An Assessment of Menstrual Hygiene Practices and Absenteeism in Western Uganda

A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Public Health

By

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Abstract

Aim
To determine the routine menstrual hygiene practices in Kasese, Uganda and to investigate the relationship between menstruation and school attendance.

Background
MHM is fast becoming an issue on the agenda of those interested in gender equality and the development sector. Across the globe, particularly in developing countries, girls reach menarche and with it a number of restrictions and rules are applied as to how they should conduct themselves. Such factors, along with a lack of appropriate product or WASH facilities, have been previously cited as potentially contributing to school girls’ absenteeism.

Methods
The project was carried out in 30 schools in Kisinga and Bwera sub-counties in Western Uganda. Girls aged 14 and above were included. A mixed methods approach was adopted, combining a predominantly quantitative questionnaire and qualitative semi-structured interviews. Quantitative data was analysed using SPSS 20 software and inductive thematic analysis was adopted in order to analyse interview data.

Results
The mean number of days of school missed due to menstruation in a normal month was identified as 1.3 days (SD = 1.9), with the mean length of a period being 3.6 days. Girls were in the majority using cloth/towel to manage their menstruation, but found issues arose when trying to clean and reuse such products.
A lack of or poor quality of product, lack of WASH facilities and pain were identified as the three main reasons girls are absent from school during menstruation. In addition to this, girls’ general well-being and self-esteem was low when menstruating, and incorrect beliefs persist.

Conclusion
Menstruation contributes to school girls’ absenteeism in Kasese, Uganda. Girls are missing school because of poor product supply, water and sanitation facilities and a lack of pain management. Good MHM contributes to both physical and mental well-being, and is therefore an issue to be addressed.
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Abbreviations

MHM: Menstrual Hygiene Management

WASH: Water Sanitation and Hygiene

MMR: Mixed Methods Research
1. Introduction

1.1 Menstrual Hygiene Management (MHM) - Why it matters
The onset of menstruation, menarche, is a life changing event for girls across the world. Women form 49.6% of the world population (World Bank, 2011), and will menstruate on average a cumulative 6-7 years of their life (Mahon and Fernandes, 2010). However, in the knowledge girls have regarding menstruation, products or facilities available to manage menstrual flow, along with advice and support, the contrasts observed across the globe are quite shocking.

It could be argued that in the world of today, there are more complex issues to be addressed (Bharadwaj and Patkar, 2004), but providing women with the means and knowledge to practice good MHM has widespread repercussions.

Age at menarche may vary, but the majority of girls are still in school, resulting in inevitable consequences for their education (Montgomery et al., 2012). Therefore if menstruation is a barrier to education, it is an issue that must be addressed.

1.2 Background to the project: introducing Uganda and Irise
This study and longer term project aim to evaluate the effect of a MHM program on school absenteeism amongst Ugandan school girls. The project was set up as a partnership between Irise and ScHARR, to contribute to a larger study for Irise. The research team onsite consisted of two MPH students (including myself- an intercalating medical student) along with three other students acting as research assistants.

Irise is a non-profit organisation founded in 2011 by medical students at the University of Sheffield. It aims to educate and empower girls and women, particularly in East Africa (Irise International, 2013). Irise have previously conducted a pilot study in Kenya, examining the effects of menstruation on school attendance and teaching girls how to make the re-usable Mwezi pad (Irise International, 2012).
Their wider aims in Kasese, Uganda include involving local women to set up a reusable pad-making business as a social enterprise. Irise’s partner organisations were Luyodefo (Luhwawa Youth Development Foundation) in Kisinga and Caruwe (Community Action for Rural Women’s Empowerment) in Bwera. They acted as on-site coordinators in relation to recruiting schools to the study and provided local knowledge and translation throughout the research period.
Uganda is currently home to 33 million people (WHO, 2009) and gained its independence from Britain in 1962 (Mwakikagile, 2009). A coup by army commander Idi Amin in 1971 lead to one of the most terrible times the country has ever known (Mwakikagile, 2009). Since then, Uganda has been slowly rebuilding itself. Whilst there are still high levels of corruption, poverty and unrest, many areas are developing positively (Mwakikagile, 2009). Indeed, with regards to literacy rates, according to 2010 estimates, 73.2% of the population aged 15 and over can read and write (CIA, 2013).

This dissertation will be structured as follows: existing research will be examined and literature on the subject of MHM summarised. The methods utilised for this project will then be outlined, justifying choices and the research process in the field. Results from the research will then be discussed before offering the concluding points from the Irise project.
1.3 Research aims and objectives

**Aims**

- To determine the routine menstrual hygiene practices in Kasese, Uganda and to investigate the relationship between menstruation and school attendance

**Objectives**

- Carry out an in-depth literature review on the subject of MHM and its relation to education, water and sanitation and cultural beliefs
- Collect data on MHM and school absenteeism in Kasese, Uganda
- Use data analysis to identify whether there is a relationship between absenteeism and poor menstrual hygiene
- Determine the wider reaching impacts of menstruation on school girls' day to day lives
- Explore the difficulties the girls experience in managing menstrual hygiene

2. Literature review

It would be simplistic to view the issue of MHM independently; tackling this problem requires a focus on education, water and sanitation, poverty, cultural beliefs and women’s position in society. In order to consider the project within the wider research field, it is important to examine current evidence, more particularly within low income settings.

To carry out this literature review, databases such as Medline and Google Scholar were systematically searched. Keywords relating to menstruation, MHM, absenteeism, girls and puberty were selected as part of the search strategy. Additionally, reference lists of key articles in the field of MHM were reviewed, as well as resources found through Irise and their previous research.

2.1 Cultural beliefs and restrictions relating to menstruation

Across the world, many beliefs and myths surround menstruation. Girls are viewed as having reached "maturity", therefore many are removed from school to be married or to help at home, and consequently do not complete their education (Khanna et al., 2005; Mudey et al., 2010). Links to religious beliefs are strong. Muslims believe that women should not go to the mosque, touch the Qu’ran or fast during Ramadan when menstruating (Fetohy, 2007). Hindu
faith views women as “polluting”. They are not permitted to touch others or cook, nor can they attend religious gatherings (Ten, 2007). In Malawi, Pilliteri (2011) conducted a pilot study in seven secondary schools. She found that at menarche, girls were no longer allowed to play with boys or friends who were not menstruating, and were to bathe separately from others.

Myths surround the burning of used products, thought to cause cancer or infertility (Umeora and Egwuatu, 2008), and dietary restrictions are widespread (Ali and Rizvi, 2010; Nemade et al., 2009). In Uganda, the cultural norm is to keep menstruation a secret. In Western parts of the country cattle owners do not let menstruating women attend to their cows, for fear that the milk may turn bloody (Ten, 2007).

The taboo surrounding MHM is present across the world (Ten, 2007), and prevents women from speaking out about these issues (WaterAid, 2009). In societies where women are often already considered inferior, these restrictions only perpetuate inequality (Garg et al., 2001).

2.2 Knowledge of menstruation

One of the main problems behind the preservation of cultural beliefs and practices is a lack of knowledge and education. Often when health education is delivered, it focuses on reproductive issues and family planning, while MHM/puberty is neglected (Sommer, 2011). Consequently, most girls feel the need for more information (El-Gilany et al., 2005; Omidvar and Begum, 2010).

Across the literature, mothers are the main source of information regarding menstruation, whether in Africa (Abioye-Kuteyi, 2000; Umeora and Egwuatu, 2008), Asia (Mahon and Fernandes, 2010) or the Middle East (Fetohy, 2007). However, discussion on the topic is discouraged by local culture or religion and mothers often do not wish to talk about it for fear that it will lead to discussions about reproductive health (Umeora and Egwuatu, 2008). Besides, mothers often deliver information based on cultural beliefs and restrictions to be applied, rather than physiological or practical facts (Adinma and Adinma, 2008).

There is a clear link between the level of parental education and the information girls receive about menstruation (Adinma and Adinma, 2008; Aniebue et al., 2009). In a survey of 500 girls conducted in Nigeria, Aniebue (2009) found that the daughters of educated parents were more likely to receive information about menstruation prior to menarche. Educating parents, more particularly mothers, may be a solution (Abioye-Kuteyi, 2000; Lee et al., 2006).
However, the fact these studies (Adinma and Adinma, 2008; Aniebue et al., 2009; Abioye-Kuteyi, 2000) were conducted in Nigeria means they are grounded in local culture, making findings difficult to generalise. This is an inherent problem of MHM given that many of the issues faced by girls are based within a local context.

In some schools the topic is not discussed at all, often because teachers prefer to avoid taboo subjects (Mahon and Fernandes, 2010; WaterAid, 2009). In others, basic anatomy and physiology is taught, but no information is given regarding the practical management of a period (Aniebue et al., 2009). This leads girls to acquire knowledge based on traditional beliefs. Adinma (2008) surveyed 550 girls in Nigeria and only 39.3% saw menstruation as a physiological process. In Pillitteri’s study (2011), of the 104 girls who completed the questionnaire, fewer than 50% viewed menstruation as a natural process.

Some researchers propose that compulsory school programmes relating to MHM should be developed, including practical information (Dasgupta and Sarkar, 2008; Nemade et al., 2009). Additionally, it is suggested teachers should be properly trained in delivering the sessions (El-Gilany et al., 2005; Porter, 2007). Sommer (2010) and Pilliteri (2011) recommend having educators travelling between schools, delivering separate sessions for boys and girls. This type of intervention would address the issue of discomfort that can arise if girls have no choice but to discuss it with teachers.

Regardless of the medium, girls should be taught before menarche, so that the event is not unexpected and overwhelming (Sommer, 2010). Practices learned and adopted in early life are continued throughout adulthood (Narayan et al., 2001), therefore prior information would lead to correct management from the start (Fetohy, 2007).

