

# Using Participatory Design to Develop a Menstrual Hygiene Management Intervention: Designing WASH UP! Girl Talk in Zimbabwe

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## ABSTRACT

Globally, as more girls transition from primary to secondary education, there is a new generation of girls who will have to manage their menses in school environments. Few schools are designed with girls' menstrual hygiene management (MHM) needs in mind and many girls begin menstruating without knowing what is happening to them. This lack of knowledge about menstruation is associated with profound psychological and reproductive health issues. As such, school-based WASH interventions, especially those focused on MHM, can improve educational opportunities, promote lifelong health, and enhance the well-being of children and their families. In Zimbabwe, these global realities hold true, where menstruation is a taboo subject and girls find it difficult to access accurate information and are unable to manage their menstruation safely, hygienically, and with dignity and privacy.

An effective solution to these challenges must address school infrastructure concerns and limitations in knowledge, attitudes, and practices around MHM. In response, Sesame Workshop, in collaboration with World Vision, launched WASH UP! Girl Talk in Zimbabwe, targeting students 10-14 years old. Girl Talk involved the development and implementation of an intervention aimed at improving students' knowledge and practice of healthy hygiene behaviors. Girl Talk also focused on increasing girls' confidence in their personal MHM. This article highlights the development of Girl Talk and its focus on participatory design to standardize a curriculum framework, implementation process, and research approach to contextualize education content. This process of program design, grounded in the intersections of best practices and local knowledge, provides both a conceptual and practical framework to inform future MHM interventions.

## 1 INTRODUCTION

While menstrual hygiene management (MHM) has become a globally recognized public health topic, there remains limited guidance on designing interventions, and inadequate school

infrastructure for menstruating girls to practice safe and proper personal hygiene (Phillips-Howard, et al. 2016). Relatedly, there remains little information on the effectiveness of MHM interventions and whether MHM-related interventions influence girls' access to opportunities throughout the

course of their lives (Sommer, et al. 2015, Phillips-Howard, et al. 2016). This lack of guidance, compounded by limited evidence of what works, is particularly significant given the need. Worldwide, as of 2014, there were over 250 million girls aged 10-14 years living in low-income countries without access to adequate water, sanitation, and hygiene facilities (Sommer, et al. 2016). With an increased focus on universal primary and secondary schooling, retention and grade promotion for girls has improved in many countries. Globally, as more girls transition from primary to secondary, there is a new generation of girls who will have to manage their menses in school environments. Few schools are designed with girls' MHM needs in mind, which is compounded by limited guidance and support available to girls (Haver 2018).

Inadequate and unsafe sanitation facilities in schools—combined with insufficient menstrual hygiene materials, fear of menstrual accidents, and limited access to extra uniforms—leads to girls missing up to 20% of the school year, increasing dropout rates (UNESCO 2014). The lack of access to WASH infrastructure and resources is coupled with a lack of sufficient, accurate information about menstruation. Due to the taboo of open discussion around this topic, many girls begin menstruating without knowing what is happening to them, which causes stress, shame and embarrassment, confusion, and fear (Aniebue, Aniebue and Nwankwo 2009, UNESCO 2014, Haver 2018). This lack of knowledge about menstruation is associated with profound psychological and reproductive health issues, including poor body image and general health behavior, adverse effects of menstruation on schooling and social life, and use of unhygienic material as menstrual absorbent (Aniebue, Aniebue and Nwankwo 2009, Chothe, et al. 2014, SNV Netherlands Development Organisation 2015, Sommer, et al. 2016, Haver 2018). As such, school-based WASH interventions, especially those focused on MHM, can improve educational opportunities, promote lifelong health, and enhance the wellbeing of children and their families (VanLeeuwen and Torondel 2018).

These global realities hold true in Zimbabwe. Stigmatization around menstruation in Zimbabwe presents a series of challenges to experiencing menstruation. Recent data finds that 54% of girls had experienced mocking or stigmatization, 26% reported isolation and 13% report that boys call them names during their period (SNV Netherlands Development Organisation 2015). Relatedly, because menstruation is a taboo subject in Zimbabwe, girls find it difficult to access accurate information. The majority of girls report not having ever received specific lessons on menstrual hygiene management at school. Teachers in Zimbabwe report that they advocate for girls to confide in their mothers or female relatives after starting menstruation, but that in many instances, girls reach out to their peers, who also lack access to accurate information and may pass on misinformation (SNV Netherlands Development Organisation 2015).

