“I now see it as a normal thing”: A qualitative study of adolescent girls´ experiences with, and perceptions of, a menstrual health and hygiene management intervention in Mwanza, Tanzania.

Live P. Løvbugt

30 ECTS Thesis

Department of Health Promotion and Development (HEMIL)
Faculty of Psychology
University of Bergen

Spring 2023

Thesis submitted in partial fulfilment of the requirements for the degree Master of Philosophy in Global Development Theory and Practice with specialization in Gender in Development
University of Bergen 2023

Acknowledgements:

To Siri Lange, for all your guidance and support. Your belief in me and this project is what made this thesis possible. Your supervision always left me with inspiration, motivation and trust in my project. Thank you so much.

Thank you to the Pushing Pads pilot project, for giving me this opportunity and believing in me. I am forever grateful. Thank you for making the time to listen, discuss and support my research. Your advice has been highly appreciated.

To Dr. Elialilia Okello, thank you for everything. From arranging for me to do my research in Mwanza, to all your guidance and support. You made me feel welcome and safe, and I thank you for that.

Thank you to Mwanza Intervention Trials Unit for giving me a space to work and administrative support while in Mwanza. Thank you, Nsia, and thank you to the PASS MHW team with Onike, Siwema and John, for helping me with everything while in the field.

To all my fellow students and friends at the GLODE program, thank you for everything these last two years. Thank you, Selina for being a part of this journey with me, it would not have been the same without you.

Thank you to Markus for coming to Mwanza with me, and for always supporting me. And thank you to my mom, for always being there for me, and believing I can do whatever I set out to do.

And lastly, the greatest thanks to my lovely participants. For trusting me, for being open with me, and for letting me learn from you.

Table of contents:

Abstract:

Background: The topic of menstruation is gaining attention within the development field and several Menstrual, Sexual, and Reproductive Health (MSRH) interventions have been implemented across Sub-Saharan Africa, with goals of ending period poverty, fighting school absenteeism, and increasing quality of life for menstruators. However, when evaluating these interventions, some factors are usually left out. Most evaluations are quantitative, and the menstruators own experiences tend to be ignored. Additionally, few evaluate the acceptability of the intervention. Therefore, the aim of this thesis was to explore the girls´ own experiences with a MSRH intervention.

Methods: The method used in this thesis was in-depth interviews in pairs, interviewing a total of 14 participants on their experiences with the *Partnering to Support Schools to Promote Good Menstrual Health and Well Being* (PASS MHW) intervention, which was implemented in secondary schools in the Mwanza region in Tanzania.

Findings: Most participants had knowledge about menstruation before reaching menarche, gained from their mother or sister. Fear was the primary feeling towards reaching menarche, with worry around pain, how to handle their menses, and what consequences would follow. The few who felt okay reaching menarche felt so due to their knowledge on the topic. Being open about menstruation was hard for several of the participants, especially with friends or classmates. Most participants used cloths or pads, while not expressing much positivity towards any of them. The intervention consisted of MSRH education, focusing on the importance of hygiene and staying clean, a sanitary kit with reusable sanitary pads and menstrual cup, and an instruction book. All preferred the sanitary pads, while only one participant liked both the pads and the menstrual cup. The rest were negative towards the menstrual cup, with fear of pain, confusion of usage and washing, the loss of virginity being mentioned. The sanitary pads were reported as easy to understand, comfortable and free of worries. All expressed feeling more comfortable, open and confident than before the intervention, having learned about their bodies, how to cope with their menses, pain management, and risks of sexual intercourse. Some knowledge gaps seem to remain, especially linked to how to track their menstruation and flow, and wash and use of products.

Conclusion: There was higher acceptability of sanitary pads than menstrual cups. The educational component is important and was valued by the participants. The participants reported a change in attitudes, from negativity earlier, to positivity in the present. Recommendations include evaluation of menstrual cup distribution, establishment of peer support systems, and working towards more accessible MSRH education in schools.

Abbreviations:

CMI: Chr. Michelsen Institute
HDI: Human Development Index
LMIC: Low- and Middle-Income Countries
MH: Menstrual Health
MHHM: Menstrual Health and Hygiene Management
MHM: Menstrual Hygiene Management
MITU: Mwanza Intervention Trials Unit
MSRH: Menstrual, Sexual, and Reproductive Health
NIMR: National Institute of Medical Research (Tanzania)
NSD: Norwegian Centre for Data Research
PASS MHW: Partnering to Support Schools to Promote Good Menstrual Health and Well Being
RH: Reproductive Health
SNV: Stiching Nederlandse Vrijwilligers (Netherlands Development Organization)
SRH: Sexual and Reproductive Health
STI: Sexually Transmitted Infections
UIB: University of Bergen
UNESCO: United Nations Educational, Scientific, and Cultural Organization
WASH: Water, Sanitation and Hygiene

Chapter 1: Introduction

Around half of the world's population has, do, or will experience menstruation at one point in their life. Menstruation, and more specifically Menstrual Health and Hygiene Management (MHHM) and Menstrual, Sexual, and Reproductive Health (MSRH) are global health aspects that need more focus, with menstruators all over the world dealing with the issues and problems connected to their periods. In Low- and Middle-Income Countries (LMIC) the issues are more present, due to a lack of choices regarding menstrual hygiene practices. Menstruators often enter puberty without proper knowledge, and with misconceptions, leaving them unprepared for dealing with their menses (Chandra-Mouli & Patel, 2017). A report published by UNESCO in 2014 shows that around 1 in 10 girls in Sub-Saharan Africa miss school while on their period, and that several girls drop out of school all together when reaching puberty. There are multiple factors contributing to this, such as a lack of knowledge on the topic of menstruation and menstrual hygiene management, lack of pain management, lack of resources such as clean water, a place to deal with your periods such as separate and private toilets or washrooms, and *lack of access to products* (UNESCO, 2014). Stigma, shame and negative attitudes towards menstruation are common, causing the girls to have anxiety around their menses (Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020). Some see stigma as a key issue in menstrual health and hygiene management (MHHM), and one could argue that without stigma around menstruation and menstrual blood, school attendance may have been higher. While MHHM and MSRH have received little attention within the development field earlier, we are witnessing a shift, with an emerging field of MHHM and MSRH within development (Winkler, 2020, p. 469).

Over the last 10-15 years, numerous MSRH interventions have taken place in Sub-Saharan Africa, providing students with period products and education on MSRH, while some focus on Water, Sanitation and Hygiene (WASH) facilities. The goals with these interventions range from fighting school absenteeism to improving mental health and quality of life, as well as map out the current situation regarding knowledge, access and attitudes. These interventions have given students access to knowledge, products and facilities that could help fight period poverty. Period poverty is defined as the lack of access to period products, education, and hygiene facilities. It is not only an economic issue, but a social and political issue as well, causing higher economic vulnerability for girls and women, as well as physical, mental, and emotional challenges (UNFPA 2020; Michel, Mettler, Schönenberger, & Gunz,

2022). Findings show that the interventions do not reduce school absenteeism but female students feel more confident.

However, when evaluating these interventions, certain aspects are missing. Firstly, most of the evaluations lack data on the acceptability of the intervention specifically, focusing more on the outcomes related to effectiveness or success in terms of changes in attendance, attitudes or number of STIs[1]. Secondly, most of the evaluations are quantitative studies, lacking direct communication with the participants. The participating girls´ own voices tend to be forgotten or ignored when it comes to these interventions (McCarthy & Lahiri-Dutt, 2020, p.25), and a need for in-depth interviewing has been voiced (Hennegan, 2020, p.638). This study has taken these factors into consideration, and uses in-depth, friend interviews to explore the participating girls´ own thoughts and experiences related to menstruation and the MSRH intervention that has been implemented at their school, in terms of both acceptability, attitudes and knowledge. It is vital to look at what the girls who are part of these types of interventions think about them, how they experience them, and what they gain from them. This can help map out effectiveness and acceptability of the intervention, as well as give the girls a voice on the matter, going beyond just looking at the numbers and hard data.

1.1: The PASS MHW project and the Pushing Pads pilot project

Partnering to Support Schools to Promote Good Menstrual Health and Well Being (PASS MHW) is an ongoing project by Mwanza Intervention Trials Unit which (MITU) aims to "develop and pilot a scalable, comprehensive menstrual, sexual and reproductive health (MSRH) intervention […] to improve MSRH practices and perceptions and overall school climate" (Okello et. al., 2020) in Tanzania. The project has three phases, the first one being formative research to clarify Menstrual Health (MH) intervention and design strategies, the second phase consists of piloting and evaluating this intervention and the strategies, and during the third phase they will unify the findings from phase 1 and 2, collaborating with stakeholders (Okello et. al., 2020).

The PASS MHW project is conducted in collaboration with Femme International (Femme), a registered NGO in Tanzania and Kenya. Femme has a project called Twaweza[2] where they

[1] Sexually Transmitted Infections.
[2] "We can" in Swahili.

provide skills and sanitary materials to adolescents in the Kilimanjaro region (Okello, et. al., 2020, Femme International, n.d.).
It is the intervention aspect of this project, where the sanitary products and MSRH education is distributed, that this thesis focuses on, and more specifically, exploring the participating girls´ experiences with the intervention.
The fieldwork for the study was funded by the collaboration between the University of Bergen (UIB) and Chr. Michelsen Institute (CMI) called "Pushing Pads", which is a pilot project on menstruation led by Dr. Karine Aasgaard Jansen. The funding was 20 000 NOK, to help cover travel expenses, visa, and other costs related to the fieldwork.

1.2: The term Menstrual Health and Hygiene Management

While the term Menstrual Hygiene Management (MHM) is widely used and acknowledged, I argue that this term does not fully grasp the complexity of the menstruation issue. MHM is usually focused on how to stay clean and have the proper hygiene while menstruating, and leaves out the issue of stigma, embarrassment and the idea of menstruation having to be hidden (Winkler, 2021). Therefore, inspired by Winkler (2021) and Tellier et. al., (2020, p.594), this thesis will use the term Menstrual Health and Hygiene Management (MHHM), to also include more psychological aspects such as mental health, attitudes and stigma, and quality of life, which are equally as important.

The thesis consists of a total of eight chapters. This introduction is followed by a literature review and theoretical framework, as well as the objective of the study and research questions, before moving on to findings and discussion, and finishing with conclusion and recommendations.

Chapter 2: Literature review:

This chapter will present existing literature on menstrual, sexual and reproductive health, and hygiene management, including the literature search, and identified gaps in the literature.

2.1: Literature search

To obtain relevant literature on the topic, several databases were used, those mainly being ProQuest, Web of Science and Google Scholar. For accessing significant literature, word strings of the following words were used: *menstruation, hygiene, adolescent, menstrual hygiene management, menstrual products, menstrual, sexual and reproductive health,* and *acceptability.* Later, these words were connected to geographically narrowing words, such as *global south, Africa, Eastern Africa,* and *Tanzania.* Additionally, a snowball technique was also used, as relevant articles that were found using the search words in these databases led to the findings of other relevant articles, and so on. Existing research on the topic of menstruation and menstrual hygiene management has to a large degree been published in academic journals on medicine or public health. There has been done a variety of research, from quantitative surveys, to mixed methods, to qualitative focus groups and individual interviews. This research has come from a variation of fields, varying from public health, to anthropology, psychology, law, and education.

2.2: Reproductive health research globally

Reproductive health is a development issue which has been on the research agenda for a long time. However, most of the research on reproductive health have focused on other topics than menstrual hygiene management and menstrual products, such as safe sex, use of contraceptives, STIs, early and/or premarital pregnancies, and maternal health, while critical menstruation studies are just now gaining momentum. The research that has been done on the topic of MHHM show that the knowledge of this, and of menstruation in general, is low, and studies additionally present issues both in relation to the lack of clean water and proper sanitary facilities, and in relation to the stigmas or shame, and attitudes around periods (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Chandra-Mouli & Patel, 2017). Furthermore, there seems to be a deficiency of resources to help girls manage their periods, and these factors combined, lead to the overall issue of girls being absent from school when menstruating (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Mohammed & Larsen-Reindorf, 2020). While some studies have shed light on the issue of stigma and attitudes towards menstruation, the issue is usually only presented, and not discussed critically other than in relation to religion or culture. Most research on reproductive

health generally focuses more on the importance of staying clean and managing their periods so the menstrual blood does not become visible, ignoring the discussion of why this visibility of menstrual blood and menstruation itself is so stigmatized (Winkler, 2021).

2.3: Research in the global south

In the global south, some research has been done regarding MHHM, however, the number of published academic articles is relatively low, especially on adolescent girls and their experiences in relations to MSRH-interventions. In Africa, most of the research conducted in the field has been limited to a few countries, including Ethiopia, and here, research finds that there is a lack of safe MH practices, high prevalence of unsafe MHM, and non-female-friendly school environments (Bikis, Emiru, & Asresie, 2021; Sahiledengle, Atlaw, Kumie, Tekalegn, Woldeyohannes, & Agho, 2022; Seifadin, Willi, & Abubeker, 2020). Outside Ethiopia, a study from Ghana found that costs of sanitary products led to girls using uncomfortable products which are not ideal for managing their blood, and these products were also mentioned to potentially cause friction burns (Mohammed & Larsen-Reindorf, 2020). In Kenya, a study was conducted on menstrual taboos which presented findings related to tribal or local beliefs as well as poverty as leading barriers in the girls´ lives (MacLean, Hearle & Ruwanpura, 2020). Furthermore, studies have found that girls in low- and middle-income countries seem to be unprepared to reach menarche, and those they ask for information from seem to be unequipped, unable, or unwilling to fill their knowledge gaps (Chandra-Mouli & Patel, 2017; Namisi, et. al., 2009; Bastien, Kajula, & Muhwezi, 2011; Muhwezi, et. al., 2015).

2.4: Reproductive health research in Tanzania

In Tanzania specifically, there has been a focus on the menstruation practices and menarche (Cherenack, Rubli, Dow, & Sikkema, 2020; Sommer, Ackatia-Armah, Connolly, & Smiles, 2015), while some dissertations/theses and articles have researched how menstruation affects girls´ education (Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020). Studies reveal fear of teasing and experiences of teasing when on their periods, and that this relates both to girls´ mental health as well as school attendance. In addition, studies show a lack of both practical and psychological resources related to MHM (Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Cherenack & Sikkema, 2021). Many of these studies are

however quantitative studies, relying on surveys, and may miss out on some aspects, which a qualitative study could get more in-depth knowledge of.
Furthermore, studies find that menstruation is not a topic that is spoken about among families etc., before the girls reach menarche themselves, and when receiving information, it is mostly a female family member informing about period products (Allen, 2000). Following this, Sexual and reproductive health (SRH) education is only taught in terms of basic sex education and/or family planning, as parents mean that discussing these topics with their children "discourages inter-generational respect" (Remes, et. al., 2010, p. 285).

2.5: Research on acceptability of MSRH interventions in Eastern Africa

Multiple studies and/or organizations have done MSRH interventions similar to the ongoing PASS MHW project in Eastern Africa, like the Nia Project in Kenya by ZanaAfrica (ZanaAfrica.org, n.d.), the Meniscus project in Uganda (London School of Hygiene and Tropical Medicine, n.d.), the Rapariga Biz Project in Mozambique (UN Women, n.d.), and SNV´s[3] projects in Tanzania (snv.org, 2014; Tamiru, Mamo, Acidria, Mushi, Ali, & Ndebele, 2015), where sanitary products and/or MSRH education were distributed. However, few of them have evaluated their projects´ acceptability, as the evaluations have rather focused on other parts of the intervention, such as effectivity or limitations (Costa & Mbalane, 2021; Muthengi & Austrian, 2018; Nalugya, et. al, 2020; Tamiru, Mamo, Acidria, Mushi, Ali, & Ndebele, 2015). Furthermore, those who included the factor of acceptability to their evaluation, presented a great variation in acceptability of the intervention and the different components. Overall, it was reported that the sanitary pads were more accepted by the participants than the menstrual cups. However, one study from rural western Kenya found that the acceptability of menstrual cups rose over time as a result of peer support (Sahin, et al, 2015). In addition, the Meniscus project also presented reluctance towards modern pain medication, and that participant chose other technics to cope with pain, such as exercise and warm water (London School of Hygiene and Tropical Medicine, n.d.).
Lastly, none of the evaluations were done using qualitative methods where the evaluators directly communicated with the participants (Costa & Mbalane, 2021; Muthengi & Austrian, 2018; Nalugya, et. al, 2020; Tamiru, Mamo, Acidria, Mushi, Ali, & Ndebele, 2015).

[3] Stiching Nederlandse Vrijwilligers (Netherlands Development Organization)

2.6: Critical perspectives on menstruation

A more critical perspective on menstruation has recently emerged, with the book *"The Palgrave Handbook of Critical Menstruation Studies* (Bobel, et. al., 2020) leading the way. This critical perspective comes primarily from social science, rather than public health, which mainly focuses on the hygiene and cleanness aspect of menstruation, and the importance of having products to hinder leaking of menstrual blood. The handbook has a great number of contributors from around the globe, discussing different aspects linked to menstruation, such as forced womanhood, social stigma, body image and education, sexualization, and some authors telling their own personal stories (Bobel, et. al., 2020). One example of a critical perspective on menstruation comes from a human rights perspective with Inga Winkler (2021) criticizing the importance of menstruation being hidden and arguing that there is a need to challenge that notion.