2.3 Products used across the world

In the Western World, there is easy access to a variety of products, available at a reasonable price (Sommer, 2010). For too many women in developing countries, this is not the case. Studies have shown that girls are reduced to using rags, old cloth, pieces of old clothes, saris, cotton wool, toilet paper, or even pieces of mattress (House et al., 2012; Irise International, 2012). Often the same piece of cloth is re-used for several months or years (Mahon and Fernandes, 2010). Not only are these practices unhygienic but they also cause severe discomfort, along with problems of blood leaking (El-Gilany et al., 2005), leading to feelings of shame and embarrassment.
Consequently, girls prefer to stay home from school (Averbach et al., 2009), and the lack of appropriate products is one of the principle reasons that girls do not attend school during their period, as noted by Crofts and Fisher (2012) in Uganda. Montgomery’s Ghanaian pilot study of 120 girls, assessing attendance pre and post intervention (providing disposable pads and education), showed a 9% reduction in absenteeism, meaning girls gained one week of school per term. An improvement in concentration was also noted as well as a significant decrease in embarrassment and the likelihood of clothes being soiled. In the schools that received only the educational intervention, the improvements were not so pronounced. This highlights the fact that an increase in knowledge should go hand in hand with adequate product provision. However one criticism of such a programme is in the fact it provided girls with pads, and such methods are not generally sustainable. Indeed, schools and homes often lack suitable disposal systems, and once the provision of free pads stops, girls must return to using whatever they used previously.

Disposable pads are used, but most often by those from more privileged backgrounds (Umeora and Egwuatu, 2008). Many girls state they would prefer to use disposable products since they are more comfortable and absorb menstrual flow more effectively (Crofts and Fisher, 2012; Sommer, 2010). Nevertheless, the barriers of high relative cost and lack of general availability means that disposable pads are not sustainable for young girls to use (El-Gilany et al., 2005; Averbach et al., 2009; Mahon and Fernandes, 2010). In Uganda, sanitary pads for one girl cost one tenth of a family’s monthly income, meaning this is a ‘luxury’ most families cannot afford (Averbach et al., 2009).

Many ideas have been proposed to help solve this issue, from simply lowering the price (Dasgupta and Sarkar, 2008), to cutting the tax on these products (Sommer, 2010). Alternative management methods have been trialled, such as Duet, a low-cost cervical barrier device, to which women appeared favourable (Averbach et al., 2009). However the small sample size (n = 43) means that further trials should be performed before assessing Duet’s acceptability. In addition, women taking part were aged 18-45, meaning these findings cannot be applied to younger girls who may be reluctant to use a device that requires vaginal insertion.

Conversely, evidence from a randomized evaluation trialling menstrual cups in Nepal, showed no improvement in school attendance whilst using the product (Oster and Thornton, 2009). Indeed, they found that girls were only missing 0.4 days per year because of menstruation. One hundred girls tried the menstrual cup but it was not shown to increase attendance significantly. This may be related to the fact that the main reasons girls were missing school was due to pain (43.8%), compared with changing and washing clothes (13.5%). On the other
hand girls using the menstrual cup appreciated its convenience, the time saved from washing their rags and the increased freedom in mobility. There is no evidence relating to the use of menstrual cups in Africa, therefore it is not possible to say whether a similar picture would be observed.

In Uganda, two small businesses have begun making their own low-cost sanitary products (Crofts and Fisher, 2012); Afripads and Makapads. For the former, their manufacture does not require any electricity and are sold directly to girls and Non-Governmental Organisations (NGOs). Makapads make disposable pads from paper and papyrus fibres. Initially used by United Nations High Commissioner for Refugees, they are now given to school girls by NGOs.

These products show a clear advantage in terms of cost. An annual supply of Afripads or Makapads cost ten and three times less respectively than commercially available products (Crofts and Fisher, 2012).

Figure 2.1: Afripads kit (Afripads, 2013)

Figure 2.2: Makapads kit (T4TAfrica, 2012)
Irise successfully trialled the Mwezi pad in Kenya, a re-usable product that can be made by the girls themselves from local, low-cost materials (Irise International, 2012). Irise noted a 68.8% reduction in absenteeism for those using the pad after having received training on how to make it, with 98.6% saying they would make another pad when needed.

The reasons behind poor school attendance are complex and providing girls with suitable sanitary products cannot be a miracle solution. Increasing numbers of NGOs and donors are giving free or subsidized pads, but this is only a short term remedy. This is why creating local businesses has many benefits such as generating employment, economic growth, and is generally more environmentally friendly (Crofts and Fisher, 2012).

2.4 Water Sanitation and Hygiene (WASH)
Within the WASH sector, MHM is neglected; there is an awareness that the problem exists but few have attempted to address it (Mahon and Fernandes, 2010). Inadequate access to WASH impacts significantly on girls’ learning opportunities (Devnarain and Matthias, 2011) and with more girls attending school, there is a need for concurrent development of appropriate facilities (El-Gilany et al., 2005).

Inadequate access to water is not gender neutral in its consequences (Devnarain and Matthias, 2011). Women often suffer more shame from urinating, defecating or managing their menstruation in the open (Wendland et al., 2012).

In schools, there are often not enough toilets for all the pupils (Pillitteri, 2011) and no separate toilets for girls and boys (AusAID, 2011; Wendland et al., 2012). When separate facilities are available, they are often unclean or intermittently supplied with water and can lack cubicle doors (Mudey et al., 2010).

As discussed earlier, the majority of girls use cloth to manage their flow. However, this cloth needs to be cleaned and all too often there is no adequate water supply in schools, and even less likely a private space to wash in (Montgomery et al., 2012). Consequently since girls cannot do this at school, they are forced to go home halfway through the day, missing at least one hour of school in the process (Seymour, 2008). Many girls avoid going to school altogether when menstruating and fall behind on schoolwork (Montgomery et al., 2012; Sommer, 2010). Providing adequate facilities, in turn, improves self-esteem and attendance,
meaning more girls will finish their education, leading to developments on a national level (Pillitteri, 2011).

Another neglected area is that of waste disposal. Initiatives are put in place providing girls with disposable products, without thinking further ahead as to how or where they might dispose of them (Ten, 2007; Crofts and Fisher, 2012). When no alternative is made available, people simply throw out products in the latrines (Umeora and Egwuatu, 2008; Crofts and Fisher, 2012) leading to blocked pipes and unsanitary conditions (Wendland et al., 2012).

Finally, there is a need to address the poor hygiene and discomfort that comes with re-using materials. It can be culturally inappropriate to wash cloths in public, meaning they are left to dry in secluded areas, more prone to growing bacteria (Crofts and Fisher, 2012). Damp, mouldy, partially cleaned cloths are all too common (Seymour, 2008; Crofts and Fisher, 2012), and there is some evidence that such practices increase the risk of infection (Aniebue et al., 2009; Seymour, 2008; WaterAid, 2009). Although there is a need for more research given that most reports are anecdotal (House et al., 2012; Mudey et al., 2010), it does not seem like an unreasonable association (Crofts and Fisher, 2012).

Women are often in charge of providing water for the family and educate their children about safe hygiene practices, yet their views and concerns are rarely addressed (House et al., 2012). Because of this, MHM is not factored into the development and design of facilities (Mahon and Fernandes, 2010; Sommer, 2010). Although health education is key, this would be for nothing if the infrastructure and products are not there to support them (Bharadwaj and Patkar, 2004).

2.5 Relevance of MHM

As the literature has shown, there are many areas feeding into MHM, from lack of knowledge and product, to inadequate facilities. It is not so much to wonder which one of these issues requires the greatest focus, but more to highlight the need to tackle them in conjunction with each other. When examining previous work carried out in Africa, it can be noted that Pilliterri (2011) identified the importance of these key areas. Nearly 60% of girls stated they missed 1-2 hours of school during their menstruation, which had a detrimental effect on their schooling. Girls’ priorities for change related to product provision, as well as appropriate water and sanitation facilities.
It may be difficult to generalise such findings but it does seem most girls are facing the same issues related to lack of product, water and sanitation issues and cultural taboos.

3. Methodology
The following chapter will examine the methodological process for this research project, within a specific philosophy of research. Following on from this, the research process itself will be presented.

3.1 Research Paradigm
In order to gather the information required for the research project, a mixed methods approach was utilised while adopting a pragmatic philosophy of research. This pragmatic standpoint encompasses all aspects of mixed methods research (MMR), with varied approaches to addressing the research question (Doyle et al., 2009). Indeed, pragmatism and MMR go hand in hand with each other (Nastasi et al., 2010).

MMR is becoming increasingly highly regarded within the research field as one of the three research paradigms (Johnson et al., 2007). As Johnson et al. (2007) state, combining both methods provides a greater “breadth and depth of understanding and corroboration”. Some even state that MMR allows for the potential weaknesses of each methodology to be cancelled out (Johnson and Onwuegbuzie, 2004), allowing for a more thorough examination of the subject area (Teddlie and Tashakkori, 2012). MMR is often commended for its ‘methodological eclecticism’, which allows for a cyclical and complementary approach to research and analysis, drawing from both the quantitative and qualitative aspects of the project (Teddlie and Tashakkori, 2012).

