

**Teachers as School Health Agents: Exploring Views on School-Based Menstrual Health
Management**

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Abstract

Objective: This study seeks to understand the role that teachers, menstrual education, and school facilities play as mediators and barriers to Menstrual Health Management.

Method: Focus groups discussions with teachers were conducted in conjunction with the Menstrual Solutions (MS) study, an open cluster randomized proof of concept study with three treatment arms: usual, pads, and Mooncup. Six schools were randomly selected out of the 30 in the study, two from each study arm. Given the nature of the MS study, focus groups were conducted at three different points, baseline, follow up 1, and follow up 2. Topics focused on: cultural attitudes, menstrual management techniques, impact on education, the role of teachers in assisting adolescent girls, school curriculum on menstruation, the impact of sensitization, and the Mooncup.

Results: There were an average of 10 participants per focus group discussion. The teachers primarily spoke on their personal experiences with students in their classes, which informed the following emerging themes: embarrassment and blood, concerns of absenteeism, the role of teachers in MHM, and the impact of sensitization. Teachers noted that prior to the study, adolescent girls would absent themselves for 3-5 days during their menstrual cycle depending on what materials they could use. They would often shy away from teachers when possible, and only speak to them about their menses if it was urgent or they needed to go home. Much of this shyness stemmed from traditional values that dictated that menses be private due to their association with sex, or embarrassment as a result of stains and odor. Sensitization that occurred during the study, in addition to the menstrual items, positively impacted academic performance, according to the teachers. They described the girls as confident and free with them about their menses in follow up discussions.

Discussion: Teacher's attitude and knowledge of MHM influenced how adolescent girls navigated their menses at school. Teachers who were considered trustworthy were approached by girls more

often than those girls felt would tell others about her menses. In the school setting, teachers were sometimes the first to explain what menses were to girls experiencing it, making them an important influencer in how they learned to manage it. Teachers across all treatment arms saw the impact of this on girls' management of their menses and personal hygiene. These girls were also freer with their teachers, who saw them become more confident and open about their menses, improving the teachers' ability to support students. The study also saw the creation of the menstrual champion, a girl who shared what she learned in the puberty education classes with her peers so they could more effectively manage their menses. This knowledge may influence changes to school menstrual education, as it is an important mechanism for empowering girls to take control of their menses.

Introduction

Adequate menstrual hygiene management (MHM) remains difficult to attain for adolescent girls in low income countries (LICs). Oftentimes, girls are faced with lack of access to sanitary pads or other menstrual products, and are forced to use everyday items such as cloth, mattress pieces, or blankets, with some of these supplies not being properly sanitized before use (1). Lack of access to clean water and soap exacerbate this issue, preventing them from bathing or keeping their

menstrual products clean (1,2). These clear barriers are compounded by cultural attitudes, which demand secrecy about one's menses due to its association with sex and maturity, a task that is extremely difficult without the necessary products to address menstruation (3,4). With limited knowledge and guidance on menstruation prior to their first menstrual cycle, girls in LICs are faced with the difficult task of learning from female relatives, peers, or on their own, in order to maintain this secrecy, resulting in misconceptions and sub-par management techniques (4). Teachers, while a potential source of information given the role that schools play in MHM, are the least common source of information on menstrual hygiene for adolescent girls (1,4). This is likely because teachers have reported feeling unprepared to address this gap in information as they lack the training to do so, in addition to the cultural taboo associated with menstruation, resulting in them avoiding these discussions entirely (1). As a result of this lack of preparedness and social concern, girls have reported feelings of discomfort, embarrassment, and fear in relation to their menstrual cycle, with this added stress having a significant impact on their daily lives (3).

Combined, these issues increase school absenteeism among adolescent girls in LICs. As discussed by Sommers et al (5), MHM has a significant impact on educational outcomes, sparking the global recognition of it as an important issue in international development. MHM is an important piece in overall school health, which has been identified as a global priority by the World Health Organization (6). This initiative recognizes that schools provide an opportunity to engage children and adolescents on the promotion of healthy lifestyles (6). MHM plays a critical role in hygiene and sanitation, and is heavily influenced by WASH initiatives. As such, it is important to consider MHM in the larger context of school health when developing initiatives.

