Menstruation and School Girls in South Africa: An Intervention Study

Abstract

In South Africa, girls often face difficulties during menstruation, including access to hygiene products. It has been hypothesized that lack of products can lead to low school attendance. The Teddy Bear Clinic, in Johannesburg, works with high school aged girls utilizing a sexual violence education curriculum. During their programming, they implemented a menstrual cup distribution and education intervention in the hopes of increasing school attendance and comfort at school during menstruation. Survey tools were created in order to measure the results as well as conducting semistructured interviews. Contrary to the hypothesis, the results indicated that girls in their programs were not missing school but faced other challenges during menstruation, such as shame and embarrassment while menstruating at school.

In South Africa, it has been observed that women and girls often don't have enough money to buy female hygiene products. The adolescent girls struggling to buy female hygien products must turn to rags, socks, even notebook paper, and often lack access to clean water and private toilet facilities. The topic of menstruation can be taboo in many cultures, including that of the different cultures in South Africa (Steinig, 2017; Kirk & Sommer, 2006), and young girls can therefore experience shame and embarrassment when they are menstruating and do not have the resources to manage their menstruation hygienically (Steinig, 2017). There is anecdotal evidence that suggests this lack of resources might result in young girls, particularly of high school age, missing school while menstruating and one study found that adolescent girls in South Africa can miss up to five days of school per month due to menstruation (Khumalo, 2015).

(SEVISA)—run by South Africa's Teddy Bear Clinic—found that the girls they served were struggling with how to manage their menstrual cycles. The Teddy Bear Clinic is a social service agency operating out of Johannesburg that aims to combat child abuse in South Africa by providing therapy, court preparation, education, and advocacy services throughout South Africa and facilitates girls' clubs at schools in Johannesburg, Soweto, and Krugersdorp in order to fight violence against girls (VAG). The SEVISA project helps teach adolescent girls reporting mechanisms and processes related to VAG, then implement these processes at eight select schools. Following the reports of their project leaders at these schools, who feared the girls were missing school due to menstruation, the Teddy Bear Clinic piloted an intervention program that introduced the Mina Cup—a reuseable non-absorbent cup (with significant long-term cost savings) made of flexible medical grade silicone that sits in the vaginal canal and collects menstrual blood for 6-12 hours depending on the size of the cup—to the adolescent girls in order to give them a safe, clean, and affordable option for when they are menstruating.

Project leaders from the Sexual Violence Initiative in Schools program

With help from a small team of assistants, I undertook a study to determine if the Mina Cup improved the general well-being of adolescent girls who used it. General well-being is here defined as feeling comfortable at school while menstruating, the ability to speak with someone if they feel uncomfortable, and the ability to focus on their school work while menstruating. Additionally, I sought to study if it would decrease school absenteeism during menstruation among the girls studied. To explore these potential benefits of the Mina Cup for adolescent girls, I studied the introduction and use of the Mina Cup in three schools served by the Teddy Bear Clinic. I posed two questions:

1. Does the introduction and use of the Mina Cup in three schools served by the Teddy Bear Clinic improve the adolescent girls' attendance?

2. Does the introduction and use of the Mina Cup in three schools served by the Teddy Bear Clinic improve the adolescent girls' general well-being?

METHODS

Program Implementation

Beginning in March 2016, the Teddy Bear Clinic presented the Mina Cup at five of their eight schools. The girls in these clubs were given an inperson presentation by Vibe Marketing, the sponsor and distributor of the Mina Cups. The presentations, conducted in the girls' respective home languages, included information about female reproductive organs, the menstrual cycle, menstrual disorders, different products that girls could use during their menstruation, and information on the Mina Cup (e.g., proper insertion and cleaning techniques). The presentation also included supplementary information about issues specific to teenage girls such as proper hygiene, teenage pregnancy, abuse, and assertiveness. Follow-up sessions were conducted by Vibe Marketing four months after the initial presentation to address questions related to proper use, cleaning, and any other concerns the girls might have had.