In the absence of suitable hygiene facilities, materials, and education, girls are unable to manage their menstruation safely, hygienically, and with dignity and privacy. This is even more pronounced in rural areas across Zimbabwe, where sanitary wear is often unavailable and when it is, it is unaffordable (Mavudzi 2015). 72% of girls reported never having used sanitary pads and 62% report having missed school due to lack of access to a suitable sanitary material (SNV Netherlands Development Organisation 2015, Nsingo 2018). As alternatives, girls report using old cloths and rags, which may be shared among other family members; cotton wool; cow dung; and newspaper and leaves. Resorting to leaves, cow dung, or rags can cause discomfort, bruising, yeast infections, and urinary tract infections (Fakhri 2012, Mavudzi 2015, SNV Netherlands Development Organisation 2015).

Secondary school enrollment data illustrates the effects of these issues. 2012 data from Zimbabwe, the most recent available, shows that out-of-school adolescent girls represent 76% of the total 29,629 out-of-school adolescents (UNESCO n.d.). Based on complementary enrollment data, however, factors driving out-of-school rates for adolescent girls happens in secondary school. In 2012, gross enrollment among girls in primary school was 112% and 113% for boys. Of girls who complete primary school in Zimbabwe, 79% transition into secondary school, compared to 77% of boys. Further, gross enrollment in secondary school is similarly comparable to primary gross enrollment rates: 50% for girls and 52% for boys (UNESCO n.d.).

In a context like Zimbabwe, an effective solution to these challenges must address school infrastructure concerns and limitations in knowledge, attitudes, and practices around WASH—including menstrual hygiene—and girls' education. In response, Sesame Workshop, funded by Dubai Cares and in collaboration with World Vision, a trusted WASH infrastructure provider and implementation partner, launched WASH UP! Girl Talk in Zimbabwe. WASH UP! Girl Talk involved the development and implementation of an intervention aimed at improving students' knowledge and practice of healthy hygiene behaviors. Girl Talk also focused on increasing girls' confidence in their personal MHM as to ultimately support the destigmatization of menstruation and reduce girls' absenteeism.

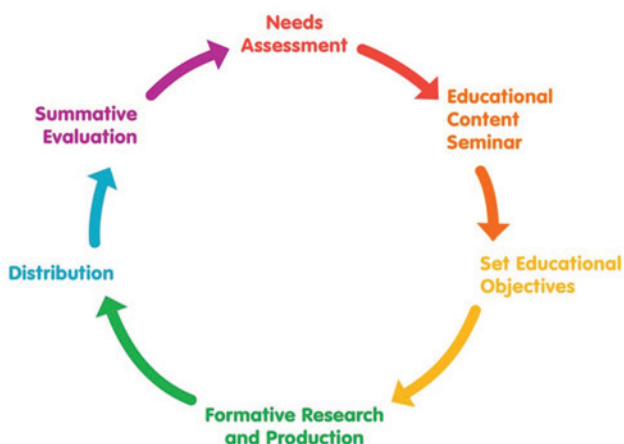
Implemented in World Vision schools in Buhera, Chimanimani, Mudzi, Limpopo, Nyanga, and Rushinga provinces between May 2018 and May 2020<sup>1</sup>, Girl Talk is an extension of Sesame Workshop and World Vision's WASH UP! program, focused on engaging young children through in-school, after school, and community-based programs with messages and learning materials contextualized for the participating schools and communities. The goal of WASH UP! is to promote behavioral changes in sanitation and hygiene by empowering children with the knowledge and skills to teach their friends and family about staying healthy.

<sup>1</sup> Due to COVID-19 related lockdowns in Zimbabwe, implementation has been suspended so there is a strong likelihood implementation will continue through fall 2020.