During menstruation, girls will stay home from school as a result of the pain from cramping, or the fear and anxiety of soiling their clothing in public (2,7). A study of 600 girls in Delhi, India

reported that 40.8% of girls would absent themselves from school during menstruation (7). Even while in class, teachers have reported that girls are often distracted by their period, visibly waiting until fellow classmates leave and followed by absences (1). Even when they do attend school during their menstrual cycle, some girls will refuse to wear a uniform or request to leave early to manage it, with varying levels of support from their teachers (1).

Schools, and teachers, play an important role in how girls navigate menstruation during adolescence. The facilities and environment at the school, in addition to the support provided by teachers, can heavily influence individual understandings of MHM. Existing studies of MHM indicate that girls in LICs have inadequate MHM skills to reduce the impacts on education (1,2,4,7). As such, it is crucial to investigate the school environment as a means for improving MHM, which can ultimately improve educational outcomes.

Methods

Study Area and Population

The study took place in Siaya District in Western Kenya, which is within the KEMRI/CDC Health and Demographic Surveillance Site (HDSS). The population primarily consists of subsistence farmers and fishers, the majority of whom are members of the Luo ethnic group (8).

MSS

These focus groups were conducted in conjunction with the Menstrual Solutions (MS) study, an open cluster randomized proof of concept study that assessed the cultural acceptance, use, satisfaction, costs and safety of menstrual hygiene products. A detailed description of the MS study

can be found in Mason, et al 2013 (2). Schools were selected based on reaching a minimum threshold of WASH. All schools selected were randomly assigned to three study arms, menstrual cups, sanitary pads, and traditional practice, with schoolgirls aged 14-16 attending those schools eligible to participate under certain criteria. In addition, the girls in the study had access to nurses, puberty education, and computers. The study was approved by the KEMRI Scientific and Ethical Review Board (SSC No 2198), and the Institutional Review Boards of the US CDC and the Liverpool School of Tropical Medicine (12.11).

Focus Group Recruitment

The research team randomly selected 6 schools out of the 30 schools enrolled in the MS study to conduct focus groups at, with 2 schools from each of the study arms. Both focus groups with adolescent girls (2,9) and teachers were conducted at the same schools with approval from the Head Teacher.

Given the nature of the MS study, focus groups were conducted at three different points, Baseline, Follow-Up 1, and Follow-Up 2, to gauge the impact of the interventions, which included a nurse on site, access to laptops, and either sanitary pads or the Mooncup, and the changes in teacher's views given these interventions. Only one school was unable to complete their baseline FGD (School 6), resulting in a total of 17 focus group discussions.

FG Approach

Semi-structured focus group guides were developed to standardize the discussion across groups.

Topics focused on: *cultural attitudes, menstrual management techniques, impact on education, the role of teachers in assisting adolescent girls, school curriculum on menstruation, the impact of sensitization, and the Mooncup.*

Focus groups were conducted in Luo with a moderator and a note taker. Both the moderator and the note taker were young Luo females that were fluent in both Luo and English. Discussions lasted between 78 minutes and 150 minutes and were tape recorded. Notes were taken to capture key points, group dynamics, and non-verbal gestures. All teachers that participated were assigned a number for identification in the transcript. The recordings were transcribed verbatim and then translated from Luo to English.

Analysis

The data was analyzed using thematic content analysis (10). The English transcripts were read several times by two researchers to develop an initial coding frame based on the key themes that emerged. The initial coding frame including major topics such as: (to be included at a later date). The transcripts were then coded by the lead researcher based on the coding frame, with additional codes added as new themes emerged. The codes were then shared with Kenyan collaborative partners to ensure cultural and situational relevance and alignment. Sub-codes were developed after the initial coding, with transcripts being recoded as necessary based on these additions. The completed codebook and quotes were reviewed by another senior researcher to verify consistency, interpretation, and add codes and subcodes.

Results

There were an average of 10 participants per focus group discussion. There was not consistent attendance among the teachers that attended these focus groups, as some teachers changed schools or were not available for each of the follow up discussions.