269 girls received one Mina Cup and were encouraged to use it. If they were not comfortable with the idea, they were told they did not have to use the cup. For the purpose of this study, due to time restrictions, all of the clubs were not able to participate in the study. The girls in one of the clubs run by SEVISA did not receive a Mina Cup or a presentation. They served as the control group. The control group consisted of 36 girls aged 11-19, though 5 were excluded as they had not yet experienced their first menstruation, leaving a total of 31 girls. The intervention group consisted of 74 girls from three different schools, aged 13-21, though 3 were excluded as they had not yet experienced their first menstruation, leaving a total of 71 girls. Considering the limited size of the control and intervention groups, the purpose of this study was to obtain information to spur further

research rather than generalize the findings to the greater female adolescent population of South Africa.

Survey

In order to collect data to measure the girls' attendance and general well-being both before and after the Mina Cup intervention, I created two survey tools: one for the group who had not received Mina Cups and one for the groups who had received the Mina Cups. I reviewed a similar survey created for a study regarding adolescent menstruation in Namibia (Steinig, 2017). Furthermore, I sought consultation from Jessica Darrow, Lecturer at the University of Chicago's School of Social Service Administration, and Elizabeth Steenkamp, Project Manager, and Dr. Shaheda Omar, Clinical Director, both from the Teddy Bear Clinic in Johannesburg, South Africa. Finally, I tested the survey with the members of one of the SEVISA clubs; this club was then not included in the study. After this initial test, the survey was altered slightly in order to collect more detailed data. The surveys were explained to each group of girls at their respective schools during their regular weekly girls' club meeting. Post-intervention surveys were distributed and completed by 74 girls at a total of 3 schools (the intervention group). Preintervention surveys were distributed and completed by 36 girls at one school (the control group). I conducted the surveys in English with the aid of the facilitator of each respective girls' club in order to meet any needs for interpretation or translation.

Interviews

In addition, individual semi-structured interviews were conducted with both the control group and the intervention group in order to gain more clarity surrounding the details of how young girls manage their menstruation that is too nuanced to capture in a survey. After the completion of the surveys, the facilitator of the club asked for any volunteers who would like to be interviewed. There were 14 total interviews: 11 with girls from the intervention group and 3 with girls from the control group. The interviews were conducted in English. While it would have been preferable to hold the interviews in

the girls' home languages, the girls' club facilitators were busy running the clubs while I pulled girls out for individual interviews. However, the girls were proficient in English and I took every care, to the best of my ability, to make sure all the questions were understood by each interviewee (including restating questions, allowing the girls to ask me for clarity, etc.).

Possible Limitations

As a white American woman conducting the interviews in English, I considered how I may have impacted the participants' answers. It is possible that the identities I hold may have altered the answers the girls gave as this is a likely and studied outcome (Cilliers, Dube & Siddigi, 2015; Miyazaki & Taylor, 2007). I was introduced to each club by the facilitators as an American student who had previously lived and worked in South Africa as a teacher in KwaZulu-Natal (2014-2016). It is possible that hearing that I was familiar with working with young South African girls created more comfort for the interviewees. It is possible that since they didn't know me prior to that day, they felt less anxious about revealing information that would have been difficult to reveal to someone in their community. Yet, it is also possible that the girls would feel disinclined to answer honestly and fully due to feeling uncomfortable disclosing to someone who is not from their culture and country. A lack of trust could have limited their willingness to disclose such taboo and private information. This is a potential limit to the design of the data collection.

RESULTS

The results of this study contradicted our assumptions about how the young girls in the SEVISA girls' clubs program feel about and manage their menstruation. The control group highly favored using disposable menstrual pads as compared to any other menstrual product listed on the survey, including washable sanitary pads, tampons, household items such as toilet paper and towels, and the menstrual cup. The study also showed that in the intervention group,

which had been given a menstrual cup and taught how to use it, the disposable sanitary pad was still the most preferred product.

The control (84%) and intervention groups (85%) both reported disposable sanitary pads as their preferred product. The remaining 16% of the girls in the control group said washable sanitary pads and tampons were preferable while 20% of the girls in the intervention group reported the menstrual cup as their preferred product. The additional 5% overage resulting from surveys of the intervention group were from the girls who reported having two or more preferred products even though the instructions on the survey specifically told them to select only one preferred product. Of note was that 60% of the intervention group reported never having tried to use their menstrual cup.

