were: single/co-education, O-level only /O-level & A level, day/boarding and government/private owned schools. Single boys' schools was excluded in this study. The study population (school girls) was obtained by systematic random sampling in which a fixed starting point from attendance register was chosen and the following participant name was obtained after specific interval number of names depending on the total number of girls in the school. The sample includes adolescent girls studying in all grades in both government and private secondary schools i.e. form one to form four or six at the time of study. Only selected girls of these classes who attended the school on the day of survey and willing to participate in the study were included.

Girls from these classes who had not yet had menarche were excluded. A total of 149 girls (between 11 and 14 girls from each of 12 secondary schools) participated in the survey and out of them, 84 participated in the focus group discussion (Table 2 and 3).

Following sampling, interviews were carried out with the corresponding head/deputy head of schools together with matron/teacher acting as matron. A total of 23 head/deputy head of schools and matrons/teachers participated in semi-structured in-depth interview. Out of 12 schools involved in the study, 8 were private owned and the remaining schools were owned by the government. Of these 12 schools involved in the study, 3 schools were single girl's schools and the remaining 9 were co-education. All of these 3 single girls school were private owned as there were no single girl's school owned by government in the study area.

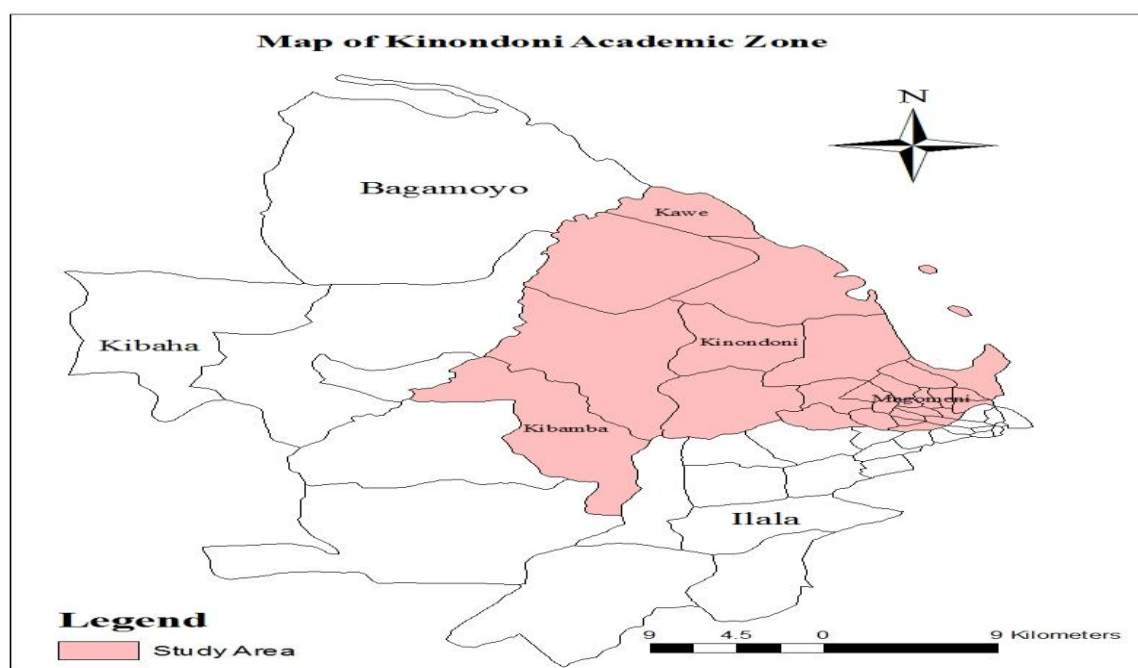


Figure 1: Map of Kinondoni district showing academic zones

Study design, techniques and tools

This was a descriptive cross-sectional study in which quantitative and qualitative methods were applied. A self-administered structured close-ended questionnaire survey, Observation (inspection visits), checklist (quantitative), focus group discussions (FGD) and semi-structured in-depth

interviews (qualitative) were applied to collect the information. All these tools were pre-tested at Alpha High School and revised accordingly before it was used for the study population. The tools were first prepared in English and then translated into Kiswahili. FGD and semi-structured in-depth interviews was recorded with digital audio recording device.