The teachers primarily spoke on their personal experiences with students in their classes, which informed the following emerging themes: emotions and blood, concerns of absenteeism, the role of teachers in MHM, and the impact of sensitization.

Emotions and Blood

The sight and smell of blood is a clear indicator of a girl being on her menses. When teachers or other classmates notice stains or smell the blood, they have had poor reactions to it, making girls feel more self-conscious and shy about their menses. Boys in particular are known for laughing and teasing girls about this subject. Despite significant attempts at privacy, girls ill equipped to manage their menses are inevitably faced with ridicule from others around them.

The type of menstrual product girls use plays a significant role in the manifestation of these reactions. As one teacher described, ‘this fear comes about because the girl knows very well that she is not protected and whenever she is going to stand, back there is going to be stained, and you can imagine that embarrassment with the boys and so on’ (P4 School 3, Baseline). Rags in particular are difficult to manage as ‘[they] cannot be held there tightly enough so the leakage will be there, their uniforms will be stained’ (P12 School 3, Baseline).

Even those with good menstrual hygiene supplies like a pad can have issues. If the pad is too old, it can start to smell: ‘when they come in the morning they do not carry another one to change, when it reaches afternoon the class starts to stink’ (P8 School 4, Baseline).

Some girls will attempt to hide these stains as a way of avoiding embarrassment. They use methods such as tying a sweatshirt around their waist or covering the stain with chalk.

‘Sometimes they come to ask for the permission they tie the pullover around the waist, you find that maybe she has stained the clothe, some of them take chalk when they have stained

the clothe, they decolour it,the stain to hide the stain, so you can think that that is a chalk stain, not blood stain' (Px School 4, Baseline).

Teachers must also manage stains and leaks when they occur in the classroom. One teacher had a system to address this in a manner that shielded girls from the reactions of boys.

'When there is stain, what I have done and what I usually do, I just send out the boys, after sending out the boys, you just go and run out, you just create something and then they will go out, then some few girls who are remaining if one is having a sweater, you wipe that place and then I tell her you go home now and change' (P7 School 5, Baseline).

The presence of blood can force girls to absent themselves from school out of either fear or necessity to change, impacting time in class. Once they are seen with a blood stain and teased for it, they are more likely to stay home for the duration of their menses. One teacher noted 'when these unexpected period comes the child becomes too shy because the pupils will be laughing at her so when the child goes home with that shame she will say no, I am not going back' (P11 School 5, Follow-Up 1). Teachers will sometimes send girls home to change as well. 'If a girl had started leaking which happens rarely, I would give her chance to evacuate the classroom and advice her that maybe, she goes home and do the necessary thing I gave her chance to' (P7 School 6, Follow-Up 1). This further increases the amount of time lost to instruction.

Concerns of Absenteeism

Teachers at all six of the schools noted issues of absenteeism of girls during their menstrual cycle. Girls would tell their teachers they were sick, without providing any details when leaving or returning from school: 'they will say I was sick, they will not say it openly; they will just say I was sick and that is all' (P4 School 4, Baseline). Some girls at baseline were not comfortable with speaking with their teachers at all. Sometimes they send some of their friends, just go and tell

mwalimu I am very sick, so they will come and say so and so is sick and would like to go home’ (P2 School 5, Baseline).

While few girls would tell their teachers about their menses, most of the teachers noticed clues that would indicate what the ‘sickness’ was. ‘They are shy they don’t want to walk, they don’t want to talk, she just want to remain seated’ (P12 School 2, Baseline). This mood change is associated with absenteeism, with one teacher noting their ‘moods change, some of them are too cruel to associate with others and that is one of the things that keeps them away from school’ (P4 School 2, Baseline)

