

Menstrual Hygiene Management among Schoolgirls in Eastern Province of Zambia

Qualitative Research Final Report

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Ministry of General Education

About SPLASH:

SPLASH (Schools Promoting Learning Achievement through Sanitation and Hygiene) is a comprehensive school-based water supply, sanitation, and hygiene (WASH) project funded by USAID/Zambia through field support. SPLASH is implemented through the WASHplus project, which supports healthy households and communities by creating and delivering interventions that lead to improvements in WASH and household air pollution (HAP). This multi-year project (2010-2016), funded through USAID's Bureau for Global Health (AID-OAA-A-10-00040) and led by FHI 360 in partnership with CARE and Winrock International, uses at-scale programming approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under age 5 globally.

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Background

Menstruation is a natural physiological process for adolescent girls and women of reproductive age in which blood is discharged through the uterus and flows out through the vagina monthly for approximately two to seven days. The practical challenge of managing menstruation in low-income settings is compounded with socio-cultural factors that include negative perceptions of menses. For far too long, the subject of poor menstrual hygiene in these settings has been neglected and overlooked, not only by the water sector, but by the health and education sectors as well (House et al 2013). Although the topic is finally gaining traction in the international development community, the lives of girls and women continue to be adversely affected by a range of barriers that inhibit their ability to practice acceptable menstrual hygiene management (MHM).

The education of girls is inherently an important objective in terms of gender equality, but female education also intersects with a number of health and development outcomes such as contraceptive use, fertility, maternal death, child survival as well as wider economic benefit, particularly in low-resource settings (Sumpter and Torondel 2013; Sommer and Ackatia-Armah 2012). Clearly, MHM is related to water, sanitation, and reproductive health, but it is also inevitably linked to the issue of gender inequality, and closing the gender gap in education. Of particular concern is the potential negative impact that inadequate MHM has on the schooling experience of adolescent girls due to structural and gender-discriminatory factors in their environment (particularly the schooling environment), as well as other factors at the individual, interpersonal, and community levels.

Girls' education and the onset of menstruation collide as girls make their way through oftentimes girl-unfriendly school environments in low-income countries (Sommer and Ackatia-Armah 2012). These conditions have been described elsewhere (Sommer 2010) as 1) a complete lack of latrines or when latrines are inadequate in number, quality, design, safety, and privacy; 2) insufficient (clean) water available within close proximity to the latrines, and/or water is not available inside latrines to provide privacy for washing hands and washing menstrual stains out of clothes; 3) lack of adequate mechanisms for disposal of used sanitary materials; 4) lack of a private area for washing, drying, and ironing of menstrual cloths. Therefore, to ensure girls' successful academic outcomes, we need a better understanding of the barriers to MHM in school and how these barriers have the potential to disrupt a girl's education (Sommer 2010).

Definition of Menstrual Hygiene Management (MHM)

Women and adolescent girls use a clean material to absorb or collect menstrual blood, and this material can be changed in privacy as often as necessary for the duration of menstruation. MHM also includes using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials (WHO-UNICEF 2012).

Program Context

Schools Promoting Learning Achievement through Sanitation and Hygiene (SPLASH), a five-year school WASH program funded by USAID/Zambia, along with partners including the Zambia Ministry of General Education (MGE), UNICEF, WaterAid, and others, was committed to addressing menstrual hygiene management through a comprehensive school-based initiative. Previous research provides good evidence that “educational interventions can improve MHM practices and reduce social restrictions” (Sumpter and Torondel 2013). The SPLASH MHM effort included the following components in the context of its school WASH program: breaking the silence through advocacy, girl-friendly sanitation facilities, training of male and female teachers, providing educational materials, supporting local pad production, and educational activities such as MHM fairs for students and PTAs.

SPLASH worked in four districts in Eastern Province (Chadiza, Chipata, Lundazi, and Mambwe). The number of primary schools reached in the four districts totaled 499 with a pupil population of approximately 246,000. SPLASH provided WASH infrastructure improvement and hygiene education in and out of the classroom; strengthened school WASH governance structures at district and province levels; created partnerships in support of school WASH; and advocated for a national school WASH program within the MGE School Health and Nutrition program.