Chapter 3: Theoretical framework and objectives of the study

In addition to the literature presented in the previous chapter, two theoretical frameworks are relevant for this thesis, those being, *Empowerment,* and *Acceptability.* This chapter will present and describe these two theoretical frameworks, as well as the objectives of the thesis.

3.1: Empowerment

Empowerment is a theoretical framework that was introduced by Naila Kabeer, and which has become highly influential. Femme International, one of the parties in the PASS MHW project, state that issues around menstruation hinders female empowerment (Rubli, 2013), making the theoretical framework of empowerment a relevant and interesting framework to discuss the findings of my study in light of.

Empowerment is profoundly about power, more so about *gaining* power that one has not previously had (Eyben, Kabeer & Cornwall, 2008). Empowerment is situated around the process where a person, or a group goes from not having the *power*, or the ability, to make choices, to gaining this ability. Kabeer specifies that this process is crucial for empowerment, and that just because you have the ability to make a choice, it does not mean that you are empowered, if you were never *disempowered* beforehand (Kabeer, 2005). Following this, the

choices that one can make, must be real, there must be alternatives so that the person can choose differently, and these choices must also be *seen* to exist.
Empowerment revolves around the ability to take control over the things that affect your life. The ability to redefine your path, to act, and to claim what is yours. The process of empowerment starts within, with how people view themselves, and broadens their capabilities and how they perceive themselves (Eyben, Kabeer & Cornwall, 2008; Kabeer, 2005).
Kabeer divides the concept of empowerment into three dimensions, those being *agency, resources,* and *achievements*. Agency refers to the people's ability to make choices for themselves, and to exercise this choice. In addition, it refers to the beliefs within oneself, the motivation and purpose of the actions. On the other side, agency is also linked to someone's capacity to override the agency of others, that being authorities or other institutions or people, that take away others' agency through coercing, violence, or oppression (Kabeer, 2005).
Following agency, Kabeer lists resources as a key concept, being the medium in which agency is exercised through. Resources are distributed by various institutions and/or people in the society, and the distribution is often dependent on power relations and prioritization. In this matter, resources can be hard to obtain, depending on how the society, and those in power, view their relevance and necessity. Without the resources it is hard to achieve change, but Kabeer does specify that resources in themselves are not enough to become empowered (Kabeer, 2005).
Thirdly comes achievements. Achievements refers to the outcome of the agency and resources, and the extent the potential of the agency and resources have been realized or failed to. Achievements therefore focuses on what the people have done with their agencies and resources, and the consequences of these actions (Kabeer, 2005).

3.2: Acceptability

The second concept that is central to this thesis is *Acceptability.* Sekhon, Cartwright and Francis (2017) have created a *Theoretical Framework for Acceptability* (TFA) which refers to the accept of the change, or the means put into place, within the society it is implemented in (Sekhon, Cartwright & Francis, 2017). Acceptability has been defined as "a multi-faced construct that reflects the extent to which people delivering or receiving a healthcare intervention consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention" (Sekhon, Cartwright & Francis, 2017, p. 88). The success the implementation has, will depend on whether the deliverers and the recipients of

this implementation accept it or not, and the theoretical framework has been used in relation to different healthcare interventions since being developed. It was created based on a review of a large number of studies, and consists of seven "domains", those being *affective attitude, burden, perceived effectiveness, ethicality, intervention coherence, opportunity costs,* and *self-efficacy.* See figure 1 for overview of the domains.

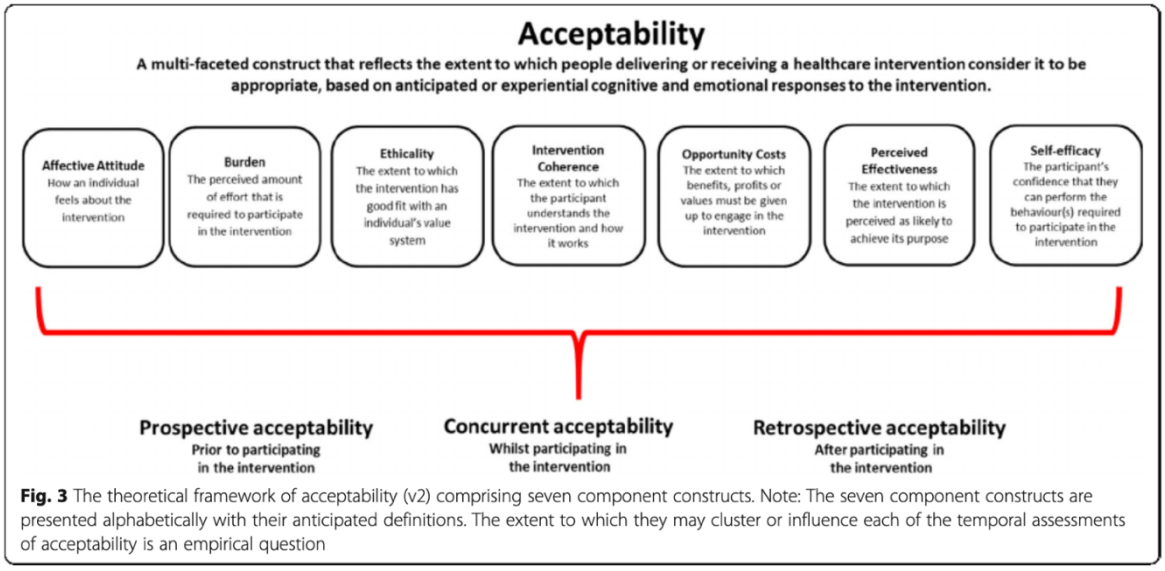

Fig. 3 The theoretical framework of acceptability (v2) comprising seven component constructs. Note: The seven component constructs are presented alphabetically with their anticipated definitions. The extent to which they may cluster or influence each of the temporal assessments of acceptability is an empirical question

Figure 1. Source: Sekhon, Cartwright & Francis, 2017, p. 8.

The different domains focus on different aspects within the framework, with *affective attitude* being about how the participants feel about taking part in the intervention, *burden* being how much it takes for the participant to participate, and *perceived effectiveness* focusing on whether the intervention´s purpose is viewed as achievable by the participants. *Ethicality* relates to how the intervention fits in with the participants´ values, while *intervention coherence* is about whether the participants understand the intervention. *Opportunity costs* focuses on what the participants give up on, for example time, to take part in the intervention, and lastly, *self-efficacy* relates to how sure the participants are in doing the intervention (Sekhon, Cartwright & Francis, 2017). Not all seven domains are equally researched in all evaluations of interventions´ acceptability, and not all are equally relevant to each healthcare intervention, but the seven domains are nevertheless a practical list of important aspects in relation to the concept of acceptability. Using the TFA when investigating the acceptability of a healthcare intervention helps for a more far-reaching study of its acceptability, by using the different domains in the discussion. In other words, the theoretical framework of acceptability will help provide a practical lens to view the findings in this study through, helping evaluate the acceptability of the different aspects in the PASS MHW intervention.

3.3 Objective and research questions

All though the number of MHM and MSRH interventions increase in Sub-Saharan Africa, there is still little data showing what the participants' experiences of the interventions are. Thus, the objective of this study is to explore adolescent girls' experiences with the PASS MHW intervention in the Mwanza region. Following this, the problem statement is: "How have female secondary school students in Mwanza, Tanzania, experienced being part of an intervention focusing on menstrual hygiene and knowledge?"

My research questions are:

- How do the research participants perceive the knowledge that they had about menstruation prior to the intervention and whom did they learn from? How do they talk about the experiences they had with menstruation and menstrual products in that period?
- What is the acceptability of this intervention among the research participants? What products do the girls prefer and what are the reasons for their preferences?
- How do the participants perceive the educational aspect of the intervention?

Chapter 4: Methods and ethics

In this chapter, the methodological choices for the thesis are outlined and justified, with sections on study site, research design, participants and methods, as well as the data management and analysis. In addition, the trustworthiness, ethics, and limitations are reflected upon.

4.1: Study site

The data collection for this thesis was part of a bigger project by Mwanza Intervention Trials Unit, London School of Hygiene and Tropical Medicine, and Femme International´s offices in Tanzania. The study sites for the data collection were schools in the Mwanza region in Northern Tanzania, on the shores of Lake Victoria. Because of the collaboration with the PASS MHW team, the schools where the data collection took place were participating in the PASS MHW project. The participating schools were one urban school, Nyakurunduma

Secondary School in the Nyamagana district, and one rural school, Mamaye Secondary School in the Misungwi district.

In the Mwanza region, agriculture is the dominant way of living, with subsistence farming being most widespread, and the region scores above the national Human Development Index (HDI) of 0,614 with a regional HDI of 0,646. Despite this, around 46,5 % of the population in Mwanza face severe poverty. Expected years of schooling is 9,7 years and 90 percent of the population are literate (URT, 2017). The Mwanza region consists of a total of 7 districts and has around 3,7 million inhabitants, making it the second largest settlement in Tanzania (Mwanza region, n.d.; Sensa, n.d.). The Tanzanian school system consists of two years of preprimary school, seven years of primary school, and a total of six years secondary school, with the last two being advanced secondary education (ITA, 2021; Nuffic, 2014). In 2014 a new education policy was implemented, making primary and secondary education free for all students in Tanzania (Mashala, 2019).

4.2: Research design

For this thesis, a qualitative methodology and a phenomenological approach was chosen. A qualitative methodology seeks to understand and describe, by capturing and communicating what the participants experience (Yilmaz, 2013, p. 313). Furthermore, a phenomenological approach seeks to explore human experience of a certain phenomenon, wishes to find a common meaning for the participants´ experience of this phenomenon, and describe what they experience (Creswell, 2018, p. 75). Approaching the topic phenomenologically allowed me as a researcher to grasp the girls´ experiences and thoughts through their own descriptions. In this study, the phenomenon being explored is "the experiences adolescent girls in Mwanza, Tanzania have with the PASS MHW intervention". With other words, the aim of the study was to explore adolescent girls´ experience of the MSRH intervention provided by MITU and Femme in Mwanza, and how this intervention may have effect on their knowledge on the topic of menstruation, and on their school life. In addition, the choice was made to do the interviews in pairs, also called "friend-interview", meaning that the participating girls were to ask a friend to join the interview together with them[4].

[4] More on this under "sampling" and "methods of data collection".

4.3: Participants

In a phenomenological study, the ideal number of participants is between 5-15 (Creswell, 2018, p. 76). To locate these 5-15 participants, inclusion criteria, as well as gatekeepers and the choice of sampling were important elements in the process.

4.3.1: Inclusion criteria

Inclusion criteria were important to ensure relevant data for the study. The inclusion criteria for choosing participants for the study built on the phenomenon being studied. In addition, being a part of the PASS MHW intervention meant that some of the criteria were already decided by MITU and Femme. This involved the schools, as the schools I conducted the data collection at were sampled by the PASS MHW team beforehand. Other criteria were decided by me beforehand but fit in with their logistics as well. The inclusion criteria included both criteria related to the schools and the participants within the schools. With the aim of exploring adolescent girls in the Mwanza region in Tanzania, and their experiences related to the PASS MHW intervention, the criteria for participation were:

1. Participants must attend a mixed secondary school.
    a. The school must be located in the Mwanza region in Tanzania.
    b. The school must be a part of the PASS MHW project.
    c. The school must have taken part in the intervention before the data collection took place.
2. The participants must be girls.
    a. The participating girls must have received the PASS MHW packages.
    b. The participating girls must be between 14-19 years.
    c. The participating girls must have reached menarche.

There are different reasons for the criteria listed above. In regard to the criteria for the schools, the location criterion is connected to practicality with transport, with Mwanza region being a large region in itself, and because that is the region where the PASS MHW team were working. And lastly, because the phenomenon being researched was how the girls experienced the intervention, the intervention must have been implemented already. That is also why there was a criterium for the girls having received the packages. The age limitation is mainly connected to the fact that the participating schools are secondary schools, as well as criteria 2c, that the girls must have reached menarche. Menarche happens at different ages,

with the mean age varying from 12,5 years in western countries, to over 15 years in lesser developed countries (Ayele & Berhan, 2013), and it is normal to reach menarche in all ages between 9 to 19. Since the age of menarche is higher in low- and middle-income countries than in high income countries, and Tanzania is categorized as a lower-middle-income country (World Population Review, 2023), it was chosen to both set the criteria of age for the participants, as well as have separate criterion of having reached menarche. Among the participating girls in the study, it was revealed that they reached menarche varying from 5th grade to the middle of secondary school, which supports the need for a high age limit and the additional specification of the need to have reached menarche.

In the thesis, the 14 participants have been given pseudonyms. This has been done to keep the anonymity of the participating girls, while still allowing the reader to feel a connection to each participant, as well as making it easier to identify which participant says what. See figure 2 below for pseudonyms with details.

School	**Interview**	**Participant**	**Pseudonym**	**Age**
Nyakurunduma Secondary School (Urban)	Interview 1	Participant 1	Mila	16 years
		Participant 2	Lulu	16 years
	Interview 2	Participant 3	Bahati	16 years
		Participant 4	Nana	15 years
	Interview 3	Participant 5	Shani	17 years
		Participant 6	Lela	17 years
	Interview 4	Participant 7	Jina	16 years
		Participant 8	Malika	17 years
Mamaye Secondary School (Rural)	Interview 5	Participant 9	Samira	16 years
		Participant 10	Winta	17 years
	Interview 6	Participant 11	Tisha	16 years
		Participant 12	Kanoni	15 years
	Interview 7	Participant 13	Halima	19 years
		Participant 14	Habiba	17 years

Figure 2: Overview of participants´ pseudonyms and details.

4.4: Gatekeepers

Gatekeepers of the study were Dr. Elialilia Okello and the rest of the team on the PASS MHW project, as well as my interpreter in Tanzania. It was the "Pushing Pads" pilot project which gave me the opportunity to go to Tanzania for my data collection and put me in contact with Dr. Okello. Dr. Okello arranged my research clearance in Tanzania, and she and the rest of the PASS MHW team helped me get in contact with schools and participants for the interviews. Additionally, they helped me find an interpreter for my interviews, who in turn helped me communicate with the participants, both outside and during the interviews, and translated all questions and answers between English and Swahili.

4.5: Sampling

Building on the criteria for participation, a combination of purposive and random sampling was used to select the participants. The schools in which the participating girls attended, had been sampled by the PASS MHW team at an earlier time, and the two chosen schools were among a small number of schools that the team were revisiting while I was in Mwanza. One rural and one urban school were purposely chosen to get a variety in background among the participants, and to see if there were any differences in the girls´ experiences and/or their answers under the data collection.

At participating schools, some members of the PASS MHW team and the interpreter randomly handed sheets of paper to the girls in Form 2 and 3[5]. The reason why it was limited to Form 2 and 3 is because the PASS MHW team were doing research themselves the same day in these class levels and were sampling for themselves at the same time. In other words, it was a matter of logistics, as well as simplicity. With this being said, all potential participants still fulfilled the criteria for inclusion. The sheets of paper were either blank or had a number written on them. The girls who received the numbered sheets were asked to participate in the study. If they agreed, they were also asked to ask if a friend wanted to participate alongside them. In school 1, four girls were sampled, giving a total of eight participants. In school 2, three girls were sampled, giving a total of six participants. In the two schools combined, I ended up with 14 participants, divided on seven friend-interviews.

[5] Form is equal to grade, meaning that form 2 and 3 means girls in grade 2 and 3 at the secondary schools.

4.6: Methods of data collection

The method chosen for the data collection was in-depth friend-interviews. Interviews allow the researcher to communicate directly with the participants and hear what they have to say about the topic (Punch, 2014, p. 144). Furthermore, the in-depth interviews were semi-structured. The idea with this was that I as a researcher would have an interview guide[6] to follow, while still having the opportunity to follow the conversation where it headed and follow up on interesting things mentioned during the interviews. It would allow the girls to speak freely, while I still had pre-established topics and questions to ask if the girls where not to talkative, to keep us on topic, and ensure some relevant data (Punch, 2014, p. 146-147). There was a great variety as to how open and freely the girls spoke, making the interview guide a crucial tool to have. The reason why the girls were asked to bring a friend with them, was because the interviews were being held in pairs. The main reason for the choice to do the interviews in pairs, also known as friend-interview, was to try to make the interview situation as comfortable and relaxed for the participants as possible. The topic of menstruation can be seen as intimate and perhaps uncomfortable to talk about. In addition, the need for an interpreter meant that there would be two strangers present during the interview, one who did not speak the language and was a foreigner to the country and the culture. Because of this, having a friend with them during the interview could make them feel more comfortable, or at least less uncomfortable (Haukanes & Hašková, 2020, p. 6). During the interviews, one could see clear benefits from choosing this method, as there were times when the participating girls leaned on each other when answering questions, either for emotional support or to remember certain things they had experienced together.

I did my internship at MITU three months during the fall of 2022. The seven friend-interviews with the 14 participants were conducted over a period of two weeks within my internship period. In school 1, four interviews were conducted and in school 2, three interviews were conducted. The interviews lasted around 30-60 minutes.