Table 2: List of government owned school participated in the study

S/N	Name of School	Zone	Girls participated in questionnaire	Girls who participated in FGD
1	Bunju A	Kawe	13	6
2	Oysterbay	Kinondoni	14	8
3	Kambangwa	Kinondoni	14	8
4	Kisauke	Kibamba	13	7
TOTAL			54	29

Table 3: List of private owned schools participated in the study

S/N	Name of School	Zone	Girls who participated in questionnaires	Girls who participated in FGD
1	Africana	Kawe	11	7
2	Ridhwaa Islamic Seminary	Kinondoni	11	6
3	Barbro Johansson	Kibamba	12	8
4	Alpha	Kawe	12	6
5	Cannossa	Kawe	13	7
6	Loyola	Magomeni	11	6
7	Dar es Salaam Baptist	Magomeni	13	9
8	Baobab	Bagamoyo	12	6
TOTAL			95	55

Data Collection

Data collection was carried out at the school site during school hours with due verbal consent from respective head of schools and girls themselves. The self-administered questionnaire was given to girls in either classrooms, offices or in some schools under the tree in absence of male students or teachers. Female members from the research team briefed on the purpose of the study and method of completing the questionnaire. Voluntary willingness from the respondents to participate in the study was sought before they were requested to fill the questionnaires.

girls were allowed to enquire any clarifications from the research team.

A FGD was conducted in each of the twelve schools with six to nine articulate and willing girls who were selected out of the respondents with the help of teachers or matrons. The girls were asked open-ended questions and the moderator included probes and follow-up questions. To make the respondents feel at ease and express freely, only female members were involved during FGD and Kiswahili language was used in communication. Digital audio recorder was used to record the discussion. To understand girls' priorities for improving MHM, list of priorities for better school MHM were made and voting of

MHM priorities was done. For majority of the girls this was their first opportunity to freely discuss menstruation. Semi-structured in-depth interviews was carried out together with both head of school and matron in each of the twelve schools. To a large extent, the interviews based on management issues in relation to menstrual hygiene, were made in Kiswahili language and digital audio recorder device was used to record the interview. Observation (inspection visits) was done by the research team using pre-designed checklist guide by visiting into relevant school areas that are related to menstrual hygiene management. These areas includes girls' latrines, female staff latrines, school water source facilities, dormitories (for boarding), absorbent material disposal areas, matron office and in some school special room used to attend menstrual emergency need was visited.

Rights, anonymity and confidentiality of the respondents were respected in all phases of the study. Informed verbal consent with the respective head of school and the respondents were taken before data collection. Through verbal consent process, the type and purpose of the survey, discussion or interview; issues of anonymity and confidentiality; voluntary participation and freedom to discontinue the interview/discussion at any stage; and absence of any known risk or benefit for participating in the study was explained beforehand. Photo and audio records were made with due verbal permission from the respondents. To preserve anonymity, all findings are presented without ascribing names or identifiable personal description.

Data analysis

Quantitative data from the survey was analyzed using SPSS 17.0 software. Analysis was done with descriptive statistics mode which computed frequencies, crosstabs, tables and graphs. Data from FGD and in-depth interviews was transcribed verbatim from the audio record in Kiswahili and translated later into English. The data was then analyzed manually; based on recurrent themes and patterns.

3. RESULTS

MHM education at schools

The study indicated that, all 12 schools in the survey found to offered some MHM education to girls whereas only 3 schools out of 9 co-education schools involved in the study provided some MHM education to boys. All MHM education provided by the schools were internally initiated as there were no any guideline, rules or regulation requiring schools to provide it. In most schools education was provided by school(s) matron(s) or a teacher acting as matron.

Source of menstrual hygiene information before and after menarche

The results showed that mothers were the main source of information on menstrual hygiene before menarche, followed by sisters (Table 4). However, after menarche, friends were found to be the main source of information followed by mothers. Unfortunately, the girls admitted that sources of information on menstruation were limited and inadequate.

Following their desire to learn more about MHM, 55.7% of girls preferred MH education to be provided at schools, 42.3% preferred at home and 2% preferred to other places like places of religious worship (Table 5). It is worth to note that 67.4% (64 of 95 girls) of private school girls preferred menstrual education to be provided at their respectively schools. This figure is significantly larger than 35.1% (19 of 54 girls) of the government school prefer school as a place of menstrual education. This is because private schools have employed qualified matrons who provide menstrual education to girls in friendly manner as compared to teachers. None of the government school visited had matrons in their list of employees.

Table 4: Source of knowledge related to menstruation hygiene management

Source of information	Before menarche (%)	After menarche (%)
Mother	44.4	23.1
Sister	25.1	17.6
Other relative	3.4	7.2
Matron/Teacher	2	7
Friends	9.1	25.7
Books/Newspaper	3	9.1
No information	12	3.5
Other source	1.3	9.4

Table 5: Cross tabulation where girls prefer education provided and school owner

Owner	Where education should be provided			Total
	Home	School	Other places	

Government	32 (21.5%)	19 (12.8%)	3 (2%)	54 (36.3%)
Private	31 (20.8%)	64 (42.9%)	0 (0%)	95 (63.7%)
Total	63 (42.3%)	98 (55.7%)	3 (2%)	149 (100%)