Equity and inclusion, with a special focus on keeping girls in school, were woven throughout the SPLASH program. In Zambia, the conditions for young girls to manage their menstrual periods in basic schools range from difficult to dangerous. Anecdotal evidence suggests that girls miss weeks of school due to cultural and environmental barriers to proper MHM, as well as due to the lack of an adequate community or school support system. As in other low-income contexts, dropout rates for girls in Zambia appear to increase after puberty. For example, although the net attendance ratio for primary school participation for girls is 82 percent (2007–2011), these figures decline when looking at overall secondary school attendance—only 41 percent of Zambian women aged 20-24 have attended secondary school or higher (UNICEF 2013; Zambia DHS 2007).

As part of SPLASH’s commitment to addressing MHM and in support of MGE efforts to accelerate initiation of MHM activities in Zambia’s schools, we undertook qualitative research to understand the challenges faced by menstruating girls in school in the Eastern Province of Zambia.

Objectives

The overall purpose of this study was to identify the experiences and challenges schoolgirls faced in hygienically managing menstruation during school hours and explore its effects on school attendance and learning. Research that examines the ways in which MHM influences girls’ daily

lives and freedom to learn in the Zambian context is lacking. Therefore, the research described below was implemented with the following objectives:

1. Determine the prevailing knowledge, attitudes, perceptions, norms, barriers, and practices related to MHM primarily among adolescent schoolgirls and other target groups in selected rural and urban basic schools in Eastern Province
2. Identify facilitators to improve MHM from the perspectives of primarily adolescent schoolgirls and other target groups, including suggestions and strategies

Study Design and Methods

The study took place in the Eastern Province of Zambia where SPLASH program activities were being implemented, specifically, in selected rural and urban basic schools in the districts of Chipata, Lundazi, and Mambwe. The study drew heavily upon previous research carried out on MHM in Africa and South Asia by experts working in this relatively new field.¹

The study utilized a qualitative research design including a series of focus group discussions (FGDs) and key informant interviews (KIIs) with target populations in selected basic schools. The FGD guide was developed for adolescent girls, and was pretested and adapted for use with all target audiences, as well as for the KIIs. The eligibility criteria for the FGDs included the following: adolescent girls in grades 6, 7, and 8 (including ages approximately 12 to 15) who have begun menstruation; adolescent boys in grades 6, 7, and 8 (including ages approximately 12 to 15); and mothers and fathers of adolescent girls who have begun menstruation and are in grades 6, 7, and 8 (note: parents and pupils were not interviewed from the same families). Key informant interviews were conducted in 2015 with school teachers (head teachers), school staff (guidance and counseling), and influential community women (i.e., traditional teachers/mentors popularly known as *Alangizi* in Eastern Province) who teach girls about life skills and puberty.² By selecting both urban and rural schools, we aimed to assess MHM in a range of schools with different degrees of WASH facilities available and different prevailing cultural norms. The full protocol for this study was approved by both the local Ethics Committee in Zambia as well as FHI 360's Protection of Human Subjects Committee prior to implementation.

After receiving the needed approvals to conduct the study in schools, the research team worked closely with school officials and head teachers in selected schools to help recruit adolescent boys and girls who met the specified eligibility criteria. Individual assent from students as well as parental permission was attained for those who voluntarily agreed to participate in the study. Audio data were transcribed verbatim into MS Word files, translated into English, and imported

1 For example, studies carried out on MHM in the Philippines, Bolivia, and Sierra Leone may be accessed through the United Nations Girls' Education Initiative website found here: http://www.ungei.org/resources/index_483.html

2 Note that the findings presented in this research brief relate only to those results from the FGDs for girls and boys.

into the NVivo qualitative software package to facilitate coding and analytical review, including indexing, categorizing, and theorizing.

Key Findings

Overview

The 16 FGDs with girls and 12 FGDs with boys provided the opportunity to further explore the meaning and understanding of the relevant issues with regard to MHM and emphasize the voices of the participants through quotes. More specifically, the study collected qualitative data via FGDs to identify general knowledge, attitudes, perceptions, norms, barriers, and practices around menstrual hygiene management among adolescents in three districts of Eastern Province. The FGDs also focused on identifying the perceived facilitators of MHM, including school and community strategies. Participants were asked their general views on not only what they think makes it difficult for girls to manage menstruation with minimal discomfort or humiliation, but also what makes it easier to do so for girls in the community. They were asked about strategies or solutions they had heard of that girls use to deal with pain, the lack of supplies, teasing, and a host of other factors related to what girls in the community do to cope in general with their periods. It should be noted that the FGDs did not ask participants about their personal experiences, but rather about their views in general on MHM and on what they perceived to be “typical” in the community, in order to better understand community and social norms around MHM.