4.7: The use of an interpreter

When collecting my data through friend-interviews, it was crucial for me to have an interpreter with me. The English skills among school students in Tanzania varies a lot, and even though the girls could maybe have communicated with me in English, the topic being

[6] See appendix for interview guide.

talked about is intimate and may be uncomfortable to talk about in a foreign language. That is why I wanted them to be able to talk about it in a language they use daily, so that the language would not create an additional barrier in the interviews. It was important for me to have a female, young Tanzanian interpreter, to build a bridge between me and the participants, as well as the girls easier feeling comfortable with an interpreter as similar to them as possible, both in terms of age and gender. I met with the interpreter beforehand to talk about my expectations for the interview situation, as well as to get to know each other and feel the dynamic between us. In addition, the interpreter received a copy of the interview guide in both English and Swahili, to familiarize herself with it and bring with her to the interviews. The interview process started with me asking a question from the interview guide in English, followed by the interpreter´s translation of the question to Swahili. The girls then answered the questions in Swahili, before the interpreter translated their answers back to me. Then I either continued with a follow up question or moved on to the next question in the interview guide. The use of an interpreter definitely created the bridge between me and the participants as wished for. Furthermore, the interpreter was a "bubbly", happy female whom the participants seemed comfortable with and felt natural communicating with. Both the choice to have an interpreter, as well as the choice of an interpreter was crucial to the outcome of the interviews. It seemed to have made the girls more comfortable and the situation more natural, as well as limiting the potential barriers for them to talk about the topic.
The interpreter translated back to me referring to what the participants said. My supervisor and I decided that in order to get closer to what the girls actually said, I would change the pronoun from "she" to "I" in the quotes. This was a decision made to show how the statements were in fact the participants own meanings and expressions.

4.8: Data management

All interviews were audio recorded with the consent from the head teachers, as well as the consent from the participating students. The audio recordings will be deleted at the end of the project, by the end of June 2023. Recording the friend-interviews made it possible of me as a researcher to devote my full attention to the participants and the interview, and also ensured that nothing was missed, as may occur when taking notes. Furthermore, I kept a notebook with me during the interviews, in case I wanted to write down something related to the environment or vibe, or other non-verbal aspects, as well as follow-up questions. After the interviews were conducted, they were transcribed by me, and the transcriptions were stored in

University of Bergen´s SAFE software. Transcribing the data myself gave me an opportunity to familiarize myself with the data at an early stage. On the other hand, it limited the transcriptions to only the English translations, as I do not speak Swahili myself. If the budget had allowed it, I would have asked a Swahili speaking person to transcribe the Swahili parts of the interviews as well, which would have given me more accurate information.

4.9: Data analysis

For the analysis of the data collected during the friend-interviews, Braun & Clarke´s (2006) guidelines were followed. A thematic analysis the way Braun and Clarke (2006) see it, is a way to look for patterns and themes that may be hidden within your data, to find and connect these, and furthermore to be able to present these patterns and themes in your findings. This way of approaching the data provides a way of analysis more flexible than other analysis methods, such as for example Attride-Stirling (2001), which is a more rigid step-by-step guide. Because of this flexibility, I found that Braun & Clarke´s (2006) approach would suit my topic and my data best. This approach has six steps, from the researcher familiarizing herself with the data, to generating codes from the data, and organizing these codes into potential themes. These themes are reviewed, defined and named, before the report is produced. For my data analysis I chose to do the steps manually in word, generating codes based on the data from the friend-interviews, and gathering these codes into different basic themes. I then ended with a couple overarching themes or topics, that will be presented along with the other findings under chapter 5, 6, and 7. I found this process highly valuable, as well as the choice of doing it manually, as I had to work so close and detailed with the data material I had collected. I saw new things each time I read the transcriptions and felt that I really got familiar with my material. At times, following such steps can make you a bit worried about leaving things behind or forgetting important aspects, and my number of codes may reflect on that, as I was worried about leaving out material that was crucial for the research questions or the discussion itself. However, the data analysis method helped me gain important insight, and presented patterns that may have been left out otherwise.

4.10: Trustworthiness

In qualitative research, four criteria are mainly used to ensure trustworthiness, these being *credibility, dependability, transferability,* and *confirmability* (Shenton, 2004). During the study, I did my best as a researcher to follow these four criteria to ensure that the research conducted is trustworthy and of good quality.
Credibility means that the findings in the study conducted are found to be credible. In other words, it is important that the participants of my study see the outcome of it as believable, and according to reality, their actual experiences, and what they told during the interviews (Shenton, 2004, p. 64; Yilmaz, 2013, p.320). Therefore, the girls´ experiences have been described as thoroughly as possible through the findings and are supported by illustrations of culture and context found in the literature review and introduction (Tracy, 2010, p.843). Multivocality has been crucial, meaning that I as a Western researcher from a highly developed country was aware of the cultural differences I have faced during my research. Additionally, I refrained from guiding or otherwise influencing the girls´ responses, other than encouraging or supporting comments to help them feel comfortable and to show that I could somewhat relate to some things being said (Tracy, 2010, p.844).

Transferability is the degree to which that the results presented in this thesis can be applied to other situations or contexts (Shenton, 2004, p.64). By presenting relevant literature and discussing my findings according to them, with precise notes and descriptions of all details, my findings are hopefully transferable to other similar contexts, such as other MSRH interventions in East Africa (Yilmaz, 2013, p.320).

Dependability indicates that if another researcher does the same research in the future, the results would be similar to this thesis (Shenton, 2004, p. 71). To make sure of dependability in my study, I provided detailed descriptions of all parts of the process around the thesis, from the planning, conduction and afterwork, to the reflections and evaluations (Shenton, 2004, p. 71). This has been done both through the thesis proposal, as well as with an audit trail, meaning that the research has been evaluated both by myself and my thesis supervisor (Yilmaz, 2013, p. 320).

Lastly, confirmability is ensured by making sure that the findings presented in this thesis are direct results of the data collected during the fieldwork and shaped as little as possible by my

role as a researcher. The audit trail helps ensure this, as well as me having been open and aware of what my attitudes, biases and preconceptions are on this topic (Shenton, 2004, p. 72; Yilmaz, 2013, p. 320).

4.11: Role of researcher

In qualitative methods, the researcher is an active part of both the data collection and analysis, and it is therefore important that I acknowledge my role, so that I am aware of what I as a researcher can bring into the study, that being preconceptions and attitudes. Additionally, the way that the participants viewed me, could have shaped their answers. As a stranger from a western country, I was a foreigner to both culture and context, despite trying to educate myself beforehand. This could have an impact on how the participants perceive me, and moreover shape their answers. To hinder this, I tried to make the setting as comfortable as possible, and enter the interviews open-minded, and with the idea that these girls can and will teach me valuable and new knowledge of both culture, context and the topic in question. Furthermore, I have, throughout this chapter reflected on the entire data collection and research process, as well as justified the choices I have made throughout the study.

4.12: Ethics

The project was registered in the Norwegian Centre for Data Research (NSD). In Tanzania, the ethical clearance was secured by the PASS MHW team by including my study onto an amendment that they submitted to the National Institute of Medical Research (NIMR) as part of their project, giving me permission to conduct my own research under the PASS MHW team and their project[7].

Because the majority of the girls participating in the study were minors under the age of 18, informed consent was given by the headteachers at both schools as guardians of the students, in addition to the participants also giving their personal written consent. Both the headteachers and the participants were given information about the study and the interviews by the PASS MHW team, and the consents were signed on the information sheet handed out before starting the interviews. The information sheet and consent forms included information

[7] See appendix for registration at NSD and approval by NIMR.

about the interviews and the study, what participating in the interviews meant, information about the interview being recorded, as well as what to do if they had questions or wanted to withdraw their consent at a later time[8].

4.13: Limitations

4.13.1: Social desirability bias

At times the girls felt more focused on giving us an answer, or a "good" or "right" answer, rather than following what their gut said, which could have been due to a social desirability bias. I came together with the PASS MHW team, and the participants could have associated me with the intervention and therefore wanted to "make me happy". This only happened a couple of times, mostly related to them seeming uneager to answer a question, but still providing an answer, maybe because they felt that they *should.* I do want to specify that it was mentioned at the beginning of every interview, and sometimes also during the interview, that it was voluntary to answer any questions. In the end, I do not believe that this altered the findings or results, however I do feel that it is sad that the girls, despite my best effort, felt somewhat "obliged" to answering my questions to please me and my interpreter. While one could say that there might have been a social desirability bias present, with the participants associating me with the PASS MHW project, and therefore gave polite and positive feedback, this is not fully the truth. As one can see particularly in chapter 6, the participants did not hesitate to be honest about negative experiences as well.

4.13.2: The use of an interpreter

Using an interpreter had many benefits for my data collection. However, some challenges arose related to the use of an interpreter. First of all, conducting interviews in two languages can cause things to get lost in translation. At certain times, we experienced that the interpreter struggled to find a fitting English word for what she was planning on saying, and on one occasion, there were no English word for the Swahili expression. This made it somewhat difficult for me to at all times understand the meaning behind what was being communicated. In addition to this, seeing that the interpreter asked the questions in Swahili, waited for either one or both of the participants to answer, and then translated back to me, the translations to some degree became a summary of their answers, rather than a word-by-word translation.

[8] See appendix for information sheets and consent form.

Despite this, the interpreter did the best to her ability to re-site what the participants told her, and the interviews resulted in much valuable and interesting data which was highly relevant to the thesis.

In the next three chapters the findings of this study will be presented as well as discussed. The findings are based on the friend-interviews with the participating girls and discussed in relation to literature and theory from chapter 2 and 3. They are separated into three themes: *Experiences of menstruation prior to the PASS MHW intervention, Acceptability of the intervention and products,* and *Changes and knowledge*.

Chapter 5: Experiences of menstruation prior to the PASS MHW intervention

In this first findings and discussion chapter the focus will be directed on the first of the three themes, presenting findings on *knowledge about menstruation prior to menarche, feelings towards reaching menarche, communicating with family and friends on the topic of menarche, reaching menarche, the effects of menstruation on school life,* and *products used.*

5.1: Knowledge about menstruation prior to menarche

There was great variety in the knowledge the participants had of menstruation prior to the MSRH intervention by the PASS MHW project, and prior to the girls reaching menarche themselves. Some of the girls had heard about menstruation from their home via their mother or their sister(s), or from primary school. Most girls had either talked about it with friends or their mother, or seen some relatives or friends dealing with their period, changing their sanitary pads and bathing more often, or handling their stomach pain. However, two girls reported that they had no knowledge about menstruation at all before reaching menarche, and one of the two also said that because she did not have any older sisters she had never seen anyone handling their period either.

5.2: Feelings towards reaching menarche

Despite the majority of the girls having heard about menstruation in one way or another before reaching menarche, nine out of the 12 participants who had heard about menstruation before, emphasized that they were scared or worried about reaching menarche. For some it was related to how others would view them, like Habiba: “I was also worried. How about when my friends know this, how will they see me?”, while for others it was connected to a fear of whether their period would hinder them from doing stuff, as for Kanoni who expressed that “I was worried, and I was worried that when I get my first period, during that time, can I play football, can I do other stuff”. One can clearly see that there was a great fear of reaching menarche and what that would involve, whether it was related to something in particular, or just a general fear of the unknown. Still, some participants were more neutral or positive towards reaching menarche, and Nana expressed that “I was okay because all of us girls get it”. Among the girls that had this attitude, one could see that they were more curious and reported that they had asked many questions about menstruation, and were eager to experience it themselves, or that the knowledge they had on the subject calmed them: “in my case I wasn´t worried, because my mom also told me before that you´ll have your menstrual cycle and it´s just a normal thing”, as Malika explained.

5.3: Communicating with family and friends on the topic of menarche

As mentioned, some of the girls had already talked about menstruation with friends or family before reaching menarche. Nonetheless, many of the girls found it difficult to communicate with people around them when they reached menarche themselves. One of the participants was among her brothers when she reached menarche and could not ask them about it, while others felt so shy and scared that they did not dare to talk to anyone about it, not even their mother or sister. In one case Lela explained that:

> For my case, my sister was the one who noticed, so she went to our mom and asked for the pads and all that, for me to use, because in my case I could not even talk about it, I was really scared.”

In total, around half of the girls told their mother about reaching menarche, while for some of the others their sister noticed that it had happened, or they asked their sister about it. When

communicating about reaching menarche, all girls but one reported that their family members such as sisters or mother consulted them on what was happening, how to handle it, as well as providing them with period products such as cloths or sanitary pads. Jina did however explain that when she told her mom about reaching menarche, she was given the money to buy sanitary pads, and was told that she is now a grown up, but that "she did not add anything more, she did not communicate anything more", expressing sadness around this.
Furthermore, when asked about whether they shared reaching menarche with their friends, the participants had different answers again. Most of the girls answered similarly to when asked about communicating with family, while Nana when saying that she did not communicate about reaching menarche with her friends said that "I couldn´t tell anyone because there is a difference between friends and mom", emphasizing that despite it being okay to talk about it with her mother, it was not the same as talking with her friends.

5.4: Reaching menarche

When reaching menarche, this happened in different places and brought with it different emotions and consequences for the participating girls. Not all girls shared where they were when they reached menarche, but the stories presented involved embarrassing or frightening moments from seeing bloodstains on their pants while on the toilet and wondering what this was or what was happening, to a girl who got stomach aches while in class and when she stood up her skirt was wet from blood. Those who shared their experiences with us all had in common that their first instinct was to remove themselves from the situation, go somewhere private and handle it alone, like Malika who got her first period at school and "went to madame, and I asked for an absence for the day, saying that I was sick, and I went home".
Most of the girls experienced feelings of shyness, fear, worries, and feeling down when they had their first period. Some did not know what this was or what it involved, and Shani mentioned that "I was scared, I was like oh what is this? It was scary the first time", while Jina expressed that she was so scared that "when I got my first period I cried out of horror, wondering what this is, yeah I was totally scared". Fear was an emotion that most of the girls expressed having felt in relation to that moment, fear of being unsure of what was happening, or fear of how this would affect them. Additionally, Mila also explained feeling lost and alone, saying that "when I got it, the menstrual cycle, I felt that I was the only one in the universe getting that".
One thing many of the girls who talked with their mother about reaching menarche were told,

was that when they reached menarche, they were growing up, that "that´s what a girl does when she grows up" as Kanoni voiced, or that now that they had reached menarche, they were grown up. For one of the participating girls, this had further consequences. Jina explained that when she reached menarche her mother told her that "you are a grown up, so there is no need for playing with kids, you are a grown-up woman", and prohibited her from both talking about menstruation, as well as talking to her friends or playing with them. When Jina was on her period, she was only allowed to go to school, and she explained that when she was not in school, she was locked inside the house. When asked about how this made her feel, she explained:

> The first time it happened I cried, it was a very big quarrel with my mom, because in my case I wanted to move out and play with other kids while on my period, but my mom was really prohibiting me completely, no talking, nothing, saying I have to stay inside, so it reached a point where my mom even wanted to hit me. So, it was really, really bad, I cried a lot.

5.5: The effects of menstruation on school life

Some of the participating girls expressed, as mentioned above, that they feared menstruation and reaching menarche, or felt negative towards it because of how it would affect them. Following this, it was natural to investigate what the actual effects have been, as they started menstruating. When it comes to what the effects have been, one can divide it into mental challenges and physical challenges. First of all, ten out of the fourteen participating girls report mental challenges related to their menstruation. These involve factors such as stigma, or the fear of being talked about, like Malika who expressed that she was so worried about how others might talk about her, so she chose not to go to school:

> So, my friends knew. A lot of my friends knew, so when I went home from school, I was afraid to come the next day because how will my friends see me, will they talk about me, what will happen? So, I couldn´t go to school the first time I got my period.

Other factors involve being distracted because of worries, being stressed about how to deal with their period, with girls reporting that they "lose some concentration during school because I was like, I missed key points in teaching because […] you are a bit uncomfortable" (Shani), and "I was stressed, totally stressed. Because first of all I was wondering how I could

handle myself during class" (Halima). Leaking, or the term used by the interpreter; "dirtifying themselves", meaning leaking blood/getting bloodstains on them, was one thing that was mentioned by many of the participants. Almost all girls mentioned the fear of "dirtifying" themselves, or leaking blood and others seeing it, as something that caused stress and difficulties at school. Many expressed worries about whether there would be a bloodstain on their skirt when standing up, and Habiba even said that "when the teacher asks me a question how will I stand up, so I was praying like ´God help me´, that the teacher didn´t ask me anything", so that she would not have to risk showing the bloodstain that might be on her skirt.

Furthermore, the fear of leaking, or the physical challenges with leaking, was also a challenge the girls were facing. In addition to this, three girls also reported that the period cramps they faced, was an issue in relation to participating or attending school. For two of them, the pains distracted them from focusing in class: "I had terrible stomach aches. I was really facing a problem of stomach aches, so I couldn´t concentrate" (Tisha), while for the third girl, Kanoni, the cramps were so painful that it affected her ability to attend school: "In my case the stomach aches were horrible to the point that I could not come to school. So, I missed class for the whole week".
However, four of the girls reported that their periods did not really have any effect on them and their school life, mostly because they were okay and used to their periods, did not report any cramps, and said they were comfortable with how to handle their periods.