About 53.0% and 38.3% of girls preferred to be educated about menstruation hygiene at the age of 9~11 years and 12~13 years, respectively. The minority group of 4% and 4.7% preferred to obtain knowledge of menstrual hygiene at the ages of 6-8 years and above 13 years, respectively. This was supported with girl's views in FGD where they shared their experiences and clearly showed that the best place to learn MHM is at primary school level and preferably be continued in secondary school. The girls preferred menstrual hygiene to be provided in a loving manner and in absence of boys to avoid humiliation from boys. It was noted that majority of girls in government schools prefer someone from outside the school to provide menstrual education, whereas most of girls in private school prefer it with matron. These differences between government and private schools could be contributed to the fact that, all government schools visited didn't have a matron, a woman whose duty is to take care of girls need. A female teacher appointed to serve that purpose is likely to underperform matron's duties as it become difficult to perform the duties of a teacher and that of matron at the same time. However, all girls admitted that more information on menstrual education is required and an improvement on the way it is delivered is necessary.

MHM Education material

All surveyed schools had no materials such as books, posters, photographs, tape/DVD or any other items that can be used for teaching or reading menstrual hygiene management. Inspection of hostel facilities confirmed that no such materials are posted in visible area or in girl's latrines. In FGD, girls confirmed that they prefer MHM education be provided orally first and books may be used to supplement their knowledge. Some matrons expressed their wishes to put some posters in girl's latrines to remind them on proper means of menstrual product disposal.

MHM with boys

Some girls suggested that boys must be educated on MHM, on grounds that boys need to know what is happening to girls and support them where necessary. Some girls reported that boys contribute so much to the girls' school dropout rate due to their teasing behavior. However, other girls were skeptical if

education of boys would be necessary and beneficial as it may lead to increase in mocking to girls.

Hygienic practices and experiences during menstruation

Type of absorbent material used

About 97.3% of respondent are using disposable sanitary pads as their only absorbent material during their last menstruation at schools, 1.3% used rag cloth only whereas 4.2% used both disposable sanitary pads and rag cloth. In the FGD it was pointed out that, those who use rag cloth claimed that they are allergic to disposable pads or pads are uncomfortable to use. Others use rags during menstruation at their homes because they are cheap and reusable. However, many respondents prefer sanitary pads over rag cloths because they can be conveniently carried and used. Absorbent pads are carried in students exercise books by 75.2% of the responds, but 14.1% and 10.7% of respondent carry theirs in skirt pocket and hand pocket, respectively. In FGD some girls expressed their desire to have long school uniform skirt pockets. It is obvious that longer skirt pockets will increase the number of girls who carry absorbent pads in their pocket.

Frequency of changing absorbent material

It was observed that 61.1% of the respondents changed their absorbent pads at an average interval of 3 to 6 hours when they were at school. However, about 32.2% of the respondents changed theirs at interval of 6 to 12 hours and the remaining 6.7% at interval of more than 12 hours (Table 6). Frequency of changing absorbent material was comparable for private and government schools. However, higher frequencies were observed in co-education schools than girls' only schools. It was observed 64.6% of girls changed absorbent materials at interval of 3 to 6 hours was in co-education schools as compared to 50% in single girls' schools because girls were more caution of accidental blood stain in the uniform or the place where they sit on in mixed sex schools.

Table 6: Frequency of changing absorbent material and type of school student

Frequency of changing of absorbent material	Girls only	Co-education	Total
3 - 6 hours	18 of 36 (50.0%)	73 of 113 (64.6%)	91 of 149 (61.1%)
6 - 12 hours	17 of 36 (42.7%)	31 of 113 (27.4%)	48 of 149 (32.2%)
More than 12 hours	1of 36 (2.8%)	9 of 113 (8.0%)	10 of 149 (6.7%)

Total

36 of 149 (24.2%)

113 of 149 (75.8%)

149 of 149 (100%)

Material used for cleaning the genitalia when changing absorbent material

About 48.3% of girls use water only to clean genitalia when changing absorbent material at schools. It was noted that water only was used more frequently in government schools (66.7%) than private schools (38.8%) because private schools have more

options for girls to use. For example, the proportion of students who are using water and soap and toilet paper in private schools is 41.8% and 19.4%, respectively, which is higher than 23.5% and 7.8% in private government schools for the same cleaning materials (Table 7). This indicates that girls in private schools can afford to buy this products.

Table 7: Materials used for cleaning genitalia

Cleaning material	Government schools	Private schools	Total
Water only	66.7%	38.8%	48.3%
Water and soap	23.5%	41.8%	35.6%
Toilet paper	7.8%	19.4%	15.4%
Other materials	2.0%	0	0.7%

Experiences on first day of menstruation at school

In the FGD, girls discussed their own experience or friends experiences on first day of menstruation at schools. One girl in co-education school reported that she was once embarrassed in the class when she found blood stained on her skirt when she stood up to answer a question. Others girls have seen their colleague stain blood on their skirts and gave them assistance of jacket/sweater before sending them to matrons' office. Very few claim that they have never come across such situation at schools. On the other hand, awareness of male teachers on needs of girls was reported by some students. In FGD, one girl in girls' only school reported that she was refused permission to visit the toilet by male teacher after she had experienced unexpected menstruation during ongoing class session until the end of period. It is very likely that girls' elsewhere are experiencing similar problems with male teachers.