Finally, it was also important to carry out the research within Irise’s ethos, in a relaxed and friendly environment, so that the girls felt comfortable and did not feel forced in any way to take part. In his article on MMR, Johnson et al (2007) highlight the fact that MMR “is cognizant, appreciative, and inclusive of local and broader sociopolitical realities, resources, and needs.” This statement ties in with Irise’s approach to research and its wish to act as a source of knowledge for local organizations.
3.2 Utilising both quantitative and qualitative methods

A questionnaire was used to collect mostly quantitative data, with some qualitative aspects, following which semi-structured interviews were conducted. The quantitative aspect permitted the team to collect, describe and analyse statistical data about participants. It also offered the opportunity to gather information for a large sample size in a relatively short period of time. Some of the material gathered contained questions of a personal nature and this is one of the reasons why a written questionnaire was seen as more appropriate. Indeed, for certain more sensitive topics, it can be easier for a respondent to reflect and write their own answer privately, rather than have to say it aloud. On the other hand the interviews offered a more in-depth look into the subject, whilst offering the advantage of qualitative methods by being responsive to local situations and stakeholders' needs (Johnson and Onwuegbuzie, 2004). Consequently, both aspects complement each other to provide a well-rounded view of the girls’ experiences.

The greater emphasis placed on quantitative methods was related to the fact that the majority of the research in the area of MHM is qualitative, so there is consequently a greater need for a quantitative evidence base (Irise International, 2012). Although one of the criticisms of MMR is its potential lack of generalizability (Johnson and Onwuegbuzie, 2004), this was not a concern for this project. Indeed, the information gathered will serve Irise to build their project in Kasese, Uganda, therefore generalizability was not the priority.

3.3 Research process

3.3.1 Questionnaire development

The questionnaire (Appendix A) used was validated by two students from the University of Bristol, also working with Irise. Their work was carried out in the Rukungiri region, south of Kasese District, so that the girls taking part would have a similar profile without affecting the data pool for the actual questionnaire delivery. This validation allowed for Irise to adapt the questionnaire to a local setting.

3.3.2 Study design

A mixed methods approach to the research process was adopted, with both quantitative and qualitative aspects; a self-completed questionnaire, and semi-structured interviews. The data collection period ran from 17th June to 16th July 2013. Schools were recruited through Irise’s
local partner organisations in Kasese District; Luyodefo in Kisinga (19 schools) and Caruwe in Bwera (11 schools).

3.4 Quantitative design

3.4.1 Sampling, recruitment and consent

In total, 30 schools were recruited with a target of 30 girls in each, aged 14 and above. This number was based on the number of schools in the area that might be included in future Irise interventions.

Prior to the team’s arrival in Uganda, letters were sent to the schools on behalf of Irise from the local partner organisations, informing them of the project and hoping that they might wish to participate.

On arrival in the area, the research team, split into two groups, carried out introductory visits in the schools, to introduce both themselves and the proposed research process to the headmaster, deputy and staff. Information sheets (Appendix C) were given out to the girls via their teachers, so that they could all be fully informed before deciding whether to take part. A suitable date and time was then arranged to come and deliver the questionnaire to the girls.

3.4.2 Data collection and analysis

At the beginning of each session, the research team introduced themselves and reiterated the purpose of the project to participants. Informed written consent was gained before proceeding with the questions. Due to the differing levels of spoken English and the fact that this was, for the vast majority, the first time they had been asked to complete a questionnaire, the researcher lead participants through each question, with the help of a translator. The process by which certain questions needed to be answered, with regards to particular formats, was explained every time. Girls were also given the opportunity to ask any questions they might have.

Quantitative data was inputted during the research process in the field and subsequently analysed using the Statistical Package for the Social Sciences (SPSS) 20 software. Categorical data was analysed using frequency tables and graphs, and the presence of any associations was assessed using the Chi-Squared test. A p-value <0.05 was considered significant. Continuous data is presented via means and standard deviations (SD).
3.5 Qualitative design

3.5.1 Sampling, recruitment and consent

Following the delivery of the questionnaires, interviews were carried out in two separate schools. One school was selected on the basis that girls had not completed the questionnaire; the second was selected at random from the remaining schools in which the questionnaire was delivered.

A target of a minimum of five interviews was set with girls aged 14 and above. Girls were asked to volunteer by raising their hand or coming up to a member of the research team. They were then provided with additional information, written (Appendix D) as well as verbal, regarding the interview process and provided written consent in the form of a signed form.

3.5.2 Data collection and analysis

Interviews were carried out in private locations, usually an outdoor area of the school grounds, with a researcher and translator present. Each session was audio recorded, with similar topics and themes to those covered in the questionnaire discussed in more depth. The interview schedule (Appendix B) was developed jointly by myself, and my fellow MPH student, following on from the Irise questionnaire as well as covering topics observed in the literature (Crofts and Fisher, 2012; Sommer, 2011).

All interviews were transcribed verbatim after completion and analysed thematically. The inductive thematic analysis method was adopted, where the “themes identified are strongly linked to the data themselves” (Braun and Clarke, 2006). An initial superficial analysis was completed to categorize the common themes across the different interviews. Subsequently sub-themes were identified, with codes assigned to recurring patterns, and an in-depth analysis conducted.

3.6 Researcher reflexivity

It was important that throughout the research process attention be paid to “self-critique and self-appraisal” (Dowling, 2006), in particular in relation to the qualitative aspect of the project. This is due to the importance of reflexivity within research and an awareness of the researchers’ role within this. An individual’s previous experiences will have an influence on the research process and vice versa. It is an “awareness of theoretical assumptions, the importance of language and of pre-understandings brought to the research” (Haynes, 2012). It was important to maintain this understanding in the field, to adapt and change any approaches
if necessary, always being aware of how one’s personal thoughts and beliefs could influence the interview process.

3.7 Ethical considerations

Ethical approval was received from the ScHARR Ethics Board in May 2013 (Appendix E). The main ethical considerations related to how the topic of MHM could be appropriately approached in a rural developing country context. In addition, extra care needed to be taken given that the vast majority of respondents were under 18. Throughout the research process, the priority was for the girls’ welfare, aiming to benefit them as much as possible through this work.

All topics were approached in a sensitive and thoughtful manner, minimizing the girls’ potential discomfort and embarrassment. All participants were fully informed about the research process, as well as the potential benefits for them before agreeing to take part. It was always made clear that they could withdraw from the study at any time, and all participant information was kept strictly confidential.

Finally, to ensure that interactions within the school were appropriate, the participation of teachers and translators was crucial; making sure the research team was introduced to the school community by a representative they were familiar with.

4. Results

4.1 Quantitative results

4.1.1 Demographic information

In total 30 schools took part in the research project, but the number of girls taking part in each school was variable (Tables 4.2 and 4.3). As a result, 816 questionnaires were completed by girls aged 14 and above. For the purposes of data analysis, the 751 girls who had started their menstruation will be included.

| Table 4.1: Baseline data (n = 751) |
|-------------------------------|----------------|
| Age (in years)                | 15.0           |
| Average duration of period (in days) | 3.6            |

<table>
<thead>
<tr>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>1.2</td>
</tr>
<tr>
<td>3.6</td>
<td>1.3</td>
</tr>
</tbody>
</table>
Table 4.2: Basic Demographic Information- Kisinga Sub-county

<table>
<thead>
<tr>
<th>School</th>
<th>Number of pupils</th>
<th>Number of girls taking part</th>
<th>Number of toilets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>370</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>486</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>870</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>940</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>670</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>524</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>461</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>479</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>183</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>694</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>612</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>479</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>603</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>170</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>949</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>23</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>218</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.3: Basic Demographic Information - Bwera Sub-county

<table>
<thead>
<tr>
<th>School</th>
<th>Number of pupils</th>
<th>Number of girls taking part</th>
<th>Number of toilets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1584</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>780</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>669</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>757</td>
<td>29</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>315</td>
<td>37</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>666</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>554</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>852</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>455</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td>517</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

- **Missing Data**

4.1.2 Knowledge regarding menstruation

Of the respondents, 81.7% knew that women stop menstruating when they grow old, 78.1% that menstrual blood comes from the uterus and 83.6% of the girls knew that women no longer menstruate when pregnant.

Evidence of persistent incorrect knowledge is shown in the table below.

### Table 4.4: Persistent incorrect beliefs relating to menstruation

<table>
<thead>
<tr>
<th>Incorrect beliefs</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain during a period is a sign of illness</td>
<td>73.8</td>
</tr>
<tr>
<td>Menstrual blood contains dangerous substances</td>
<td>56.8</td>
</tr>
<tr>
<td>It is harmful for a woman to run or dance during her period</td>
<td>48.8</td>
</tr>
<tr>
<td>Menstruation is a disease</td>
<td>42.2</td>
</tr>
</tbody>
</table>
The vast majority of girls (75.6%) use pieces of cloth or towel during their period.

Some girls were found to be using alternative materials such as rough paper, banana fibres, Afripads, wood, sand/soil, handkerchiefs, just their underwear or polythene bags.

With regards to disposable pads in particular, although over half of the girls had used some before, 54.5% stated that they had not bought any in the last six months. This is further reflected in the fact that 89.7% had wanted to buy them, but not been able to, which seems to be either related to a lack of funds (65.2%) or an absence of products in the shops (46.3%).

This particular section of the questionnaire allowed for a small insight into the girls’ home lives. From the graphs (4.2 and 4.3), it is evident that many of the girls are going without the basic needs for everyday life. However, the greatest deficiency is in money to pay for school fees, with 75.9% of the girls struggling at some point during the year to pay for fees (Graph 4.4).

However, the issue of poor access to clean water is also one that deserves attention, more particularly due to the fact that girls are in the majority using and reusing cloth/towel. With
59% of those using cloth/towel struggling with water supply at some point throughout the year, it is inevitable that this will impact on their ability to properly clean their product.

**Graph 4.2: In the past year, how often have you gone without enough clean water?**

**Graph 4.3: In the past year, how often have you gone without enough food to eat?**
Graph 4.4: In the past year, how often have you gone without enough money for school expenses?

4.1.5 Absenteeism

The greatest number of days was missed due to lack of money, followed by illness and menstruation coming last. There is much less of variation in the number of days missed due to menstruation (SD = 1.9) compared with lack of money for school expenses (SD = 2.9).