5.6: Products used

Before the PASS MHW project and the girls were provided with products and education, the girls had to support themselves with products for their periods. The products that the girls used were mainly cloths or sanitary pads, either reusable or disposable. Many of the girls started with using cloths when they reached menarche. Some because that was what the mother showed them how to use, others because they were afraid to ask for the sanitary pads. Money also played a factor in this, with two girls mentioning that they did not have the money to buy the sanitary pads, so they used a cloth instead, like Lulu explained: "I had to make a piece of cloth because I did not have the money to buy the supplies needed. So, I had to handle it myself and prepare a small cloth to cover myself". One girl also said that when

her sister was around, she asked her for sanitary pads, but she was not always around and then she had to go back to the cloth.

A number of the girls tried or used sanitary pads prior to the intervention, and some of them also mention that it was their mother who gave them money so that they could go buy the sanitary pads. A couple said that they tried both the sanitary pads and the cloth but preferred the cloth "the pads were really uncomfortable" (Mila). In addition to the sanitary pads being reported to be uncomfortable, it was also mentioned that they were "very, very hard to dispose" and "really hard to wash so I was getting marks on my body from them, and I was facing difficulties in washing them properly" (Lulu). Following this, Habiba also mentioned difficulties with the cloth: "it was uncomfortable because I can walk from my house, for example a short distance and that piece of cloth inside it sticks to one place so it leaks out". In other words, the girls expressed challenges and difficulties with both the cloth and the sanitary pads prior to the intervention, and there was no consensus to which of the cloths or the pads were the better option of the two.

5.7: Discussion

Research done on sexual education, sexual and reproductive health risks and vulnerability, as well as on period teasing, and knowledge, have revealed that menstruation is something that is barely spoken about among family members, and that the general level of knowledge on the topic is low (Allen, 2000; Remes, et. al, 2010; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2017; Bastien, Kajula, & Muhwezi, 2011). However, in India, it has been found that the knowledge among girls was very varied, with anywhere between 35-81 % of the participating girls in these studies being unaware of menstruation before reaching menarche (McCarthy & Lahiri-Dutt, 2020, p.19). The findings from my study does show that most of the girls had some prior knowledge of menstruation before the intervention took place, and that only two of the participating girls knew nothing about menstruation before reaching menarche. The findings also present that many of the girls had used their older sisters as a source of knowledge on menstruation, either through conversations or by observing them dealing with their menses. A contributor to *the Palgrave Handbook of Critical Menstruation Studies* (2020) mentions how she herself acquired knowledge on menstruation by talking with older girls around her (Sawo, 2020, p.93). Other studies also support this, such as a study from Uganda where the participants reported to communicate both with siblings, their mother, other family members, and their friends, all depending on the specific topic or issue they had

(Muhwezi, et. al., 2015). In other words, older sisters or friends seem to be an important source of knowledge on menstruation, especially if the girls do not receive much information on the topic from other places, other than information on period products when they have reached menarche, and basic family planning (Allen, 2000; Remes et. al., 2010).

Furthermore, studies have presented that despite girls reporting that they feel or felt that they were ready to reach menarche, the girls still seem to lack knowledge "about the physiological process and subjective, experiential knowledge" (Bobier, 2020, p.304). In this study, the majority of girls were scared and worried about reaching menarche, despite some of them having knowledge about it. This can be because of a number of reasons. Firstly, as mentioned above, the information given about menstruation and menarche seem to be coming from sources that may not be fully capable of filling the girls´ knowledge gaps (Chandra-Mouli & Patel, 2017; Bastien, Kajula & Muhwezi, 2011), and the poor or lacking quality of the knowledge the girls obtain, can, according to the studies in India, lead to both distress, anxiety, and fear (McCarthy & Lahiri-Dutt, 2020, p.19). A second reason to why the girls reported to be worried about reaching menarche is what Kanoni expressed; the fear of not being able to do the things you want to do. She expressed a fear of not being able to play football. Not being able to do the activities you want because of your menses is something that has been expressed by other girls in other studies as well. In a study in North America girls expressed that after reaching menarche it became hard to go camping and swimming, as well as playing outside and having fun (Piran, 2020, p.203), similar to Kanoni´s worries about continuing playing football. Thirdly, studies have found that girls are highly scared of being teased while on their period (Sommer, Ackatia-Armah, Connolly, & Smiles; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Chandra-Mouli & Patel, 2017). This is something that was expressed by the girls in this study as well, saying that they were worried about how others would view them once they had reached menarche. From a critical perspective, one could argue that this is a case because no aspect of the education challenges the notion of having to be secret and hide their menses (Winkler, 2021), and that if menstruation did not need to be hidden, menstruators would not face teasing when it became visible.

Following this fear of how they would be viewed once reaching menarche, one could assume that this could also have to do with sexuality and becoming a grown up, which is something many of the girls were told that they were becoming once they reached menarche. In many cultures, menstruation is associated with being fit for marriage, being able to have children

and so on. Therefore, the fear of how they would be viewed could also be linked to being seen as a grown up, mature woman, instead of the child they were up until reaching menarche, either in connection to being worried about marriage and childbearing, or just the fear of others seeing them as a sexual human being for the first time (Bobier, 2020, p.303-318). On the other hand, some of the girls reported that they were neutral or positive towards reaching menarche, and studies have found that despite most girls associating menstruation with negative feelings, preparation does lead to more positive attitudes towards menstruation as well as a better experience of menarche, as they feel more confident and comfortable when having talked about it, and know what to expect (Bobier, 2020, p.304; Muhwezi, et. al., 2015).

When reaching menarche, the girls expressed the same type of feelings as when talking about how they felt towards it, prior to reaching it. The fears that were present prior, surfaced when reaching menarche, which can be a cause of the factors mentioned above. Additionally, some girls expressed panic and confusion when reaching menarche, which is equivalent with one of the studies from India where half of the participating girls said that they were frightened and that they cried when they had their first menses (McCarthy & Lahiri-Dutt, 2020, p.19). Besides the fear that many of the girls experienced both before and during menarche, one key finding was the connection between menarche and becoming a *grown up.* This is something many of the girls said that they had been told, despite some of the girls reaching menarche as early as around age 9. However, linking menarche to adulthood seems to be something that is not particular for this study. Throughout *the Palgrave Handbook of Critical Menstruation Studies* (2020) one can find stories and studies expressing a relation between reaching menarche and entering adulthood or becoming a grown up. In Gambia, menstruation is a symbol of maturity and womanhood (Sawo, 2020, p.94), while in a woman raised in a Muslim family in the US explained that when she reached menarche, she "was given a hijab and told that my actions are now my own" (Maharaj & Winkler, 2020, p.164), meaning that menarche makes a female become accountable for their own actions, as opposed to before. It is argued that when girls reach menarche, they are treated differently (Johnston-Robledo & Chrisler, 2020, p.183), which is something Jina had experienced herself. She expressed how her mother prohibited her from playing outside with her friends, as she was now a grown up and should not do such childish things anymore. Girls who have reached menarche are expected to act as women, more "ladylike", and one can see in cases like Jina´s, that their freedom is restricted (Johnston-Robledo & Chrisler, 2020, p.183). In Western societies, one

often sees menarche as the *beginning* of adulthood, one can say that it marks the beginning of a transition. However, the girls being interviewed expressed it differently. They voiced that they were told that once they had their first period, they *were* adults. While usual in Western societies, Milena Bacalja Perianes and Dalitso Ndaferankhande explain that this is not uncommon in the world, and it is also how menarche is viewed in Malawi. There, a girl who has reached menarche is given a ceremony to inform the society and community around that this girl is now a woman (Perianes & Ndafernakhande, 2020, p.428).

Despite gaining knowledge on menstruation from older girls around her, the Gambian scholar Musu Bakoto Sawo explains that she hid her menstruation from her mother for two years, and that one of her cousins discovered that she had her period (Sawo, 2020, p.93-94). This is similar to Lela who did not tell anybody about her period before her sister found out and talked to their mother on Lela´s behalf. It seems that keeping your menstruation to yourself is not a rare thing to do, which can be because the topic is not talked about as much. In Sawo´s case, when finally talking to her mother, she was only taught about how to be a good wife, which is a normal practice in contemporary Gambia (Sawo, 2020, p.93-94), while other places, such as Malawi for instance, the mothers are not even present in the menarche ritual (Perianes & Ndafernakhande, 2020, p.428-429). This absence of the mothers during such an important ritual can make it less natural to talk about menstruation with family and friends. Jina was one of the girls that explicitly expressed sadness around the lack of information she received once reaching menarche. She voiced that she was only given money to buy a pad but acquired no information about menstruation. This is not a rare incident, and among the menstruators Trisha Maharaj and Inga T. Winkler have communicated with, one expressed how she, similar to Jina, was only taught by her aunt how to use the cloth, and not educated on menstruation (Maharaj & Winkler, 2020, p.165). As mentioned previously in this chapter, there was a variety in the knowledge that was given from family members to the girls, and that the girls´ sources of information may not be adequate (Chandra-Mouli & Patel, 2017). Furthermore, communication between parents and adolescents on the topic of sexuality and reproductivity have been reported to happen as a precaution, more than to forward information and answer questions. The conversation is often one-sided, triggered by someone in the community falling pregnant, being “disobedient”, or being “victims of early sexual activity”, and with focus on abstinence (Muhwezi, et. al., 2015). With this being the case, one can argue that it may not feel natural for the girls to talk much about reaching menarche, seeing that some had not received much knowledge on this topic beforehand, and the

communication prior to reaching menarche was of varying extent. Furthermore, Nana expressed that she felt comfortable talking about menstruation and reaching menarche with her mom, but not her friends, because “there is a difference between friends and mom”. This can be connected to Habiba expressing fear of how her friends would view her now that she had reached menarche, and the fear of being teased that is discussed above.

Going back to the feeling of fear of menarche, in particular related to being viewed differently, many girls also reported that this fear, the fear of being looked at or talked about, has had impact on their presence at school. In Ethiopia, studies found that a majority of school environments are non-female-friendly for managing their menses (Seifadin, Willi, & Abubeker, 2020), while in India it is reported that girls are typically absent for 20 % of the school year due to menstruation (McCarthy & Lahiri-Dutt, 2020, p.16). For Malika, this fear of how others would see her, led her to join this statistic, as she ended up staying home from school due to the worry. This absence is caused by stigma, shame and attitudes, as well as a deficiency of resources to help manage and change the situation (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Mohammed & Larsen-Reindorf, 2020). In addition to the fear of being teased, looked at and talked about, many mentioned a fear of leaking and having visible bloodstains, and that this fear had an effect on their concentration while in class. This does not come as a surprise, as menstrual blood is by many seen as an “abomination”, and a bloodstain can be viewed as a “blemish on one´s character” (Johnston-Robledo & Chrisler, 2020, p.182). It is easy to understand the fear of having a visible bloodstain on your skirt, if this stain can is considered an atrocity or outrage that can have an impact on how people see you as a person.
The feeling of not knowing how to handle their period was mentioned by several girls. This is something that can be connected to the discussion of knowledge and the quality of such, mentioned earlier in this chapter. If the girls do not have the proper knowledge, or they do not feel comfortable talking about their menses, they will not feel comfortable with their periods, or know how to handle it. Several sources support the findings of fear and feelings of being uncomfortable and scared causing issues in regard to focus and attendance at school. Stressors related to menstruation are connected to the girls´ mental health as well as the ability to attend school, and it has been reported to also have negative consequences for their sexuality, well-being and social status (Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Cherenack & Sikkema, 2021; Johnston-Robledo & Chrisler, 2020, p.187). The girls clearly express that this is the case for them, as they voice that their menses cause them to not be able

to focus or be active in class, make them afraid of being social with classmates, and for some cause them to be absent from school, either because of period cramps, or the fear of being talked about.

It has been reported that the usage of some products that are uncomfortable, unpractical or non-absorbent for their menses can affect their school attendance (Mohammed & Larsen-Reindorf, 2020). These types of products can be rags, ash, wood shavings, or cloths (McCarthy & Lahiri-Dutt, 2020, p.16). Cloth was what many of the girls used, but despite some of them describing the cloths as both uncomfortable and unpractical, and one girl also mentioning that by the time she arrived at school from home, the cloth had moved and would already be causing leaks, none of the girls expressed that this had led to absence from school at any point. One of the main contributors to why the girls used cloths, was the lack of money to buy pads. Poverty is something that has been seen as a barrier in girls´ lives, and there has been many studies presenting how cost of sanitary products leads to girls using products that are not ideal for managing blood, such as the cloth (MacLean, Hearle, & Ruwanpura, 2020; Mohammed & Larsen-Reindorf, 2020; Chandra-Mouli & Patel, 2017). It is however important to mention that simply because the cloth is not something commonly used in the global north, it does not mean that it has to be dismissed as a bad option (Winkler, 2020, p.471-472). It is important to consider local contexts, however, for the findings in this study, one can see that the girls were not happy with the cloths.
On the other hand, the findings show that the girls were not happy with the pads available prior to the intervention either, because they were uncomfortable, hard to either dispose or wash, depending on the type of pad, and regardless of using the cloth or the pads, the girls said they were feeling uncomfortable, experiencing smelling and having challenges managing their menses. Sadly, these findings are supported by many others that report a deficiency of, and a need for, resources to help girls in managing their menses (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020).

One can clearly see that prior to the intervention, the participating girls experienced challenges both in regard to communication, fear, being uncomfortable, lack of knowledge and lack of resources. Based on the literature presented, the findings from my study support what many other researchers have discovered earlier and show the many challenges menstruating girls face. My findings present a higher level of knowledge of menstruation than many other studies do, while the quality of this knowledge is up for discussion. In addition,

despite the majority of girls both in the study and in other literature feeling fear and worry towards reaching menarche, some girls expressed excitement towards it. And lastly, while several of the girls had experiences of their menses affecting their school-life, some expressed that it did not.

Chapter 6: Acceptability of the intervention and products

This chapter highlights the findings related to the acceptability of the PASS MHW intervention and the products, among the participating girls. The chapter will present findings on the *Sanitary kits and instruction book, PASS MHW sanitary pads,* and *PASS MHW menstrual cup* and discuss them in relation to literature and the theoretical framework of acceptability.

6.1: Sanitary kits and instruction book

As mentioned, the PASS MHW intervention provides the schools and girls with an intervention existing of MSRH education as well as a sanitary kit. One type of kit for the boys, and another type of kit for the girls. During the interview I asked the participants if they could explain to me what they received from MITU and Femme with their own words. They all described the kits similarly, and an example from interview 7 have Halima and Habiba presenting the kit as “we were given panties, two panties, we were given pads, five pads, we were given a menstrual cup, we were given a bowl, soap, and a soap dish”.

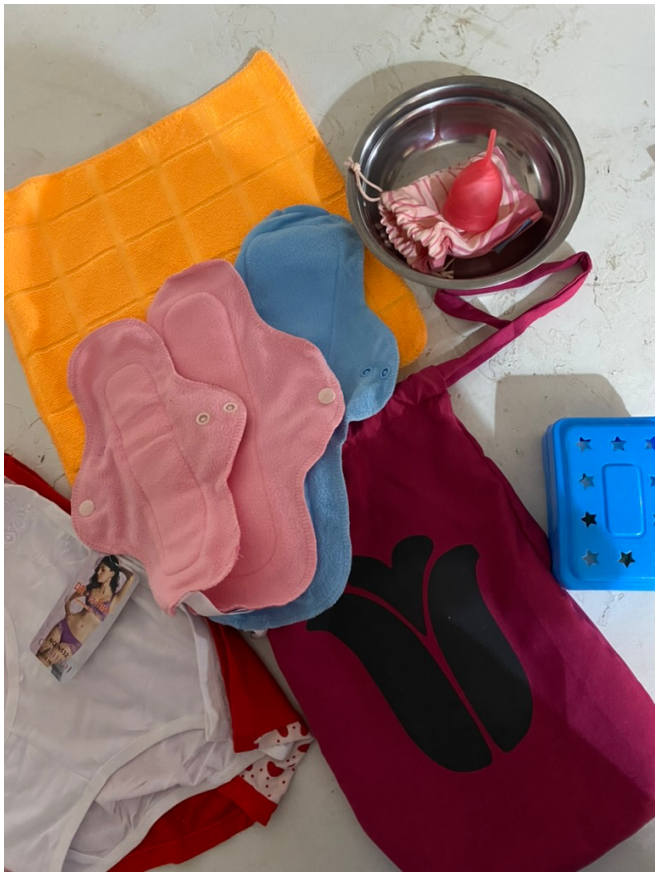

Photo of the female sanitary kit distributed by Femme at the schools.

Source: private photo taken at Femme´s offices in Mwanza.

In addition to this sanitary kit, they were also given an instruction book "where you can view your instructions and you apply it" (Shani and Lela), with information about the products in the kit, such as how to wash the sanitary pads and the menstrual cups.

The instructions they were given on the usage of the products were reported by the girls to be both valuable as Mila expressed that "I don´t face any problems because when we were given the products the first time, we were instructed on how to use them. So, I use them very properly". On the other hand, the instructions were also reported to be complicated or overwhelming, with Winta explaining the instructions on how to use the menstrual cup as "too much", and Samira reporting "that´s hectic I was just like ´oh my god this is scary´" on the same instructions. Out of the sanitary pad and the menstrual cup, all the girls except Habiba reported to only use the sanitary pad, while Habiba mentioned using both the sanitary pad and the menstrual cup on a regular basis.