Latrines condition

Latrines, being an important place in the management of menses was visited in every school involved in the study and their condition was determined whether the toilet is clean (free from smelly, no visible feces in or around the facility, no flies and there is no litter); fairly clean (some smell and/or some sign of fecal matter and/or some flies and/or some litter) or dirty (a strong smell and/or presence fecal matter and/or a significant fly problem and/or a large amount of litter). In this survey, 34% of girls' toilet visited appeared to be clean and in good condition, 50% appeared to be fairly clean and 16% were found to be dirty (Table 8). For latrines surrounding, 66.7% were found to be clean and 33.3% were dirty.

Table 8: Toilet Conditions

Toilet condition	Government schools	Private schools	Total
Clean	0	50.0%	33.3%
Fairly clean	75%	37.5%	50.0%
Dirty	25%	12.5%	16.7%

Out of 9 co-education schools surveyed, 5 had girls toilet building separated from boys', but 4 schools had girls toilet building jointed with boys toilet building. This type of constructing one building containing girl's toilet on one side and boys on the other side was very common practice for government school built in recent years starting from 2004 onwards. In FGD, girls mentioned their desire to have their toilet building be separated from boys because girls are afraid to be seen visiting toilets. All school surveyed had their toilet with roof, but out of the schools surveyed, only 5 school had all the girls toilets with doors and individual compartments lockable from the inside, five schools had some girls' toilet compartment with doors and lockable from inside whereas the remaining 2 government-owned schools had some compartment with doors,

but not lockable from inside while some other compartment didn't have doors at all. In case of lighting in toilets, 10 of 12 schools had latrines with enough lighting. However, some toilets are relatively dark in absence of electric light when the power is gone off.

Availability of water and hand washing facilities

All 12 school surveyed had water supply available on the day visited. Among these, 7 schools have piped water supply, 3 schools use rain water harvesting, 2 schools use drilled well and 2 schools had multiple source of piped water from water utility, rain water harvesting and drilled well. All 8 private schools have hand washing facility inside latrines, but only 5 schools

had their girl toilet hand wash facilities in good working condition (Fig. 2). Only one out of four government-owned schools visited with hand wash facility in the toilet. For boarding schools, there were no washing facilities for cloth napkins in latrines probably because 97.3% of all girls involved in the study, use disposable pad as absorbent material rather than reusable cloth. No school provided soap in the toilet nor pot for putting soap were available although girls awareness and need to use soap was high. It was revealed in FGD that lack of soap in toilets was the most frequently mentioned problem they have faced in the use of toilet in relation to menstruation

(Fig. 4). It is worth reporting that only 37.6% of girls have discussed problems of menstrual management facilities with their teachers or matron, among those 80% were in private schools (Table 9). It was noted that students in government schools are not reporting problem of menstruation facilities to their teachers because teachers are not close to us enough to talk such problem and even if they tell them, usually no action is taken by school authorities. In private schools, girls have reported that teachers/matron encourages them to discuss any problem facing them, but some students feel shame and fear to discuss menstruation matters with others.

Table 9: Cross tabulation of response whether girls talk MHM facilities problem

Owner	Talk to teacher about MHM facilities problem		Total
	Yes	No	
Government	10 of 54 (18.5%)	44 of 54 (81.5%)	54 of 149 (36.2%)
Private	46 of 95 (48.4%)	49 of 93 (52.6%)	95 of 149 (63.8%)
Total	56 of 149 (37.6%)	93 of 149 (62.4%)	149 (100%)