Some teachers would question girls who claimed they were sick: ‘maybe it is a girl who has never ever been absent, so through some interrogation you realize that she is absent because of the menses’ (P10 School 2, Baseline). As noted by this teacher, while they may not directly say they are on their menses, teachers use clear cues to determine if their menses is the cause of the absence. Teachers identified three key reasons why girls would be absent from school while on their menses. The first was fear of their classmates seeing that they were experiencing their menses. ‘Some fear to be noticed by their fellows that they are on their periods’ (P9 School 3, Baseline). The second reason was attributed to not having access to adequate menstrual supplies: ‘most of these kids they do come from poor families and their parents cannot afford to buy them pads’ (P4 School 5, Baseline). The third reason teachers cited was menstrual cramps. They recognized that some of the girls ‘have severe stomach cramps [and] hence cannot go to school’ (P9 School 3, Baseline). The amount of time taken off of school varies. Most girls will take 2-3 days off, although this can vary depending on their flow. ‘Because some have heavy flow and others last for short, some can take three days and some even one week so it depends’ (P5 School 3, Follow-Up 1). Teachers noted that many girls would ask to go home and change, returning later that day. ‘I just mean when

they are attending, they ... ask for permission to go back home and change that material” (P11 School 5, Follow-Up 1).

School responses to girls missing class varied. Some schools would assist girls in making up the material.

Of course yes, whatever concept they missed during the normal learning process actually we bring this and tell them that they need to accomplish what other pupils had done in their absence (P5 School 1, Baseline).

Other schools are not equipped to handle the absences due to a large number of students per teacher, which they acutely recognized ‘Of course there should be something done like maybe remedial teaching, but you see with the current staffing that... may be some go like that undetected’ (P6 School 1, Follow-Up 1). Because of this, those schools are unable to provide individual support to girls that miss lessons as a result of their menses. ‘You cannot give attention to one pupil because she was not there, so you just have to go on with the lessons, so in case she was not around she just have to consult with the others” (P1 School 3, Follow-Up 1).

With the intervention, teachers saw improvement in absenteeism during both Follow-Up 1 and Follow-Up 2. ‘Absenteeism is totally minimized, they have been coming to school regularly and in fact they are neat nowadays’ (P4 School 2, Follow-Up 1). While it has not been completely eliminated, teachers note that ‘if you look at the frequency, it has reduced’ (P6 School 4, Follow-Up 1). Those that are absent are freer with their teachers. ‘Earlier on they never used to [tell teachers about their menses], but these days they are very courageous. They approach us and tell us why they were absent’ (P8 School 6, Follow-Up 1).

As a result, teachers are seeing an impact on academic performance. ‘The girls are always there, just like the boys have been attending regularly, so this result in the performance being better’ (P12

School 2, Follow-Up 1). Relating this back to issues related to unequal instruction of boys and girls, one teacher stated ‘this question of boys getting more learning hours per week per month per term is now a thing of the past’ (P8 School 6, Follow-Up 2).

The Role of Teachers in Menstrual Health Management

Girls spend a significant amount of time at schools in the presence of their teachers. In the focus group discussions, the teachers discussed the role that they play in menstruation as a result of their positions. Some noted that they do not feel prepared to address girls' concerns or questions about their menses while others felt equipped to support them because of their own experiences. ‘Okay with us teachers we know because we have daughters, we have gone through this so we know, so we just take it normal, talk to them and tell them that it is normal, it is healthy’ (P5 School 5, Baseline).

In certain cases, teachers are faced with the situation of teaching girls about menstruation and how to manage their menses. ‘There was a class seven girl that approached me, that I do not know how to use, I drew the pant diagram and I taught them how to use the pads, so I do not know whether I was wrong or right, but I taught them’ (P2 School 4, Baseline). Other teachers described how they referred girls to speak with their mothers when they first experienced their menses, feeling that the mothers were best equipped to explain what happened.

‘They do not know what has happened, so you are the one to find the best thing to do so most of the time we send them to their mothers because you know most of the time the girl is with their mother, and in this case, mothers always go through that’ (P5 School 5, Baseline).

The way teachers communicate amongst themselves regarding girls' menses has a large impact on if the students are free with teachers or not. These communities emphasize privacy, and when that

is broken girls become fearful of talking with teachers. ‘You find that amongst us, maybe one girl approach one teacher and by the end of the day her problem will be known by everybody’ (P6 School 4, Baseline). This fear can even lead to girls crossing assumed gendered lines. A male science teacher described how ‘she was telling me that, “I fear, there are some teachers that I fear that if I tell them, this thing will blow up tomorrow”’ (P2 School 3, Baseline).