6.2: The PASS MHW sanitary pad

The sanitary kit provided by MITU and Femme consisted, as mentioned among other things, of five sanitary pads, coming in three different sizes, and these sanitary pads were preferred over the menstrual cup by all but one of the participating girls. Many girls expressed a number of positive things with the sanitary pad, that made them prefer this product, while others reported to prefer the sanitary pad mainly because of the challenges or issues they expressed related to the menstrual cup. Firstly, I wish to present the factors that the girls liked about the sanitary pad, while I later will focus on the menstrual cup. Around half of the girls mention how they were happy with the durability of the sanitary pad. Some related that to being able to wash it multiple times without it becoming damaged: "before, when you wash the cloth too much it gets broken down […] but this time I can wash it and still remains the same condition" (Mila), while others, such as Halima, stated how "they have a better holding capacity of the blood so I am not afraid that to leak out". These sanitary pads were said to make it easier for the girls to manage time and prevent leaking. Following this, the washing of the sanitary pads was also stated to be uncomplicated which was something that could not be said about the menstrual cup, according to some of the participants, with multiple girls mentioning that the sanitary pads "are very easy in washing" (Bahati) or "the pads you just have to soak it in water and wash it, it is easier" (Malika).
Furthermore, half of the girls expressed how the sanitary pads were easy to use, and that this was a key factor to them being preferred over the menstrual cups, as "it is easier to use the pads more than the cup" (Jina). One factor that was repeated by almost all participating girls, was the factor of comfort. When talking about the cloth and the sanitary pads prior to the intervention, there was many mentions of discomfort, and even mentioning of the sanitary pad causing bruises and marks. When it came to the sanitary pads provided by MITU and Femme, 11 girls explicitly expressed how they were comfortable in using. Lela said:

> I am comfortable in them […] I am enjoying the material, the type, because before I used to use the pads, and they used to leave some marks on me when using them. But since using the PASS pads, I am facing a very comfortable lifestyle.

While Nana specified how "the pads were very soft […]. And when you wear it, it doesn´t cause any discomfort". Other girls also mentioned how soft the sanitary pads were, and how they could sit comfortably while using them. In connection to this, it was also expressed by

Habiba how “when you keep it properly it stays in the same place without shifting anywhere”, resulting in them no longer having to worry about it moving around and causing leaks that way, as other girls also stated.
In all, several girls voiced how using the sanitary pads was “free of worries” (Jina), and that the sanitary pads caused no problems for them. A couple of the participating girls said that “we have no problems with the pads, at all”, while it was by others mentioned that there was no negative feedback of feelings related to the sanitary pads.

Habiba, who used and preferred both the sanitary pads and the menstrual cup, stated that the sanitary pads were nice because they could hold the blood for a long time. She later explained how she “prefer using the cup on the first days of the period because during that time the blood comes heavy, and I am using the second pad during the remaining days because during that time the blood is lighter”, so her preferences shifted according to her blood flow and what time of the period it was. Overall, all participating girls expressed positivity towards the sanitary pads.

6.3: The PASS MHW menstrual cup

For the menstrual cup, Habiba was the only one who reported to use it, and out of the thirteen participants who stated that they did not use the menstrual cup, only Jina said that “I wish to use the cup”, but for reasons I will get into below, she chooses not to, along with the other twelve. For Habiba, she mentions that one of the reasons for using and liking the menstrual cup is that “the cup for me is easy to use, when I go to the washroom it is easy for me to remove it and pour it, and then stick it in again”. So, she explains that she finds it easy to use it and empty out the blood and continue using it. However, she is the only girl out of the fourteen that has a positive view of the menstrual cup, and the rest of the participating girls found only negative things to mention about the product.
Around half of the girls found the menstrual cup complicated or difficult to understand, in relation to usage. Girls mention things from “I face some difficulties in using the cup, I don´t understand how exactly” (Mila), to “the cups are so complicated” (Nana, Samira and Winta), and “I have no idea how to use the cups” (Tisha). Also in this case it was expressed how the instructions were more complicated and confusing than helpful. Adding on this, a couple of the girls expressed how the menstrual cups seemed to be so complicated in washing, that it led to them not using the menstrual cup at all. Samira voiced:

> It is just a complicated series of instructions, like you have to boil the water, you have to keep the cup and wash the cup and it dries out a bit and you take all that time and then you sit there and keep your legs all over the place so it´s very complicated.

For her, the issue with having to wait for the menstrual cup to be cleaned for then to use it again made her choose the sanitary pads instead, having five she could change between.

Only a couple of the girls had tried the menstrual cup at all, and besides the girl who used the menstrual cup regularly, none of the others liked it. Halima said that "I tried using the cup once, and it couldn´t enter. It couldn´t fit me. So, I couldn´t use it again", while two others expressed how they experienced pain when trying to use or insert it. In addition to these two, another four mentioned the fear of pain as a reason why they had not tried to use the menstrual cup. Bahati stated that:

> I heard, because I have never used it, I heard from my friends, that when you use it, it is very painful. Very, very painful, so I´ve become afraid of it. And whoever I ask, even though they have not used it, they say it is very painful for the first try.

Other girls also mentioned that they had talked with friends who had tried using the menstrual cup and their stories of pain made them not want to try it themselves.
Stories from people around the girls seemed to have affected how they looked at the menstrual cup. Along with the stories from friends about how the menstrual cup would be painful to use, two girls were told by their mother not to use the menstrual cup. The reason the mothers had for this was connected to the fear of something going wrong with the menstrual cup. Nana said that "I was told from my mom that if you use the cup and you get marks or injures, where will you report it? And that I don´t have the money for medical supplies if that happens", and that "my mom is telling me that I should not use the cups because if I get them and have some problems, they will take me to the hospital". The other girl, Jina, expressed that her mother went so far as to prohibit her from using the menstrual cup, fearing for what could happen. Furthermore, in addition to being told by her mother that she should not use the menstrual cup because of what might happen, Nana also voiced that she had been told that using the menstrual cup equaled losing your virginity, saying that "I was told that when you use the cup and since you have not entered any sexual intercourse yet, when you use the cup,

you lose your virginity". So, the fear of losing her virginity despite staying away from sexual activity makes her stay away from the cup.

In all, there was a lot of fear connected to the menstrual cup and the use of it. Ten of the girls explicitly stated that they were scared, worried or afraid of the menstrual cup, either the appearance, the fit, or the pain, as mentioned above. For Shani, the appearance scared her because even though she was instructed on how to insert it, it still seemed too big and scary for her to use it:

> The appearance of the cup is so, it scares me, I was told how to fold it and all that, but still after that, after folding it, the appearance still seem too big to use. So, I´m afraid, and also from what I have heard from other people that it is too painful and all that, so I´m scared, and I can´t use it at all.

The same goes for Jina who stated that she did wish to use the menstrual cup. It was however the appearance of the product that frightened her into not using it after all. Moreover, the confusion and fear related to how it will fit is repeated by several of the girls. Tisha said that "I could not bring that hand up to insert it, so I was afraid of the size, will it fit me?", while Winta said "I am afraid of them actually, because I don´t know how exactly to put it in". From another participant it was also voiced a fear of the menstrual cup being stuck inside.

One can clearly see that in terms of the menstrual cup there seems to be much negativity towards the product. Through personal communication with some of the project staff who distributed the products, I acquired an impression of the negativity also being present among them, either related to the comfortability of the products, or to the practicality in terms of hygiene and sanitation facilities in which the menstrual cup would be used. It is interesting to see that the negativity is not only coming from the participating girls, but that the people handing out the menstrual cups as part of the intervention seem to be negative towards them themselves.

6.4: Discussion

As reported in the beginning of this chapter, the girls all received a sanitary kit with 5 re-usable pads, one menstrual cup, soap, soap dish, and underwear, together with an instruction book, as well as an educational component. Other MHM projects such as the Nia Project in Kenya, and Meniscus Project in Uganda, as well as SNV´s Girls in Control project in Tanzania also had interventions with the same components, with different variations. The Nia Project had disposable pads they gave out each month and provided a health magazine in addition to their health education sessions (Muthgeni & Austrian, 2018), while the Meniscus Project also focused on pain relief and WASH facility improvements, as well as having optional menstrual cups for only those who wanted it, instead of distributing it to all, as the PASS MHW intervention did. SNV´s two projects, Girls in Control and Improving Girls´ Access, had variations from only providing MSRH education (Tamiru, Mamo, Acidria, Mushi, Ali, & Ndebele, 2015) to a focus on enhancing knowledge of MHM and sanitary options (SNV.org, 2014). None of the studies were however found to provide the participating girls with an instruction book similar to what the PASS MHW intervention did. This instruction book was talked about by several participants who expressed a variation of feelings towards the book and its practicality. When connecting these findings to the Theoretical Framework of Acceptability (TFA), one can see that certain domains of the framework are relevant to bring up in relation to the acceptability of this instruction book, as well as the other parts of the intervention. Some girls expressed that the instructions were complicated or hard to understand, which relates to *intervention coherence* and *self-efficacy,* seeing that some of the girls had low understanding of the instructions and following this, low confidence towards the ability to perform these instructions, resulting in low acceptability of the instruction book.

Following the TFA and the different domains, one can argue that multiple of them are achieved when it comes to the sanitary pads provided, while few of them are achieved in relation to the menstrual cup. All the girls reported to be positive towards the sanitary pads, and expressed how they were comfortable, practical in terms of preventing leaks and smelling, as well as easy to wash and use. In other words, the *burden* can be seen as low for the participants. Furthermore, none of the participants reported that there were any conflicts of values or ethics in terms of using the sanitary pads, meaning that there was no issue of *ethicality.* Following this, the fact that the pads were easy to use also means that they must be

easy to understand, and since they were provided to them for free, there was no need for the participating girls to give up any benefits, profits or values in order to use them. Lastly, seeing that they all seemed, and several also expressed explicitly, to be comfortable with using the sanitary pads, both the aspects related to *intervention coherence* and *opportunity costs,* as well as *self-efficacy* show that the acceptability of the sanitary pads are seen to be high, and that the participating girls all accepted the sanitary pads and the usage of it. This aligns with what is presented in the literature review; that the acceptability was overall higher for the sanitary pads than the menstrual cups.

The study from rural western Kenya reported that they had seen an increasing acceptability of menstrual cups over time. However, when describing the participants in the study´s first reactions to the menstrual cup, they were similar to reactions from the girls in this study, with them raising questions as to how that cup could fit and that the appearance seemed way too big (Sahin, 2015). The main difference from the girls in the PASS MHW intervention to the girls in the study from rural western Kenya is that, despite the fears, they tried the cup. And despite having some initial pain or discomfort, they sticked with it, and then they felt that the pain resolved over time. The study presents a core reason for the girls sticking with the cup being that their peers were "using the cup successfully" (Sahin, 2015), and that they had peers to lean on for instructions etc. This is something quite different from the girls in the PASS MHW intervention, who expressed that they were not motivated to continue trying, or trying the cup at all, because their peers were negative to it. The *opportunity costs* can be described as the personal fear related to the stories they had heard, and the pain some of them had felt themselves, led to them not trying. Additionally, multiple girls reported that they did not understand how they were supposed to use it, or how it could fit. This, connected to the stories heard from other girls could be a leading cause to low *self-efficacy*, with the girls not believing in it, and not having the confidence in using the cup, leading to a low acceptability of the menstrual cup. Continuing on this, the *perceived effectiveness* was also low among the girls because of these factors. When only hearing that it is painful to use it, and not understanding how to use it, it is hard for the girls to picture it working. Even for Jina who wished to use it, the *perceived effectiveness* was expressed as low, since she did not understand how it was supposed to be used. This confusion also leads to the *intervention coherence* being low, and the *burden* high. Furthermore, some girls expressed other challenges related to the use of the menstrual cup, such as being told by their mother not to use it, that it was prohibited, or that it would result in a loss of virginity. This means that for

some of the girls, using the cup did not fit with their value system, as using it could mean not being a virgin anymore, and therefore was a conflict of *ethicality.*
Maclean, Hearle and Ruwanpura (2020) has written about how local beliefs is a barrier in girls´ lives, and these beliefs can be connected to why the mothers expressed such negativity towards letting the girls use the menstrual cup. Furthermore, Remes et. al. (2010) and Allen (2000) present that communication between family members and young girls on topics such as menstruation and SRH is not common. Allen (2000) found that the girls are only informed about what menstruation is when the girls have reached menarche, and it is only communicated around the usage of a cloth or a sanitary pad. This, in connection to Remes et. al.´s (2010) findings on how narrow the SRH education is, only focusing on family planning and such, can explain why there is a belief that using the menstrual cup can lead to a loss of virginity, as well as explaining the overall negative view on the menstrual cup. It is not a familiar product for either the girls or their families, and it is something that the girls are to put inside, which is not being done with the products they are familiar with. This can also be a contributing factor to the low acceptability we can see that the girls and their mothers have of the menstrual cups. Lastly, girls in the US reported that they found it uncomfortable to use tampons because they had to be put into their vagina, and one of the girls also mentioned that she associated the use of a tampon with sexual penetration (Bobier, 2020, p.308-310). This is similar to what the Tanzanian girls expressed around the menstrual cup, and similarities can be drawn between a menstrual cup and a tampon, seeing that both are menstrual products that are used internally. It shows that there is a broader association between using internal menstrual products and sexual penetration or similar, which has been expressed negatively and as a cause for not using these types of products. One can therefore argue that since the sanitary pads are used externally, it is easier to accept and use that product.

If one looks at the seven domains of the TFA, as well as relevant literature on the topic, one can explain the acceptability of the intervention´s products. There is clearly a heavier *burden* for the participating girls when it comes to the menstrual cups, as opposed to the sanitary pads. The sanitary pads are similar to the cloths and the pads they had used before, while as the menstrual cups were something none of the girls were familiar with. Only Habiba saw the *burden* and *opportunity costs* as low enough, and for her the menstrual cups had a high *perceived effectiveness,* and she felt confident enough in both the product and her ability to use it. For others, this was not the case. The study from rural western Kenya showed the importance of peer support, which was not present among the participating girls, with only

one of fourteen girls using the menstrual cup, Habiba did not have the influence enough to make the other girls give the menstrual cup a (second) chance. However, the situation of the sanitary pads was the complete opposite of the menstrual cups, with a low *burden* and *opportunity costs,* the use of the sanitary pad fit with their values and they both understood and felt confident in how to use the product and what was achievable with the usage of it. This shows that the acceptability of the intervention varies completely dependent on the product in question, in addition to which of the participant you ask. The consensus is however that the acceptability of the sanitary pads is way higher than the acceptability of the menstrual cups, and the instruction book provided seemed to have some say in the acceptability, either in a positive or negative way, depending on whether the girls understood the instructions and found them useful or not, which the girls did not agree on.

Chapter 7: Changes and knowledge

The third and final chapter will present findings on the current experiences and feelings of the girls, after the intervention has been implemented, and relate these findings to the theoretical framework of empowerment. The chapter will direct attention to the subchapters *Feelings towards menstruation now, Current knowledge on menstruation* and *Remaining knowledge gaps.*

7.1: Feelings about menstruation now

During the interview, questions were also asked related to how the participating girls felt about their periods *now,* meaning after the intervention, as opposed to how they reported to have felt prior to the intervention. Among the fourteen girls, none of them expressed feeling negative towards their period or menstruation in general now. Some girls mentioned being more comfortable and having less worries in relation to talking about their period with friends, like Mila:

> Right now, I am very comfortable, very comfortable with my friends, we can sit and talk a lot, I can say like `today is my period´ so I feel very comfortable. The shy period is over, and I have no worries now.

Others emphasized how comfortable they feel now in relation to the previous fear of leaking or smelling bad. Bahati mentioned how “I love the pads and because actually now I can come to school very comfortably, I can sit in class very comfortably without any worries”, and Habiba said that “now days I can comfortably with a boy beside me not thinking, not stressing out that will I dirtify myself or smell or do anything”. Alongside this, multiple of the other girls also use the word “comfortable” when asked about how they feel about their menstruation now. Either in relation to the physical products being easier or better to use, or in relation to the psychological factors such as not being stressed or worried about their period and everything around it anymore.

When it comes to the views they have on menstruation, some girls say that they now view their period as a normality. Mila, who felt that she was the only one experiencing what she experienced when reaching menarche, voiced that:

> I take it as a normal condition of my body, and because the first time when I got the menstrual cycle, I felt that I was the only one in the universe getting that, but for now I have experienced it from other, from friends, from MITU and all that, so it feels like a normal thing.

Others mention that they are now okay with it, and have accepted their periods, as well as that they now have the knowledge of it being a normal thing. Three girls even expressed that they view their periods as something positive and healthy, with Shani saying that “I now view my menstrual cycle in a positive way because I have gotten that knowledge”, and Malika stating that “I am enjoying my days very well now, I am happier, I even take it in a healthy way”. All in all, the girls express that they feel more comfortable, less worried, okay or positive towards their period, or as Kanoni explained: “in my case I am free”.