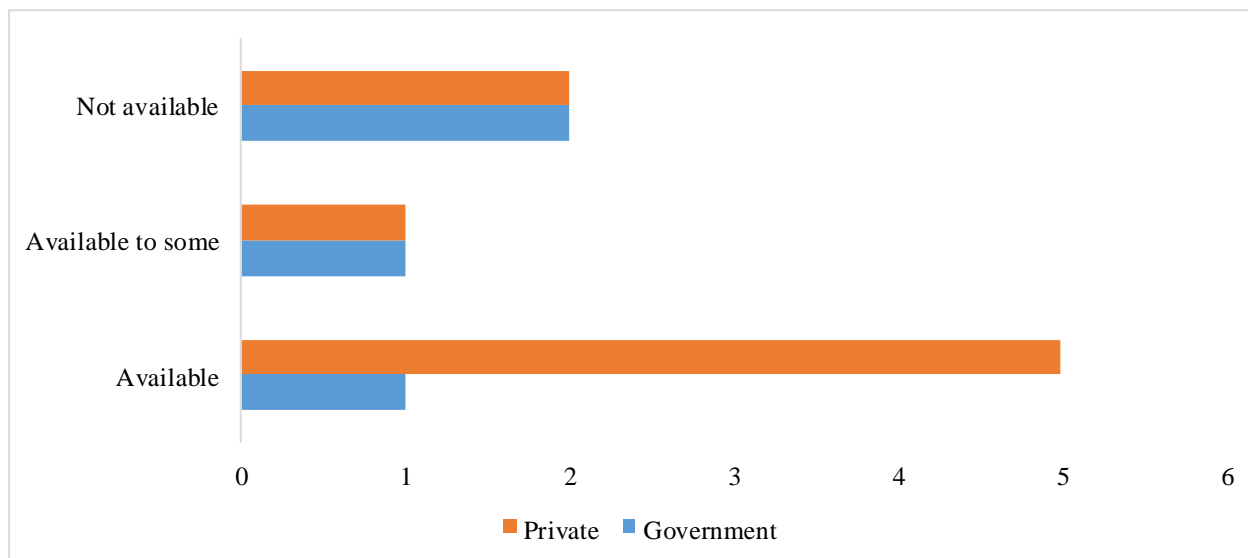


Figure 2: Availability of hand wash facilities in school girl's latrines

Disposal facilities for used absorbent materials

Fig. 3 shows disposal facilities for used absorbent pads. Of the surveyed schools, 7 have bins in the latrines available for disposal of napkins. In the other 4 schools absorbent materials are disposed-off in pit latrines. In one school, which uses water based sanitary system, girls just throw their used menstrual material in the dumping site located behind the toilet. Of the 7 schools found to have bins, 3 private schools have hired private agents for cleaning and emptying bins usually at the frequency of twice a week. In the other 4 schools, students themselves are responsible for emptying bins, which is done on daily basis.

The final disposal methods of the content of pad bin were schools incinerator (3 schools), offsite disposal by hired private

company (1 school) and open burning (1 school). All 3 incinerators were found to be in good working condition. The incinerators were operated by employees who among other duties were responsible for taking care of the incinerator, but none was trained to operation incinerator. Of the 3 incinerator found in schools, two incinerators are located close to human settlement something which can bring harm to the surrounding community. It was noted that some girls wrap their used absorbent material and carry them home for final disposal due to cultural reasons. Others flush used absorbent materials in the water-borne system, which periodically causes blockage of toilets and sewerage system. In one school, which uses open dumping system for use absorbent pads, smell originating from decomposing blood or burning of absorbent pads was reported by students especially during rainy seasons. In some cases the

smell is so unbearable that some students have attempted

shifting dormitories.