There is a clear divide in the role teachers play based on their gender, despite some willing to cross it. The root of this stems from both student assumptions and teacher comfort. From students, teachers described that ‘they can go to any female teacher and explain, but they are very shy to come to male teachers’ (P1 School 3, Baseline). Male teachers also pass off this responsibility to female teachers, claiming that they have personal experience that can help these girls. ‘It’s like also they undergo the same problem or they underwent the problem, they have experience on how they did it when they were young, it might not be appropriate for the male to handle the issues compared to the female teachers’ (P12 School 2, Baseline).

When explaining why girls choose to and are directed to navigate school in gendered pathways as they do, one teacher related it to community tradition.

‘We cannot blame the male so much because it is like a tradition, because earlier on the girls were taught by their grandmother and boys by their grandfathers, so they believe that all that is in the life of girl should be in taught by a female and all that in the life of a boy should be taught by a man’ (P5 School 4, Baseline).

Teachers recognize that it is important for male teachers to understand and be able to support girls during their menses. One female teacher specifically called out the promotion of this gender divide by exclaiming ‘They should be able to handle what if there is a school that doesn’t have madam teacher will the girls suffer because there is no madam teacher!’ (P1 School 2, Baseline).

Through the intervention, girls have become freer with teachers across all study arms. In follow-up discussions, teachers noted that they saw how girls were more willing to tell them they were on their menses. ‘Nowadays the girls are even telling teachers that they have that problem, like long time ago it was very difficult for them to tell you that she is experiencing her menses or to talk about it with us ... but nowadays they take it as a normal thing to them’ (P1 School 4, Follow-Up 1).

This impacted the gender divide as well, with girls being more willing to talk to both male and female teachers about their menses. ‘They know how to take care of themselves, and it has made most of the girls very free that when one fails, in that they need to go and change, they don’t fear to approach male teachers, they will come and tell you teacher I am not feeling well because of abcd’ (Px School 2, Follow-Up 2). There are still girls that are nervous to talk to male teachers however, with one teacher noting, ‘they do not feel a hundred percent free with us, still they feel it is women affair, and so they feel that if they talk to us a lot about it, they do not feel confident’ (P6 School 5, Follow-Up 2). While girls may not be completely comfortable speaking with their male teachers, the changes from baseline indicate increases in freeness amongst girls.

The Impact of Sensitization

At baseline, teachers noted the need for girls to be sensitized as a means for improving MHM and academic performance.

‘You talk to them they don’t want to respond they are moody throughout, so I think what you should do is to sensitize them, tell them the changes that may happen in their bodies when they are menstruating, assure them that menses are things that are very normal and advice them on what to do when they are menstruating’ (Px School 4, Baseline).

Teachers see sensitization as a means for girls understanding their menses as normal. In their minds, early sensitization is a means for improving preparedness and wellbeing. ‘We need to sensitize them that this is a natural occurrence that at certain period in your lifetime and at certain ages it will appear and when it appears it should not shock you’ (P5 School 1, Baseline).

Teachers also noted the importance of sensitizing parents. As lead decision makers, economically and culturally, parents can play a significant role in mitigating or being a barrier to proper MHM. One teacher noted, ‘I think the parents should also be educated, because this is a case whereby a parent has got a daughter who they suspect that she is having menses, maybe she can ask the mother about it’ (P10 School 4, Baseline). Another teacher recommended public sensitization of the community as a means of reaching girls ahead of their period and parents. ‘So the best thing we could address this one through public sensitization, when the public is sensitized including the girls and the young girls continue interacting with the older girls from inside and the outside school, they will take it normal’ (P4 School 5, Baseline).

As a result of sensitization through puberty education during the intervention, teachers have noted changes in the girls personality. Specifically, they have noted that sensitization has contributed to a sense of normalcy about their menstrual cycle. Teachers recognized that in regard to their menses, ‘they have taken it to be normal and in fact that they are just okay, so that’s why they have become very free, they play around with others being that they feel that they have protection’ (P9 School 6, Follow-Up 1).