Building on the success of WASH UP! and targeting older children 10-14 years old, we developed Girl Talk as an MHM intervention that could be integrated into the existing WASH UP! curriculum. Through the project, we proposed to increase schools', facilitators', and students' knowledge and practice of healthy hygiene behaviors and menstrual hygiene management (MHM) and puberty. In working with pre-adolescent and adolescent girls and boys, the goal of Girl Talk is to ultimately empower girls by supporting positive body image, healthy behavior, educational opportunities, and lifelong health and wellbeing, while also creating an effective enabling environment by engaging boys to support their understanding of puberty and menstruation.

The project maximized the Sesame Workshop model (Figure 1) to standardize a framework, implementation process, and research approach, while carefully contextualizing education content based on the multiple rounds of formative research. The Sesame Workshop model (Cole and Lee 2016) ensures that curriculum and content development for any intervention, whether a television show or community engagement intervention, is grounded in iterative, research-informed process. The process first requires a needs assessment to understand context, followed by a content seminar with expert advisors. This leads to development of a curriculum framework and an iterative process of content testing and refinement, followed by implementation and evaluation. While this is Sesame Workshop's approach to project design, this approach specific to MHM interventions is in line with Sommer's (2010) guidance that the importance of a participatory approach to intervention design to understand girls' perspectives and insights cannot be overstated. Sommer advocates for a participatory process that engages girls' recommendations to develop a more useful puberty curriculum, particularly with a focus on overcoming possible negative reactions to menstrual and pubertal onset (Sommer 2010).

**Figure 1: Sesame Workshop's model** (Cole and Lee 2016)



Specifically, Girl Talk consulted local and international experts on MHM in designing the curriculum framework and educational content through a curriculum advisory seminar.

Then, Sesame Workshop used two development phases to test educational content to assess appeal, comprehension, and relevance of materials. We also used these development phases to test implementation to ensure that the teacher trainings provided facilitators with the necessary tools to be successful as Girl Talk facilitators. We conducted these activities - curriculum advisory, formative research, and post-mortem meetings – with the intent to design an effective, sustainable intervention that will help students and facilitators increase their understanding of MHM as part of a community effort to support girls' lifelong health and wellbeing. The following sections provide insight on each stage of the intervention design process to serve as a guidance note for practitioners designing their own MHM interventions.

## 2 CURRICULUM SEMINAR

In November 2017, Sesame Workshop brought together a range of key stakeholders including World Vision Zimbabwe, Zimbabwe's WASH Sector National Coordination Unit, Ministry of Health and Child Care, Ministry of Education, and other experts to discuss the initiative and to facilitate curriculum alignment with existing guidelines, cultural norms, and contextual realities. The four-day seminar first provided a global review of WASH UP!, including learning objectives and associated content used across the diverse contexts, an overview from World Vision on existing WASH and MHM programming in Zimbabwe, and an overview of Sesame Workshop's approach to gender empowerment programming.

With that framework in place, subsequent discussions focused on broader messaging around personal hygiene; puberty; menstruation; and sanitation product use, acquisition, reuse, and disposal. A significant amount of time during the seminar was acutely focused on discussing gender specific challenges facing the targeted communities and how Girl Talk should approach and develop a message to support girls' empowerment through MHM. These conversations included discussions around MHM-related myths and taboos prevalent in the target communities and proposed messaging to address these challenges.

The seminar also covered implementation, including both the role of children and adults in the intervention design. This included project parameters (audience, age, language, frequency of sessions, duration of intervention); management (monitoring, communication protocols, budget tracking); people (external stakeholders, advisors, research vendors); and risks (delay in project activities, lack of engagement from stakeholders, partners, and advisors, change in personnel within schools, security).

Based on the outcomes of the curriculum seminar, Sesame Workshop developed a revised curriculum framework and began script development for formative testing.

## Formative research, Phase 1

Formative research is fundamental to Sesame Workshop's programming. From broadcast television shows to community outreach initiatives like Girl Talk, formative research is always conducted to inform content creation. The first step of formative research is observation watching children engage with video and/or print content. The second step is qualitative interviews or focus group discussions, in which we further assess appeal as well as test comprehension of educational messaging. Given both that MHM was a new topic area for Sesame Workshop and the sensitivities around MHM in Zimbabwe we , conducted two rounds of formative research.

