

# Adolescent schoolgirls' experiences of menstrual cups and pads in rural western Kenya: a qualitative study

LINDA MASON, KAYLA F. LASERSON, KELVIN ORUKO, ELIZABETH NYOTHACH, KELLY T. ALEXANDER, FRANK O. ODHIAMBO, ALIE ELEVELD, EMILY ISIYE, ISAAC NGERE, JACKTON OMOTO, AISHA MOHAMMED, JOHN VULULE and PENELOPE A. PHILLIPS-HOWARD

*Poor menstrual hygiene management (MHM) among schoolgirls in low-income countries affects girls' dignity, self-esteem, and schooling. Hygienic, effective, and sustainable menstrual products are required. A randomized controlled feasibility study was conducted among 14–16-year-old girls, in 30 primary schools in rural western Kenya, to examine acceptability, use, and safety of menstrual cups or sanitary pads. Focus group discussions (FGDs) were conducted to evaluate girls' perceptions and experiences six months after product introduction. Narratives from 10 girls' and 6 parents' FGDs were analysed thematically. Comparison, fear, and confidence were emergent themes. Initial use of cups was slow. Once comfortable, girls using cups or pads reported being free of embarrassing leakage, odour, and dislodged items compared with girls using traditional materials. School absenteeism and impaired concentration were only reported by girls using traditional materials. Girls using cups preferred them to pads. Advantages of cups and pads over traditional items provide optimism for MHM programmes [Clinical Trials Registration: ISRCTN 17486946].*

**Keywords:** menstruation, menstrual cups, sanitary pads, WASH in schools, MHM

---

Linda Mason (research associate, [Linda.Mason@liverpool.ac.uk](mailto:Linda.Mason@liverpool.ac.uk)), Kelly T. Alexander (research assistant, and Penelope A. Phillips-Howard (senior lecturer, [Penelope.Phillips-Howard@lstm.ac.uk](mailto:Penelope.Phillips-Howard@lstm.ac.uk)) are at the Liverpool School of Tropical Medicine, UK; Kayla F. Laserson (former CDC-Kenya Kisumu Director) is at the Center for Global Health, Centers for Disease Control and Prevention, Atlanta, USA; Kelvin Oruko (field coordinator), Elizabeth Nyothach (project manager), Frank O. Odhiambo (Chief of Health and Demographic Surveillance System [HDSS]), and John Vulule (Chief Research Officer, [JVulule@kemri-cdc.org](mailto:JVulule@kemri-cdc.org)) are at the KEMRI/CDC Research and Public Health Collaboration, Kisumu, Kenya; Alie Eleveld (director) is at the Safe Water and AIDS Project, Kisumu, Kenya; Emily Isiye (Sub-County Director of Education) is at the District Education Office, Gem District, Sawagongo, Siaya County, Kenya; Isaac Ngere (Medical Officer of Health) is at the District Medical Office, Gem District, Yala, Siaya County, Kenya; Jackton Omoto (medical supervisor) is at the Department of Obstetrics and Gynaecology, Siaya District Hospital, Ministry of Health, Siaya, Kenya; Aisha Mohammed (programme manager) is at the Division of Reproductive Health, Ministry of Public Health and Sanitation, Kenya.

---

© Practical Action Publishing, 2015, [www.practicalactionpublishing.org](http://www.practicalactionpublishing.org)  
<http://dx.doi.org/10.3362/1756-3488.2015.003>, ISSN: 0262-8104 (print) 1756-3488 (online)

MENSTRUAL HYGIENE MANAGEMENT (MHM) for schoolgirls in low-income countries (LICs) is a 'long-neglected issue' (Sommer and Sahin, 2013), only recently reaching international agencies' agendas for research, programming, and policy. Ineffective MHM has reportedly been associated with girls' absenteeism from school, due to unavailability of absorbent materials, lack of facilities for changing and washing, fear of leakage and odour, or discomfort (Sommer and Sahin, 2013). Poor MHM may also affect academic performance (McMahon et al., 2011; Mason et al., 2013). To date, however, research on school outcomes has been limited (Sumpter and Torondel, 2013).

It is unclear which MHM products are appropriate for adolescent girls in LICs, and studies are required to understand whether girls will accept and use alternative products. Menstrual cups are one potential option. These bell-shaped receptacles, inserted into the vagina to collect menstrual flow, have been used by girls and women in higher income countries, with studies showing acceptability and safety (Stewart et al., 2010; Howard et al., 2011). Evidence among schoolgirls in LICs is limited to small-scale studies, however, and large comparative studies between MHM items are recommended (Sumpter and Torondel, 2013).