In the control group, 74% reported that they were hesitant to use any product that has to be inserted into their vagina. While only 27% of the intervention group reported that same hesitancy and fear, 79% reported that they did not think the menstrual cup was easy to use and 59% reported not knowing how to use it. In the one-on-one interviews, girls said that they couldn't imagine how something so big could fit inside their vaginas; they just thought it was weird; and one girl wondered if somehow the menstrual cup would end up in her stomach. Of those who used and preferred the Mina Cup, one girl explained that her main motivation was that she lived with her older brother and always had to ask him for the money to buy disposable pads. She saw the menstrual cup as a way to avoid that awkward conversation. Now that she uses the menstrual cup exclusively, her only complaint was that sometimes it took a few tries inserting it to get it placed comfortably. More than one girl reported that once the cup was placed appropriately, they "felt free" in their movements and would even forget it was there. Furthermore, in the individual interviews with the girls who use the menstrual cup, not one girl reported leaking while using it.

As for attendance at school, it wasn't possible to obtain the attendance records from the schools. Instead, the survey asked questions related to having ever missed school due to their menstruation and if so, for what reasons. We hypothesized that, with the introduction of the menstrual cup, attendance would increase. However, we found that the majority of the participants in the intervention group weren't using or had never tried using the menstrual cup. Additionally, the results indicated that girls in both the control group and intervention group largely reported that they did not miss school due to their menstruation. A significant number of the control (77%) and intervention (89%) groups reported never having missed school due to their menstruation.

However, when asked a subsequent question on the survey about reasons for missing school during menstruation, 45% of the control group and 41% of the intervention group reported having missed school due to physical pains such as cramps and back pain during menstruation. Only 4% of the intervention group and 0% of the control group reported missing school due to a lack of access to menstrual products. 85% of the control group and 55% of the intervention group reported that they always have money to purchase menstrual products.

Responses to questions in the survey aimed at participants' general well-being with regards to their comfort, ability to focus and access to speak with someone they trust if they are ever uncomfortable were as follows: 64% of the intervention group reported being comfortable while menstruating at school using their preferred menstrual product while the same percentage of the intervention group reported that they are generally uncomfortable while menstruating at school; 71% of the control group and 79% of the intervention group reported that they either cannot focus or can only sometimes focus on their school work while they are menstruating; 26% of all the participants in the study reported that they are so desperate to keep their menstruation hidden from their peers that they do not throw away their used disposable menstrual products

at school but rather wrap them in paper or a plastic bag and put them in their backpacks in order to throw them away at home.

DISCUSSION

One important consideration is that since the sample was not a random selection, there is no way to claim that these girls are representative of all girls in South Africa. Thus, for this study, we can only conclude that this data and its possible implications are only true for these specific girls.

It is notable that the girls reported not missing school due to their menstruation but did report that they missed school at times due to cramps and back pain. This was true even for girls who reported never having missed school due to their menstruation despite the subsequent question about whether or not they had never missed school due to associated reasons (e.g., physical pain, embarrassment, access to products, etc.). There are several possibilities for this discrepancy. Perhaps the girls, even though instructed that the survey was anonymous and results would not be reported back to their schools, were afraid to be honest in their answer to the question regarding absenteeism. However, when the subsequent question was asked citing reasons why they may have missed school during menstruation, they felt more comfortable being honest because the answers were both presented to them rather than requiring an explanation. The mere presentation of answers the girl may have related to, such as missing school due to physical pains like cramps, could have provided legitimacy to those reasons a young girl may miss school during menstruation. It might also be that they couldn't remember that they had missed school until presented with possible reasons why they stayed home. This may be especially likely given the order of the questions asked. They had already answered the first question and perhaps didn't consider going back and changing their answer to the first question. Regardless, the results display that the participants are not missing school nearly as often as was initially predicted and when they are missing school,

it is largely due to physical pain that can occur during menstruation rather than a lack of access to menstrual products.