### Methods, Phase 1

In Phase 1, we conducted a formative research study in two schools in Buhera District in southeastern Zimbabwe. We selected sites already participating in WASH UP! with their younger students. Buhera District is a predominantly rural, agricultural-based economy with both Shona and English predominantly spoken.

The aim of the formative research was threefold:

- Test the comprehension and appropriateness of puberty and menstrual hygiene messaging
- Test the assumption that Girl Talk content could effectively be distributed in English
- Test recommended messaging and assumptions shared and discussed during the curriculum seminar

To conduct this study, the production team created two short animatics<sup>2</sup>. The development of animatics allows us to test prototype content and provide recommendations before content is fully produced and finalized.

Led by a team of six research staff, including five World Vision Zimbabwe WASH staff, the formative research study design included both observational and qualitative research measures. While watching the videos, enumerators conducted observations of children's viewing behaviors and eyes on screen. After viewing each video, enumerators conducted individual interviews with the child they observed. After both viewing sessions and child interviews, enumerators conducted a focus groups discussion with teachers. The research team noted during the first session that children had difficulty understanding the video so each video was shown twice and slowed down.

In this study, 20 children (10 boys + 10 girls) from two schools participated across four viewing sessions. The research team added an additional five children to each session to support children's comfort given the sensitivity of the topic. All children provided parental consent forms. Before each viewing sessions, the research team asked teachers to discreetly identify 5 of the 10 students to participate in the observation and interviews, enabling for a broader range of developmental abil-

ities to be included. Each student received a paper tab, with those to be observed/interviewed a colored tab, and those not to be observed a beige tab. Each color tab corresponded to a researcher for observation and students were not aware if they were or were not being observed. The research team matched the gender of the researcher and child observed to further encourage children's comfort during the interviews.

All research and viewing activities were introduced in both English and Shona (the local language) to children. The research team directly translated child responses from Shona to English through a researcher of the same gender as the child being interviewed. The research team conducted all teacher focus group discussions (FGDs) in English.

### Results

Analysis of data from this study led to the following key findings on appeal, comprehension, and relevance (Schmitt 2019):

- Children appreciated the format and use of animation in the videos
- There was limited comprehension of the content due to low English language fluency
  - All children had trouble explaining the purpose of the calendar and its usage for tracking the menstrual cycle
  - Children also experienced issues understanding the shedding of menstrual lining graphic, especially boys
  - Children expressed language comprehension issues related to the accent (American English), pace of speaking, and general low understanding of English
  - Majority indicated they had never heard of reusable pads, and only some were familiar with disposable pads
- Limited comprehension of the materials reduced children's acceptance of the content
- Teachers' English skills also varied, particularly around specific MHM messaging
- Not all messaging was relevant to the target populations given the contextual realities of living in rural parts of Zimbabwe
  - A disposal method promoted in one of the videos tested, the use of waste bins, may also be limiting as they may not be available in many school-based toilet facilities
  - Disposal of used menstrual materials directly into latrines appeared to be an accepted practice by several students (male and female)

Analysis of data from this study revealed additional key findings from teachers on appeal, relevance, and usability:

- There is an absence in available resources and materials for teaching students about menstrual hygiene and pubertal health and teachers felt that these resources would be useful to them and their students

<sup>2</sup> Animatics are animated storyboards with basic sound effects and scratch dialogue. Animatics here were done quickly to allow for rapid testing, so all video content was missing color and dubbed in American English.

