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**TRANSFORMATION TOWARDS SUSTAINABLE
AND RESILIENT WASH SERVICES**

WASH infrastructure and menstrual hygiene management in basic schools: a study in Kumasi, Ghana

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Understanding the role of Water, Sanitation and Hygiene (WASH) services on menstrual hygiene behaviors and practices and ultimately on school absenteeism is important to inform policy and practice. This study focused on how the schools' WASH infrastructure affects Menstrual Hygiene Management. The study was based on data from seven schools in the Weweso circuit, Kumasi-Ghana collected through Focus Group Discussions, key informant interviews and observation of water, sanitation and hygiene (WASH) facilities in the selected schools. Public schools (government managed) did not have adequate provision for menstrual hygiene management and the private schools (individually owned) had better WASH infrastructure/services that provide a better environment for menstrual hygiene management compared to the public schools. The poor WASH infrastructure in basic schools constrain school girls from maintaining good menstrual hygiene practices. The study recommends education on menstrual hygiene management and the incorporation of adequate consideration for menstrual hygiene management infrastructure in basic schools (primary school).

Background

Menstruation is a natural process which occurs in girls. The onset of menstruation is between the ages of eleven (11) and sixteen (16) years with a mean age of thirteen (13) years (Guya, 2014). Interrelated issues of personal hygiene, sanitation, water supply, and health education, come into play on the onset of menstruation (Water Supply and Sanitation Collaborative Council 2014). Studies have shown that challenges of school girls during menstruation are; menstrual accidents, uneasiness, stress, embarrassment, confusion and fear due to the lack of knowledge and inability to manage menstrual flow or from being teased by peers. Additionally, poor menstruation-related knowledge, insufficient access to menstrual hygiene materials and poor school water sanitation and hygiene facilities for personal cleaning may negatively affect girls' learning experiences and result in absenteeism, reduced concentration during class hours, decreased school participation and poor academic performance (Water Supply and Sanitation Collaborative Council 2014).