Key Findings for FGDs with Girls

Girls' Knowledge and Understanding of Menstruation

In the FGDs, girls shared a lot of information about what menstruation is, namely, that it entails bleeding monthly. Girls talked about the onset of menstruation as signifying a girl's "*coming of age*" and "*growing up*." They described bleeding for varying lengths of time during one's period. Some said it was to remove what is "*dirty*." Often, having one's period was referred to as "*attending*" and sometimes as "*getting sick*."

Illustrative quotes on menstruation:

"Period is growing up. ...Growing up when you start to remove [lose] blood."

"Monthly period is that time when a girl has become of age..."

"What happens is that when you are menstruating, you remove blood, that's all, and then the parents will know and the village that this child has reached the puberty stage."

Many participants spoke about the potential (and risk) of becoming pregnant once girls had gotten their periods and were now mature. Some talked about birth control, abortion, and abstaining from sex or stopping "*playing with boys*." Participants talked about how to know when they were pregnant, for example, if they missed their periods (for a month, or one said for three months). Participants sometimes talked also about tracking one's period, and that it may come every month on a certain day, or roughly on the same day as in the previous month, or that it may be less regular.

Illustrative quotes on fertility:

"When you are about to start period, and you have sex with a boy without condom, you can get pregnant, so when they get pregnant, this is when others they abort, that's all."

"When someone has become of age, she is not supposed to sleep with a man because she can get pregnant."

"You will have a period every month, so if you don't have a period for three months, then you are pregnant."

Girls described a range of premenstrual symptoms and physical maladies brought on by monthly periods. They often mentioned stomach aches and "*stomach problems*" and a few talked about nausea: "*at times you feel like vomiting.*" A few participants commented on feelings of weakness, "*when one is about to start period, they feel weak*" and another, "*legs becomes weak in all the joints.*" One participant said that a girl might go home from school to sleep because it is too hard to manage the pain at school.

Illustrative quotes on premenstrual symptoms:

"...the period starts with stomach pains, it pains and pains then you see that blood comes out."

"When you start to have painful breasts, maybe a headache, or stomach pains, you know you are getting your period."

"That guidance teacher when she just says, how are you feeling, it's to say that I'm feeling stomach pains, so we can't manage to be in class but [need] to go home to go and sleep."

Frequently, girls talked about the increased need to bathe and wash properly during menstruation, and perhaps in general after they had reached puberty, although the distinction at times was unclear. Participants also discussed social problems that might happen if they began to smell bad around their friends and classmates, and wanting to avoid that. On a related note, girls also mentioned having to go home from school because of this issue, and needing to change pads regularly.

Illustrative quotes on bathing during menstruation:

"When they are attending without bathing, they start to smell, you find that your friend is stinking in the classroom or you find that when it's at school, during break time, she

will run away and go home.”

“When blood is coming out you need to be bathing because if you don’t bathe you will be smelling, people they will know that you are having period, so you need to be bathing, you do so in the bathroom, bathe nicely and make yourself clean then wear another pad...”

Learning about Menstruation

Usually or almost always girls reported that they learned about menstruation from other female family members, particularly older females. Girls reported that they most often initially heard about monthly periods from their grandmothers, as well as from their mothers, and other female relatives and friends. In every FGD, girls named one or more members of their families (extended and/or immediate) as sources of information on menstruation. In some instances, participants also talked about not actually knowing about monthly periods until they started menstruating. In addition to learning about monthly periods from family members, girls also mentioned school as a source of information on this topic.

Illustrative quotes on learning about menstruation:

“Grandmother teaches you everything, when you are chatting in the evening after she has made a fire, then she will tell you stories about monthly periods, when you become mature, as a woman, you need to do this.”

“At school the teacher teaches us when we come to science, that’s when we learn.”

“Sometimes they [periods] come fast, when you are young and it will just happen to you, then you tell the parents that this has happened to me.”

Influence of Menstruation on Girls’ Daily Lives

In almost all FGDs, participants talked about how having periods affects the daily lives of girls. In addition to issues around hygiene and the need for bathing, and premenstrual symptoms, as mentioned earlier, girls also discussed their emotions and feelings associated with menstruation. For example, the stigma of monthly periods was one of the areas of daily life that affected girls.

They reported feeling shy, embarrassed, irritated, inhibited socially, frustrated about having periods, and self-conscious about whether others would know or smell that they were having their period. Many of those feelings were related to the stigma surrounding menstruation that they encountered in their daily lives and in social relationships (e.g., at school).

Illustrative quotes on influence of menstruation:

"Sometimes when they send you to go somewhere you don't feel comfortable with period, because you start to [walk] on the road you start to think that people are now 'feeling' the smell or they are looking at you. So most of the times it's not good."