Teachers also saw reduced rates of pregnancy at the schools during the study. Much of this is attributed to the puberty education and girls learning their calendars. ‘Now all of us know what pregnancy is and what results to pregnancy, so during that puberty lesson that they have or they

normally undergo, they are told everything... they have their dates, they have those calendars, so they are being told everything there' (P4 School 2, Follow-Up 1).

Sensitization has helped address absenteeism in schools by helping girls be more prepared for their menses. Girls are better able to predict and manage their cycle: 'they know when it begins and when it will end, so they prepare themselves in such a way that when they know that today I might menstruate, so they come already prepared, so they do not waste a lot of time may be going home' (P7 School 4, Follow-Up 2).

The reduction of absenteeism is not isolated to the girls in the study. Teachers noted that:

Nowadays you find that those girls who are in the study educate those girls who are not in the study about the dates so you find that they know their dates exactly so that one minimizes their chances of going home because of the menstruation' (P4 School 5, Follow-Up 1).

This extension of sensitization recognizes the social clubs and groups that girls engage in at school. These groups serve as opportunities for girls to share what they learned in puberty education on their calendar and menstrual items, increasing the reach of the activities.

Discussion

Understanding how teachers view their role in MHM is crucial to developing interventions that adequately meet the needs of adolescent girls in LICs. The MS study shows the potential not only of the potential expanded use of pads and the Mooncup, but the importance of sensitization in improving wellbeing and academic performance. Through its evaluation of teacher perspectives of menstruation and the study, these focus groups provide an opportunity to understand the short term impact of the availability of nurses, puberty education, and access to improved menstrual

items. While the teachers primary focus was girl's academics, hygiene, and confidence, they also made a note of changes in drop outs, pregnancies, and loosening of gender norms in communication with teachers from the baseline focus groups. Recognizing these changes is critical, as it informs how teachers perceive menstrual education, hygiene, and menstrual items and their relationship with improved management of their menses.

It is important to first recognize that all the issues girls face in terms of their menses are interrelated. Negative emotions such as fear and embarrassment stem from stigma and tradition surrounding menstruation. This makes the pure presence of blood problematic and abnormal. The view of blood being unhygienic and its relationship with sex and pregnancy makes it taboo not only to discuss but to see. Those that are concerned about leakage and stains as a result of this will often absent themselves from school. This pattern has been seen across multiple studies (11-13). Interventions on MHM in LICs must recognize this cycle and seek to interrupt it in order to effectively encourage structural change.

This study recognizes teachers as crucial players in this space. Considering the significant amount of time that teachers spend with girls and the role they play in the community, their own knowledge and feelings towards menses can significantly influence girls' emotions towards their own cycle. As some teachers noted, those that would often tell other teachers about private conversations with girls were well known and avoided. Other teachers took it upon themselves to interrogate girls about why they were feeling ill, leading to further discomfort. In opposition to this, teachers known for being accessible and trustworthy were actively sought out. While many reported that girls were freer with teachers as the study progressed due to sensitization, it is critical for teachers to recognize their own impact on MHM. Several teachers recognized their own practices and the need for them to adapt to ensure girls were comfortable communicating their menstrual issues, however

it is necessary for teachers to take the next step and become active agents of change for girls. The freeness of girls not only relies on their own sensitization, but the support of teachers to create environments that allow for these discussions to be productive.

With the success of puberty education as a tool for sensitization in this study, it is necessary to look forward and determine how this tool can be better implemented in school education curriculum as a means for empowering girls to take control of their menses. Teachers discussed the potential for adjusting the existing timing of school menstrual education, in addition to offering it for boys. These moves are supported by a 2016 UNICEF report, which calls for the early start to menstrual education (age 5-8) and the education of boys (14). It does so with the recognition that successful management can increase academic performance, and proposes the implementation of a 'MHM-supportive institutional environment' (14). By creating an environment that is conducive for girls to manage their menses as they need, schools are investing in the academic success of these girls. School menstrual education is a key tool, as teachers noted that parents did not always teach their children about menses before onset. It also exposes girls to methods of management that parents may not be familiar with. As such, school menstrual education as a form of formal sensitization is a tool for empowerment, ultimately enabling girls to effectively manage their own menstrual cycle.