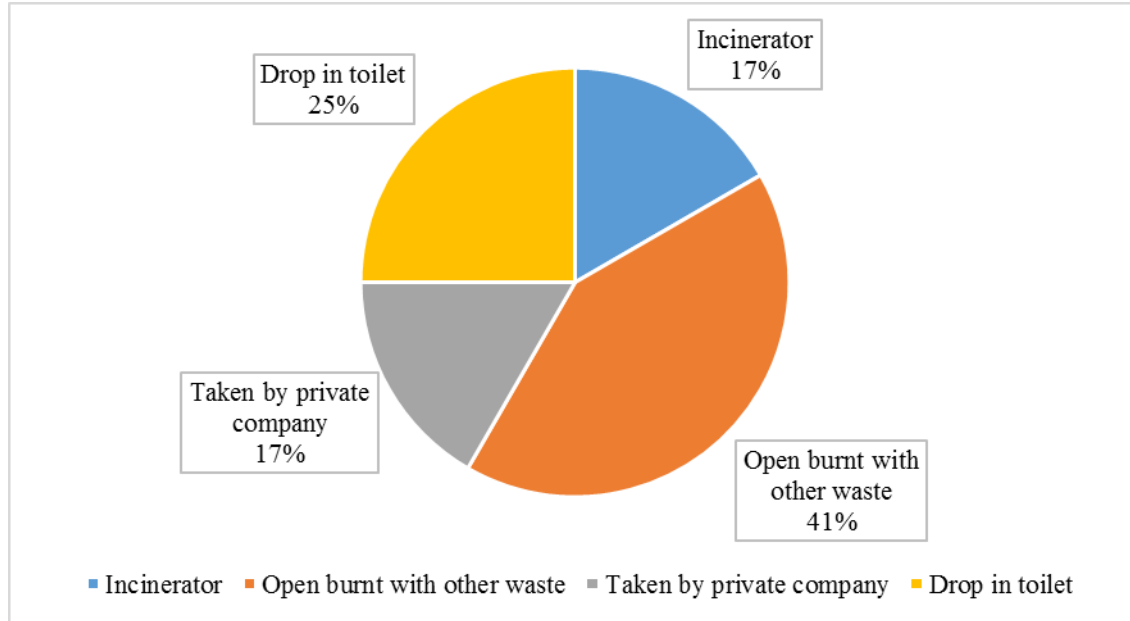


Figure 3: Disposal facilities for used absorbent material in schools

Menstrual emergency need facilities

Nine out of 12 schools (75%) have absorbent pads in matron/teachers office to cater for emergency cases, but in all schools these pads are sold to the girls. It was however, noted that girls wishes pads to be provided for free as one girl of private school emphasized that their parents have paid a lot of money as fees, which should cover for such expenses. It was noted that only three private schools, one co-education have a special room for changing pads. In other schools, teachers or matrons’ office is often used as emergency changing room as well. Girls in the 3 schools, which do not provide this service have expresses their wishes in FGD to have emergency pads in matrons’ offices to assist girls who encounter unexpected periods or for menarche needs. It is worth reporting that all 3 schools, which do not have emergency pads, are lead by male heads of school.

Reasons for school absenteeism because of MHM facilities at school

Of the 149 school girls involved in the study, 24.8% were absent from school or classrooms at least once because of lack of any of the MHM facilities at their schools. The number was greater in government schools (20.4%) than private schools (15.8%) probably because of better MHM facilities in private schools than in government schools and practically private schools are more strictly in school attendance than government schools. Among reasons highlighted by survey respondents in FGD for being absent in school during menstruation were lack of privacy, absence of soap in toilets, unavailability of water, absence of doors on toilet rooms and absence of bins for disposal of used absorbent pads. Some girls even wondered why government is not addressing this problem, which is primarily a very fundamental one.

Table 10: Cross tabulation of girls away from school because of MHM facilities

Owner	Away from school because of MHM facilities		Total
	Yes	No	
Government	11 of 54 (20.4%)	43 of 54 (79.6%)	54 of 149 (36.2%)
Private	15 of 95 (15.8%)	80 of 95 (84.2%)	95 of 149 (63.8%)
Total	36 of 146 (24.2%)	113 of 149 (75.8%)	149 (100%)

Priority list for improving MHM in schools

Figure 4 shows the list of priorities made by girls during the FGD for improvement of MHM in schools in order to accommodate menstrual needs of the girls at school. Results

show that MHM priorities in order of the most frequently chosen are: soap, free pads, soap, hand-washing facilities in toilets, MHM education, pain killer medication and lock inside toilet compartment. Other's requested features were: lights, mirror, doors and toilet paper.