"It affect[s] [you] because it embarrasses if you didn't dress properly like here at school, then blood spills on the floor, so if the boys see it they will start to talk about you to say she did this, then...like that just talking about you."

"If your friends are playing, you will be just looking at them when we are attending [have our periods] because you can't play that game which involves jumping, jumping, so these things will come out."

"When you start period and then you have started from home, then you to start [to] think what about school? Then you just stay at home because of period."

Use of Pads and Materials to Manage Menstruation

Girls discussed the kinds of materials they used to absorb blood while menstruating, as well as where they obtained those materials. In all but one of the focus groups, participants reported that girls use both pads and other materials to manage their periods. (Girls in all focus groups [16/16] said girls use pads; girls in nearly all of the focus groups [15/16] said they use other materials/cloth for their periods.)

Girls mentioned buying pads from stores and making pads by hand, especially when there was not enough money to buy pads. To many girls, store-bought pads were preferable, in part because materials to make home-made pads were uncomfortable: *"Those materials they really*

burn between the legs, blisters comes out.” On the other hand, one participant thought that the chemicals in store-bought pads could cause cancer.

Illustrative quotes on managing menstruation:

“When I am having period I use pads but I heard other people [say] that they use pieces of materials or maybe blankets.”

“And those who don’t have money to buy pads they use materials (*mwele*) as long as money is not there, those materials they really burn between the legs, blisters comes out.”

“There [are] pads in two types here, those for buying and those that they taught us here at school to sew with materials.”

Some material used during periods was called *mwele*, and in other FGDs, girls said they used *chitenge* (a type of fabric, similar to a sarong, often worn by women wrapped around their waist or chest). Others said they used blankets (because they were absorbent), diapers, napkins, or other bits of cloth. Several girls described in depth the process of making pads and the kinds of materials used. They sewed them at school and “*in the village.*” In some cases, it sounded like a long process, for example, when sewing on buttons and fasteners, or folding and using rope (likely string), or tying pieces of material together.

Illustrative quotes on home-made pads:

“They get a piece of cloth, cushion, and sew, then they put some supporting ropes [strings].”

“You sew that material then make place where to put a cloth then put a button this side so that it should be closing the pant so that when walking or running it does not fall down, they do it like this the pad.” [She demonstrated how local pads are made.]

"When wearing your button this side and that side so that when playing it does not fall down because its stick to the pant."

"Others they use diapers because [if] you cut that diaper on the middle it takes time for blood to get full there, so you can wear it from 8 hours to 12 hours without blood getting full in the diaper."

Participants talked quite a bit about how pads were given to girls by teachers, and how there were varying levels of support from teachers. One teacher urged them not to be deterred from going to school because of a lack of materials. It appeared that many schools seemed to supply them.

Illustrative quotes on getting pads from school:

"You are having period, you need to be going to the madam, tell her that madam, I am like this and then she will give you a pad. Don't feel shy that's what I can say, at school you should not be staying away because you will be missing out [on] some lessons instead of you just getting a pad."

"People who give information are the guidance and counseling [teachers], sometimes they call us every month on [what] we are supposed to do. They also show that we should not be filled with shyness, you need to come to that office to get pads, don't feel shy because she is a madam, just go there and tell the madam this and this, then she will give you [a pad]."

Effects of Menstruation on Girls' School Lives

Many girls, in almost all of the focus groups, discussed menstrual blood leaking through their clothes and/or onto their seats as significant problems girls experience while in school. Whether this had happened to the girls personally, or to their friends or other classmates, such experiences brought embarrassment and shame. They gave many concrete examples of this happening to other girls in school. There was substantial concern and fear that it *could* happen,

since pads were not always sufficient to absorb the flow and prevent leakage. Also, periods could come unexpectedly, or when a girl is unprepared (e.g., without pads or the right pants/clothing). One participant said this had happened in class to a girl who did not yet know about periods.

Participants reported that such incidents could also cause social and emotional problems. For instance, girls reported being teased, and feeling inhibited or isolated from others: *"You can't feel free."* They often described being laughed at, especially by boys: *"The boys will be laughing at you."* They talked about girls worrying that everyone would know they had their periods, and that girls sometimes stayed home from school because of the stress. Some said various rumors circulated about girls who had their periods. Girls described some of the emotional effects of dealing with their periods in school, such as feeling upset, *"guilt,"* ashamed or *"shameful,"* or afraid that others would find out they were menstruating. Many described girls feeling *"shy,"* in other words, embarrassed, self-conscious, and inhibited. These feelings came up when, for example, blood leaked through their clothes at school, and when others saw and knew they were menstruating.