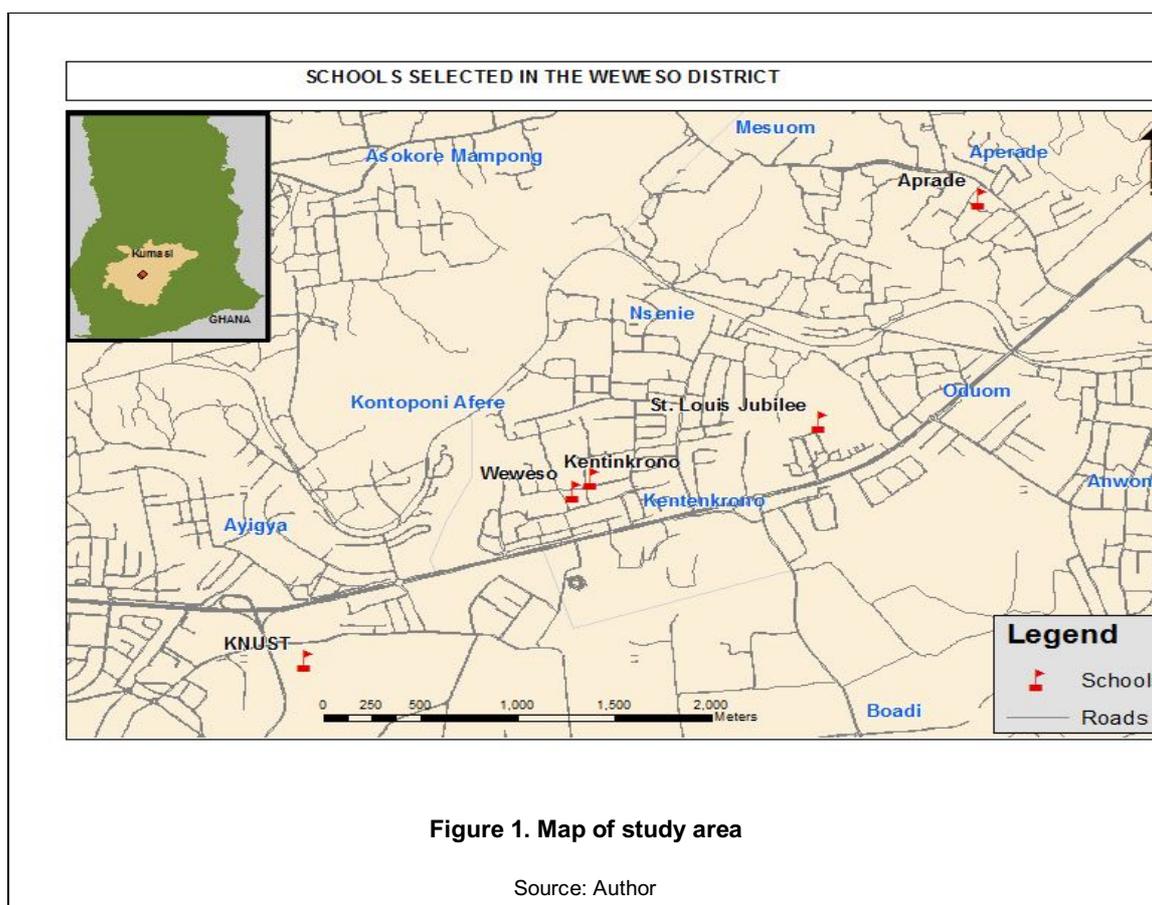
The school Health Education Programme (SHEP) of Ghana Education Service has been promoting MHM (Menstrual Hygiene Management) through the UNICEF-supported WASH-in-schools programme. The programme has been the development of minimum standards for water and sanitation facilities in schools. However, some basic schools in Ghana still lack access to standard water and sanitation facilities to support girls to manage their menstrual period. The Government of Ghana has made advancements in WASH-in-schools during recent years, although current education and health policies do not specifically address menstrual hygiene. It is therefore worthwhile to assess the existing schools WASH infrastructure and its possible impact on MHM among school girls to obtain empirical evidence for policy formulation. Policies on menstrual hygiene management could be realised if there is adequate evaluation to determine the essential water and sanitation interventions needed to enable comfortable school attendance for menstruating girls.

Objectives

The objective of the study is to assess the impact of School WASH infrastructure on menstrual hygiene management in basic schools in Weweso district, Kumasi. Specifically, the study assessed the existing WASH infrastructure, Menstrual Hygiene Management (MHM) behaviours and practices among school girls and the relationships between WASH infrastructure and Menstrual Hygiene Management.

Methodology

The study was conducted within the Kumasi Metropolis and the method of sampling used was convenience sampling. Schools in the Weweso circuit were selected based on administrative type (Private or Public). Purposive sampling was used to select girls at the puberty from primary school stage 6 to second year Junior High School (JHS) 2. A total of one hundred and fifty-four (154) girls from seven (7) basic schools were selected for focus group discussions (FGD). The FGD's covered general hygienic practices, behaviour and practices among menstruating school girls and traditional beliefs and myths about menstrual hygiene. Each FGD conducted in the selected schools, consisted of between nineteen (19) to twenty-three (23) girls. The selected girls were in the age range of 12 to 16 years. Audio recordings from the FGD's were transcribed and analysed using themes from the various sections and Microsoft Office Excel 2013 was used to analyse questionnaire data. Multiple data sources (focus group discussions, in-depth interviews and observations) were used to ensure high level of accuracy of data collected. The conclusion and recommendations of this study should not be generalised for the other areas since conditions may be different in these areas.



Results and discussion

Infrastructure

Availability of water, soap and Clean hand drying materials

All schools visited had access to piped water supplied from formal utility Ghana Water Company Limited or from mechanised bore holes. Students also explained that soap was not always available for hand washing. Clean towels and hand tissue for drying hands after hand washing was not available in all cases at hand washing stations. To this effect some students (67%) sort to wiping their hand dry by using their school uniforms, rubbing their hands through their hair and their personal hand drying materials such as handkerchiefs and face towels. The use of school uniforms and ones hair as hand drying materials may make school girls susceptible to re-contamination after hand washing. This practice and data is a reflection of a daily occurrence in schools.