7.2: Current knowledge on menstruation

As mentioned above, the new products seemed to bring with them some changes for the girls. The girls report that they are no longer afraid of leaking and having visible bloodstains on their skirts, the smell that the old products produced are not there when using the new products, and the sanitary pads are more comfortable to use, meaning that they can both sit

and move around without discomfort, as well as feel more comfortable generally when on their period, and not face any pain, feelings of beings sore, or having marks.

Furthermore, the provision of sanitary kits was only one of two factors that the intervention consisted of. The other was the element of MSRH education. Therefore, I wished to ask the girls about what they feel that they had learned, or what knowledge or insight they felt they had gained throughout the project. All fourteen participating girls had things to mention when asked about this, and most of them mentioned different things from the others. To begin with, several girls expressed learning about menstruation as normal and natural part of the female body, where Lulu stated that "since MITU came to us and talked to us about not feeling shy and like accept it as a woman and it is just the changes as a woman, so it is okay for us to have that". Others also mentioned things like "I have the knowledge that there is no need to be afraid because it´s a normal thing for girls and all that" (Bahati), expressing how they now know that menstruation is a normal thing for them to experience.

Some of the other girls focused on the insight they had gained related to the practical parts of their periods, such as "how long the flow takes per day for me to change my pad" (Shani), what type of discharge was normal and what types of discharge could be seen as abnormal, or how much blood you lose during your period. Furthermore, many of the girls explained that they did not know that much, or anything at all, about the reusable sanitary pads and the menstrual cups prior to the intervention, and that "after the PASS came and gave us that knowledge, I now have knowledge of knowing how to wash them, and how to use them" (Lela).

Besides the practical things related to their period, flow, and discharge, several girls expressed gaining knowledge of other things related to menstruation and puberty, such as the authenticity of myths on the topic, and the risks that are related to sexual intercourse. Jina told us that she had earlier heard a myth about eating lemons while on your period being beneficial, that she chose to ask MITU about, and that she was ensured that "eating lemons is not adding anything", so she learned that the myth was nothing more than a myth. It was also expressed how they had learned that some medication they were familiar with was seen as dangerous to use during your menstrual cycle.

Furthermore, they presented knowledge on the additional risk that comes with reaching puberty and having your period. The risk of becoming pregnant if having sexual intercourse. Malika explained that they had also learned about this, about what having sexual intercourse could result in, and that "you have to stay away from having sexual intercourse with men and

having those relationships because it can lead you to getting thrown out of school and getting HIV and getting pregnant".

The couple of girls that had expressed experiencing period cramps or pains during their periods, also mentioned how they had gained knowledge on how to handle the cramps, and what might help with the pain. Jina, who struggled with being locked inside while on her period, voiced that the knowledge she gained during the intervention had helped her communicate with her mother. Now she could tell her mother that "mom it´s okay, there are other that are also like women so it is not only myself, so I can help them like get the knowledge when they go outside", which she said resulted in the mother decreasing the strictness slightly. Following this, other girls also expressed how they had brought with them the knowledge given to them by the study, to help educate others outside school. Besides Jina who talked with her mother about it, Malika said that "I went home and told other girls".

7.3: Remaining knowledge gaps

Despite the girls communicating everything they had learned, it was seen that some knowledge gaps remained. At the end of each interview, I asked whether the participating girls had any questions about the interview. At this point, several girls wanted to know if I could answer questions they had, not related to the interview in itself, but on the topic we were talking about: menstruation. Five of the girls had questions related to how to control their flow and their period. Mila asked, "how can I be ready for the coming period?", wondering how to know when the next period would come, and Jina expressed how "I still face problems", related to handling and managing her flow and cycle. There were also some questions related to practical things such as the menstrual cup: "how do you use it?" (Winta), the washing of the sanitary pads, and pain management, showing that not every knowledge gap had been filled, despite the girls expressing how much they had learned.

Lastly, it is worth mentioning that a majority of the girls explicitly voiced their gratitude towards the intervention and the interview, and that a couple of the girls also expressed how they felt there was an urgency in bringing this intervention further, and educating not only them, but making sure others also get access to the knowledge, with Jina saying that "I wish for you to also educate like other schools, and the younger ones". So, she was encouraging us to educate and provide others with what they got, because, as she expressed: "I don´t want

others to face the same problems as me", while others aired how important it was to give the knowledge to those who could not afford to go to school.

7.4: Discussion

While much literature presented in the previous chapters report that the knowledge of menstruation and MHHM is found to be low, the findings above show that the girls´ knowledge has risen since before the intervention, and they present knowledge on many different and important aspects of MSRH. The girls mention to have learned about both practical things related to their menses, such as knowledge on products, flow, and discharge, as well as more psychological aspects of their menses, that being the knowledge of menstruation as a natural part of their bodies, breaking down myths and gaining understanding around sexuality and reproductivity. This knowledge, as well as the intervention products, was expressed by the girls to have made them more confident, giving them more understanding, and making them less shy. A trial in Kenya, however mainly researching absenteeism related to menstruation, found that despite pad distribution and Reproductive health (RH) education not leading to improved school attendance, the RH education led to improvements in the girls´ RH attitudes, self-efficacy and comfort (Austrian, Kangwana, Muthengi, & Soler-Hampejsek, 2021). These findings are similar to this study´s findings, showing that the education provided does lead to improvements in the girls´ personal lives. An improvement in attitudes and self-efficacy was also stated as an outcome of The Nia Project in Kenya, which implemented a similar intervention. In other words, while MSRH interventions may not be enough to cope with school absenteeism, it can clearly lead to improvements in the participants´ lives, as it makes them more educated and confident. After gaining access to the products, none of the girls reported feeling negative or scared of their menses and what they could lead to, such as leaking or smelling anymore. This shows that the need for resources that many researchers have pointed out as necessary (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Cherenack & Sikkema, 2021), does have the ability to make an impact.

Resources is a key aspect within Naila Kabeer´s idea of *Empowerment* (2005), and Femme International has gone as far as to say that menstruation is "the single largest obstacle to female empowerment" (Rubli, 2013). Through their and the rest of the PASS MHW team´s intervention, they distribute resources such as MSRH education and menstrual products.

Without these resources it is hard to achieve any change (Kabeer, 2005), and one can argue that for the girls in this study, these changes in confidence, knowledge and understanding would be hard to achieve without the MSRH education and sanitary products. This because, as findings have shown in earlier chapters, the knowledge prior to the intervention was low, or of poor quality, none of the girls expressed positivity towards the cloths or pads used to manage their periods, and few were positive towards menarche and menstruation in general.

However, it is important, as Kabeer specifies, that resources in themselves are not enough to become empowered (Kabeer, 2005). This is where the *agency*, or ability to make choices, comes in, which one can argue that these resources have helped create for the girls. A study has found that awareness of menstruation, and practical information around MHHM and bleeding, as well as social support in terms of communication on the topic, are important in creating positivity towards menstruation, as well as confidence and comfort (Hennegan, 2020, p.641). This comfort and confidence that are found among the participating girls, are results of agency and choices. The resources they have been provided with, have given them the opportunity to make choices for themselves. These choices are related to what products they wish to use, what methods to use for pain management, whether to talk about menstruation with their peers, as well as perhaps the choice as to how they *view* their menses. Based on the findings presented in these last chapters, one can see that these choices were not present to the same extent before the intervention. Prior, girls used cloths because there was no money to use pads, and others used the uncomfortable pads because they did not have access to anything more comfortable, while as they now all say that they have found a menstrual product they prefer and feel comfortable using. Some girls talked about their menstrual cramps hindering them in participating in class, while as they now report that they have learned different pain management options. Many said that they were scared to talk about menstruation when they reached menarche, while as they after the intervention expressed that they felt free and comfortable speaking about it. And while the majority of the girls tied menstruation to fear and worry, they now expressed that they had learned how it is normal, harmless and a part of their bodies´ growth, making them view their menses in a different light. Therefore, one can say that without the intervention, the girls would not have had the agency to think this way about their menses. Furthermore, interventions like this one could have strengthened the girls´ agencies by removing the stigma around leakages, smells and visibility of menstrual blood. However, this was not a focus area for this PASS MHW

intervention. In addition, such a thing would have needed massive effort, and may not have been feasible.

The third dimension of empowerment is *achievements.* In this study, the achievements are what the girls have accomplished or reached, as a result of the agency and resources. This has been mentioned above, about how the girls have gained more confidence, knowledge and understanding, and feelings of being free, educated and comfortable, as opposed to earlier. This is not an uncommon achievement, as studies have found that information and knowledge help dismiss fear and shame, as well as enlighten the importance of educating menstruation as an important sign of being healthy (Stubbs & Sterling, 2020, p.241; Hennegan, 2020.641-642). Furthermore, the resources have been said to be crucial to fight shame and teasing (Sommer, Ackatia-Armah, Connolly, & Smiles, 2015; Benshaul-Tolonen, Aguilar-Gomez, Naomi, Cai, & Elias, 2020; Chandra-Mouli & Patel, 2017, Mohammed & Larsen-Reindorf, 2020; Cherenack & Sikkema, 2021). On the other hand, none of the participants mention anything in regard to whether they still feel the need to keep managing their periods in secret, just that they can talk about the topic more openly. In addition, their wording in the interviews, using words like “dirtify” or “dirty”, makes it seem like they still relate their menses and menstruation blood to something filthy and negative. Based on this it is hard to tell if the intervention has helped fight the notion that menstruation is unclean and should be hidden, or if the girls still try to hide their menses and find them filthy, just now with better resources and knowledge on how to do it.
Regardless of this, one can see, as suggested by Culpepper (Johnston-Robledo & Christler, 2020, p. 191), that merely talking about menstruation can help create positivity and openness around it, which these findings highly support.

In other words, based on the discussion above, the intervention can be argued to have caused empowerment for the participating girls. It is however important to be critical towards the notion that a simple intervention equals empowerment, and to make sure one doesn´t neglect the complexity of their situation, as well as being cautious defining the girls as disempowered to begin with, as one does not know their full story or their own personal thoughts on the topic. With that being said, when focusing on the findings presented, the agency, resources and achievements that Kabeer (2005) lists show that there are grounds for saying that the girls could have attained some level of empowerment through this intervention.

Chapter 8: Conclusion, recommendations and limitations of the study

8.1: Summary and concluding remarks

Menstrual health and hygiene management is a complex field within development. As time moves forward, the number of interventions targeting this is increasing. This study aimed to explore the participants experiences of one such intervention, by using a phenomenological approach rather than a quantitative methodology that has usually been used when researching menstruation. This was done through in-depth friend-interviews, to achieve firsthand information from the girls themselves. Furthermore, the findings from these interviews were analyzed using relevant literature and the theoretical frameworks of acceptability and empowerment. This was done to develop a deeper understanding of the girls´ experiences, and to be able to connect these experiences to other settings and contexts.

This study found that the knowledge that the girls had on menstruation prior to the intervention was perceived as lacking or of poor quality, leaving them feeling unprepared or scared to reach menarche. Most of the girls had received some knowledge from either their mother or their sisters, while a few got their first menses without knowing anything about what it was, what it meant, or how to handle it. When thinking back on their first menses and what this involved, a majority of the girls expressed frustration, sadness and negativity, both towards pain, leaking, products not doing the job, and mental challenges that followed this, such as fear and stress, all leading to a loss of concentration and negative attitudes towards menstruation. However, as literature shows, this is not uncommon.

When speaking about the intervention and it´s components, it was clear that there was a preference of the sanitary pads over the menstrual cups among the participants. The sanitary pads seemed to overall provide the girls with less worries and stress, make them more comfortable, and come with little to no challenges. On the other hand, the menstrual cups were not as accepted by the girls. The main reasons for this were confusion around use, and fear of, or experiences of pain during insertion and use. In addition, some mothers had advised against, or even prohibited their daughters from using the menstrual cups due to the fear of something going wrong while using it, or because it they saw it as equivalent to their daughter losing her virginity.

One of the interventions components was the MSRH education, which, when asked about it, showed that the girls had learned new and valuable things about their bodies, sexual intercourse, use of the sanitary products, and how deal with their menses. In addition, all girls

voiced, as opposed to what they mentioned feeling about menstruation prior to the intervention, that they now felt comfortable, free, and positive in regard to their menstruation. On one hand, one can draw a link between this acquisition of knowledge and the positivity expressed, and empowerment, as their agencies and abilities to make educated choices are based on the resources they have received through the intervention. While some say that helping girls manage their menses is a key to their empowerment, I believe that it is important to be careful making assumptions of the participants being disempowered prior to the intervention, or to state that MHHM is enough to create empowerment. However, based on the findings in this study, one can conclude that the girls are happier, more comfortable, and feel more confident about their periods now, as opposed to what they report the situation to have been prior to the intervention.

Through this study, I have had the ability to sit down with girls and talk about menstruation. This experience has taught me incredibly many valuable lessons, and I have gained new and priceless insight. In my meetings with these girls, we touched upon a great number of interesting topics that I wish this study would have the time and resources to follow up on. For future research it would be interesting to look into pain management, as the girls mostly mentioned that they rely on warmth and exercise rather than medication. It would also be interesting to look at the definition of menarche as reaching adulthood, which is rather different from the Western perspective.

8.2: Recommendations

Based on the findings and discussion in this study, a couple of recommendations will be presented.

Evaluating the acceptability and effectiveness of providing menstrual cups. This study found that only a small minority of the girls were willing to try the menstrual cup, and even fewer tried and liked using it. Based on this, I suggest a larger evaluation of the menstrual cups, to determine if providing this product is beneficial or necessary.

Consider peer support systems. Following the recommendation above, if continuing distributing menstrual cups, I suggest putting in place peer support systems. This has been shown in another study to help increase acceptability of menstrual cups. In the PASS MHW intervention, opinions and expressions from peers have caused the opposite, as words of pain have travelled among the girls, causing them who to fear the cups before trying them. If girls

like Habiba, who liked using the menstrual cup, became spokespersons promoting the positive aspects of the menstrual cups, it could lead to an increase in acceptability with time.
Work towards making menstrual, sexual, and reproductive health education a (bigger) part of the education in Tanzanian Schools. One thing that became clear during this study, is the impact that the educational component had on the girls, in regard to both their level of both knowledge, and self-efficacy. This shows that this kind of education is important and necessary, and should be accessible to everyone, as also suggested by some of the participants themselves. Finally, as pointed out by Winkler (2021), also addressing stigma, rather than solely focusing on avoiding leaking and stains, would be highly beneficial.

8.3: Limitations of the study

Doing the research for this thesis as part of the PASS MHW study gave me opportunities that otherwise would have been difficult or impossible to achieve. I was part of a research team during my fieldwork which facilitated transport and research assistance, and I got support to achieve ethical clearance. At the same time, being a part of an ongoing project also came with some limitations, such as having to adjust to their timeframes, and relying on people who were unfamiliar with in-depth interviews and word by word translation.

The use of an interpreter could be seen as a limitation, and ideally, I should have had someone transcribe the interviews verbatim, rather than me transcribing the English translations only (see chapter 4). However, due to budgetary reasons, that was not an option. Choosing to do friend-interviews could also potentially lead to limitations, as it could have made the participants refrain from saying certain things. However, the purpose of this method was to make the girls *more* comfortable, and I would argue that it worked well (see chapter 4).
My position as an outsider from a different side of the world, as well as being associated with the PASS MHW study, may have affected what the participants said during the interviews and my own understanding of the information. However, I did my best to take every precaution to prevent this bias.
Lastly, this is a 30-credit thesis and time has been a limitation. Without this time limit, the scope could have been widened along with the number of participants, resulting in even higher trustworthiness of the data. Nevertheless, I hope that the findings of this thesis will be of value to other researchers who are interested in this important field.