Illustrative quotes on problems that could happen at school:

"It's because when they want to answer a question, when standing up, she feels shy that blood will come out and her friends will laugh at her."

"When she stands up, she used to put a jersey or maybe where she used to sit [on her seat]. When she is coming to school, she always ties a jersey around her waist and another one in the backpack."

"Because if period starts from school that means boys will be laughing at you, if the skirt becomes dirty. Aah the boys will be laughing at you in class."

"We had a friend in class it was her first time, after [when her] period started, she didn't have the money to buy pads, she used to use tissue, so whenever she comes to class, maybe she is wearing tissue, you find that blood has spilled on the skirt then she is told to go home. The following day she comes again, she didn't have the money to buy pads then blood again spilled on the skirt."

Difficulty concentrating, or feeling distracted by having to deal with one's period, was another problem associated with menstruation and discussed by numerous girls in the majority of groups. Participants described physical pains—mostly stomach aches (or cramps) and generally feeling “sick”—that negatively impacted girls' concentration in school and the likelihood of even going to school at that time. Several also described feeling very tired and sleepy during their periods. Furthermore, participants said girls were worried about: others (boys, classmates, male teachers, everyone) finding out they had their periods; others thinking they smelled bad; and standing up in front of the class, etc. Many were preoccupied about how to physically and logistically manage their periods and avoid leakage. They said it was hard to concentrate on what the teacher was teaching; even if they knew the answer, they were too shy to say it. Girls agreed that menstruation consumes a lot of their thinking in school. A couple of girls said it was easier to concentrate if they knew when to expect their periods, and suggested tracking the dates on a calendar: *“If may be you want to be remembering fast on your own you can write a calendar.”* One remarked that it used to be more difficult to concentrate back before their schools started providing pads, saying *“aah it's better, there [are] pads, we are now moving on the same page [as] boys...”*

Illustrative quotes on difficulty concentrating:

“Others feel as if they are sick, so even if the teacher is teaching in class, they won't get anything.”

“When the teacher is teaching she will not concentrate, she will be thinking that when she spoils her uniform and friends will laugh at her, so she is not all that free...”

“They don't concentrate when the teacher is teaching, they think about [their] period, and what am I going to do with what I am wearing.”

Influence of Menstruation on Girls' School Attendance

In almost all FGDs but one, participants talked both about girls not attending school because of periods, and about the difficulties encountered when attending school during their periods. Some of the reasons given for girls not attending school during their periods were: physical pain; discomfort and fatigue; heavy bleeding; leaking through clothing; fear that everyone will know or find out that they are menstruating; shame and embarrassment; not feeling free to be with friends or classmates; not feeling comfortable around males; and washroom facilities not being available, or being outside, etc. Several participants said that girls might leave school early (at break or in case of any problems or embarrassment—especially if they've soiled their clothes), and another said a girl might come to school late on period days. Some said girls might

stay at home for the duration of their periods, whereas others described more short-term absences. In one discussion, girls remarked that teachers might support and commend a student who wants to stay in class during her period, while another teacher might *"tell you to go home and bathe and come back tomorrow."*

Girls talked about problems resulting from not attending school regularly, such as falling behind in lessons, failing school exams, and hurting one's future prospects. More specifically, several participants said that monthly periods negatively impacted girls' abilities to take and pass exams at school. Some participants said girls were sent home early or missed tests entirely because of their periods, and others said it is hard to concentrate when girls have stomach aches and don't feel well because of their periods. Furthermore, during their periods, some girls are unable or unwilling to attend school. They get behind then, and may even miss parts of lessons when they are in the bathroom, washing up, and changing their pads.

Illustrative quotes on influence of menstruation on school attendance:

"...they will be just laughing, even those children who are not matured will be just laughing at you, ... and you feel guilt, you just go home and go for good, you stop school, maybe you will be just staying away from school, you think aah when I go to school they should be laughing at me, I will just stop. You stop school and kill your future..."

"And others, those who get sick with stomach pains, they even cry with their stomach [pains] so ... they can't manage to come to school."

"There are others who are shy, they don't tell the teachers they just leave and go home."

"Sometimes why they come late it's because [it takes a long time] for them to prepare themselves and dress properly, because when having [your] period you don't have that dress code when [you are] not having period, they become disturbed so that to prepare and dress properly it doesn't come out (work), and then sometimes they come late to school."