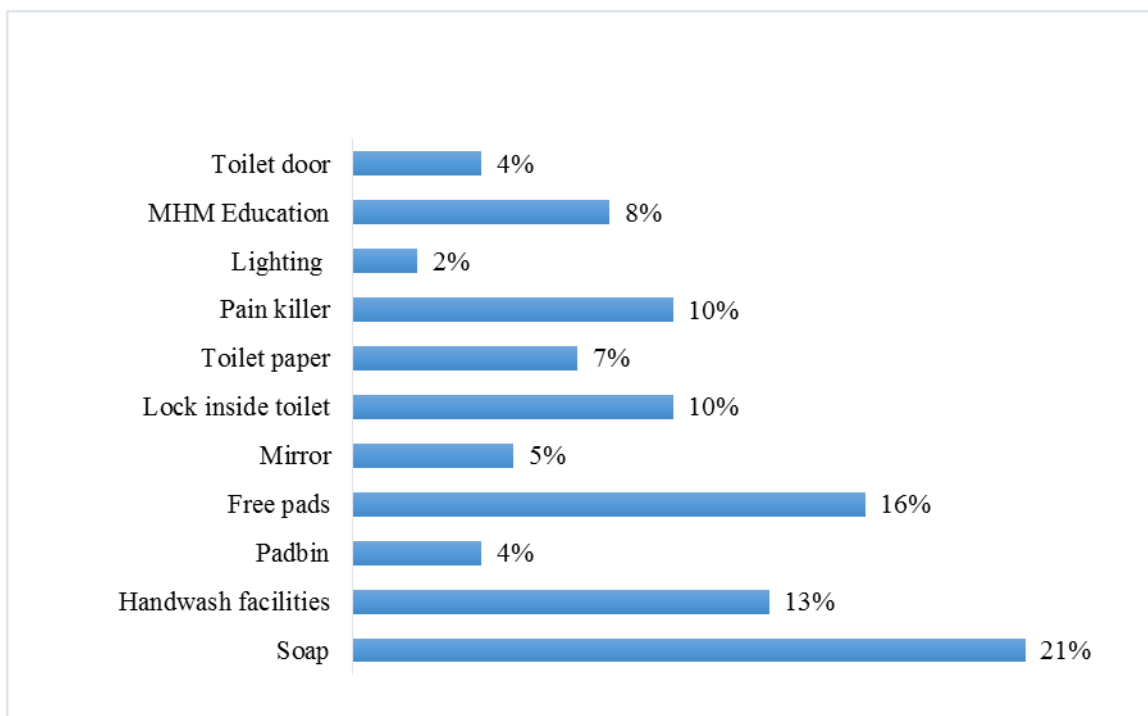


Figure 4: Girl's priorities for improving MHM at schools

4. DISCUSSION

It is evident from the results of this study that menstrual hygiene management is a necessity, but challenging issue for the life of adolescent girls. Girls need to receive information on practical ways of managing menstruation in a hygienic and discrete way. Unfortunately, formal menstruation education is grossly inadequate in most if not all schools in Tanzania although some education is provided informal in some schools, particularly private schools. It was noted that majority of girls who participated in this study had MH knowledge before attaining menarche. Only 12% of girls in this study did not have prior knowledge of menstruation before menarche. This percentage is similar to results of a study conducted in India by Dasgupta and Sarkar (2008) who reported that 13.5% of girls did not prior knowledge on menstruation before menarche because of significant influence of socio-cultural beliefs of their sources. Mothers (44.4%) have been identified as main source of information on menstruation for the adolescent girls, which is consistent with results reported elsewhere (Mudey et al., 2010; Omidwar and Begum, 2010). Ali and Rizvi (2009) in their research work in Pakistan reported that among girls with some prior knowledge on menstruation hygiene management most received it mainly from their elder sisters. In this study, sisters were the second main source of information on

menstrual hygiene management (25.1%), followed by friends (9.1%) and teachers (2%). Unfortunately, information on menstruation hygiene management given by mothers, sisters and friends can sometime be incomplete and incorrect usually being based on cultural myths, and personal experiences and views, which may result into false perceptions and unsafe practices regarding menstruation. In view of the little information that the girls are equipped with, it is not surprising that only about 10% of African girls in schools knew correctly that the menstrual blood came from uterus (Adinma and Adinma, 2008). There is also tremendous shyness around the topic of menstruation. As a result when girls talk about the topic, it is often with their closest friends. That is why the sources of information on MHM after menarche changed significantly from mothers to friends.

In this study, private schools were found to perform better in terms of MHM education delivery. This was reflected by girls' response in private schools who seemed to be more satisfied with the MHM education given than girls in government schools, even though the girls still need more exposure in menstrual education. It is obvious that, the presence of matrons contributed to this situation as compared to government schools where matrons are not available. The girls further admitted that matrons talk to them in a friendlier manner than teacher do,

which emphasizes on the best mode of delivery of menstruation education.

It was also noted that menstruation education is not part of formal education curriculum, which also means that menstruation hygiene education can only be provided informally. It therefore means that individuals have different levels of preparation and instruction on menstruation and appropriate teaching resources are not available. While the existing secondary school curriculum did include lessons on reproduction in biology at both the primary and secondary school levels, the curricula only covers technical aspects, but lacked pragmatic guidance for girls on how to manage their menses in order to help girls to understand and cope with it. It is particularly interesting to note the significance of teachers' discomfort with the subject matter and children's awareness of this discomfort. One student commented, 'Teachers do not tell us much about menstruation. They are shy and scared to tell us more'. For better management, school need to conduct menstrual health and hygiene lessons for schoolgirls and boys as well as other members of staff. Teachers (and male members of staff in particular) can be unaware of girls' needs and in some cases it has been reported refusing to let them visit the latrines. Sommer (2009) made similar observations in her study in northern regions of Tanzania. Therefore, men must also be educated and included in the decision making process regarding menstrual hygiene so that they understand the challenges that women face. If hygiene education is identified solely as a women's area, men may be reluctant to be involved. As a result, menstrual need component in sanitation may be ignored.

It is worth mentioning that there is ignorance and lack of will and courage to acknowledge problems of menstrual hygiene management. The gender unfriendly school culture and infrastructure, and the lack of adequate menstrual protection alternatives and/or clean, safe and private sanitation facilities for female teachers and girls, undermine the right of privacy. It is desirable that each and every girl child should receive menstruation education before the attainment of menarche. Before bringing any change in menstrual practices, the girls should be educated on the facts of menstruation, physiological implications, about the significance of menstruation and above all, about proper hygienic practices including proper disposal means of menstrual absorbent material.