Reference list:

Allen, D., R. (2000) Learning the Facts of Life: Past and Present Experiences in a Rural Tanzanian Community. *Indiana University Press.* 47 (3/4), p. 1-26. Retrieved from: https://www.jstor.org/stable/4187366

Attride-Stirling, J. (2001). Thematic Networks: an Analytic Tool for Qualitative Research. *Qualitative Research,* 1(3), 385-405. Retrieved from: https://journals.sagepub.com/doi/epdf/10.1177/146879410100100307

Austrian, K., Kangwana, B., Muthengi, E., & Soler-Hampejsek, E. (2021). Effects of Sanitary Pad Distribution and Reproductive Health Education on Primary School Attendance and Reproductive Health Knowledge and Attitudes in Kenya: a Cluster Randomized Controlled Trial. *Reproductive Health* 18(179). Retrieved from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-021-01223-7#citeas

Ayele, E. & Berhan, Y. (2013) Age at Menarche Among In-School Adolescents in Sawla Town, South Ethiopia. *Ethiopian Journal of Health Science* 23(3) 189-200. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847528/

Bastien, S., Kajula, L., J. & Muhwezi, W., W. (2011). A Review of Studies of Parent-child Communication about Sexuality and HIV/AIDS in Sub-Saharan Africa. *Reproductive Health* 8(25). Retrieved from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-8-25

Benshaul-Tolonen, A., Aguilar-Gomez, S., Naomi, H. B., Cai, R., & Elias, C. N. (2020). Period Teasing, Stigma and Knowledge: A Survey of Adolescent Boys and Girls in Northern Tanzania. *PLoS One, 15*(10), 1-21. Retrieved from: https://www.proquest.com/docview/2455533498/fulltextPDF/99EE8C105C5F4863PQ/1?accountid=8579

Bikis, Y. S., Emiru, A. A., & Asresie, M. B. (2021). Disparities in Menstrual Hygiene Management between Urban and Rural Schoolgirls in Northeast, Ethiopia. *PLoS One, 16*(9), 1-14. Retrieved from: https://www.proquest.com/docview/2578156879/fulltextPDF/CE9CD1ECF762412BPQ/1?accountid=8579

Bobel, C., Winkler, I., T., Fahs, B., Hasson, K., A., Kissling, E., A. & Roberts, T-A. (Ed.). (2020) *The Palgrave Handbook of Critical Menstruation Studies.* Singapore: Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Bobier, L. (2020). The Sexualization of Menstruation: On Rape, Tampons, and ´Prostitutes´. In Bobel, C., et. al. (Ed.) *The Palgrave Handbook of Critical Menstruation Studies*. (303-318). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Braun, V. & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative research in Psychology, 3*(2), 77-101. Retrieved from: https://www.researchgate.net/publication/235356393_Using_thematic_analysis_in_psychology

Chandra-Mouli, V. & Patel, S., V. (2017) Mapping the Knowledge and Understanding of Menarche, Menstrual Hygiene and Menstrual Health among Adolescent Girls in Low- and Middle-income Countries. *Reproductive Health 14*(30). Retrieved from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0293-6

Cherenack, E., M., Rubli, J., Dow, D., E., & Sikkema, K., J. (2020) Sexual Risk Behaviors and Menstrual and Intravaginal Practices Among Adolescent Girls and Young Women in Tanzania: A Cross-Sectional, School-Based Study. *International Journal of Sexual Health 32*(4), 394-407. Retrieved from: https://www.tandfonline.com/doi/epub/10.1080/19317611.2020.1821861?needAccess=true

Cherenack, E., M. & Sikkema, K., J. (2021) Puberty- and Menstruation-Related Stressors Are Associated with Depression, Anxiety, and Reproductive Tract Infection Symptoms Among Adolescent Girls in Tanzania. *International Journal of Behavioral Medicine.* Retrieved from: https://link.springer.com/content/pdf/10.1007/s12529-021-10005-1.pdf

Chr. Michelsen Institute (no date). Pushing Pads. Retrieved from: https://www.cmi.no/projects/2756-pushing-pads

Costa, M., A. & Mbalane E. UNAIDS (2021) *Evaluation of the UN Joint Programme on HIV Mozambique 2016-2020*. UNAIDS Evaluation Office. Retrieved from: https://www.unaids.org/sites/default/files/media_asset/evaluation-UN-Joint-Programme-HIV-Mozambique_en.pdf

Creswell, R., Poth, C. N. & Cheryl, N. (2018) Five Qualitative Approaches to Inquiry. In R. Creswell (Ed.), *Qualitative inquiry & research design: choosing among five approaches* (4th ed.). 53-84. Sage.

Eyben, R., Kabeer, N. & Cornwall, A. (2008) *Conceptualising Empowerment and the Implications for Pro Poor Growth:* a Paper for the DAC Poverty Network. Retrieved from: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.405.957&rep=rep1&type=pdf

Femme International (no date). The Twaweza Program. Retrieved from: https://femmeinternational.org/our-research/twaweza-program/

Haukanes, H. & Hašková, H. (2020). Gendered Visions of Family Life and Parenthood among Czech Young People: Restricted or Transforming Imaginations? *Journal of Youth Studies 24(*9). 1148-1163. Retrieved from: https://www.tandfonline.com/doi/full/10.1080/13676261.2020.1804054

Hennegan, J. (2020) Interventions to Improve Menstrual Health in Low- and Middle-Income Countries: Do We Know What Works? In Bobe, C., et. al. (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (637-652). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

International Trade Administration (ITA) (2021) Tanzania Education Overview. Retrieved from: https://www.trade.gov/market-intelligence/tanzania-education-overview

Johnston-Robledo, I. & Chrisler, J., C. (2020) The Menstrual Mark: Menstruation as Social Stigma. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (181-200). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Kabeer, N. (2005). Gender Equality and Women's Empowerment: A Critical Analysis of the Third Millennium Development Goal. *Gender and Development.* 13(1). P. 13-24. Retrieved from: https://www.jstor.org/stable/20053132

London School of Hygiene and Tropical Medicine (no date). About MENISCUS. Retrieved from: https://www.lshtm.ac.uk/research/centres-projects-groups/meniscus#about-meniscus

MacLean, K., Hearle, C. & Ruwanpura, K., N. (2020). Stigma of Staining? Negotiating Menstrual Taboos amongst Young Women in Kenya. *Women's Studies International Forum* vol.78, p. 1-10. Retrieved from: https://www.sciencedirect.com/science/article/abs/pii/S0277539518303959?via%3Dihub

Maharaj, T. & Winkler, I., T. (2020). Transnational Engagements. Cultural and Religious Practices Related to Menstruation. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of*

Critical Menstruation Studies. (163-174). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Mashala, Y., L. (2019). The Impact of the Implementation of Free Education Policy on Secondary Education in Tanzania. *International Journal of Academic Multidisciplinary Research* 3(1), p. 6-14. Retrieved from: https://www.researchgate.net/profile/Mashala-Yusuph/publication/332607737_The_Impact_of_the_Implementation_of_Free_Education_Policy_on_Secondary_Education_in_Tanzania/links/5cc056b3299bf120977c55da/The-Impact-of-the-Implementation-of-Free-Education-Policy-on-Secondary-Education-in-Tanzania.pdf

McCarthy, A. & Lahiri-Dutt, K. (2020) Bleeding in Public? Rethinking Narratives of Menstrual Management from Delhi´s Slums. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (15-30). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Michel Mettler Schönenberger Gunz, D. (2022). Period Poverty. Why it should be everybody´s business. *Journal of Global Health Reports.* 6(2022). Retrieved from: https://www.joghr.org/article/32436-period-poverty-why-it-should-be-everybody-s-business

Mohammed, S. & Larsen-Reindorf, R., E. (2020) Menstrual Knowledge, Sociocultural Restrictions, and Barriers to Menstrual Hygiene Management in Ghana: Evidence from a Multi-Method Survey among Adolescent Schoolgirls and Schoolboys. *PLoS ONE 15*(10). Retrieved from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0241106

Muhwezi, W., W., Katahoire, A., R., Banura, C., Mugooda, H., Kwesiga, D., Bastien, S., & Klepp, K-I. (2015). Perceptions and Experiences of Adolescents, Parents and School Administrators Regarding Adolescent-Parent Communication on Sexual and Reproductive Health Issues in Urban and Rural Uganda. *Reproductive Health* 12(110). Retrieved from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-015-0099-3

Muthengi, E., N. & Austrian, K. (2018) Cluster Randomized Evaluation of the Nia Project: Study Protocol. *Reproductive Health* 15(218). Retrieved from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-018-0586-4#citeas

Mwanza Region (no date). Districts. Retrieved from: https://mwanza.go.tz

Nalugya, R., Tanton, C., Hytti, L, Kansiime, C., Nakuya, K, Namirembe, P., ... Weiss, H., A. (2020) Assessing the Effectiveness of a Comprehensive Menstrual Health Intervention Program in Ugandan Schools (MENISCUS): Process Evaluation of a Pilot Intervention Study. *Pilot and Feasibility Studies* 6(51). Retrieved from: https://researchonline.lshtm.ac.uk/id/eprint/4656790/1/Assessing%20the%20effectiveness%20of%20a%20comprehensive%20menstrual%20health%20intervention%20program%20in%20Ugandan%20schools%20(MENISCUS)%20process%20e.pdf

Namisi, F., S., Flisher, A., J., Overland, S., Bastien, S., Onya, H., Kaaya, S., & Aarø, L., E. (2009). Sociodemographic Variations in Communication on Sexuality and HIV/AIDS with Parents, Family Members and Teachers among In-School Adolescents: A Multi-Site Study in Tanzania and South Africa. *Scandinavian Journal of Public Health* 37(2), p. 65-74. Retrieved from: https://journals.sagepub.com/doi/10.1177/1403494808086986

Nuffic (2014). Education System Tanzania: Described and Compared with the Dutch System. Retrieved from: https://www.nuffic.nl/sites/default/files/2020-08/education-system-tanzania.pdf

Okello, E., Rubli, J., Torondel, B., Makata, K., Ayieko, P., Kapiga, S., Greco, G. & Renju, J. (2022). Co-Development and Piloting of Menstrual, Sexual, and Reproductive Health Intervention to Improve Social and Psychological Outcomes among Secondary Schoolgirls in Northern Tanzania: The PASS MHW Study Protocol. Retrieved from: https://bmjopen.bmj.com/content/12/2/e054860

Perianes, M., B. & Ndafernkhande, D. (2020) Becoming Female: The Role of Menarche Rituals in "Making Women" in Malawi. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (423-440). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Piran, N. (2020) The Menarche Journey: Embodied Connections and Disconnections. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (201-214). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Punch, K., F. (2014). Introduction to Social Research: Quantitative & Qualitative Approaches (3rd ed.). Sage.

Remes, P., Renju, J., Nyalali, K., Medard, L., Changalucha, J., Obasi, A. & Wight D. (2010). Dusty Discos and Dangerous Desires: Community Perceptions of Adolescent Sexual and Reproductive Health Risks and Vulnerability and the Potential Role of Parents in

Rural Mwanza, Tanzania. *Culture, Health & Sexuality* 12(3), p. 279-292. Retrieved from: https://www.tandfonline.com/doi/full/10.1080/13691050903395145

Rubli, S. (2013, 07.06). Female Empowerment. Why Menstruation is Key. Retrieved from: https://femmeinternational.org/female-empowerment-why-menstruation-is-key/

Sahiledengle, B., Atlaw, D., Kumie, A., Tekalegn, Y., Woldeyohannes, D., & Agho, K. E. (2022). Menstrual Hygiene Practice among Adolescent Girls in Ethiopia: A Systematic Review and Meta-Analysis. *PLoS One, 17*(1), p. 1-26. Retrieved from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0262295

Sahin, M., Mason, L., Laserson, K., Oruko, K., Nyothach, E., Alexander, K., … Phillips-Howard, P. (2015) Adolescent Schoolgirls´ Experiences of Menstrual Cups and Pads in Rural Western Kenya: A Qualitative Study. *Waterlines* 34(1), p. 15-30. Retrieved from: https://practicalactionpublishing.com/article/2737/adolescent-schoolgirls-experiences- of-menstrual-cups-and-pads-in-rural-western-kenya-a-qualitative-study

Sawo, M., B. (2020) Personal Narrative: Let Girls Be Girls – My Journey into Forced Womanhood. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (93-98). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Seifadin, A. S., Willi, W., & Abubeker, A. (2020). Factors Affecting Menstrual Hygiene Management Practice among School Adolescents in Ambo, Western Ethiopia, 2018: A Cross-Sectional Mixed-Method Study. *Risk Management and Healthcare Policy, 13*, 1579-1587. Retrieved from: https://www.proquest.com/docview/2443736449/fulltextPDF/E2DC4DDE72294D56PQ/1?accountid=8579

Sensa Tanzania (no date). Preliminary Results 2022: Population Size in Tanzania. Retrieved from: https://sensa.nbs.go.tz

Shenton, A., K. (2004) Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information* 22(2), p. 63-75. Retrieved from: https://www.researchgate.net/publication/228708239_Strategies_for_Ensuring_Trustworthiness_in_Qualitative_Research_Projects

SNV (2014). Baseline Survey Report on Menstrual Hygiene Management. Snv.org. Retrieved from: https://snv.org/assets/explore/download/girls_in_control_baseline_report_-_tanzania.pdf

Sommer, M., Ackatia-Armah, N., Connolly, S., & Smiles, D. (2015). A Comparison of the Menstruation and Education Experiences of Girls in Tanzania, Ghana, Cambodia and

Ethiopia. *Compare, 45*(4), 589-609. Retrieved from: https://www.tandfonline.com/doi/pdf/10.1080/03057925.2013.871399?needAccess=true

Stubbs, M., L. & Sterling, E., W. (2020) Learning About What´s "Down There": Body Image Below the Belt and Menstrual Education. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (233-252). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Tamiru, S., Mamo, K., Acidria, P., Mushi, R., Ali, C., S. & Ndebele L. (2015). Towards a Sustainable Solution for School Menstrual Hygiene Management: Cases of Ethiopia, Uganda, South-Sudan, Tanzania and Zimbabwe. *Waterlines* 23(1). Retrieved from: https://snv.org/assets/explore/download/towards_a_sustainable_solution_for_school_menstrual_hygiene_management-_cases_of_ethiopia_uganda_south-sudan_tanzania_and_zimbabwe.pdf

Tracy, S., J (2010) Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research. *Qualitative Inquiry* 16(10) p. 837-851. Retrieved from: https://journals.sagepub.com/doi/pdf/10.1177/1077800410383121?casa_token=Y3mniBLq1TcAAAAA:GvQ_YedmkNvQKktYtKlNghdCPQ1PF19ypHGByXxpfjfMfm5g4_vCXkPZvg3M0xLmbH6s37ubgjMBRw

UN Women (no date). Ensuring the Full Realization of Women and Girls´ Sexual and Reproductive Health and Rights in Mozambique. Retrieved from: https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2021/UN-Women-impact-story-Mozambique-Women-and-girls-sexual-reproductive-health-rights-en.pdf

UNFPA (2020). Menstruation and Human rights: Frequently Asked Questions. Retrieved from: https://www.unfpa.org/menstruationfaq

URT (2017). Mwanza Region Investment Guide. Mwanza: The United Republic of Tanzania, the President´s Office, Regional Administration and Local Government Authorities, Mwanza Region. Retrieved from: https://web.archive.org/web/20220617165748/https://mwanza.go.tz/storage/app/uploads/public/5a1/c20/c64/5a1c20c641dbf041333499.pdf

Winkler, I., T. (2020) Menstruation as Structural. In Bobel, C., et. al (Ed.) *The Palgrave Handbook of Critical Menstruation Studies.* (469-474). Palgrave Macmillan, Springer Nature. Retrieved from: https://link.springer.com/book/10.1007/978-981-15-0614-7

Winkler, I., T. (2021). Menstruation and Human Rights: Can We Move Beyond Instrumentalization, Tokenism and Reductionism? *Colombia Journal of Gender and Law* 41(244). Retrieved from: https://journals.library.columbia.edu/index.php/cjgl/article/view/8842

World Population Review (2023) Middle-Income Countries 2023. Retrieved from: https://worldpopulationreview.com/country-rankings/middle-income-countries

Yilmaz, K. (2013) Comparison of Quantitative and Qualitative Research Traditions: epistemological, theoretical, and methodological differences. *European Journal of Education* 48(2) p.311-325. Retrieved from: https://www.semanticscholar.org/paper/Comparison-of-Quantitative-and-Qualitative-Research-Yılmaz/f45f993702833849749b3ddd83e1673728d569eb

ZanaAfrica (no date). Research. Retrieved from: http://www.zanaafrica.org/research-the-nia-project

Appendices:

Appendix A, Interview guide:

PASS MH PROJECT
Acceptability and use of menstrual products In-depth Interview Topic Guide – IDI-PILOT-MWA-GIRLS
SIX MONTHS FOLLOWING THE INTERVENTION

PARTICIPANT: SCHOOL GIRLS – MWANZA PILOT SCHOOLS

The overall purpose of this IDI component of the pilot research is to qualitatively explore acceptability and use of menstrual products and pain and pain management. The question will be asked to a sample of girls about 15 girls in each school that receive intervention. The guide explores

- Menstrual product preference and use.
- Reasons menstrual products use and non-use.
- Acceptability and use of pain experience and pain management strategies

The ultimate goal of the data collection is to explore the acceptability and applicability of a re-usable pad and menstrual cups and to garner suggestions for any additions that we could make to ensure the MSRH intervention meets the needs of the students in Mwanza

The questions included here are not exhaustive and they are not prescriptive. This means that as the interview progresses, you may ask questions that are not included below, and similarly, it may not be appropriate or necessary to ask all of the questions included in this topic guide- *the discussion should be guided by what your participant says, NOT by the topic guide.* For that to happen, you should make sure that you're familiar with the guide so that so that you can engage more fully in the discussion and be responsive to what the participant is telling you, by exploring these responses further. Try to integrate some of the information that they have told you into your subsequent questions – this will demonstrate that you're listening and give participants a chance to clarify anything you might be misunderstanding. It is important for you to show that you are interested in what they are saying, and that you are there to learn from them.

Introduction to Participants
(note: this is an example so that you can see how we'd like the interview and the process to be explained, but you will likely want to adapt this to your own style)

Thank you for taking the time to speak with me today.
My name is _____ and I am working with the PASS MHW research project to learn more about menstruation and puberty in general. ***We are very interested in learning about young people's experiences - including yours- but it's up to you whether or not you want to talk about your own experiences or draw on experiences you might know of about other young people in your community, or your friends.***

This group discussion/ interview will take about 60 minutes. I appreciate you spending this time with me.