"They don't come to school, so a lot of lessons will bypass her, and when it comes to test then she will fail."

"For example maybe during the exams, if [your] period starts in the exams room, they will remove you from the exams even though maybe you were on question 1, they will remove you from the exams and say go and make yourself clean, you will make the classroom to stink and then you will be disappointed and then you will start to say so I have missed my exams, so instead of you passing you will fail at the end."

Key Findings for FGDs with Boys

Boys' Understanding of Puberty and Menstruation

To gauge boys' understanding of girls' experiences with MHM, boys were asked about their understanding of puberty and the changes girls go through at this time. Boys from all FGDs discussed some of the physical and biological changes that take place, including how girls' bodies start to develop, they start to menstruate, and also become fertile. Boys often commented that they perceived a smell from girls' periods, and said that this change required girls to bathe regularly and wash often. Boys talked about the need for girls to remove the smell that they perceived as being associated with periods. In terms of understanding menstruation, boys were not informed on the biology or the process of menstruation.

Illustrative quotes from boys on girls' physical and biological changes:

"What I can say is that when a girl starts menstruating the shape from the back changes, she can even dance. The way you see these children, we see them when they are moving and when they grow up, their backs shake when they are walking. And the breasts also grow."

"They go through changes such as their breast developing and also their hips come out and also the voice increases."

"Girls they bathe all the time to remove bad smell..."

Illustrative quotes from boys on understanding girls' menstruation:

"They even start producing ovaries."

"Girls they develop the eggs; when they are nervous those eggs break... That's when blood comes out."

"I wanted to say, blood starts to come out when eggs are broken, that's the starting of period."

"A girl when she develops the eggs, so when those eggs break, then that girl will be attending [have her period] and blood will be dropping."

Boys' Perceptions of Girls' Menstruation at School

Boys were asked about how they thought having monthly periods affected the school lives of girls. A prominent theme that was mentioned across all FGDs was that menstruation affected girls' school attendance and absenteeism, and boys cited a range of factors that contributed to this. For example, boys mentioned that girls were stressed about missing lessons while they were in the washroom, thus getting behind their peers; girls may be worried about starting to bleed in class and not being prepared; girls would be distracted and upset that fellow classmates would know; girls would not be able to be open with their friends when they had their periods; and girls were not able to change or wash up because schools do not have washing facilities, among other suggestions. Boys also appeared to discourage girls from attending school while they are menstruating.

Illustrative quotes from boys on school attendance and absenteeism:

"The problems they face sometimes is that they have to absent themselves from school at times because if they start menstruating at school, there will be no help. They will think that when they go to school, how they are going to stay with periods. Then they decide to stay home."

"The other problem is that when the girl is menstruating she goes to the toilet there and when they are in class then she misses some lessons. The friends will be learning while she is at the washroom."

"The pupils just saw blood on the floor and then the teacher came and got her but her friends laughed, she went home because here we don't have where girls can change from. At home she was told that until her period stops that's when she will start to go to school, which is bad because they miss what other friends are learning."

"Me I saw one in our class, there was once a girl in our classroom, as we were learning then she just entered the class then we just saw blood coming out... Then we went to tell the madam and then she was told to go home, that was before we had a washroom but now we have [one]."

Several of the FGDs with boys also described their perceptions about girls' emotions and social problems experienced when girls have their monthly periods, such as feeling afraid, ashamed, and hopeless, particularly in relation to having issues with leaking or soiling clothes, or being teased or laughed at. These factors were not only associated with what happens but also with what might happen.

Illustrative quotes from boys on perceived girls' emotions and social problems:

"Someone started [her] period and then her clothes was wet while seated but when she was about to stand she just saw blood. The friends started to laugh at her. Then she went home and started to feel shy to come to school. They stay away from school because of shyness and [that] her friends will laugh at her because of the blood that came out."

"She was seated since you know when a girl is menstruating they become quiet, we didn't know anything we just saw blood coming out, then the teachers told her to go home. She went home but us we

remained learning, so she missed her lessons and the way it was it was shameful.”

“Sometimes they fear that when they come to school without the pad the blood can come out. She is shy to stand up and go to the washroom.”

“Her friends will run away from her, to say you stinking woman, get out from here.”

“Others, when they put on pads and when they [their friends] discover it when they are in school, this when you hear like we laugh at them. Then they stop school because we are laughing at them.”

Interestingly, there were only two FGDs in which boys mentioned the physical pain and discomfort that girls experience when they have their periods. They noted that girls have stomach aches and weakness.