Table 4.5: Days of school usually missed in a month

<table>
<thead>
<tr>
<th>In a normal month days of school missed due to</th>
<th>Mean (in days)</th>
<th>Standard deviation (in days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of money</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Illness</td>
<td>1.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Menstruation</td>
<td>1.3</td>
<td>1.9</td>
</tr>
</tbody>
</table>

When examining the potential link between poverty and using disposable products, an association can be noted between those girls who do not have enough money for school fees, and those who do not have enough money for disposable pads. A statistical difference can be highlighted here, with a p-value <0.05 (Chi-Square = 12.97, p = 0.011). Therefore girls struggling to pay fees also do not have enough money to pay for sanitary products.
In addition, when examining the association between missing school due to lack of pads and not being able to pay fees (Chi-Square = 61.85, p <0.001), both factors seem to be linked and cause girls to miss school.

Graphs 4.5 and 4.6 highlight the fact that the majority of girls do not miss school because of their period. Of the respondents, 54.8% do not miss school when on their period, compared with 45.2% who miss from half a day to up to ten days or more.

**Graph 4.5 : Days of school missed due to menstruation (in a normal month)**

**Graph 4.6: How often does your period make you miss school?**
A similar picture can be noted from the graph below when looking at the number of days missed by girls last time they were menstruating.

Graph 4.7: Days of school missed during last period

4.1.6 Motives for absenteeism

The most common reason provided by respondents for missing school when they are on their period is due to lack of product. The second most common was the lack of anywhere to wash or change at school.

Table 4.6: Causes of absence from school

<table>
<thead>
<tr>
<th>Reason for missing school</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not have sanitary pads</td>
<td>64.2</td>
</tr>
<tr>
<td>Nowhere to wash or change at school</td>
<td>55.1</td>
</tr>
<tr>
<td>Pain</td>
<td>48.4</td>
</tr>
<tr>
<td>Fear of staining clothes</td>
<td>42.4</td>
</tr>
<tr>
<td>Nowhere to dispose of product</td>
<td>39.1</td>
</tr>
<tr>
<td>Fear that others will make fun of me</td>
<td>33.0</td>
</tr>
</tbody>
</table>

This lack of product and access to soap and water was further mentioned and highlighted in the free texts sections of the questionnaire, in response to the question ‘Give any other reasons your period might make you miss school’. Some sample answers below illustrate the issue.
**Lack of product**
- “I don’t have things to use when I come to time of menstruation thus why I miss”
- “Lack of enough pads during my periods leads me to miss school”
- “I miss school because I do not have money to purchase the material used during my period since pad are expensive”

**WASH related issues**
- “Lack of sanitary products [...] lack of anywhere for girls to wash and change at school”
- “Lack of enough pad to use. Lack of enough soap to wash sanitary products. Lack of enough pants to wear.”
- “There is no enough bathroom”

- Relating more particularly to a lack of water
  - “In our school we don't have water which I can use”
  - “Because we are not around water resources”
  - “It's because of lack of enough water in school”

Overall when comparing data between sub-counties, a difference was only noted with regards to problems linked to WASH between Bwera and Kisinga schools; (Chi-Square = 7.24, p <0.01). It seems that the girls in Bwera were more likely to miss school because there was nowhere to wash or change.

Overall, most girls (80.1%) experienced pain during their period, but most of them to a lower degree (Graph 4.8).
Nevertheless, experiencing pain does appear to have an impact on attendance, with 48.4% of respondents missing school during their period due to pain.

4.1.7 Impacts on daily life

A general restriction in physical activity can be seen after examining Table 4.7. This particularly concerns taking part in sport, walking long distances and helping around the house.

In the free text section, girls also highlighted the following:

- No longer eating sweet foods
- Abstaining from sex
- No longer playing with boys/friends
- Neglecting school work
Table 4.7: Change in daily activities due to menstruation

<table>
<thead>
<tr>
<th>Alteration in activities</th>
<th>Percentage of responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to do sports</td>
<td>54.9</td>
</tr>
<tr>
<td>Unable to walk far</td>
<td>47</td>
</tr>
<tr>
<td>Unable to do the housework</td>
<td>32.1</td>
</tr>
<tr>
<td>Unable to go to church</td>
<td>31.9</td>
</tr>
<tr>
<td>Stay at home</td>
<td>31.5</td>
</tr>
<tr>
<td>Unable to carry out daily activities (i.e. cooking, fetching water)</td>
<td>28.7</td>
</tr>
<tr>
<td>Miss paid work</td>
<td>24.4</td>
</tr>
</tbody>
</table>

When discussing questions related to feelings, girls were very much less confident during their period than when they were not on their period (62.3%), with only 27.9% feeling happy with themselves during menstruation.

Generally feelings were more negative during menstruation, with just over 1 in 3 girls feeling as though they were a failure every month.

This problem of low self-esteem is not a standalone issue, but has a number of associations with other themes relating to MHM. An association between discomfort/tiredness and a feeling of inferiority to others can be noted (Chi-Square = 12.86, p < 0.01). There is also an association between incorrect beliefs regarding menstruation and feelings of low self-worth (Chi-Square = 6.47, p = 0.014)
4.2 Qualitative results

Thematic analysis of the qualitative data resulted in the following themes and subthemes being identified:

- Cloth or Disposable Pad
- Monetary limitations
- WASH related issues
- Source
- Limits to information received
- Questions asked
- Fears
- Pain
- Lack of product
- Lack of money
- Difficulties concentrating
- Others making fun
- Limited physical and social activity

Figure 4.1: Girls’ personal experience of menstruation: Theme and sub-theme identification

Table 4.8: Basic demographic data on interview participants

<table>
<thead>
<tr>
<th>Interviewee (Pseudonym)</th>
<th>Age</th>
<th>Age at menarche</th>
<th>School (Kisinga Sub-county)</th>
<th>Length of interview (mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary</td>
<td>15</td>
<td>13</td>
<td>Kanyughunyu</td>
<td>15.07</td>
</tr>
<tr>
<td>Emily</td>
<td>13</td>
<td>12</td>
<td>Kanyughunyu</td>
<td>12.18</td>
</tr>
<tr>
<td>Lucy</td>
<td>15</td>
<td>14</td>
<td>Kanyughunyu</td>
<td>16.01</td>
</tr>
<tr>
<td>Harriet</td>
<td>13</td>
<td>13</td>
<td>Kanyughunyu</td>
<td>13.01</td>
</tr>
<tr>
<td>Alice</td>
<td>14</td>
<td>13</td>
<td>Rwesororo</td>
<td>14.40</td>
</tr>
<tr>
<td>Kate</td>
<td>16</td>
<td>14</td>
<td>Rwesororo</td>
<td>10.57</td>
</tr>
<tr>
<td>Emma</td>
<td>15</td>
<td>12</td>
<td>Rwesororo</td>
<td>10.54</td>
</tr>
<tr>
<td>Mean age</td>
<td>14.4</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The identified themes will be discussed below, highlighting the key issues raised by the interviewees. In brackets is the number of girls which a certain topic relates to.

4.2.1 Product used and problems encountered
Out of the seven girls interviewed, six used old cloths, clothes or blanket to manage their period. Only one of the girls exclusively used disposable pads, whilst three others used them only when their parents could afford it.

*That if I get money I buy, if not I use these local pads*

Lucy

*Sometimes if I bleed when my parents have money I can use. But when they not have, I can use old cloths*

Alice

Of all the girls using old cloths/clothes/blanket, five reused the product rather than throwing it away every time. They all washed their cloths in soap and water in theory, however many struggled to have enough water or enough, if any, soap.

*If I find the soap I can use the soap. If I find the water I can use the water*

Kate

Additionally, only one of the girls dried her cloth outside in the sunshine, whilst the others left them to dry in their bedrooms. Girls feared the embarrassment related to other people seeing their cloths drying outside.

Facilities within schools were often found lacking. Although all the schools had latrines for the girls, there did not seem to be enough (4), and there was either no water (3), or not enough (3). A similar picture can be noted with regards to access to soap.

*There is no door and nothing for using to wash after using the toilet*

Mary
Girls were also asked how they might improve the latrine facilities within their school (based on the study by Sommer (2011)). The need for a reliable water supply, with soap to wash with as well as an adequate number of latrines for all the pupils was mentioned by all the interviewees.

4.2.2 Knowledge
Girls (5) in general turned to their mothers when their periods started, who often told them what product to use and what restrictions might be applied. Others (2) turned to both their parents. However, when seeking more information or when they had questions about menstruation, girls (3) turned to their teachers.

*That the teachers know much more*

Kate

Girls also stated their fear that others would know when they are on their period, that they would “smell” (2) or “see” their stained clothes (3), that they would make fun of them, especially the boys.

*I can be worried because in our class we have stubborn boys [...] I am not comfortable that, if it comes on my clothes everyone will know.*

Emma

Some of the girls’ beliefs surrounding menstruation came to light in some of the questions they asked.

*That when you are in menstruation period, they advise that you are not supposed to eat sweet things, is it true?*

Harriet

4.2.3 Difficulties of menstruation
Some respondents (3) were told to stop playing with boys after menarche, for fear they might get pregnant, whilst another could no longer play with friends, or only if she stayed seated.

*If you start menstruation stop playing with boys*

Alice
That if we play with boys we can be pregnant

Kate

Another of the girls particularly found that helping with household activities was a problem, especially with fetching water.

Stops me from fetching water, from helping at home

Emily

A limitation in physical activity was also an issue for four in seven of the interviewees. This related to participating in sports, walking long distances or “digging” (gardening).

They say that I should not be going long distances

Emma

I miss some of the activities which are flexible, like sport

Mary

Five girls experienced pain during their period, and stated this was the worst thing about having periods. Some also stated that the lack of product, others making fun of them, and difficulties concentrating were also an issue.