A cluster randomized controlled feasibility study using mixed methods to examine the acceptability, use, and safety of menstrual cups and commercial sanitary pads against traditional items among primary schoolgirls in rural western Kenya has been conducted by the Liverpool School of Tropical Medicine in collaboration with the Kenya Medical Research Institute, Centers for Disease Control and Prevention, Safe Water and AIDS Project, and local ministries of health and education. Poor MHM at baseline (Mason et al., 2013) validated the need to explore the impact of menstrual products on girls' health, wellbeing, and schooling. Here, we report on schoolgirls' early experiences using a menstrual cup or commercial sanitary pads versus use of traditional items, through focus group discussions (FGDs).

## Methods

### *Study area and population*

The study was carried out in Gem District, Siaya County, nested within the KEMRI/CDC health and demographic surveillance system covering a Luo population who are mainly subsistence farmers and fisherfolk (Odhiambo et al., 2012).

### *The Menstrual Solutions study*

The Menstrual Solutions (MS) study examined the acceptability, use, and safety of menstrual products, and social and schooling experiences of girls followed over one academic year. Thirty primary schools fulfilling basic WASH criteria of a pre-defined latrine/pupil ratio, a separate latrine bank for girls, and handwashing water at baseline (Alexander et al., 2014), were randomized into three arms: menstrual cups, sanitary pads, or traditional practice. Girls from these schools were eligible to participate if aged 14–16 years, their parents provided written informed

consent, and they individually provided written assent. Girls were required to have experienced three or more menstrual periods to ensure their monthly menstruation was established. Ethical approval was granted by the KEMRI Scientific and Ethical Review Board (SSC No 2198), and the Institutional Review Boards of the US CDC and the Liverpool School of Tropical Medicine (12.11).

### ***MHM items***

Girls in the menstrual cup group were provided with one Mooncup®, size B for nulliparous women, or size A for those who had given birth. This brand was selected because it has been tested internationally (Stewart et al., 2010; Oster and Thornton, 2012), and was approved by the US Food and Drug Administration. When inserted into the vagina it collects ~30 ml of menstrual blood, lasting 4–8 hours before emptying is required. Girls in the sanitary pad arm were each given 2 packs (total 16 pads) monthly of Always®, a brand commonly available in Kenya. Girls using traditional materials used cloths, bedding, or paper, or if they had resources, pads (Mason et al., 2013). All schoolgirls received educational sessions on puberty and menstrual hygiene prior to intervention. Girls in the menstrual cup arm were taught how to use the cup by study nurses. Study nurses screened girls twice per term, provided girls with a small bar of soap each month to assist their handwashing, and directed girls to preventive and curative services if required.

### ***FGD recruitment***

Six months following introduction of menstrual products, 10 school-based FGDs were held with girls, three per study arm, plus one extra in a school where initial resistance to cup use was reported. Altogether 101 girls participated. Prior to the FGDs each school was visited by field staff to discuss FGD methods, with question and answer sessions enabling participating girls to understand the purpose of the FGD. Parents of girls wishing to participate were visited at home to request approval and written consent for their daughter's participation. Once received, girls then provided written assent. Following completion of girls' FGDs, parents of girls participating in the MS study were invited/consented to participate in parent FGDs. Six parent FGDs were conducted, two in each study arm. Altogether 64 parents participated. Fathers were included, but the small number prevented a separate gender FGD.

### ***Focus group approach***

Semi-structured FGD guides were developed following review of the results from the baseline FGDs, and in line with the objectives of the study; that is, to explore issues around the perceptions and experiences of girls and parents using the different MHM items. The guides comprised topics on: perceptions and experiences of menstruation; benefits and drawbacks of the MHM products; hygiene practices at school and home; and behaviours since using the menstrual product (see Annex). To minimize bias both positive and negative interrogation was adopted for most questions: for example, 'What is the best thing about using the menstrual cup?' 'What is the worst

thing about using a menstrual cup?’ The parents’ guide was similar while probing perceptions of their daughters’ MHM.