Boys’ Views on What Girls Need During Menstruation

In the FGDs, boys were asked about the kinds of things (e.g., supplies) that girls need for support with their monthly periods, especially while in school. The most commonly cited need for girls that was mentioned in all FGDs was for pads and absorbent materials, and appropriate pants or a change of clothes to wear with these. This is not surprising given the essential nature of these for menstruating girls. One participant felt that girls should get assistance in making these: *“Pads you make for her, she should not do everything alone.”* Another participant said, besides pads, girls need *“the materials”* (with which to make pads). The most lengthy, descriptive comment that demonstrated an understanding of the need for using pads is shown below.

Illustrative quotes from boys on girls’ MHM needs:

“What is needed for the girl to be helped when she is menstruating is, what they need is the pads, so that she can go to school and when the blood is coming out, it will be trapped by the pads. When she removes blood then she changes and puts on the other pads, this is how she can be helped.”

"We should help them with clothes such as pants if the periods start in class."

"[What girls need is] what to use like clothes and medicines so that they are okay."

In addition to the need for pads and materials, boys in the large majority of FGDs also mentioned that girls need adequate WASH facilities for effective MHM in schools. In some cases, participants explicitly mentioned the need for soap and dishes/containers with which to bathe or wash up. Bathing was a topic mentioned often throughout the focus groups. As one participant said, "*she has to bathe three times a day.*" Participants emphasized the need for cleanliness and "*keeping herself clean.*" Others said, bathrooms were needed for washing hands, medicated soap was needed, and finally, "*Water should always be there, and a clean cloth.*"

Illustrative quotes from boys on the need for WASH facilities:

"She is supposed to be clean, bathing all the time because she is attending [having her period] and also washing the cloths. She has to make sure that where she sleeps is cleans, clean the blankets and also clean the environment, sweep the surroundings at home. Latrines should be there; she should just be keeping herself clean."

"The school is supposed to have a bathroom... so that when she bleeds at school she bathes."

"To be provided with all the equipment they need to keep clean and also hygienic... like pads, tissue and bathrooms."

Discussion

The table below summarizes some of the barriers to acceptable MHM that have been cited in the literature and that have been identified in our study, as described above. Using a socio-ecological model for change as a theoretical framework to guide this research, these barriers are grouped according to different levels of intervention (i.e., individual, interpersonal, community,

and environment).³ Using such a model can help us address MHM by finding key determinants to build interventions around, for example, addressing knowledge, skills, and motivation needed; desired modification for social and gender norms; providing girl-friendly, private sanitation facilities or products; or what would constitute an appropriate enabling environment. Moreover, this framework can be adapted further to think through and identify facilitators at the individual, interpersonal, household, community, and environmental levels that can help in effectively managing menstruation among girls in school.

Barriers to Menstrual Hygiene Management

Individual

1. Pain during menstruation
 2. Fear at onset of period
 3. Feelings of shame
 4. Fear of leakage and staining clothes
 5. Anxiety and concentration problems in classroom
 6. Lack of access to pads or other absorbent materials
 7. Inadequate guidance on how to practically manage menses
-

Interpersonal

8. Exclusion from everyday tasks (e.g., cooking, socializing, and interacting with others, cleaning, touching water)
 9. Harassment/teasing by male students, teachers, and other girls
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Community

10. Norms around menstruation as “taboo”
 11. Misinformation/misunderstanding spread about menstruation
-

Environment

12. Inadequate WASH facilities for MHM in schools for washing and changing pads/cloths hygienically
13. Lack of proper disposal options at schools for used menstrual materials
14. Inadequate privacy and lack of gender-segregated toilets in schools
15. School rules that limit access to WASH facilities when at school
16. Lack of MHM products and trained teachers at school

(Sources: Sumpter and Torondel 2013; Sommer and Ackatia-Armah 2012)

The results of the MHM Formative Research described in this document largely confirm the more anecdotal descriptions of the barriers and subsequent facilitators to managing menstruation in school that SPLASH built its MHM program around. The MHM program

³ This framework was developed under the Communication for Change Project (C-Change) and included in the C-Modules. C-Modules were developed by C-Change, funded by USAID under Cooperative Agreement No. GPO-A-00-07-0004-00, and are available here: <http://www.fhi360.org/resource/c-modules-learning-package-social-and-behavior-change-communication>

experience within the SPLASH project illustrates how these barriers can become facilitators in a relatively brief period of time. The launch pad for the program was the construction of washrooms or adapted girls' toilets for "senior" girls in 231 schools, specifically for MHM. In start-up meetings with the schools, the PTAs, and community officials, SPLASH staff raised the subject of MHM needs of schoolgirls and this engendered a continuing exchange of beliefs and ideas. It turns out that the link between managing menstruation and staying in school had not really been understood by the community, and parents and teachers had possibly considered this challenge to be the norm. Once it was highlighted as a serious issue to be addressed for keeping girls in school, communities were motivated and norms began to change. In less than a year of MHM program implementation, a formerly taboo subject became an open discussion topic.