I dislike I be beaten when I am on menstruation [...]that one annoys me because all the whole day I don’t understand, the teachers ask have you understood I say yes, but if they give us the exercises I fail.

Alice

5. Discussion

5.1 Menstruation: a contributor to school girls’ absenteeism
The aim of this research project was to assess whether poor MHM is having an impact on the school attendance of young girls in Kasese District, Uganda. When examining the results from the questionnaire and interviews, it is clear that menstruation is a contributor to school
girls’ absenteeism. However, it is one of many factors, and it is not the greatest contributor; a place held by the lack of money to pay for school expenses. Yet, it is important to note that many girls are missing school because they lack appropriate products and/or because facilities within school do not cater for their needs.

### 5.2 Contributors to menstruation related absenteeism

#### 5.2.1 Greatest barrier identified: the issue of product

As previously noted, girls most commonly use cloth and/or towel to manage their periods, as reflected in both the questionnaire (75.6%) and interview (85.7%) groups. Although many wanted to buy disposable products, they could not, for the most part, afford to do so. A number of girls had used a disposable pad at some point during their period, but often, for both questionnaire and interview respondents, they could not afford to sustain this. Indeed, in one of the schools participants had never seen a disposable sanitary pad, let alone used one. This is mostly due to the high relative cost of such products when already struggling to pay for food or school fees. The association between poverty and use of product is apparent (p = 0.011). Lack of product is in fact the biggest contributor to absenteeism during menstruation, with just under 2 in 3 girls missing school because they do not have the appropriate sanitary products.

Having an adequate supply of an appropriate product is not a new problem, and has previously been noted by Crofts and Fisher (2012) in Uganda. Across the world, girls living in poverty use pieces of cloth or old clothes, mostly because they cannot afford to buy disposable products (House et al., 2012). Therefore the situation of girls in Kasese is far from an isolated case and highlights the relevance of this issue.

#### 5.2.2 MHM on the WASH agenda

Given that the vast majority of girls are washing and reusing a cloth/towel during their period it seems reasonable to say issues of WASH are entirely relevant and linked to problems of product.

All the schools had latrine facilities, but all too often the ratio of toilets to pupils was high. This is particularly problematic for girls who use such facilities to change their cloth or pad. Over half of questionnaire respondents stated that the lack of anywhere to wash or change was affecting their school attendance. Four out of the seven interviewees stated that there was often a problem relating to lack of water and/or soap at school as well as home. If girls do not have access to an adequate and reliable water supply, then they cannot be expected to clean
their cloths in a hygienic manner. Problems of unhygienic practices relating to re-using cloth have been previously noted in a number of studies (House et al., 2012). Girls are aware of how they should proceed, but do not have the tools to do so.

It appears crucial that developing adequate facilities to serve the girls’ needs would ease the complications of menstruation and improve their school experience. Improving facilities, making them more reliable, would allow girls to come to school knowing that they can change, wash and manage their period in a private and hygienic environment.

In relation to the differences between schools in both sub-counties, the fact that none were really noted, except in terms of facilities available within school, goes further towards Montgomery’s (2012) idea that problems of MHM are more related to wider culture rather than geographical location.

Perhaps by beginning to address the issue of lack of product, a concurrent development of WASH will be encouraged. Some may argue that encouraging the use of a reusable product in environments lacking adequate water supply is counterproductive. However, it is counterproductive to promote the use of disposable products in places where it is even less likely that there will be adequate waste disposal available, and where girls cannot afford these products in the first place.

5.2.3 Addressing pain management

The issue of pain felt by girls during their period is the third greatest contributor to absenteeism, and has previously been identified as such (Irise International, 2012; Crofts and Fisher, 2012). Of those who completed the questionnaire 80% experienced some degree of pain and 64.9% struggled to provide themselves with medication. During the interviews, all five girls who experienced pain during their period said this was the worst part of menstruation. Therefore, it is clear that girls are not only suffering discomfort because of poor quality or lack of product but also because of pain. Alternatives to medical management were offered to the girls at the end of the sessions, such as undertaking exercise or placing a hot towel over the painful area. These can hopefully be of use to them in the future if they cannot afford medication.

Finally, menstrual pain does not only cause girls to be absent from school, but also contributes greatly to poor self-image and low self-esteem. The discomfort girls are experiencing, with no means of addressing it, means they are suffering unnecessarily every month.
5.3 Beyond absenteeism

5.3.1 Issues of hygiene and self-esteem

It is important to note that absenteeism is not the only issue present here. Indeed, another downside of using cloth is related to the hygiene issues that may result. Through the interviews, it was noted that many girls were not washing and drying their cloths in the most hygienic manner. Cloths washed and left to dry in dark, damp conditions are more likely to grow bacteria and generally cause more discomfort for the girls. Consequently, poor MHM is not only contributing to unhygienic practices but also affecting the girls’ general well-being. As seen in the results section, there is a link between poor self-esteem and suffering from discomfort when menstruating (p < 0.01). Although an assessment of self-esteem is by its nature a subjective one, it appears clear that the respondents had low confidence when on their period.

Studies in the field of MHM often focus on absenteeism, with less of a consideration for how girls are feeling. However, if girls suffer from low self-esteem on a monthly basis, this problem needs to be addressed, and links to the misguided idea that menstruation is in fact harmful or a disease.

5.3.2 Need for improved education

The participants’ knowledge of menstruation was very much biological, but when it came to more practical knowledge it was clear that girls have a number of misconceptions regarding menstruation and their bodies in general. The fact that over half of the girls thought that menstrual blood contained dangerous substances, links in to the view that menstruation is an unnatural process for which life adjustments need to be made.

The emphasis on gaining biological knowledge is seen throughout the world and changes need to be made to develop teaching in a more practical direction (Aniebue and Aniebue, 2009; Sommer, 2011). Evidently scientific fact should be the basis for education; however, given the taboo surrounding MHM, girls are not receiving practical information which could truly help improve their experience of menstruation.

Misinformation contributes to the restrictions girls must undergo during their period, which can only worsen feelings of poor self-worth. In fact, the evidence from Kasese stresses that feelings of low self-esteem relate to a lack of or poor quality of information regarding menstruation. In this study the lack of concrete knowledge was further evidenced by the questions asked following interviews and the questionnaire. Most of the queries concerned worries about irregularity, sterility, the acceptability of eating sweet foods during

42
menstruation, as well as the probability of pregnancy at different points of the menstrual cycle. Many girls often asked what a tampon or a menstrual cup was and how they worked. The wide variety of questions the research team dealt with, as well the enthusiasm the girls demonstrated in relation to learning practical facts about MHM goes further towards showing the need the girls feel for such information.

Interviewees received most of the practical details of MHM from their mothers; therefore, it is key for future generations that these girls are properly informed for the sake of their children. The ability to turn to teachers for help depends very much on the school. By beginning to change overall knowledge and encouraging correct teaching, these individual differences will become less apparent.

5.4 Role of MHM in breaking the poverty cycle

It is evident that the overarching issue here is poverty and its widespread repercussions. These girls do not have enough money to pay for their school fees, their books or their uniforms; many often go without enough food to eat. Therefore, it is hardly surprising that they are all too often unable to provide for themselves with regards to MHM.

It is often stated that the way to break the poverty cycle is by providing girls with a complete education, so that they might reach economic independence, helping them provide for their children, creating a positive cycle. Therefore it is crucial for girls to stay in school, and more importantly to fully attend and be at top capacity to learn.

By addressing the issue of poor MHM and designing effective programs, girls can have an improved schooling experience, within a positive learning environment.

5.5 Limitations and problems encountered

5.5.1 Questionnaire design

In most schools, the format of the question ‘How often do you miss school because of your period?’ and how girls should be answering it, seemed be a source of confusion. The scale of ‘never’ to ‘always’ was not one they were previously familiar with, and for the vast majority of girls it was the first time they had been asked to complete a questionnaire. In addition, the question in itself is quite vague, given that it provides no indication of a time frame in which they may have missed school due to menstruation. This made it difficult for them to answer the query.

Furthermore, girls were asked to assess how many days of school they missed due to illness, lack of money and menstruation in ‘a normal month’. This meant that they were being asked
to provide a general estimate, facing issues of recall bias; over or underestimating the number of days they have missed.

There is also a definite grey area in what is defined as missing school due to illness or due to menstruation-related pain or sickness. The fact that a number of girls saw menstruation as a disease (42.2%), but even more so the fact that 73.8% thought that pain during menstruation was a sign of illness, means that girls may be reporting days missed due to illness when it is in fact due to menstruation.

5.5.2 Teacher influence and school environment

Although teachers were overall very helpful to the research process, problems were encountered during the questionnaires with certain staff interfering or influencing the girls’ answers. Some teachers would sometimes attempt to tell their pupils what they should be answering, keen for the girls to get their answers right. It was always made clear before the session that teachers should not influence their pupils; however these types of incidents were not uncommon and it was a delicate situation in which the research team could not overstep its authority.

Additionally, classes tended to be small and overcrowded, with girls all sitting next to each other on benches. The fact that answers should be personal was made clear, but many girls were still seen to discuss their responses or examine their friends’. The research team and teachers maintained the environment as disciplined as possible; however some level of conferring was inevitable.

5.5.3 Language barriers

Throughout our time in the schools, the differing levels of English both between and within schools proved a challenge. In fact it was especially problematic when levels differed within classrooms. Some girls would have excellent levels of English and begin the questionnaire of their own accord, whilst others struggled to understand. This sometimes made running the sessions quite complex. But the combined efforts of the research team, translators and teachers made sure no one was left behind, although inevitably some information was occasionally lost in translation.