- Concepts and the vocabulary (e.g. uterus, puberty, inner lining) were new to their students
- Teachers had concerns regarding content retention given accent and language used
- Teachers also indicated challenges in their own ability to fully understand the content in the videos, citing audio and accent unfamiliarity
- Teachers and staff recommended making the main girl character, Didi, appear physically older as she is serving as the guide to the other girls

Based on these findings, we provided the education team and production team with the following recommendations:

- Dub videos into Shona or Zimbabwean English<sup>3</sup>
- Provide more explicit explanation and illustration in support of new concepts. For example:
  - Highlight new vocabulary more prominently in videos or through supplemental materials
  - Refine the image of uterus shedding its lining to make it appear thicker and the blood more apparent to clearly show the blood leaving the uterus
  - Provide demonstrations of key concepts
    - » Provide examples of both reusable and disposable pads
- Provide additional support to teachers to improve confidence and knowledge
- Expand the role of boys to include them as support for their female peers
- Provide signifiers to clearly indicate Didi as an older character

With these findings and recommendations, the education and production teams revised material as appropriate and feasible for a pilot of Girl Talk. Major changes made in support of the pilot included:

- Dubbing of the content into Zimbabwean English
- Addition of colors to make it easier for the children to comprehend images which were previously confusing like images of the uterus.
- The voiceover for Didi was redone to make her sound more mature. The pace of narrative was reduced to make it easier for the children to follow the content.
- A glossary was added to the training manual to help teachers with important definitions

In addition to revisions to the content, the team developed the following implementation plan:

- **Number of sessions:** 10 weekly sessions, each 60 minutes-long
  - Five sessions boys and girls attend together (odd # sessions)

- Five sessions only girls attend (even # sessions)

- **Lesson structure:**

- Introduction (5 minutes)
- Activities (50 minutes)
- Conclusion (5 minutes)
- Homework: 10 diary entries to be completed by all learners as homework

- **Session structure:**

- **Letter from Didi:** Each lesson starts with the class reading biological information about the topic together as a group and discussing
- **Activities:** Activities vary as relevant to session topic:
  - » For example, in Session 4: *Your Cycle*, the activity begins with learning about menstrual cycle. Students then watch a video, where Sesame characters discuss menstrual cycles and how to track your period. Finally, students complete a cycle tracking activity using calendars.
  - » For example, in Session 7: *You Can Do Anything*, students discuss how puberty and getting your period should not stop you from doing the things you love, like going to school. The activity opens with a video which shows one of the characters deciding whether or not she can play football while she has her period. Then, students read a comic, and finally complete a flashcard game focused on how to manage big emotions during puberty.
- **Diary:** Each lesson ends with a diary entry. These are completed at home and are not shared in class. These are opportunities for self-reflection and often focus on girls' empowerment themes. Both boys and girls complete all diary entries, even when boys are not in this session

With this structure and accompanying content, we implemented the pilot phase of Girl Talk and Phase 2 of formative research.

## Piloting Girl Talk and Formative Research, Phase 2

Prior to implementation of the pilot, we trained 50 teachers, two teachers from each of the 25 pilot schools in Buhera and Chimanimani, completed a three-day training to learn how to implement the Girl Talk curriculum.

To get the most out of the study, we focused on testing Sessions 9 and 10, the final two sessions of the intervention. Session 9 is a girls-only session, while Session 10 is a mixed gender session. The content for these sessions focused on physical and emotional changes of puberty, who students could talk to if they needed support, local myths and misconceptions, and normalizing the changes young people experience during puberty. Activities across the two sessions

<sup>3</sup> As mentioned previously, the plan was always to create video content using Zimbabwean English. Animatics were quickly created using American English to allow for rapid testing and to help give a general sense of direction of messaging.

included a series of classroom activities to identify myths vs. facts, videos, and guidance on starting your own health club at school.

The aims of these second phase expanded on the aims of the first phase:

- Test the comprehension and appropriateness of puberty and menstrual hygiene messaging
- Test the assumption that Girl Talk content could effectively be distributed in Zimbabwean English
- Test the breadth and depth of training to support Girl Talk facilitators for effective implementation

## Methods, Phase 2

For the second phase, we selected four schools in Chimanimani District in eastern Zimbabwe, just near the border of Mozambique. Chimanimani is a mountainous region with a predominantly rural, agricultural-based economy, with Shona and English predominantly spoken in addition to other vernacular in use. World Vision works in Area Program (AP) structures, which is a defined area in which WV has worked for 15+ years. Because programs and information can spread quickly through an AP, we chose a new AP for the second round of formative that still had strong ties to World Vision but would not be biased from the initial formative research.