School toilet use

Toilet technologies available in public schools were pit latrines; enviro loo and pour flush systems. Assessment of school's toilet which is a reflection of daily practices showed that 66% of the girls in public schools don't use their school's toilet with reasons such as dirty environment of toilet facility, smell from toilet, candidiasis due to excessive heat emission from squat holes, no water to flush (pour flush), sight of urine all over the toilet facility, toilet not comfortable to use, worm infestation, faeces on toilet floors, cob webs in privy rooms, little to no privacy and fear of falling through squat holes.

In private schools where water closets are used, the survey revealed that 7% of students don't use school's toilet while at school because of long queues due to limited toilet seats, toilet not frequently flushed, smell from toilet, toilet seat contaminated with urine and the sight of used sanitary materials left on toilet floor. Plate one and two shows photos of toilet facilities in schools.



Photograph 1. Toilet facility captured from a public school

Source: Author



Photograph 2. Toilet facility captured from, a private school

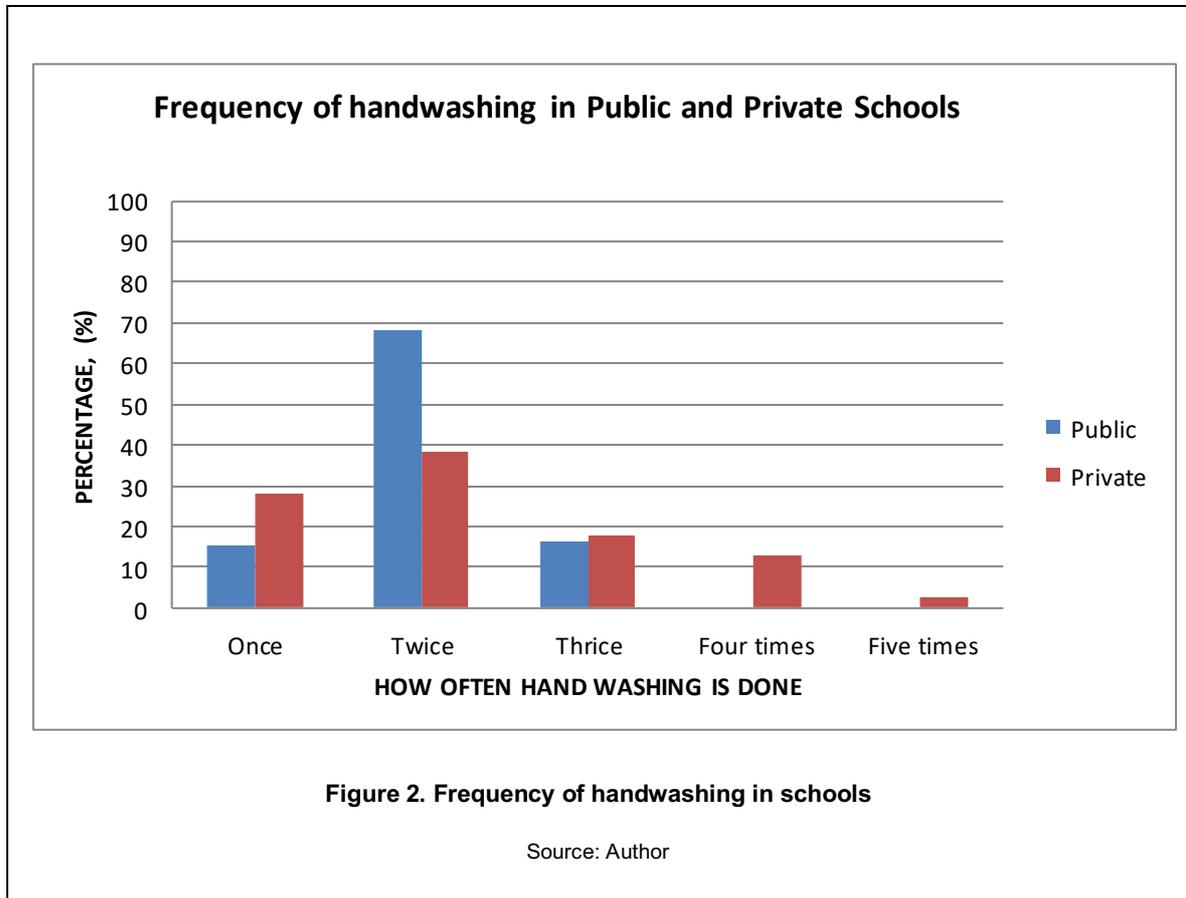
Source: Author

Behaviours and practices

Handwashing frequency

The frequency of hand washing is shown in Figure 2 below. It reveals that the frequency of handwashing in private schools was higher than in public schools on a daily basis. The factors that influence hand washing in the schools are availability of water during school hours, accessibility of hand washing stations, hygiene

communication messages provided by teachers. In the private schools 34% of girls in private schools washed their hands more than twice (2) during school hours compared to 16% in the public schools. This data is a reflection of daily handwashing practices.