Discussions were conducted in Luo and lasted from 1 hour to 2 hours 20 minutes. Participants (P) were given numbers to identify who spoke, noted in the narrative. All FGDs were tape-recorded. Note-takers captured the main points, group dynamics, and non-verbal gestures. Moderators and note-takers were young women, local to the area, and fluent in Luo and English. Discussions were transcribed verbatim and checked for accuracy while listening to the recordings by the moderator or note-taker, who then translated from Luo into English.

### ***Analysis***

Data from the girls’ and parents’ FGDs were initially analysed separately using thematic analysis (Boyatzis, 1998). Analysis began with the first and last authors reading and re-reading the transcripts to familiarize themselves with the data. Annotations were made to devise initial codes. Minor differences in suggested coding were identified and discussed, with reassignment or a new code assigned as appropriate. As the coding frame emerged, the transcripts were entered in NVIVO version 10 and codes assigned to relevant sections of the transcripts. Text was removed and reassigned to different or new codes as appropriate. The codes were then examined to identify themes, subthemes, patterns, and relationships. As the main themes emerged, the constant comparison method was employed to identify differences and similarities allowing comparison between the three arms, and between parents and girls (Fram, 2013). Themes were sorted into logical order, narrative text was woven around them, and illustrative quotes added.

### **Results**

Three overarching themes were identified: comparison, fear, and confidence. Other emerging themes reported were: first impressions, MHM leakage, odour, comfort, accidental falling out of menstrual items, and concentration.

Narratives among girls using traditional items were predominantly negative. Parents’ narratives were also negative although generally sympathetic to the girls’ plight. Girls without pads described being ‘forced’ to use items such as mattress, blankets, rags, tissues, and cotton wool. In contrast, cups and pads were mostly described positively by girls and parents.

#### ***First impressions***

Girls’ reactions to traditional items and to pads were minimal. Two girls voiced concern that pads could fall out or would be visible if they ‘protruded’ at the back. Most girls in the menstrual cup group described their reaction to first seeing cups as one of shock, primarily due to its size: ‘but first days when we saw it we thought – it is too big! It cannot fit!’ (P6 School 7). This was echoed also by parents: ‘I thought that it was too big for those small girls’ (P3 Parent FGD 5).

Consequently, a few girls received warnings of dire consequences from their peers or members of the community if they used it. Girls believed this stemmed largely from envy, with others wanting a cup for themselves. 'A certain woman told me not to use that thing because it can prevent me from giving birth in future' (P6 School 7).

Despite initial fears, girls tried the cup. They commonly described pain during insertion or discomfort *in situ*, but reported this resolved over time. Girls in just one FGD reported others were not using the cup because '... it hurts their vagina when they insert' (Px School 9).

Girls reported they persisted in trying because their peers were using the cup successfully, or they were helped with further instruction on insertion by peers, the nurse, or a teacher.

I felt pain, then I said to myself 'this thing is difficult to insert', then I said again 'no, I heard people talking that it is good' so I went to try again. So from that day up to now I have been using it (P5 School 9).

Parents also encouraged girls to use the cup. 'Some parents will just urge you, just use it my daughter I don't have money, will I be looking for money to buy maize [food] or to buy pads for you?!... So you will just use' (P3 School 7).

### **Leakage**

Leakage was a dominant theme emerging from girls' and parent FGDs. When using traditional materials such as cloth, girls were constantly alert for leakage. They worried others would think they were unable to keep clean and would laugh or tease them, as a result they, or their classmates, stayed away from school during menses. 'Sometimes you cannot be normal because sometimes you are using cloths during your periods, and when the teacher is teaching all you think is that blood can leak on your dress' (P5 School 1).

In contrast, girls using pads spoke of having confidence they would not leak. 'I just come to school without fearing of leaking' (P5 School 6).

Girls' acknowledged, however, that if the pad was not placed properly, worn for too long, or during a heavy flow, leakage could occur. 'When you are on your period you feel shy because of leaking if at all you didn't insert pad well but during normal days, you are free and feel like playing together with your colleagues' (P12 School 6).

Among menstrual cup users, three girls experienced leaking during initial use. All other narratives were positive, with girls describing confidence they would not leak at school. Some cup users considered it preferable to pads because it did not leak at all.

It has helped me because before if I use [brand] sometimes I could find blood stain on my clothes and you know that is embarrassment, but since the Mooncup was brought, if I insert it I just feel free and do not even have it in my mind that blood can leak (P5 School 9).