All schools selected had reached at least session 6 of the Girl Talk curriculum. Again, led by a team of six research staff, including five World Vision Zimbabwe WASH staff, the formative research study design included both observational and qualitative research measures, using the methods previously discussed.

For this phase, the research team interviewed 32 students (24 girls + 8 boys) and 8 facilitators (6 women + 2 men). The sessions ranged in student population from 37 students to 85 students and each session was carried out by two facilitators at every school, as per the intervention design. All students were included in the sessions and number cards were handed to students at the beginning of the classroom, so researchers could follow the student assigned to them for observation. Students never knew if their number was selected for observation and, if they were able to, stayed behind once the session was complete for a follow up interview. Numbers were assigned to researchers based on sex, as gender parity during the co-ed sessions was important to maintain during research activities. Due to the sensitive nature of the subject matter, while men on the research team observed girls in the Girl Talk session, only women researchers interviewed girls.

Activities observed during the formative research in Chimanimani were carried out in both English and Shona to enable all learners to understand material. At two of the sample schools, activities were delivered mostly in Shona, with only instructions and activities in the guidebook read in English but explained in detail in Shona. All Shona translations were done through direct teacher translation as none of the Girl Talk materials had been translated into Shona.

## Results

Phase 2 findings from observations and interviews with students reinforced findings found during phase 1 formative (Carney 2018):

- All students gave positive feedback overall for *Girl Talk* program and discussed knowing new information and sharing it with others
  - Girls reported they do not fear menstruation anymore and know whom to talk to with questions or concerns
  - Students reportedly like to learn about puberty and attend *Girl Talk* sessions
- While engagement was generally high, comprehension of content was still limited
  - Most students were able to recall some, but not all character names from activities or describe scenes from videos despite watching videos at least twice
  - Students gave basic information when asked to describe what happened in particular scenes (e.g. “*It was about puberty*”), but seemed to guess when they did not know answer
  - Only a small handful of girls interviewed were able to describe what happens in women’s body during menstrual cycle
- There was varying success in distinguishing myths and facts around menstruation
  - Students mentioned learning lessons contradicting intended Girl Talk lessons, including multiple boys who mentioned learning that boys become angry and mean while going through puberty, or that girls should not cook food while menstruating
  - One myth — “If a girl does not dispose of her pad properly, someone could take it and use it for witchcraft” — proved especially problematic. Nearly all students stood up and insisted this myth was true
    - » In response to what the consequences of witchcraft were, at both schools, students responded, “The girl will be barren” and “The girl will bleed forever” and continued to insist this myth is true
    - » Facilitators stated this was a myth but did not explain *why* this is a myth to help convince students otherwise

Additional findings from observations and interviews with facilitators included:

- Overall, facilitators at both schools were very engaging with students and presented each session with enthusiasm
- All facilitators used the training manual very closely while going through the sessions with students and repeated each activity in Shona to support students’ comprehension.
  - All facilitators stated manual is very easy to follow and they like the *Girl Talk* sessions and the minimal additional work required of them

- Facilitators indicated difficulty keeping to suggested time of activities, since so much time is spent replaying videos and translating all information to Shona for comprehension
- Facilitators need more information in the training manual to help answer difficult questions from students.
  - Most students interviewed could explain some of the biological process of menstruation, but most students repeated a mix of true and untrue information, suggesting facilitators may need more training on reproductive organs and the menstrual cycle
- Teachers reported having very few materials for MHM available for girls at school.
  - If a girl gets her period while at school, facilitators reported a teacher would help and give pads or cotton and a painkiller (if school happened to have any), so she could return to class
  - Some facilitators reported giving their own personal supplies, if school did not have anything available, and indicated this happened often
- Two of four schools reported inviting boys to all sessions, due to curiosity and desire to learn everything girls learn

Based on these findings, we provided a series of recommendations to the education and production teams, including the following:

- While Zimbabwean English increased comprehension from phase 1, translate all videos and materials to Shona to increase engagement, support comprehension, reduce strain on facilitators for active translation, and increase facilitator confidence
- Acknowledge that certain cultural beliefs may be beyond the scope of Girl Talk to tackle. Focus on myths that may exclude girls from common everyday activities and avoid content on the link between menstruation and witchcraft
- Revise messaging around strong feelings and puberty to ensure clarity of educational objectives
- While there is high demand for content for boys, maintain girls-only sessions to support girls' comfort with sensitive discussions
- Provide more in-depth training and content for facilitators on the biological process of menstruation, so students have an accurate understanding of the menstrual cycle.
- Provide more information on variability in menstruation and that the length of each girl's cycle will vary and that this variation is "normal"

### **Girl Talk pilot post-pilot meeting**

As part of the WASH UP! pilot process, a post-mortem is always conducted with all participating facilitators. In addition to sharing the findings from formative research, facilitators who implemented the pilot provide their insights on success and opportunities for improvement. During the Girl

Talk pilot post-mortem, Girl Talk facilitators shared the following insights and recommendations:

Teachers provided feedback on both training and implementation, much of which aligned with formative findings but also provided additional important and unique insights. Feedback on training and implementation included:

- Teachers felt well trained on most content but needed additional information and training around puberty and menstruation, on myths, making reusable menstrual pads, and cycle bracelets
  - Teachers would like a Q&A section to help them answer students' questions about puberty and an additional day of training to practice making reusable menstrual pads
- Some lessons need more time than others. For example, the session on making reusable menstrual pads requires more time than other sessions
- Students were shier in expressing changes in their bodies when the sessions include both boys and girls
- The lesson on myths vs. facts was particularly challenging, as teachers did not know how to convince children that some stories were not true. Teachers recommended re-working this lesson.

Teachers shared challenges with materials as well, both from community acceptance as well as challenges specific to the Zimbabwean context. Since September 2018, hyperinflation and currency shortages made it very difficult for World Vision to procure materials for reusable menstrual pads, all which was exacerbated by fuel shortages and price increases:

- Procurement of required materials was a challenge, as no schools received pad making materials as planned
  - Teachers also mentioned because of the demand, more students attended Girl Talk sessions than planned so there were too few resources.
  - Teachers also noted that before lessons on making reusable pads, students will need basic instruction on how to sew.
- Teachers referenced a number of issues with lessons on creating cycle bracelets, which allow girls to keep track of their cycles. Parents and local government raised concerns related to various interpretations of bracelets. Some parents linked cycle bracelets to Satanism while others were concerned that boys would be able to tease girls more easily by looking at their cycle bracelets.
- To make the content more engaging, teachers recommended adding more games, rhymes, and songs to lessons.

Teachers shared surprising moments they experienced during the pilot as well as anecdotal evidence of Girl's Talk initial impact on their schools and communities. These included:

- Other schools in the area who are not involved in the program requested more information. Teachers helped to train and pass on the knowledge to those schools

- Teachers observed an increase in girls' attendance rates and a decrease in negative behavior and bullying
- Girls were participating in sports even when menstruating
- Teachers reported that children started discussing puberty and menstruation more openly
  - After a girl had her first menses, she told a friend and both approached a Girl Talk facilitator for help
  - Both mothers and fathers shared with teachers that students were more comfortable discussing puberty and menstruation at home
  - Boys and girls were overheard discussing puberty with each other

The project team took the lessons learned during the pilot, both from formative research and the post-mortem meeting, to make a final set of adaptations before scaling up implementation of Girl Talk to 150 schools across Zimbabwe.

### **Adaptations for scale-up**

Formative research and the pilot post-mortem challenged a number of assumptions made about the necessary training and materials for an effective MHM intervention in Zimbabwe

### **Language of instruction**

While English is the language of instruction for the target age group of Girl Talk, as the formative findings demonstrated, we could not deliver Girl Talk in English if it were to be accepted by schools, particularly children, and effective. For scale-up, the education team provided all materials in Shona despite initial assumptions that English would be appropriate given the language of instruction for grades 6-9 in Zimbabwean schools.