This provides the Teddy Bear Clinic with important information that could help them to make changes to their SEVISA curriculum to better serve the needs of the girls. For example, if we are to conclude that the way in which the girls went about answering these questions shows that they fear being honest about what keeps them at home, curriculum to reduce shame around menstruation and validate difficulties such as menstrual-related pain could potentially better serve the needs of these girls.

In the results, we saw a large discrepancy between the intervention group and the control group reports of having missed school due to menstruation and availability of money to purchase menstrual products. The discrepancy in the percentages could be due to the fact that the control group only consisted of 31 participants from one school while the intervention group consisted of 71 participants from three different schools. The control group was selected solely because it had not received the menstrual cup intervention yet and was accessible to distribute surveys to during the time restrictions of this study. However, it is not entirely representative of the four total schools. The three schools selected for the intervention group were chosen for the same reasons (completion of the menstrual cup intervention and accessibility under time restrictions). However, they were more geographically diverse, which may have impacted the results due to the proximity to employment for their caretakers, proximity to stores that sell menstrual products, and different cultural aspects.

We also learned interesting information about "comfort" at school when menstruating. While 64% of the intervention group reported being comfortable while menstruating at school using their preferred menstrual product (85% using disposable sanitary pads), the same percentage of the intervention group reported being generally uncomfortable while menstruating at school. This may

indicate that they are comfortable with their products but leads to questions about why, since they report experiencing discomfort in general while menstruating. Perhaps the use of the word "comfortable" in the survey was too vague. The participants could have been responding to being comfortable with their majority used product (disposable sanitary pads) in comparison to the more controversial options also listed in the survey. Controversial options could include menstrual products that must be inserted or products that have more possibility to exposing their communities to the fact that they are menstruating (e.g., washable sanitary pads that have to be hung to dry in the sunlight in order to properly get rid of bacteria) (Steinig 2017).

During the semi-structured one-on-one interviews, the participants who identify as predominantly or always using disposable sanitary pads said they were uncomfortable and were asked if they "feel free" when menstruating using that product. Here "feeling free" means the feeling of unencumbered movement. The majority of participants responded that they do not "feel free" when they use disposable sanitary pads for fear of leaking through their pads, people (especially their male peers) being able to somehow see they are wearing a pad, and just general embarrassment. Through the interviews and survey information gathered, it can be deduced that there is a lot of shame and embarrassment surrounding the topic of menstruation and a strong desire from the young girls to hide their menstruation from their peers. One participant even stated in the survey that she is uncomfortable while menstruating at school because she is afraid people will know and "smell the dirty blood." The use of the word "dirty" should prompt us to consider how this young girl perhaps feels a sense of shame and negativity toward her menstruation. It appears that the stigma associated with menstruation in these girls' environments persisted even after the introduction of the menstrual cup.

Considering that the results report that, generally, the participants of the study felt uncomfortable while menstruating at school and that

71% of the control group and 72% of the intervention group have had at least one menstrual accident (leaking), it is understandable that they have trouble focusing on their school work while menstruating at school. Instead, the survey indicates they are worrying about their peers finding out.

While the initial hypothesis was that the introduction of the menstrual cup would provide girls with a cost-saving option that would increase their attendance and general well-being, the findings of this study did not support this hypothesis. Considering that 85% of the intervention group still preferred to use disposable sanitary pads that they aren't entirely happy with, significant barriers to getting young girls in these communities to try using the menstrual cup persist. However, we did find that once those barriers were surpassed, the girls who reported using the menstrual cup regularly were quite happy with the product as it gives them more freedom than the disposable sanitary pads: freedom from fear of leaking, freedom from fear of other students seeing that a girl is wearing a pad (as they are bulky), freedom to move about and be active, etc.