Parents of girls using modern products reported a noticeable difference; they did not see stained clothing and were often unaware when their daughter was menstruating. Both girls and parents described improvement in school attendance. Girls

also acknowledged they were able to concentrate better in lessons. 'It can improve their performance because they will now concentrate more on their studies, not on how she will manage her periods because sometimes the teacher is busy teaching and she is just thinking about periods' (P9 Parent FGD 4).

### **Odour**

Personal odour was feared by girls using traditional items. A few girls mentioned they might smell if they could not change often enough, and cited this as a reason for missing school. Odour was seldom mentioned as an issue by girls who used modern products. 'Let me say that you wore it when coming to school in the morning and you have not gone back home for lunch, it will start stinking and make people uncomfortable in class' (Px School 2).

### **Comfort**

Discomfort was a key concern for girls using traditional items. Girls described the discomfort as 'irritating', 'bruising', 'hot', 'sore', and causing 'pain'. Parents reported they observed their daughters suffered through wearing of such materials. 'When you change the cloth, you will have infections or itching that will take sometimes. She will scratch her private part for sometimes before changing' (P4 Parent FGD 2).

In contrast, girls and their parents described pads as comfortable to wear, although a few girls reported discomfort, itching, or cuts if they prolonged use of a single pad. Comfort emerged as a major reason for girls' enthusiasm for wearing a cup; once they had learnt to insert correctly they could not feel it, and favoured it over pads. 'It is good because you cannot get skin rashes, unlike pads, after using you will have irritations and maybe bruises, but Mooncup does not' (P9 School 7).

### **Falling out**

Girls using traditional materials feared the item would dislodge and fall out in public. This was heightened at school because of the shame they felt if classmates or teachers spotted the soiled article. Girls thus restricted running, playing, even just walking or standing, and reported disobeying teachers during physical education classes:

When he has just told you to go for game, for example athletics, people do press ups in the field. And then you will be told to pull or put your legs apart and when you will realize the kind of material that you are using and you are on your periods you will hesitate, then just stand until the teacher will decide to cane you because you are not doing what the others are doing (P1 School 1).

In contrast, girls using pads described the relief and freedom they felt and could now run, play football, and dance. (Some acknowledging this depended on the pad being positioned properly.) Narratives around cup use demonstrated the pleasure girls felt being active and confidence that the cup would remain *in situ*. Cups were

compared favourably to pads: 'I'm feeling good because when I put that Mooncup inside I can run, I can do anything' (P8 School 9).

Before when we had the pads on, we used to worry that maybe the pads or cloths can fall. But now you can find someone running very fast and when playing ball games such as netball, she jumps very high without even getting worried of other things (P7 School 8).

Parents of girls using modern products observed a change over time in their daughters' demeanour and behaviour. They were 'free' and more confident, and able to move around without fear; which they were unable to do previously when menstruating.

I have noticed that the fear which used to be there, you would see them trying to conceal something. Nowadays the girl is very free, she is here and there. She is happy all the time and even when performing her chores, I do not see her fearful like I used to notice before when the month was coming to an end (P5 Parent FGD 3).

## Discussion

The MS study is the largest study to date documenting experiences of rural African schoolgirls with menstrual cups, and we believe the only study documenting girls' experience comparing different MHM items. The study demonstrates qualitatively that girls provided with a menstrual cup or commercial pads prefer these to traditional items. They described their new menstrual hygiene experiences in terms of an enhanced quality of life while at school, with qualitative evidence of improved attendance and performance, and an ability to move freely and enjoy games, sport, and physical education. While future quantitative results will add precision to these findings, parents' narratives corroborate girls' accounts, particularly on improved comfort, security, and well-being. Reported improvement in engagement with lessons strengthens support for the hypothesis that girls' unmet menstrual needs impact on schooling inequities.

Prior to intervention, girls described absenteeism from school, due to lack of absorbent materials, fear of leakage, odour, as well as discomfort, and an inability to concentrate during class (Mason et al., 2013). During this follow-up study, girls using traditional methods continued to report absenteeism, impaired concentration, and restricted movement in school, while girls using pads or cups spoke of such experiences in the past. Parents corroborated their narratives. Research has not yet demonstrated the impact of improved MHM on absenteeism or class participation (Sumpter and Torondel, 2013). Absenteeism fell by ~9 per cent among 60 Ghanaian girls receiving puberty education and sanitary pads, but improvement was similar among girls receiving only puberty education after 5 months intervention (Montgomery et al., 2012). No difference was noted among ~100 Nepalese girls provided with menstrual cups compared with those without cups (Oster and

Thornton, 2011). Further quantitative studies are thus required to evaluate MHM impact on key school indices.