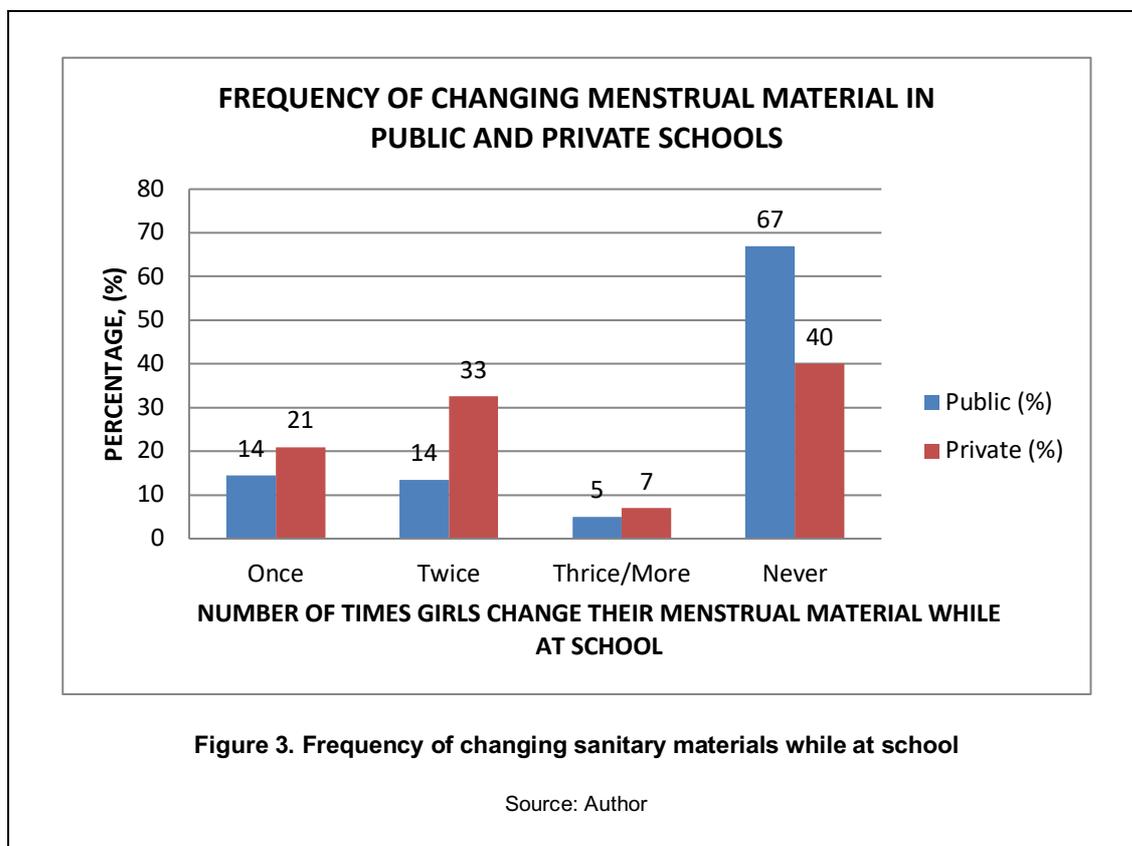


Frequency of changing used absorbent materials

In total, 81% and 91% of girls in public schools and private schools respectively use sanitary pads only. Respondents explained that school’s toilet did not offer adequate privacy to change used menstrual material as often as they wanted. As observed, school’s toilet door locks were broken, with doors left open. Also, respondents explained that they either used the school’s urinal as an alternative place to change their menstrual material while at school. Although, it also did not offer adequate privacy, it was still a better alternative. For this reason, 67% and 40% of girls in public and private schools respectively do not change their used sanitary pads while at school. The study revealed that overall, students in both public and private schools did not wash their genitalia after changing sanitary materials, which is below standards per the requirements of WASH (Marni Sommer, 2012).

Absenteeism among girls in schools during menstruation

The study revealed that 8% of girls in public schools and 5% in private schools absent themselves from school during menstruation periods with reasons such as painful menstrual periods (Dysmenorrhoea) and heavy bleeding which may result in menstrual accidents. During menstruation, girls absented themselves from school either once (%), twice (%) or thrice (%) per week. This means that menstruating girls are likely to miss school 3% (9 times), 7% (18 times) and 10% (27 times) of the entire academic year for girls who absente themselves once, twice or thrice respectively. In the public schools, girls explained that during menstrual discomforts (dysmenorrhoea and general bodily pains) there are no first aid or rest rooms in schools to ease them off pains. The inherent pain therefore does not make them to fully concentrate on academic work. On the other hand, in private schools, a sick bay is available to deliver first aid administration to ease-off pain during menstruation.



Disposal method of menstrual materials

The study revealed that school girls wrapped their used menstrual materials with either toilet-roll/tissue or plastic bags before finally disposing it off. This prevents direct contact with used menstrual material and reduces the risks or transfer of infections to other people. In some cases, girls preferred wrapping their used sanitary pads in polythene bags, temporarily storing it in their school bags before finally disposing them off at home. The results showed that 58% and 47% of school girls in both public and private schools respectively disposed of their used materials at home, after school. The school girls explained that there are myths about people scavenging for used pads disposed-off in bins around schools for rituals, thus the decision to dispose-off used menstrual materials at home. In some cases, too, school toilets did not have bins for proper disposal.