As girls became sensitized, their communication with teachers improved. As noted, they were freer with both male and female teachers. Despite this, some teachers, specifically males, still felt unprepared to explain aspects of the menstrual cycle or support girls. Whereas at the beginning of the study they would refer girls to female teachers or their mothers, during the study they would refer girls to the nurse. This indicates a need to improve sensitization of teachers as a means for making information more readily available to girls. In schools that implemented the play-based

approach to MHM in Ghana, where 70-90% of teachers were involved with MHM activities, girls were seen as more confident and able to talk to teachers than those at schools that did not implement this approach (15). Those teachers were also able to communicate their knowledge with parents, both mothers and fathers, further extending the influence of the sensitization (15). While some teachers in the MS study recognized they learned more about menstruation as a result of the study, there was no formal education for the teachers. As we look to future research on mechanisms for improving MHM, the sensitization of teachers presents an opportunity to increase the support systems available to adolescent girls.

The nature of the MS study led to only a sample of girls at each school receiving the intervention. Despite this, teachers saw the impact of the study among girls who were not enrolled in addition to those that were. While some girls exhibited signs of jealousy, others were taught the tools they had learned to help them better manage their own menses by their classmates. Mason et al. describes this phenomenon as the menstrual champion (9). Through peer support, girls were able to help sensitize their fellow classmates, thereby expanding the effects of the intervention (9). This points to two things. First, it suggests that puberty education can effectively be transmitted to a larger population through the sensitization of a small group. These focus groups suggest that these ‘champions’ are effective at creating change through the dissemination of knowledge. Second, peer support groups themselves are good conduits for discussing menses. While teachers alluded to girls using them to learn from older girls, this pathway to sensitization shows how the support group as a unit is able to transfer important knowledge within itself. Recognizing this pathway is crucial as we look to develop further school-based interventions.

As we consider the impact of sensitization on girls wellbeing, it is also important to caution schools and programs against the over medicalization of menstruation. While the biologic processes behind

menstruation are critical for effective management, medicalization threatens the recognition of sociocultural understandings that are important to understanding conceptions of menses. In describing the role of non-governmental organizations in MHM in low income countries, Joshi, Buit, and Gonzalez-Botero note that solutions controlled by donors are often focused on scientific/biologic processes, which involve the provision of menstrual items, painkillers, and WASH facilities (16). This ignores the local association of menses with sexuality and pregnancy and purports a concept of normalcy. It is through the push to advance these perceptions of what is normal that one's menses is viewed as a disease rather than an "essential biological function" (17). This is done through the promotion of a universal experience of menstruation that simultaneously pathologizes and universalizes the experience (17). That understanding is pushed by western institutions such as development agencies and NGOs, often ignoring the fact that the contextual relationship between women and menstruation still persists regardless of their actions (17). These universal conceptions of menstruation and the formal claiming of knowledge on the matter also ignore the inherent power dynamics that are present in these interventions (16). As we examine next steps for improving MHM utilizing schools, it is crucial to recognize the individual, culturally-tied experience of menses that girls have. Incorporating this understanding of menstruation will only further empower girls to manage it as it best fits in their own cultural context.

These focus group discussions present promising preliminary results for the MS study. There are some key limitations however. Not all of the teachers that were present at the Baseline FGDs were present for the remainder of the studies, and some people joined the focus groups for the first time during Follow-Up 1 or Follow-Up 2. While this inconsistency prevents some teachers from commenting critically on students before, during, and after the interventions, many who were new

to the focus groups were able to draw upon their previous experience which informed their decisions. In addition, their opinions are largely informed by the short term impacts of the interventions. As we look to advance MHM in LICs, long term study results will be important to inform policy priorities and practice. This study presents a key opportunity to further examine not only the impact of the menstrual item interventions, but the mechanisms through which sensitization operates and can be used to empower girls in these settings.

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