Our findings suggest a hierarchy of satisfaction with MHM items. Sanitary pads were considered superior to traditional materials, while those using cups reported advantages over sanitary pads. They considered cups resulted in less (if any) leakage, would not drop, and once inserted properly were more comfortable than pads. The only advantage pads appeared to have over cups related to ease of initial use. We found no instance of a girl reporting preference for pads over cups. It is acknowledged that while girls in the cup group could compare cups with pads, none of the girls in the pad group had used cups, and thus could not compare them. We can therefore only make tentative recommendations, that while cups may be superior to traditional items and perhaps a preferred method to sanitary pads, further research is needed to confirm this.

Documentation of acceptability of cups, and factors affecting their use, was a central focus of this study. Insertion was predicted to be a potential barrier preventing use at the outset; however, at baseline concerns about virginity were only mentioned briefly by a few parents, and no girls (Mason et al., 2013). Size of cup was a practical concern provoking an early negative response. Girls learned insertion skills and practised performing this before becoming comfortable with use. Study nurses provided puberty education and sessions on product use followed by regular screening which allowed identification of struggling girls requesting additional training. Peer support was available from 'champions' (Luo secondary schoolgirls in the region who received Mooncups® through a charity). Girls reported peer support was an important contributor to cup adoption. Reduced teacher support in one 'resistant' school was thought to have influenced slow adoption. However, girls in that school started using the cups after transfer of a pupil from another school actively using cups. Our study was also interested in the use and value placed by girls and parents on commercial sanitary pads. Government and donor agency commitment to deliver pads free of charge to schoolgirls has large cost implications. Our narratives suggest girls feel obligated to share pads with family and friends, or to sell some pads. Around 3 per cent of girls reported needing more than 2 packs (16 pads) due to heavy periods although clinical follow-up excluded menorrhagia, suggesting girls hoped to obtain additional pads for their family. Pad seepage into the community will add considerably to MHM programme costs, and result in 'overstaying' (extended use) of pads among girls distributing their pads, potentially causing them rashes and sores as documented at baseline (Mason et al., 2013).

Girls were asked to share their menstrual cup but felt no obligation to do this, reportedly because of their fear of infection. This was likely due, at least in part, to the emphasis placed on the need for hygiene by our study nurses. If programmes roll out donations of menstrual cups, this hygiene issue will need to be considered. Girls reported they were able to manage menstrual care, despite varying levels of WASH in the schools (Alexander et al., 2014), and no safety hazards were identified during comprehensive monitoring.

We acknowledge possible limitations in our study. Peer effect may have had an influence on FGD responses. Schoolgirls may be uncomfortable voicing alternative



opinions to their peers. Girls in one FGD mentioned they knew of 'others' who were not using their cup. As a qualitative study we are not in a position to claim that all information is 'reliable'; we are only able to report what the participants told us, and to consider and report these findings in context. A separate investigation of physical changes occurring to cups after use will enable validation of true use in this study. Generalizing the findings to other populations may be limited because of cultural aspects (e.g. vaginal insertion of the cup appeared not to be an issue among our study participants, but may be elsewhere); furthermore our study was set in schools in which girls had a separate latrine bank as well as handwashing water. This may facilitate emptying and re-inserting the cup, which may not be possible or desirable where hygiene facilities are of a poorer standard. Quantitative data are required to confirm or refute the strength of the opinions recorded, physical evidence of uptake and use, and impact on measureable outcomes. These data are being collected as part of the wider study to be reported in the near future.

Findings from FGDs held six months after introduction of the interventions reflect early impressions only. While the study cannot address issues around longer-term use, it covers the critical time when cultural taboos and customs, as well as discomfort from early use, occur. The Nepal study showed a steep incline in use after early reticence in uptake (Oster and Thornton, 2012), and our data endorse the need for peer and adult counselling during the familiarization phase to support girls' uptake and correct use.

## Acknowledgements

We thank schools, girls, staff, and stakeholders contributing to this study, funded by the UK Joint Global Health Trials, and the Director of KEMRI for approving the manuscript; the findings and conclusions of this report are those of the authors and do not necessarily represent the official position of the CDC.