Schools need to have basic sanitation facilities such as running water for cleaning hands and cloths when schoolgirls or female teachers changes their sanitary cloths or pads, toilet with adequate privacy for making the said changing, a place for drying and ironing (if reusable in a boarding school setting) and appropriate facilities for collection, storage and safely disposal of menstruation products. In a study of every school (both primary and secondary) in 16 districts of Tanzania undertaken in 2009 jointly by Netherlands Development Organization (SNV), WaterAid and UNICEF, it was identified that 52% of all schools had no doors on their latrines, 92% had no functional hand washing facilities and 99% had no soap, all of which would make it very difficult for a young girl to easily manage her menstrual period at school (SNV/WaterAid/UNICEF, 2011). From this study, it was

obvious that many schools of Tanzania do not support adolescent girls or female teachers in managing menstrual hygiene with dignity. Inadequate water and sanitation facilities make menstruation management very difficult, and poor sanitary protection materials can result in blood stained onto clothes causing stress and embarrassment.

Distorted perceptions, ignorance, unsafe practices regarding menstruation are not uncommon among girls in secondary schools in Tanzania. It is therefore important to educate and encourage safe and hygienic practices among the adolescent girls and bring them out of traditional beliefs, misconceptions and restrictions regarding menstruation management. For example, some girls are carrying used menstrual absorbent pads back home from school because of some misinformed beliefs. It is worth including wide spectrum of stakeholders in developing information and education for promotion of positive attitudes towards menstruation hygiene management, which not only target the girls, but boys as well. About 91.3% of girls prefer such education to start between the ages of 9~13 years, which is primary school level in Tanzania. Such education programme should consider knowledge level of pupils and local cultural, traditional and environmental conditions. Education programmes should also address the sensibilities of female students who at least initially may feel shy and embarrassed to talk about menstruation at school, particularly when boys are present. It was clear in FGD discussions that the majority of respondents in this study freely discussed menstruation for the first time in their lives. This is because menstruation is not subject of discussion for majority of African and Asian communities, which leads to several misconceptions and practices (Adinma and Adinma, 2008; Dhingra et al., 2009; Subhash et al., 2011; Shanbhag et al., 2012). It is also important that strategies for menstruation education must include separate sessions for girls and boys and level of knowledge of the respective age of the child. It is preferable to use female teachers or matrons to educate girls.

It was noted that hygiene related practices of girls during menstruation are of considerable importance, as they affect their health by increasing their vulnerability to infections, especially infections of the urinary tract and the perineum. In the study, in general girls who attend school during menses face challenges on how to manage their periods comfortably. For instances, girls revealed in FGD knowing the importance of washing their hands and genitalia with soap after changing absorbing materials, but none of them reported having access to soap in their toilets. As a result majority of girls who know the importance of using soap, carry soaps in their exercise/hand bags every time when menstruating.

The possible role for menstruation in limiting school attendance has received significant attention in popular media, nearly all of which argues that menstruation is likely to be factor in schooling. For example, Kristof (2009) writes: education experts increasingly believe that a cost-effective way to keep school girls from dropping out in poor countries is to help provide them with menstrual need sanitation facilities. In this study, 24.8% of girls reported having been absent from school or classroom due to a cause related to menstruation facilities

such as lack of soap, lack of hand wash facilities in toilets, inadequate water and lack of doors on toilet doors that provide privacy. Inability of girls to wash themselves with soap during menstruation is potential main contributory factors to absenteeism and diseases. One girl in the study said, "Nobody cares about the toilets here. We have no doors and no water and soap inside toilet. It is better to stay at home when you menstruate". The study also revealed a correlation between the lack of gender-separated latrines in schools and absenteeism among girl. The schools that was found to have single building for both sexes latrines, were the ones with the largest rate of absenteeism. This go in line with the conclusive evidence that girls' attendance at school is increased through improved sanitation facilities (Bhardwaj and Patkar, 2004), which is one of the factors believed to have helped countries like Bangladesh make significant progress in reducing the gender gap in education. (UNICEF, 2005).

5. CONCLUSIONS

From the study the following conclusions are made:

1. Adolescents need to have accurate and adequate information on appropriate menstruation hygiene management. Girls have made it clear the need for education on menstrual hygiene at an early age before girls reach puberty and continue throughout adolescence. When taught beforehand, girls would be better prepared emotionally, and psychologically for the experience of menstruation and will have fewer negative reaction, they would be able to better care for themselves during menstruation, especially learning about hygiene practices including proper disposal of menstrual products.
2. Lack of soap, hand wash facilities, emergency pads and privacy which are important determinant for proper practice of menstrual hygiene and school attendance has been identified as main problems. The heads of schools admitted that, the efforts to have the earlier mentioned facilities at schools does not always mean large investments in infrastructures.
3. There was evidence that boys, male teachers and even male head of schools are completely ignorant of girls menstruation needs.
4. Ministry of Education has overlooked the need for menstrual hygiene management in schools. It was noted that there is no curriculum on menstruation, and neither guideline nor regulation on menstruation hygiene management exists.

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