The varied levels of English were also reflected in the free text sections of the questionnaire. Indeed, in some schools it appeared that girls were not confident enough with English to write their responses. Consequently, it is difficult to assess what some of the girls might have wanted to say but did not, due to language barriers.
5.5.4 Interview process

It was often difficult to encourage the girls to truly express their opinion or develop their answers. I believe this was partly as a result of having to use a translator as a medium. Nevertheless, even when the girls spoke directly in English, they were often quite concise in their replies. Part of this may be due to the teaching ethos within schools. Learning is very much a didactic process, therefore when asked to talk about their own experiences in what could be an intimidating environment, it is entirely understandable that the girls might have been slightly reluctant to share more of their experiences.

Overall however, this meant that the interview data gathered was not as in-depth as initially hoped. In addition, upon reflection, it seems that some questions may have been leading in some ways, which may have influenced the girls’ answers.

6. Implications of research and impact

6.1 Future research

It would be interesting for future research projects to examine how much school boys are missing, as a means of comparison of the impact of menstruation on school life. Do they also miss as much school due to lack of funds? If girls are missing more school than boys, do parents have to choose which child to send to school?

Our study failed to assess the state of MHM for those girls not attending school. This is for obvious reasons a hard-to-reach group, which has not been targeted yet and which it would be important to research in the future. It would also be of interest to gather more concrete data on the toilet and washing facilities within schools, which was neglected here.

On the other hand this research project managed to gather information from a larger sample size compared with other studies in the field of MHM. Hopefully this will provide a better picture and a wider knowledge base on which future work in the area can be based.

6.2 Future local developments

In terms of product, it does not seem beneficial in the long term to simply try and solve the problem with money, so that girls can use disposable pads. Such projects are not sustainable, developing a culture of dependency and furthermore there are no disposal facilities in place for such products (Pilliterri, 2011). Consequently, it appears that setting up a reusable pad-
making business in the area would benefit the girls greatly, given that their biggest issue is that of lack of product. Additionally, through further teaching and discussion, girls could be encouraged to further their knowledge on the subject and improve their self-esteem.

In terms of developing WASH facilities, this will require a longer term investment and this is why Irise, and others like them (Mahon and Fernandes, 2010; Ten, 2007) are vital for putting MHM on the WASH agenda. Indeed having a reusable pad is not of great use if one does not have enough water or soap to wash it with.

7. Conclusion

The role of gender equality and women’s empowerment in the field of development and public health has never been so relevant. This is why MHM is also becoming an increasingly relevant issue, affecting 50% of the world population at some point during their lives. It is clear that obtaining a good educational level is key if women are to be drivers of development, providing equal opportunities for girls in the future. Menstruation should not hinder this progress.

The fact that the results from the work carried out in Kasese have found much common ground with the current MHM literature goes further to show that MHM is an issue to address. It is contributing to absenteeism, putting girls at a disadvantage in environments which are already generally gender discriminatory, perpetuating inequality.

In the cohort for this project the mean length of a period was 3.6 days, meaning that most girls were absent for almost half of the duration of their period. Girls are missing school due to a variety of reasons which may be affecting their academic achievements. Menstruation is one of these factors, with a lack of sanitary products and inadequate in-school WASH facilities being the main barriers.

Furthermore, this project has shown that it is about more than missing school. It is about being provided with the correct knowledge about one’s body, to no longer view a physiological process as a disease. Girls should not be made to feel bad about a natural part of life and should not be suffering restrictions or be forced to impose limitations on their everyday life. Going to school and staying in school should be a comfortable and positive experience, in an environment favourable to learning. Such things are made difficult for girls who are coming to school with old cloths, causing them discomfort and worry, as well as the
risks associated with poor hygiene. This affects their attendance, concentration, self-esteem and ability to carry on with their days as usual. It is not so much about the quantity of days missed but the true impact on life and self-worth. Menstruation is a natural part of a woman’s life and girls should not have to suffer in any way because of it.

References


Irise International (2013) *Irise International* [online]. Available from:


Appendix A: Iriise Questionnaire

Number:

Age:

Nobody apart from the research team will know what you write in the questionnaire. Your responses will be kept confidential.

We would really like you to complete the questionnaire but it is up to you to decide whether or not you do so. If you decide you do not want to complete this questionnaire, this will not affect your relationship with your teacher or anybody else.

Please tick the responses that are true for you or write your response in the space provided.

1. Have you started your period?
   Yes [ ] No [ ]

   Please indicate whether you think the statements below are true or false.
   *(Please tick to indicate answer)*

2. Women stop menstruating when they grow very old.
   Yes [ ] No [ ]

3. Menstruation is a disease.
   Yes [ ] No [ ]

4. Pregnant women menstruate.
   Yes [ ] No [ ]

5. Menstrual blood comes from the stomach where the food is digested.
   Yes [ ] No [ ]

6. Menstrual blood comes from the womb.
   Yes [ ] No [ ]

7. Menstrual blood contains dangerous substances.
   Yes [ ] No [ ]

8. Pain during menstruation means that someone is sick.
   Yes [ ] No [ ]

9. It is harmful for a woman’s body if she runs or dances during her period.
   Yes [ ] No [ ]
**Missing School**

It can often be difficult to get to school every day, even when you are trying your hardest.

10. **How many days of school have you missed in the last four weeks?** *(Please circle your response)*

   0    ½    1    2    3    4    5    6    7    8    9    10    10+

11. **In a normal month how many days do you miss of school because of illness?** *(Please circle your response)*

   0    ½    1    2    3    4    5    6    7    8    9    10    10+

12. **In a normal month how many days do you miss of school because of your period?** *(Please circle your response)*

   0    ½    1    2    3    4    5    6    7    8    9    10    10+

13. **In a normal month how many days do you miss of school because of lack of money?** *(Please circle your response)*

   0    ½    1    2    3    4    5    6    7    8    9    10    10+

14. **Are there any other reasons you personally miss school?** *(Please write them here)*

   

---

**Menstruation**

Periods can make life more difficult for girls. It can be embarrassing but it’s important to talk about it.

15. **Which of these products have you heard of?** *(Please tick your answers)*

<table>
<thead>
<tr>
<th>Tampon</th>
<th>Disposable Sanitary Pad</th>
<th>Menstrual Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reusable Pad that you can wash and use again e.g. Afripads, homemade pad</th>
</tr>
</thead>
</table>

16. **What do you normally use during your period?** *(Please tick your answers)*

<table>
<thead>
<tr>
<th>Cloth/Towel</th>
<th>Tampon</th>
<th>Purchased sanitary pad</th>
<th>Menstrual Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toilet paper</th>
<th>Cotton</th>
<th>Mattress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natural materials (mud, cow dung or leaves)</th>
</tr>
</thead>
</table>
Other (Please them write here)

Disposable sanitary pads

17. Have you bought disposable sanitary pads from a shop in the last six months?
   Yes  No

18. Have you ever wanted to buy disposable sanitary pads from a shop but been unable to?
   Yes  No

19. I do not have enough money to buy disposable sanitary pads from a shop.
   Yes  No

20. There are no disposable sanitary pads in the shops.
   Yes  No

Activities your period makes you miss

21. How often does your period make you miss school?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
<th>Always</th>
</tr>
</thead>
</table>

22. Does your period make you miss paid work?
   Yes  No

23. Does your period make you miss housework?
   Yes  No

24. Does you period make you stay at home?
   Yes  No

25. Does your period make you unable to walk far?
   Yes  No

26. Does your period make you unable to carry out daily activities like cooking or fetching water?
   Yes  No

27. Does your period make you unable to go to church?
28. Does your period make you unable to do sport?
Yes ☐ No ☐

29. There are any other activities that your period makes you miss? (Please write them here)

Your period

30. On a scale of 0 to 10, indicate the average level of pain you experience during your period if 10 is the worst pain you’ve ever had and 0 is pain free (Please circle your response)

0       1        2        3        4        5       6       7       8       9       10

31. How many days do you bleed each month? (Please write your answer)

Missing school during your period

32. How many days of school did you miss last time you had your period? (Please circle your response)

0 ½ 1 2 3 4 5 6 7 8 9 10 10+

33. I miss school during my period because I am afraid of staining my clothes.
Yes ☐ No ☐

34. I miss school during my period because I am afraid of others making fun of me.
Yes ☐ No ☐

35. I miss school during my period because periods can cause pain.
Yes ☐ No ☐

36. I miss school during my period because periods can make me feel uncomfortable or tired.
Yes ☐ No ☐

37. I miss school during my period because there isn’t anywhere for girls to wash and change at school.
Yes ☐ No ☐

38. I miss school during my period because there is nowhere to dispose of sanitary products.
39. I miss school during my period because I do not have sanitary pads.
Yes [ ] No [ ]

40. Are there any other reasons your period makes you miss school? *(Please write them here)*

Your family

This section asks questions about your home and family so we know a little bit more about what life is like for you outside school.

41. Over the past year how often have you gone without enough food to eat?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
<th>Always</th>
</tr>
</thead>
</table>

42. Over the past year how often have you gone without enough clean water?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
<th>Always</th>
</tr>
</thead>
</table>

43. Over the past year how often have you gone without medicine?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
<th>Always</th>
</tr>
</thead>
</table>

44. Over the past year how often have you gone without school expenses for fees, uniforms or books?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Many times</th>
<th>Always</th>
</tr>
</thead>
</table>

Self-esteem

Please mark whether these statements are true for you during your period:

45. During my period I am happy with myself.
Yes [ ] No [ ]
46. During my period I feel I am no good.
   Yes □  No □

47. During my period I feel as good as other people.
   Yes □  No □

48. During my period I wish I could be happier.
   Yes □  No □

49. During my period I feel that I am a failure.
   Yes □  No □

50. During my period I feel less confident than when I am not on my period.
   Yes □  No □
Appendix B: Interview Schedule

Introduction

Explanation about proceedings

Consent

-Tell me a little bit more about yourself and your family
-Do you enjoy going to school?
  -What is your favourite subject?
  -What do you enjoy doing when you are not in school?