## References

- Alexander, K., Oduor, C., Nyothach, E., Laserson, K.F., Amek, N., Eleveld, A., Mason, L., Rheingans, R., Beynon, C., Mohammed, A., Ombok, M., Obor, D., Odhiambo, F.O., Quick, R., and Phillips-Howard, P.A. (2014) 'Water, sanitation and hygiene conditions in Kenyan rural schools: are schools meeting the needs of menstruating girls?' *Water* 6: 1453–66 <<http://dx.doi.org/10.3390/w6051453>>.
- Boyatzis, R.E. (1998) *Transforming Qualitative Information: Thematic Analysis and Code Development*, London: SAGE Publications.
- Fram, S.M. (2013) 'The constant comparative analysis method outside of grounded theory', *The Qualitative Report* 18: 1–25.
- Howard, C., Rose, C.L., Trouton, K., Stamm, H., Marentette, D., Kirkpatrick, N., Karalic, S., Fernandez, R., and Paget, J. (2011) 'FLOW (finding lasting options for women): multicentre randomized controlled trial comparing tampons with menstrual cups', *Canadian Family Physician* 57: e208–15.

Mason, L., Nyothach, E., Alexander, K., Odhiambo, F.O., Eleveld, A., Vulule, J., Rheingans, R., Laserson, K.F., Mohammed, A., and Phillips-Howard, P.A. (2013) “‘We keep it secret so no one should know’: a qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural Western Kenya’, *PLoS One* 8: e79132 <<http://dx.doi.org/10.1371/journal.pone.0079132>>.

McMahon, S.A., Winch, P.J., Caruso, B.A., Obure, A.F., Ogutu, E.A., Ochari, I.A., and Rheingans, R.D. (2011) “‘The girl with her period is the one to hang her head’: reflections on menstrual management among schoolgirls in rural Kenya’, *BMC International Health and Human Rights* 11: 7 <<http://dx.doi.org/10.1186/1472-698X-11-7>>.

Montgomery, P., Ryus, C.R., Dolan, C.S., Dopson, S. and Scott, L.M. (2012) ‘Sanitary pad interventions for girls’ education in Ghana: a pilot study’, *PLoS One* 7: e48274 <<http://dx.doi.org/10.1371/journal.pone.0048274>>.

Odhiambo, F.O., Laserson, K.F., Sewe, M., Hamel, M.J., Feikin, D.R., Adazu, K., Ogwang, S., Obor, D., Amek, N., Bayoh, N., Ombok, M., Lindblade, K., Desai, M., Ter Kuile, F.O., Phillips-Howard, P.A., van Eijk, A.M., Rosen, D., Hightower, A., Ofware, P., Muttai, H., Nahlen, B., De Cock, K.M., Slutsker, L., Breiman, R.F., and Vulule, J.M. (2012) ‘Profile: the KEMRI/CDC Health and Demographic Surveillance System – Western Kenya’, *International Journal of Epidemiology* 41: 977–87 <<http://dx.doi.org/10.1093/ije/dys108>>.

Oster, E. and Thornton, R. (2011) ‘Menstruation, sanitary products and school attendance: evidence from a randomized evaluation’, *American Economic Journal: Applied Economics* 3: 91–100 <<http://dx.doi.org/10.3386/w14853>>.

Oster, E. and Thornton, R. (2012) ‘Determinants of technology adoption: peer effects in menstrual cup up-take’, *Journal of the European Economic Association* 10: 1263–93 <<http://dx.doi.org/10.1111/j.1542-4774.2012.01090.x>>.

Sommer, M. and Sahin, M. (2013) ‘Overcoming the taboo: advancing the global agenda for menstrual hygiene management for schoolgirls’, *American Journal of Public Health* 103: 1556–9 <<http://dx.doi.org/10.2105/AJPH.2013.301374>>.

Stewart, K., Greer, R. and Powell, M. (2010) ‘Women’s experience of using the Mooncup’, *Journal of Obstetrics & Gynaecology* 30: 285–7 <<http://dx.doi.org/10.3109/01443610903572117>>.

Sumpter, C. and Torondel, B. (2013) ‘A systematic review of the health and social effects of menstrual hygiene management’, *PLoS One* 8: e62004 <<http://dx.doi.org/10.1371/journal.pone.0062004>>.