### **Training**

Both the formative and the post-mortem findings demonstrated that the content covered was new for teachers and Girl Talk was their first exposure to learning about MHM. In response, we extended the training from 3 days to 4 days, spending significant time discussing the science behind puberty and menstruation, as well as practicing making reusable menstrual pads. In addition, we added a FAQ guide to the training manual for teachers to reference when in class.

In addition, World Vision ensured that representatives from all relevant ministries, including health, gender, and education would be present at trainings in the future, helping to align content and ensure government buy-in.

### **Materials**

Formative and the post-mortem findings revealed conflicting perspectives and concerns, both cultural and resource-related, around the use of cycle bracelets to help girls track their cycles, and thus be more prepared for when their period starts each month. To account for those concerns, but still provide girls with a tool to track their cycles, the activity books included a twelve-month calendar that girls could mark each month to help them better understand and manage their

cycles. New materials were added that allow for the inclusion of new games and activities, thus making the content more engaging and dynamic. Other lessons were refined to reflect teachers concerns, particularly the lesson on myths vs. facts. In addition to providing more information on myths for teachers, the myths and facts lesson was revised to be more participatory for learners. The new lesson now includes games and dramas, where learners act out how to engage in difficult conversations about myths about puberty. Practicing these behaviors in school will help give learners to tools to stand up to stigmas and myths in their community.

Formative and the post-mortem revealed the extent of the challenges around procurement of materials to build reusable menstrual pads. The issues related to hyperinflation, currency shortages, and fuel shortages mentioned earlier made and continue to make it difficult for World Vision to procure materials for reusable menstrual pads. We continue to work with relevant procurement offices to overcome these challenges, and are currently pursuing sourcing materials from South Africa, which may be quicker and more affordable than purchasing in Zimbabwe. While importing materials from neighboring countries is a solution in the short term, ultimately local supply chains should be built up. There is availability for reusable pad materials within Zimbabwe but not currently in the quantity needed for this project.

### **Community Involvement**

School-based mothers' groups have volunteered to help and are currently assisting teachers and students in making reusable menstrual pads. While not originally part of the intervention design, mothers' active engagement has been an unexpected positive outcome to Girl Talk implementation. During scale up, mothers' actions groups became part of intervention implementation in that WV helps to form these groups to provide additional support to students participating in Girl Talk.

## **3 CONCLUSION**

By piloting and iterating implementation and MHM messaging through multiple rounds of formative research and a post-mortem, we designed and piloted an intervention that draws from both localized and global learnings to inform a scaled-up design.

Through the post-pilot process, we found that through changes made after Phase 1 of formative, Girl Talk was showing an anecdotal impact. Research gathered during multiple rounds of formative research and post-mortem feedback demonstrate the importance of engaging girls, and all beneficiaries and stakeholders, in the design of an MHM intervention. Additional revisions made from Phase 2 formative findings and feedback provided during the post-mortem ultimately supported significant changes in students' knowledge around both puberty and menstruation (Light, Matinhure-Muzondo, Ferguson, Muzundo, and Lungu 2021).



This process of program design, grounded in the intersections of best practices and local knowledge, provides both a conceptual and practical framework to inform future MHM interventions. For an intervention focused on providing increasing knowledge, practice, and confidence in healthy hygiene and MHM to support the destigmatization of menstruation and reduce girls' absenteeism, the approach must ground the intervention design in existing knowledge, perceptions, and realities to support stakeholder and beneficiary buy-in and ultimately long-term effects. Continued monitoring and evaluation of implementation will provide additional lessons learned to provide a globally adaptable framework for designing effective MHM interventions.

As detailed here, the development and application of a globally adaptable framework, however, does not reduce the need for continued contextualization of content in support of an effective MHM intervention. While the needs around MHM education are similar — limited guidance and support available to girls, inadequate and unsafe sanitation facilities, insufficient menstrual hygiene materials, lack of accurate information about menstruation, and cultures of silence around menstruation — the ways those needs manifest themselves are culturally specific. Because the challenges girls face are culturally specific, continued contextualization is likely needed. Engaging girls in the creation of an MHM intervention, as well as those involved in creating the enabling environment required for successful implementation, must guide each step of the design process to ultimately create an intervention grounded in girls' lived experiences.

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