I am going to audio record the interview to make sure that I capture all the valuable information that you share with me. I may also write things down while we're talking so that I don't forget anything. Participation is voluntary- you do not have to answer any question that you don't want to, and you can choose to stop the interview at any time.

Everything you say is confidential, so please feel free to talk about your experiences and ideas. We will not record your name anywhere, and no one else will hear the tape or see the notes besides the people who are working on this research project. We may use some of what you say in reports or publications but will never use your name.

[Before starting the interview, use a separate form to gather socio-demographic information]

If you have any questions about this study, you can ask me now, or at any time during our conversation ***(RA: make sure you have collected signed consent form and answered any questions.) -*** Start the ***tape recorder***.

Ice breakers: the aim here is to ensure the participants are relaxed and feel comfortable talking with you

Please can you tell me more about yourselves and at least one hobby

Knowledge of puberty and menstruation

1. Knowledge of menstruation before puberty:
2. Do you remember when you first heard about, or came to know about menstruation? [How did this happen? Did anyone talk to you about menstruation? If yes, who, and in what setting?]
3. Did you see any female relatives of yours dealing with their periods? If yes, what did you observe? What did they communicate? How was your impression of it?
4. How did you feel towards menstruation before you started having it yourselves?
5. Can you tell me something about how you felt when you first got your period? [Did you feel scared/sad? If yes, what scared you? What made you feel sad? Did you feel happy/excited? If yes, why?]
6. Did anyone support you when you had your first period? [Did you have anyone to go to for information/supplies, comfort? If yes, who, and how was the experience? How about friends/classmates? Was this a topic of conversation or not?]
7. Have your periods affected your school life in any way? If yes, how, and why? (Negative: pain, fear of blood showing, distractions, teasing/bullying? Positive: more empowered? More like a woman/grown up?)

Menstrual products

1. What menstrual products did you use when you first started menstruating? [What was the reason for this? Money? What your relatives used? What was most accessible? If using bought products; who paid for them?]
2. Before the school joined the PASS project, did you try any other menstrual products? Why/why not? What where they, and why those?

3. Since the school joined the project, you have been provided with some menstrual products? [What products are they? (Looking for the girls' own terms) Can you describe the products to me? Had you heard of these products prior to the project? If yes, what had you heard?]
4. Which of the products supplied do you prefer?
    - Follow up questions for AFRiPad users:
        - Why do you prefer this product?
        - What convinced you to use them? What helped you to use them? When do you use/wear them? What are they good for? What sort of activities or occasions or tasks are you comfortable to wear them? Why? What makes them good for these time/activities?
        - What are they not good for? When do you not want to wear them? Why? What makes you choose something else to wear? Why do you choose something else? What do you then choose instead? Why do you choose that?
5. How has your experience of having your period changed, with using the pads? Tell me about that.
6. What has been your experiences with the products? Has receiving the products helped you with school in any way? (Circle back to the question about whether their periods have affected their school life: have the products changed this?)
7. Have being a part of this project taught you anything? If yes, what?

Follow up questions for AFRIPad Non-users

8. Why are you not using them?
- What is holding you back. What is stopping you?
- Would you like to use them? Why?
- Is there anything you need that would help you to use them?

9. What would you tell another girl, friend about pads? Would you recommend them or not? Why?

10. Follow up questions for Saalt cup users**:** You said you used menstrual cups; Tell me about the cup, about using your cup [What convinced you to use it. What helped you to use it. What made you try it? How long did it take for you to get used to using the cup? What was the process for you to get used to using and wearing your cup? Tell me about wearing the menstrual cup. About using it during your period. Your experience of your period with the cup? When do you like to use it? What sort of activities/situations, etc. Why is it good for those times/activities? What makes you use it then? What is it not good for? When do you prefer not to use your cup? Why do you choose not to use it? What do you use instead?

11. How has the cup changed your experience of having your period? What has changed for you? Why? How?

12. What would you tell other girls about the cup? What advice or recommendations would you give? What advice would you give a friend or sister or classmate about using the cup. Why?

Cup Non-users

- Why are you (not) using them.
- What is holding you back. What is stopping you.
- Is there anything you need or anything we can do to help you to use it?
- What do you think it would take for you to try it out?
- Did you try the cup? Tell me about trying.
  (Did it work, did it not work, was it too hard, did it hurt, were you scared, did you try a second or third or tenth time)

Wrapping up:

13. How do you feel about your menstruations now?
14. Is there anything you wish to share that we have not touched upon yet?

We have now completed our discussions for today. We would like to come back to speak to you in a few months time to hear how you are getting on and to learn more about your and your life. We look forward to speaking to you soon and thank you for your time and your open and honest answers.

Appendix B, Information sheet and consent form, school guardians

Information sheet- Consent form

B. SCHOOL GUARDIANS – Head teachers/Head mistresses

Introduction

My name is _____ _____, I am a researcher from the Mwanza Intervention Trials Unit (MITU). I would like to inform you about our duties and your rights concerning our request for this school to participate in a study. We would kindly ask you to carefully read this document or listen as it is read out to you, to indicate if you agree to this school under your administration to participate in this study and to complete/sign this form. You have been approached because [insert the name of the school] is under your leadership and administration and has been selected to be part of the PASS MHW project. The project aims to develop a scaleable health intervention within Tanzanian government structures to provide education, products and support specifically pertaining to menstrual health and puberty in generalin order promote the psychosocial wellbeing and optimal school participation and performance of secondary school girls.

Why and how is this study being done?

Poor menstrual and puberty related health are associated with subsequent psychosocial (high levels of shame, depression, anxiety) and physical (pain, increased risk of reproductive and urinary tract infections) ill health, and poor school outcomes (including poor performance, participation, and completion) for both girls and in a different way boys. The PASS MHW project has three phases. Phase 1 involves formative research (including interviews, discussion groups and observations) to refine an existing school based intervention and collaboratively design strategies to embed the intervention into government structures thereby promoting scalability. In Phase 2 we pilot the intervention, this will include menstrual and puberty focused education sessions for teachers and students, the provision of a puberty/menstrual kit and small changes to water and sanitation facilities at school. This phase includes an evaluation of the intervention and the implementation strategies using questionnaires, interviews, discussion groups and observations. In the final phase (Phase 3) we collaboratively synthesise the research findings with local, regional and national stakeholders. It is our hope that our phased project approach will enable us to develop a scalable intervention that fits within Tanzanian government structures to improve menstrual health and puberty practices and perceptions and the school climate to ensure the psychosocial wellbeing and optimal school participation and performance of secondary school students.

Can I refuse this study to involve my school?

Yes, participation in this study is voluntary and as an authority in this school you are free to decide whether your school should take part in this study.

Can I stop my school's participation in the study?

Yes. You can decide to stop the involvement of your school at any time for any reason.

What is required of me if I let my school take part in this study?

If you agree for your school to participate in this study, I will ask you to provide written consent by signing this form on behalf of the students who will be participating in this study.

Your consent will allow us to conduct one or more than one of any of the study activities within your school, which may include activities to develop, implement or evaluate the intervention These activities involve provision of menstruation and puberty related education sessions to students and teachers after class hours, provision of menstrual products to girls of involved class, meeting with parents and small improvements of water and sanitation systems of school. In addition to your overall consent, we will also ask every participant who takes part in any activity to complete an assent (if under 18 years) or consent form (if over 18 years). Students should not feel any pressure to take part in any part of the study and will be able to refuse participation to any element of this study

What are the possible benefits of participating in this research?

Your school's participation contributes towards the development of a scaleable and sustainable school based health intervention that could be further trialed in more schools across this region and the country. Students and teachers will receive some training as part of the intervention that may or may not serve to support their training and teaching respectively.

What are the possible disadvantages of participating in this research?

Some students and teachers will be invited for interviews. The interviews will take up some of their time, about 1 hour.

Confidentiality and data protection

The information will be collected anonymously as I will not audio record names of participants. Confidentiality of all information regarding their contribution will be maintained. All information collected will be stored safely in a lockable cupboard and in computers with passwords, where only the researchers can access it.

Do you agree for this school to participate in this study? (Circle response) No/Yes

_____	_____	_____
Participant	Participant signature	Date

Study team member's statement

I, the undersigned, have explained to the school administrator in a language that s/he understands the study procedures, the risks and benefits involved, and the obligations of the study team.

_____	_____	_____
Study Team Member Name	Signature of Study Team Member	Date

Who can answer my questions about the study?

You can contact any of the following people about any questions or concerns you have about this study:

Dr. Elialilia Okello, Mwanza Intervention Trials Unit, National Institute for Medical Research, Mwanza, Tanzania, Isamilo Road, Mwanza
P.O.Box 11396 Mwanza
Phone: +255 28 2500019

Appendix C, Information sheet and student consent form

Partnering to Support Schools to promote good menstrual health and well being

Information sheet and consent form for Acceptability and use of menstrual products In-depth Interview Topic Guide – IDI-PILOT-MWA-GIRLS

My name is _____ _____, a researcher from the National Institute for Medical Research of Tanzania (NIMR). We are based at the NIMR's Mwanza Research Centre within the Mwanza Intervention Trials Unit (MITU). I would like to inform you about our duties and your rights concerning the requested participation in a study. We would kindly ask you to carefully read this document or listen as it is read out to you, to indicate if you agree to participate or not agree and if you agree, to sign it in the corresponding area. The study has been approved by the Medical Research Coordinating Committee-National Institute for Medical research, and the Ministry of Health, Community Development, Gender, Elderly, and Children in Tanzania and the London School of Hygiene and Tropical Medicine Research Ethics committee. The study has also been received permission from the Mwanza Regional Administrative Secretary (RAS) and the Regional Education office.

You have been selected to take part in this research because you attend a school that is participating in the on-going PASS MHW project. You are also among the students who received the Twaweza intervention under the PASS project. We have invited between 40 girls from 4 schools, 10 from each of schools to participate in in-depth interviews.

Goal and purpose: What is the purpose of this study?
The broad goal of the PASS project is to improve menstrual, sexual and reproductive health in order to promote the psychosocial wellbeing and optimal school participation and performance of secondary school girls. The overall purpose of this part of the study how the intervention may have changed girls school attendance and participation.

Procedure: Why was I selected and What am I being asked to do?
You were selected to participate in the interview because you study in this school in form 2 or 3 and during the baseline data collection you are among the girls who reported to have missed or left school early during your previous menstruation. You have very important opinions regarding the study. During the conversation we will talk about your preferences and use of menstrual products, the reasons you use or don't use these products your experience of menstrual pain and the ways you manage your pain.

With your permission, we would like to audio record the conversation to make sure that we capture all the valuable information that you share. I may also write things down while we are talking so that I do not forget anything.

Duration of the study:

The overall duration of the current part of the study is about 12 months. This interview will take up to 1 hour (60 minutes).

Voluntary participation and circumstances for withdrawal from the study
Your participation in this study is completely voluntary. You may refuse to participate or even withdraw from the study anytime without any consequences.

Confidentiality: Who will know that I took part in the interview?
We will not give your name or any other personal information to anybody. It will be only accessed by the research team. In some instances, the ethics committees that provided approval for the study, sponsor or funder may request access to personal information if they have queries related to study participants rights.

If you agree, we might want to use anonymous quotes from what we discuss when we are reporting the results from this study. These quotes will not include any of your personal information. So, nobody will be able to know that it is you who said it. In fact, during the discussion, we will ask you not to say your name or someone's name in this group or school so that privacy can be ensured.

Risks and Benefits: what will happen if I agree to the interview?
During the interview, we will discuss your experience with the menstrual products, how you have managed menstrual pain and your general views about the Twaweza intervention. Some of the questions could be sensitive and may cause emotional discomfort but there is no physical risk to you, and you can choose not to answer any questions you do not want to answer. Since there is a potential of sensitivity of the information, we shall be very careful to ensure that the information is kept private.

If you agree to participate, there will be no direct payment but we will offer you refreshment during the discussion. Your participation contributes towards the development of a school-based menstrual sexual and reproductive health intervention that could be further trialled in more schools across this region and the country.

Study Contact details
We would like to answer all your questions. If you have any questions now, please ask us. If you have any questions later, you can also contact Dr Elialilia S. Okello (Principal Investigator of this study). You can reach Dr. Okello at the following address:

Mwanza Intervention Trials Unit
National Institute for Medical Research
P.O. Box 11936
Mwanza, Tanzania
Telephone: 028-250 0019

If at any time you have any questions regarding your rights as a participant in this research study, you may contact the secretariat at the address shown below:

Medical Research Coordinating Committee
National Institute for Medical research
P.O. Box 6953
Dar es Salaam, Tanzania
Telephone: 022-212 1400

CONSENT FORM

Agreement to join the study and to the use of my data

Interviewer, please read the following aloud and potential participant tick agreement in each box (or interviewer tick on their behalf).	Yes	No
I have read this form, or had it read and explained to me		
I understand this information, had time to consider and was able to ask all my questions on the study		
I understand that my participation is voluntary and I can stop this at any time, and I know I can contact Dr. Okello at 028-250 0019 if I have questions in the future or choose to stop participating.		
I understand that my name will not be used in any reports produced as part of this study		
I consent to having my interview audio recorded		
After the study I will allow the researchers to store my anonymous data (with all names and identifying information removed) in a database that others may access		
If I cannot read or sign, I understand that a witness can sign on my behalf.		

_____ _____ _____

Participant name (**print**) Participant signature Date

_____ _____ _____

Name of study staff conducting Study Staff signature Date

consent discussion (**print**)

Appendix D, Ethical approval for protocol amendment

THE UNITED REPUBLIC OF TANZANIA

National Institute for Medical Research
3 Barack Obama Drive
P.O. Box 9653
11101 Dar es Salaam
Tel: 255 22 2121400
Fax: 255 22 2121360
E-mail: ethics@nimr.or.tz

Permanent Secretary
Ministry of Health
Government City Mtumba,
Health Road
P.O. Box 743
40478 Dodoma

NIMR/HQ/R.8b/Vol.I/1032

25 July, 2022

Dr. Elialilia Okello
Mwanza Intervention Trials Unit (MITU)
P. O. Box 11936
Mwanza

RE: ETHICAL APPROVAL FOR PROTOCOL AMENDMENT

This letter is to confirm that your application for amendment of a protocol on the study entitled: **Partnering to support schools to promote good menstrual health and well-being (Okello E. et al.),** with ref. NIMR/HQ/R.8a/Vol. IX/3647, dated 8th April 2021 has been granted ethical clearance to be conducted in Tanzania.

Approval is for the following amendments:

1. Change of the LSHTM Co-Principal Investigator on pages 1, 30 and appendix from Dr. Jenny Renju (who will continue to contribute to the project activities as a Co-Investigator) to Dr. Clare Tanton.
2. Minor amendment of the qualitative tool on page 16:
   i. Addition of questions to the qualitative tool to further explore acceptability and use of menstrual products distributed during the intervention.
   ii. Addition of few more qualitative questions to explore acceptability and use of pain management strategies taught to students during the intervention.

Approval is valid until 07 April, 2023.

Name: Prof. Yunus Daud Mgaya

Signature
CHAIR PERSON
MEDICAL RESEARCH
COORDINATING COMMITTEE

Name: Dr. Aifello Wedson Sichalwe

Signature
CHIEF MEDICAL OFFICER
MINISTRY OF HEALTH

Appendix E – NSD register

Sikt

Vurdering av behandling av personopplysninger

Referansenummer
597790

Vurderingstype
Standard

Dato
26.08.2022

Prosjekttittel
Master thesis on menstrual hygiene management

Behandlingsansvarlig institusjon
Universitetet i Bergen / Det psykologiske fakultet / Hemil-senteret

Prosjektansvarlig
Siri Lange

Student
Live Paulsen Løvbugt

Prosjektperiode
19.09.2022 - 31.07.2023

Kategorier personopplysninger
Alminnelige
Særlige

Lovlig grunnlag
Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)
Uttrykkelig samtykke (Personvernforordningen art. 9 nr. 2 bokstav a)

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 31.07.2023.

Meldeskjema

Kommentar
OM VURDERINGEN
Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

VIKTIG INFORMASJON TIL DEG
Du må lagre, sende og sikre dataene i tråd med retningslinjene til din institusjon. Dette betyr at du må bruke leverandører for spørreskjema, skylagring, videosamtale o.l. som institusjonen din har avtale med. Vi gir generelle råd rundt dette, men det er institusjonens egne retningslinjer for informasjonssikkerhet som gjelder.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige personopplysninger, og særlige kategorier av personopplysninger om helseopplysninger og etnisk opprinnelse frem til 31.07.2023.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

For alminnelige personopplysninger vil lovlig grunnlag for behandlingen være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 a.

Behandlingen av særlige kategorier av personopplysninger er basert på uttrykkelig samtykke fra den registrerte, jf. personvernforordningen art. 6 nr. 1 a og art. 9 nr. 2 a.

PERSONVERNPRINSIPPER
Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen:

• om lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
• formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
• dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
• lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet.

DE REGISTRERTES RETTIGHETER
Vi vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20).

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Ved bruk av databehandler (spørreskjemaleverandør, skylagring eller videosamtale) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

For å forsikre dere om at kravene oppfylles, må prosjektansvarlig følge interne retningslinjer/rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilken type endringer det er nødvendig å melde:
https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema

Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
Vi vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos oss: Sturla Herfindal

Lykke til med prosjektet!