## Annex: Menstrual Solutions Study: PI – P.A. Phillips-Howard, Liverpool School of Tropical Medicine, UK

Collaborators: Kenya Medical Research Institute, Kisumu; Centers for Disease Control and Prevention, Atlanta USA; Safe Water and AIDS Project; Local Ministries of Health and Education, Gem District, western Kenya

Funded by UK-based Joint Global Health Trials: G1100677/1

### Focus Group Discussion Guide 2 – FGD for schoolgirls – follow-up (cup) - April, 2013

**Moderator:** Document required information as appropriate for each FGD using the formats provided below. Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Initials: Moderator: \_\_\_\_ Note Taker: \_\_\_\_

Recorder Number: \_\_\_\_ Folder/File Name (location on recorder): \_\_\_\_\_

Interview location (Venue): \_\_\_\_\_

FGD Group: \_\_\_\_\_

FGD Number: \_\_\_\_

Time Start: \_\_\_\_\_ Time stop: \_\_\_\_\_

No. Participants at start of FGD: \_\_\_\_ No. Participants at the end of FGD: \_\_\_\_

**Demographic information for every FGD participant [to be completed on a one-to-one basis, immediately after consent is obtained]**

Participant number or Fake name	Age in completed years	Ethnic group
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

COMMENTS – reasons for withdrawal, refusal, ambience of FG, level of interest, disagreements, etc.

Introduction

Thank you so much for your willingness to take part in this group discussion. My name is [Name]. I am from the KEMRI/CDC. We are doing a research study on menstrual solutions for schoolgirls in Kenya. We're interested in hearing from you about menstrual practices among girls, issues of hygiene at home and at school, understanding on different menstrual challenges and solutions, and how these affect schoolgirls in [Name of community/school].

Often people from outside think they know what you think regarding these issues when they really don't. To us, you are the real experts, and there's a lot we can learn from you. So today we would like to hear your views about what you or other people in this community/school think when it comes to looking for menstrual management solutions. This is very informal; you can talk about anything you think is important for us to know. I also want to remind you that everything we talk about today is confidential. No one will hear this tape except for people working on the project. Whenever we write a report, we will use numbers or fake names so no one can identify you. If there are any questions you'd rather not answer, just let me know – that's fine.

Your frank responses and discussion will be most helpful to us as we try to really understand these issues. Remember, your answers to our questions will not be considered 'right' or 'wrong', because we want to know about what people think. They are merely information you will provide based on your experiences, observations, or feelings. Everyone's views are equally important. It's fine to disagree with other people's views, but if you do, it's important to disagree in a respectful and polite manner. It's important for you to take turns to speak, because if you all speak at once, we will not have a clear recording. If you disagree with something anyone says, you can say 'I disagree' and then wait for them to finish before you speak.

- Explain the role of note-takers and tape-recorder
- Give a few minutes for answering any questions regarding the FGD

Please note the questions here:

Overview, warm up question	What do you call your period?	
	How do you feel about having periods? Are they good or bad?	Why?
	What is the worst thing about having periods?	Why?
	What is the best thing about having periods?	

<b>Opinion of the cup</b>	<p>What is your opinion of the menstrual cup? What about classmates? Would they agree or disagree with you?</p> <p>Are you (your friends) using now? Why/why not?</p> <p>What is the best thing about using the menstrual cup? What is the worst thing about using a cup?</p> <p>Have you noticed any difference in leakage of blood on clothes since starting to use a cup?</p> <p>Before the cup, some girls had chafing or were sore from blood leak and cloth hurting – is it same with a cup?</p> <p>Did your friends notice that you are using the cup?</p>	<p>Why?</p> <p>Is there anything that could make it better? What is this?</p> <p>How is this different? How does it make you feel?</p> <p>Has it changed how you behave at school? If yes: in what way/s?</p> <p>Do others treat you differently now (probe men, boys, sex etc.) How?</p> <p>How do they know? What do they think?</p>
<b>Difficulties with the cup</b>	<p>Tell us about when you first started using it. What did you think about it then? (when was this)</p> <p>Did you find it easy or difficult to use?</p> <p>Did someone help you to use?</p> <p>Have you stopped using it?</p> <p>What about other girls in your class? Have they stopped using it?</p> <p>If you have carried on using it: <i>What about now</i>: Do you find it easy or difficult to use?</p> <p>Did you do anything to make it easier or better to use?</p>	<p>Why? In what way?</p> <p>Who was this? How did they help?</p> <p>When did you stop using it? Why did you stop?</p> <p>Why?</p> <p>What did you do?</p>