We hypothesized that these young girls in the SEVISA program were absent from school sometimes due to a lack of access to menstrual products. However, it seems that may not be the case. While it may very well be the case for other young girls in South Africa in more rural contexts, one possible explanation for why the null hypothesis might be supported in this context is that, although many of these girls are certainly disadvantaged, they may not be as disadvantaged as other girls in South Africa. So, while lack of access to menstrual products may be a problem that the menstrual cup can solve elsewhere, it doesn't seem that lack of access is a large problem for the girls in this study. However, that doesn't mean that there isn't an issue worth tackling with the introduction of the menstrual cup to the girls in these communities with which the Teddy Bear Clinic can help. The largest problem that the girls in this study reported, both from the control group and the intervention group, centered on hiding their menstruation from their peers in order

to avoid embarrassment. As they reported, the disposable sanitary pad doesn't allow them to do that very easily since it often results in leaking accidents, it is bulky, and can restrict their movements and focus on school. Considering that the menstrual cup has proven that it does not leak and doesn't need to be changed as often (even for an entire school day), it has the potential to solve some of the problems these girls are facing that relate to their general well-being while menstruating at school.

As previously stated, all of this data provides the Teddy Bear Clinic with important information that could help them to alter their curriculum to better serve the needs of the girls. It appears that embarrassment and subsequent desire to keep their menstruation private is very important. Recommendations for ways the SEVISA curriculum could be adapted to address this and other issues that the data uncovered are discussed below.

RECOMMENDATIONS

A logical next step would be to address the barriers to uptake of the menstrual cup. Ease of use, hesitancy of inserting a menstrual product, and general education on how it works and how girls' bodies work with regards to the menstrual cup are of vital importance to surpassing the uptake barriers.

First, current users of the menstrual cup can speak with the girls. During the one-on-one interviews, the girls who expressed hesitancy to using the menstrual cup for a myriad of reasons were asked that if someone they knew was using the menstrual cup came to speak to them, would they be more inclined to try it. Most of the interviewees said that, yes, this would help them. It isn't surprising that young girls who experience embarrassment and shame surrounding their menstruation are hesitant and skeptical, even scared, to use a product that must be inserted into their vagina when products that require insertion are not mainstream in their communities. However, it may go a long way if trusted adult

women in their lives were using the menstrual cup first and could speak to them and answer questions from first-hand experience.

Related, the trust of older women can be used to facilitate Mina Cup use. Some girls in this study reported that since their moms were skeptical of the menstrual cup, this influenced their feelings towards using it as well. Providing a monetary incentive for older women to try out the product might go a long way in surpassing those uptake barriers and then the results show that, once surpassed, they will prefer the menstrual cup to other products. However, in order to adequately consider a monetary incentive, more research into possible consequences to such a study component would be required. While a monetary incentive is understandably an unreasonable expectation of a non-profit such as the Teddy Bear Clinic, appealing to the adult women in these girls lives even by inviting them to a parent/guardian meeting to discuss the menstrual cup may go a long way.

Regularly conducting open discussions, both in the SEVISA curriculum and in general, regarding issues the girls face with regards to their menstruation may also help them become more willing to try the Mina Cup. A lot of the hesitancy expressed by the girls could be due to the general negative feelings they have towards menstruation. Starting a conversation where the girls can express their feelings about menstruating, particularly with regards to their fears of their peers finding out, continually revisiting that conversation and validating their feelings could go a long way towards easing some of the tension surrounding the topic. It isn't unreasonable after looking at the results of this study to estimate that these feelings of shame and embarrassment affect their desire to even discuss a new and, in many ways fear-inducing, menstrual product, when the topic of menstruation itself is "taboo," as one interviewee stated.

CONCLUSION

While, we saw from the control group to the intervention group a significant drop in girls who reported being hesitant or afraid of using a product that must be inserted into their vagina, we need to understand better why 60% of the girls in the intervention group reported having never tried using the menstrual cup. It is possible we could learn more through open discussions with the girls regarding their menstruation. However, a more thorough option may be to create and conduct a more thorough survey specific to reasons why girls aren't trying their menstrual cups. With a better understanding of why girls aren't trying the menstrual cup, pertinent information could be learned to alter the way we educate girls about the menstrual cup option.

I hope that this information will only help to continue this discussion and the important work that the Teddy Bear Clinic does with the SEVISA girls' clubs. It is apparent that there are obstacles created by menstruation that keep girls from achieving their full potential and living their lives free of worry. A lot of great work has been done to attempt to relieve these young girls of those obstacles. Yet, work that addresses the feelings of shame and the ability to achieve a greater sense of well-being while menstruating is much needed for the girls participating in the SEVISA program.

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