Under the SPLASH model, providing MHM facilities such as washrooms addresses the environmental barriers in the socio-ecological model of change, while the educational outreach to the parents and community addresses the set of "Community" barriers. SPLASH addressed the other barriers—Individual and Interpersonal—with a range of activities often devised and implemented by staff and teachers with creative ideas. All schools understood and sought ways and means, often with the close collaboration of PTAs, to keep a steady supply of consumable hygiene products, including menstrual pads, toilet tissue, and soap, available for students. MHM also became a theme for student WASH Clubs that allowed knowledge sharing and shaped activities such as pad making in which both boys and girls happily participated. Teachers in SPLASH-supported schools underwent special MHM training that allowed them to more fully understand the biology of menstruation and the high cost of lack of MHM in schools. Teacher involvement led to the construction of many female teacher toilets to also meet their needs and to attract and retain females in more remote schools, and engaged male teachers as MHM champions. Teachers in Chipata were inspired to organize an MHM Exhibition for local schools and PTAs, with stands and booths on MHM-related themes such as nutritional needs of menstruating girls, how to sew a pad with local materials, and teaching/learning games on MHM. All of these program activities serve to overcome individual and interpersonal barriers.

The formative research field work started in 2014 during the second year of SPLASH's MHM program. MHM as a subject for discussion—let alone action—was unheard of at the start of SPLASH, although individual teachers described the extreme challenges girls faced in managing their menses, such as 500 girls sharing three broken down latrines with no doors, and others suffering infections from not being able to or not knowing how to change pads. While many of these challenges and barriers are still in existence, the responses in this research report are peppered with references that show barrier breakdown, from going to guidance teachers for pads, to expressing the importance of WASH in Schools with access to facilities, and boys feeling relatively free to engage in the conversation with some compassion for their female fellow students. Barriers such as these can be quickly taken down if something positive is offered in their place and everyone in the community is engaged. More description of the challenges and approaches for addressing the main barriers to MHM can be found in the following *Stories from*

the Field note prepared by SPLASH: http://www.washplus.org/sites/default/files/splash-mhm_success.pdf.

Conclusions and Recommendations

The SPLASH formative research on MHM provides a snapshot of conditions —barriers, attitudes—that prevailed at a certain point in time in Eastern Province just as MHM in schools was being launched. It corroborated the findings of the handful of qualitative MHM studies from Zambia and other African countries, and in fact shines the spotlight on troubling aspects of these conditions through the voices of the girls and boys who participated. This hopefully will be a motivator for moving MHM programs forward rapidly. In spite of the great progress that MHM is experiencing in schools and even some communities, the findings of this research point to the need for attention to specific areas of MHM that decision makers should take into consideration.

Key Recommendations Derived from the Research

1. Additional research or investigation is needed into challenges related to the disposal of menstrual products at school—this was outside of the current research that was conducted prior to schools considering (or barely considering) MHM. What is the most appropriate in different Zambian contexts? Disposable or reusable? Incineration or bin disposal? What about access to, use, and disposal of pads in boarding schools?
2. Puberty education should be emphasized by the various MGE systems such as SPRINT and guidance counseling teachers. It is in the curriculum, but in all likelihood teachers are not entirely clear themselves, possibly uncomfortable, and in need of additional support so pupils (boys and girls) are well informed.
3. Guidance teachers are crucial to creating a supportive MHM environment at school and their training in MHM and supervision should become a special point of professional training.
4. Boys are sensitive to the situation of their fellow female pupils and should be included in all MHM program activities. One intended result will be an end to the teasing and bullying experienced by girls at schools without an active and inclusive MHM program.
5. The MHM community should continue to advocate for the inclusion of MHM in the various MGE strategies, work plans, and budgets. This can include the construction of girl-friendly (and female teacher-friendly) sanitation facilities, supply of MHM products for school emergency stocks, and the development and implementation of MHM themed in-service training for teachers (general, guidance, and heads).

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