<b>Absenteeism/ Attainment</b>	<p>What about at school? Can you think of any differences that you found since using a cup at school?</p> <p>Do you find it better or worse to use a cup at school than (<i>what you normally wear</i>)?</p> <p>Before you started using the cup, did you ever miss school when you are having your period?</p> <p>Has this changed since using the cup?</p> <p>What about your classmates? Do they miss school when they are having their period?</p> <p>Is going to school while on your period different from a normal day? What is different?</p>	<p>What are they? Probe whether they are different during lessons, able to stand up, concentrate, do sport, etc.</p> <p>Why?</p> <p>Why? Probe – we need to know why they missed school.</p> <p>If yes – in what way? Why?</p> <p>Why? We need to know why they missed school. Was it because of leaking, pain, lack of facilities at school for changing/washing, handwashing, etc.?</p> <p>Participation in class, sports, etc. attitudes of other kids; attitudes of teachers</p>
<b>Hygiene at school</b>	<p>Do you empty and reinsert your cup during school time?</p> <p>Is it easier or more difficult for you to change your cup at school during a period compared to before?</p> <p>What happens if you drop the cup at school?</p> <p>How often do you change your <i>nini</i> when at school? How do you know when you need to change?</p> <p>When girls are on their period, do you think the other classmates are aware?</p> <p>When girls are on their period, do you think the teachers are aware?</p>	<p>If yes: How/where do you empty and reinsert your cup during school time?</p> <p>-are there specific latrines you use?/are there some latrines that are better than others?</p> <p>How? (<i>moderators: think locks/cleanliness/privacy</i>)</p> <p>Are you able to clean your hands afterwards? Where? Is there soap?</p> <p>In what way?</p> <p>Are there ever times when you want to leave class and change, but you cannot (exam, in class, etc.)?</p> <p>What does it mean if girls, boys, teachers, others outside school know you are on your period?</p> <p>Do girls fear others knowing they are on their period? Why or why not?</p>

<b>Impact – home</b>	<p>What about at home? Can you think of any differences that you found since using a cup at home?</p> <p>Do you find it better or worse to use a cup at home than (<i>what you normally wear</i>)?</p> <p>How/where do you empty and reinsert your cup during non-school time?</p> <p>When girls are on their periods – do other people in the family know? What does this mean? Is it good or bad?</p>	<p>What are they? Why is it different?</p> <p>In what way?</p> <p>Mother, sisters, brothers, fathers; Why?</p>
<b>Hygiene – home</b>	<p>Do you find it easier or more difficult to keep yourself clean during a period with a cup? Tell us what you do once your cup is full, or if it is time to change?</p> <p>What about dropping the cup, do girls have a problem with this?</p> <p>Do you know what they do if the cup is dropped?</p> <p>How do you clean your cup once your period has finished?</p> <p>Do you know/have you heard if other girls have a problem cleaning/boiling their cup?</p> <p>What about storing?</p>	<p>In what way?</p> <p>Probe – do you boil it in water? Where do you do this? In what? Do you use <i>jik</i> (bleach)?</p> <p>Describe process of boiling/cleaning/etc.</p> <p>How or where do you store your cup when your period is finished?</p>
<b>Borrowing cup</b>	<p>Has anyone asked to borrow your cup?</p> <p>Has anyone taken it without permission?</p> <p>What do your mother/sister/friends think about your cup – has anyone tried your cup?</p>	<p>If yes, who? What happened, did you let them?</p> <p>If yes, who? What happened?</p> <p>Tell us what happened, what did they do? What did they think?</p>

<b>Irritation/ symptoms</b>	<p>Is there any difference in comfort using a cup compared to what you usually use?</p> <p>What about doing activity (walking/running/sports)? Can you do more/less when you use a cup compared to what you usually use?</p> <p>Since using the cup have you noticed any health problems that you did not have before?</p>	<p>What is this?/Why?</p> <p>Why is this?</p> <p>If yes: What did you do? Who did you tell?</p> <p>What health problems (probe anything, then RTI)</p>
<b>Puberty</b>	<p>What is puberty? How would you know someone is going through puberty?</p> <p>What is a period/menstruation? Why do girls/women have periods?</p>	