Education

Menstrual education

54% of girls in public schools and 51% of girls from private schools also obtained menstrual hygiene education from family members such as mothers, fathers and elderly siblings. The study revealed that schools offered some education on menstrual hygiene to girls. The results obtained indicated that for both public and private schools, girls do not depend on the internet for education on menstrual hygiene management. Girls also obtained education from other sources such as seminars organised by church groups, television and radio programmes. The results show that the family plays an important role in delivering education on menstrual hygiene to girls.

Conclusions and recommendations

In general, the school infrastructure did not have adequate provision for menstrual hygiene management. Therefore, there is significant room for improving the WASH infrastructure in basic schools to improve

MHM to create a good learning environment for the menstruating girls and reduce absenteeism. The private schools had better WASH infrastructure/services that provide a better environment for menstrual hygiene management (MHM) compared to the public schools. Private schools had better facilities for menstrual hygiene management – availability of clean toilets with a good level of privacy, adequate water and the presence of a sick bay.

MHM was not part of a formal education curriculum, thus it is recommended that a standard teaching resource on menstrual hygiene should be made available to schools by the Ghana Education Service. Staff of schools should be trained to provide fundamental level of preparation and instruction on menstrual hygiene management to school girls. School authority should be responsible for providing girls with sanitary materials while at school to support any emergency situations.

Given that existing school infrastructure did not make adequate consideration for menstrual hygiene management, it is recommended that design criteria for schools should include changing rooms, a place for drying and ironing, offer adequate and appropriate facilities for collection, storage and secured disposal of used menstrual material.

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