-What do you understand by menstrual hygiene?
  -How does discussing the topic make you feel?
-Do you think the topic of periods should be discussed more?
  -If so, in what setting, home or school?
-How did you learn about your periods?

-Tell me about the time when you started your periods? Can you briefly describe that first experience?
  -Who did you turn to at the time?
-What product do you usually use?
  -Do you have somebody to talk to when you have problems (pain, lack of product, questions etc)
-Have you ever seen a doctor about severe menstrual pain? Have you ever taken any medication or remedy for it? How do you generally deal with pain?

-Do your periods stop you from doing anything?
For example, missing school? Do you miss school because of anything else?

-What is the worst thing about menstruation for you?

-In an ideal world what would your toilets at school look like/include?

-Is there anything else you would like to tell us to do with your periods that we haven’t covered?

-Do you have any other questions you would like to ask us?
Appendix C: Information sheet for questionnaire participants

Participant Information Sheet
Assessing Girls’ Menstrual Hygiene Practices and Absenteeism in Kasese, Uganda

Researchers: Elisabeth Guerry and Mwikali Kivuvani

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it will involve. Please read the following information and discuss it with your family if you wish. If you decide to take part please keep a copy of this leaflet. Thank you for reading this.

Why are we doing the study?
There are a number of reasons why it is difficult for girls to attend school during menstruation. For some girls this means that they are absent from school on many occasions and this can then affect their education. We are doing this study because we want to understand more about what it is like to be a schoolgirl in Uganda and what needs to be done to improve girl’s menstrual health. Overall we want to help girls like you stay in school when they are menstruating.

Do I have to take part?
It is up to you to decide whether or not to take part. If you decide to, you are free to withdraw at any time and without giving a reason. If you decide not to take part this will not affect your relationship with your teacher or anybody else.

What will happen if I agree to take part?
If you agree to take part your teacher will tell you when, and where in your school, the study will happen. One of the researchers, with a translator, will ask you to complete a questionnaire about menstruation and your attendance at school. The questionnaire will take approximately one hour to complete and we will explain to you how to do this. It will be a mixture of short answers and ticking the best answer. All of your answers will be kept confidential and the questionnaire will not include your name. There will be a register of names which means that, if required for study purposes, the researchers will be able to identify which girl had completed which questionnaire.
What are the possible disadvantages and risks of taking part?
We do not believe that there are any risks or disadvantages of taking part other than giving up approximately one hour of your time. If you are upset by anything that happens when you are answering the questions you can speak to us afterwards. You don’t have to answer any questions you don’t want to and there will be space for you to write down any problems at the end of the questionnaire. You are welcome to discuss these things with friends or family. You can also report any concerns to your teacher.

What are the possible benefits of taking part?
We cannot promise that the study will help you, but the information we get from this study may help us to understand why girls in Uganda miss school.

Will my taking part in the study be kept confidential?
Only authorised persons from the University of Sheffield and the Irise charity will have access to the study data.
All information that is collected about you during the course of the study will be kept strictly confidential, stored in a secure and locked office, and on password protected computers. Any information about you will have your name removed and a unique code will be used so that you cannot be recognised from it.
Once the data has been analysed all personal details will no longer be used and will be destroyed. All other data will be kept securely for 7 years. After this time your data will be disposed of securely.

What will happen to the results of the research study?
This study is being undertaken as part of a Master of Public Health educational qualification and the study results will be used to write a report as part of this qualification.
Results from the study may be published in medical journals and presented at national and international research meetings. You will not be referred to by name or be identified in any presentation or report of the study results.
If you would like to ask any more questions please contact:
Elisabeth Guerry  eguerry1@shef.ac.uk
Mwikali Kivuvani  mkivuvani1@shef.ac.uk
Appendix D: Information sheet for interview participants

Participant Information Sheet
Assessing Girls’ Menstrual Hygiene Practices and Absenteeism in Kasese, Uganda

Researchers: Elisabeth Guerry and Mwikali Kivuvani

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it will involve. Please read the following information and discuss it with your family if you wish. If you decide to take part please keep a copy of this leaflet. Thank you for reading this.

Why are we doing the study?
There are a number of reasons why it is difficult for girls to attend school during menstruation. For some girls this means that they are absent from school on many occasions and this can then affect their education. We are doing this study because we want to understand more about what it is like to be a schoolgirl in Uganda and what needs to be done to improve girl’s menstrual health. Overall we want to help girls like you stay in school when they are menstruating.

Do I have to take part?
It is up to you to decide whether or not to take part. If you decide to, you are free to withdraw at any time and without giving a reason. If you decide not to take part this will not affect your relationship with your teacher or anybody else.

What will happen if I agree to take part?
If you agree to take part your teacher will tell you when, and where in your school, the study will happen. One of the researchers, with a translator, will ask you to complete a questionnaire about menstruation and your attendance at school. The questionnaire will take approximately one hour to complete and we will explain to you how to do this. It will be a mixture of short answers and ticking the best answer. All of your answers will be kept confidential and the
The questionnaire will not include your name. There will be a register of names which means that, if required for study purposes, the researchers will be able to identify which girl had completed which questionnaire.

We are also asking girls if they would like to take part in an interview. The interview will involve talking to one of the researchers and the translator about your experiences of menstruation, your school and home life. The interview should take approximately 30 to 60 minutes of your time and will take place in a private room at your school. The interview will be audio (voice) recorded. If you decide you would like to be interviewed please fill in the attached form and give it to one of the researchers after you have completed the questionnaire.

**What are the possible disadvantages and risks of taking part?**

We do not believe that there are any risks or disadvantages of taking part other than giving up some of your time. If you are upset by anything that happens when you are answering the questions you can speak to us afterwards. You don’t have to answer any questions you don’t want to and there will be space for you to write down any problems at the end of the questionnaire. You are welcome to discuss these things with friends or family. You can also report any concerns to your teacher.

**What are the possible benefits of taking part?**

We cannot promise that the study will help you, but the information we get from this study may help us to understand why girls in Uganda miss school.

**Will my taking part in the study be kept confidential?**

Only authorised persons from the University of Sheffield and the Irise charity will have access to the study data.

All information that is collected about you during the course of the study will be kept strictly confidential, stored in a secure and locked office, and on password protected computers. Any information about you will have your name removed and a unique code will be used so that you cannot be recognised from it.

Once the data has been analysed all personal details will no longer be used and will be destroyed. All other data will be kept securely for 7 years. After this time your data will be disposed of securely.
**What will happen to the results of the research study?**

This study is being undertaken as part of a Master of Public Health educational qualification and the study results will be used to write a report as part of this qualification.

Results from the study may be published in medical journals and presented at national and international research meetings. You will not be referred to by name or be identified in any presentation or report of the study results. Anonymous quotes from the interviews may be used in reports and publications.

If you would like to ask any more questions please contact:

Elisabeth Guerry  eguerry1@shef.ac.uk
MwikaliKivuvani    mkivuvani1@shef.ac.uk

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Interview Study: Assessment of menstrual hygiene practices and absenteeism in Western Uganda

Names of researchers: Elisabeth Guerry and Mwikali Kivuvani

I have read the participant information sheet about the study and I am interested in taking part in an interview.

Name: __________________________________________

Class: __________________________________________

Please give this form to one of the researchers when you attend the session to fill in the study questionnaire.

Thank you.
Appendix E: Ethical Approval

Kirsty Woodhead
Ethics Committee Administrator
Regent Court
30 Regent Street
Sheffield S1 4DA

Telephone: +44 (0) 114 2225453
Fax: +44 (0) 114 272 4095 (non confidential)
Email: k.woodhead@sheffield.ac.uk

Our ref: 0660/KW

24 May 2013

Elisabeth Guerry and Mwikali Kivuvani
ScHARR

Dear Elisabeth and Mwikali

An assessment of Baseline Menstrual Hygiene Practices and Absenteeism in Western Uganda

Thank you for submitting the above research project for approval by the ScHARR Research Ethics Committee. On behalf of the University Chair of Ethics who reviewed your project, I am pleased to inform you that on 24 May 2013 the project was approved on ethics grounds, on the basis that you will adhere to the documents that you submitted for ethics review.

The research must be conducted within the requirements of the hosting/employing organisation or the organisation where the research is being undertaken. You are also required to ensure that you meet any research ethics and governance requirements in the country in which you are researching. It is your responsibility to find out what these are.

If during the course of the project you need to deviate significantly from the documents you submitted for review, please inform me since written approval will be required. Please also inform me should you decide to terminate the project prematurely.

Yours sincerely

Kirsty Woodhead Ethics Committee Administrator
Placement Portfolio

Word Count: 2,499
Does poor menstrual hygiene management contribute to school girls’ absenteeism in Kasese, Uganda?

MHM: an issue on the agenda

The field of MHM is becoming increasingly relevant, particularly in the lead up to the 2015 targets for the Millennium Development Goals, many of which are concerned with women’s health, empowerment and education (Ten, 2007). Menstruation acts as a barrier within the daily lives of girls and women, especially in developing countries (House et al., 2012). Menarche is not only a sign of womanhood, but brings about a number of restrictions and rules to follow. Limitations in physical activity, social visits as well as dietary restrictions are seen, with many girls also taken out of school, having now reached ‘maturity’ (Khanna et al., 2005; Nemade et al., 2009; Mahon and Fernandes, 2010). However, those remaining in school
must also face a number of difficulties related to undergoing menstruation in resource poor settings. Women form 49.6% of the world population (World Bank, 2011), and this is an issue which will affect them all at some point during their lifetime. Therefore, MHM is a matter requiring attention at this key moment for women’s empowerment.

**Irise**

This small Sheffield-based charity was founded in 2011 by a group of medical students. Irise work to educate and empower girls and women in East Africa with a particular focus on MHM.

The Irise approach is through setting up sustainable reusable pad projects through partner organisations, providing their research expertise to help on site coordinators tailor projects to local needs. Alongside this, they develop a number of health education resources, so that girls can be properly informed.

They have now set up projects in Uganda and Zimbabwe with plans to expand across East Africa.

**Project outline**

The research project was developed as a partnership between ScHARR and Irise. Schools were recruited on-site through Irise’s local partners, Luyodefo (Luhwawa Youth Development Foundation) and Caruwe (Community Action for Rural Women’s Empowerment).

In total, 30 schools were visited and 751 questionnaires completed by girls aged 14 and above who had started menstruation. In addition to this, seven semi-structured interviews were conducted in order to gain an insight into girls’ experiences on a more personal level.

**Results**

**Absenteeism**

The mean number of days of school missed due to menstruation in a normal month was identified as 1.3 days (SD = 1.9). A similar picture can be noted for days missed during a girl’s last period (see Graph 1). However, the vast majority of girls are not missing school during their period.
Lack of money for school expenses was the greatest contributor to absenteeism (3.0 days), followed by illness (1.6 days). Regarding the latter however, no distinction was made as to whether girls were referring to illness or menstruation related ill-health.

**Factors contributing to menstruation related absenteeism**

**Product**

*64.2% of girls miss school during their period because they do not have sanitary pads*

The vast majority of girls in both sub-counties were using cloth/towel to manage their menstruation each month (see Graph 2).
Although it may appear that many girls were using purchased products, both the questionnaire and interviews prove this not to be the case. Sanitary products in shops are not affordable for the girls, with 89.7% having wished to buy some in the last six months, but been unable to do so.

*I don’t have things to use when I come to time of mistretion thus why I miss*

Emily

The association between those girls who do not have enough money for school fees, and those who do not have enough money for disposable sanitary pads (p = 0.011) further highlights the issue.

**WASH**

55.1% of girls miss school during their period because there is nowhere to wash and change at school

In both the questionnaire and interview groups, participants are seen to be using and reusing cloth/towel. However, many of the girls struggle to have a sufficient amount of water to clean such products (see Graph 3).

*If I find the soap I can use the soap. If I find the water I can use the water*

Kate
Through the interviews, it was found that school facilities were found lacking by all participants. Structural problems, along with lack of water and/or soap were the girls’ main complaints.

*There is no door and nothing for using to wash after using the toilet*

Mary

*No, there are not enough. Even the water is not enough [...] our parents not have money to buy enough soap.*

Alice

**Pain**

*48.4% of respondents miss school during their period due to pain*

The majority of girls (64.9%) went without any medication to help them with their menstrual pain. Pain was a great source of discomfort and contributed to girls’ feelings of low self-esteem.

During the interviews, in response to the question “What is the worst thing about menstruation for you?” girls stated:
Beyond absenteeism

Knowledge

Through both the questionnaire and interview process, it became clear that girls had a predominantly biological knowledge of menstruation, with persistent incorrect beliefs.

Self-esteem

Although menstruation is contributing to the amount of time girls miss from school, it is also important to note how girls feel in themselves during their period. Just over half of questionnaire respondents felt they were no good during their period and just over 1 in 3 girls feeling as though they were a failure when menstruating every month.

Even though some girls may continue attending school during their menstruation, the affects poor MHM can have on their general well-being are not to be ignored or under-estimated.

Implications for future research

It would be interesting for future research in the field of MHM to also record school boys’ attendance and schooling experience, as a means of comparison of the impact of menstruation on attendance.

A more in depth analysis and recording of in-school sanitation facilities would also help note the impact of improved facilities within school to help improve attendance.

Recommendations for Irise

From the research findings, the relevance and need for a reusable pad making enterprise comes to light. When girls are missing school during menstruation, it is for the majority due
to a lack of or poor quality of product; this is why an Irise intervention in the area would be greatly welcomed.

In addition it seems that girls could benefit from further health education. Indeed, during the short period of the research project it was not possible to reach all the girls with the small teaching sessions that were run, so providing girls with the resources and information to develop their knowledge would be truly positive.

**Conclusion**

- It is clear that menstruation is a **contributor to schoolgirls’ absenteeism**
- Need for **WASH** sectors to become involved
- Need for **product provision**: appropriate for **local context** and **sustainable**
- Affects on general **well-being** and **self-esteem** are not to be underestimated
- Promote discussion and **practical health education**

**References**


Reflective analysis: Undertaking field research in Uganda

The challenges of research in a developing country

When I was lucky enough to be accepted as a member of the research team for Irise’s project in Uganda, it was clear that this fascinating topic would also come along with its own set of challenges. However this is one of the reasons I was attracted to it in the first place. Undertaking a project of this scale in a rural area of the country meant that we encountered issues beyond those expected had we been carrying out the same research in the UK. We had to be aware of and prepared for any potential difficulties which might arise.

Skills and Knowledge Developed:
- Team work
- Leadership skills
- Adaptability: dealing with unexpected situations and solving the issues at hand
- Organisational skills
- Communication skills
- Responsibility
- Knowledge of MHM and the field of charity work
- Knowledge of Uganda; its culture and schooling system
- Public speaking
- Negotiation skills
- Motivational skills

Critical reflection

The scale of the project was quite daunting at first, given the number of schools we were trying to cover in a relatively short space of time. I was also unsure of how I would cope with addressing entire classrooms of pupils, on a personal subject, in an unfamiliar environment. Yet it is of course from these challenges that I have learned and gained the most.

During my time in Uganda, I was part of a larger research team, consisting of a fellow MPH student and three research assistants (two UK students and one local medical student).
Working with another Masters student meant that we were joint leaders, under the watch of Irise, so that any decision made had to be discussed and debated together. Being part of and co-heading such a team increased my leadership skills and ability to manage group dynamics, keeping the team fully involved and working to the best of their ability. It was also important to maintain team motivation, particularly when climbing mountains to reach remote schools. However it also made me realise the importance of delegating tasks where necessary.

My leadership and decision making skills were put to the test when my colleague had to leave the country suddenly due to problems with her Visa. We had initially planned on staying on longer together to finish our data collection, but given her sudden departure, a change of plans had to be enacted. As a person who relies very much on forward planning, I had to learn to adapt, and this is where our team-working skills were put into play. We sat down together, discussed our options and came to a group decision, coordinating with the Irise team in the UK via Skype. It was decided that the research period would be cut short, so that I might travel back to the capital with the research assistants, rather than stay on alone in Kasese. We therefore had to re-arrange a number of meetings with the schools and adjust our plans accordingly. Although this was a stressful time, particularly for my colleague, it taught me the importance of adaptability and flexibility, crucial in any kind of work setting where events do not always go according to plan.

I have always considered myself a relatively organised person; however the time in the field required greater levels of organisation than I had previously been subject to. Given the rural setting in which we were located, small undertakings such as printing questionnaires, providing the team with adequate supplies of drinking water and organising transport and translators whilst maintaining our schedule was at times complex. Additionally, we had to coordinate daily debriefing meetings with the whole team, keeping track of our timetable, coding and inputting our data correctly.

I was also in charge of the Irise fund, which was the first time I had been involved in financial resource management. It was a relatively high level of responsibility to monitor our spending and keep track of receipts for our costs. However, I am very glad that Irise trusted me with such an undertaking, since I felt I learnt a lot from it, including the differences between our host organisations and the way they managed their relationship with us. We developed such an excellent relationship with one of the charities, which only came to highlight the difficulties we experienced with the other. The latter organisation was not as welcoming and
at times tried to take advantage of Irise funds in their favour. These issues were discussed as a team, as well as with Irise, and resolved. However, they could not help but place a strain on our relationship with them and led us to be more cautious in our future meetings.

This project has also helped me gain confidence in my ability for public speaking, delivering the questionnaire to large groups of girls and meeting with school staff to present our project, as well as discussing Irise projects with their local partners. This was something I had previously had trouble with and I now feel like I have become much less reserved about it. On the other hand I still feel a need to improve my interview skills, given that my lack of previous experience may have brought me to ask leading questions at times.

The research process itself was not without its difficulties. During the delivery of the questionnaire in particular there were times in which it was difficult for us not to overstep our authority as guests in the school. In one particular incident, a teacher began beating a girl because she was not answering the questions following the format, as she had misunderstood how the question should be answered. Although we intervened, tactfully explaining it did not matter greatly how the girl responded, we did not wish to potentially offend teaching staff.

Finally, it became apparent to me throughout my time with Irise and in Uganda more especially, the difficulties of setting up a Public Health programme in the field. In all the schools we visited, teachers and pupils were understandably keen to know when Irise would complete the project in the area. It is entirely comprehensible that they wanted change to be enacted as soon as possible; however this was just not feasible. Even though Irise have contacts on the ground, and are working hard to bring projects to fruition, it is a long process and no sudden changes can be made. Although I knew of these issues before my placement, I do not believe it truly became apparent to me until I saw it in action.

There are so many aspects of my time with Irise from which I have gained and which I will be able to apply in my future academic and professional career. Managing my relationship with Irise, with other members of the research team and with organisations on the ground has taught me an invaluable amount. The team work skills I believe I have gained, as well as leadership, adaptability and communication skills will be very useful to me in the future work I undertake, whether that is as a doctor or within the public health field. My learning from my time with Irise will serve as valuable ground to build on throughout my future career.
The enthusiasm of the members of our team, partner organisations and even more so of the teachers, school staff and the girls was of great benefit to our work. I hope to continue my collaboration with Irise and put my learning into practice. I could not have asked for better support on their behalf and that of the rest of the team. My colleague and I managed to successfully lead our team and gather a large quantity of data in an even shorter period of time than expected. The fact that we were able to work well together truly made the whole data collection period and the placement experience in general a more enriching experience.