

Innovations in Addressing Menstrual Poverty in Africa: The Menstrual Cup Intervention for Girls in Rural Ghana

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ABSTRACT

Background: Period poverty does not receive the needed attention and poses a major threat to the development of women and girls especially in developing countries. The well-known problem of accessibility and affordability of menstrual products likely suggests that women and girls go through a lot in going about their normal duties whenever they menstruate. They either half-heartedly attend to daily routines and other relevant activities or forgo them entirely because of the physical discomfort, psychological distress and feelings of low self-esteem (Mason et al., 2019) due to stigmatization and difficult access to menstrual absorbents. In 2021, a study funded by Plan International in the Wa East district of Ghana found 83% of rural girls who had no access to menstrual products and transacted sex for pads due to the problem of accessibility and affordability. CouldYou? a US based non-profit responded to this developmental challenge as the organizations role in addressing Sustainable Development Goals (SDGs) 1,3,4, 5, and 17. CouldYou? collaborated with Ghana Girl Guides Association, and Plan International supported non-profits - Necessary Aid Alliance and Upper West Youth Parliament. The menstrual cup intervention reached 2,000 girls in the Wa East District. With this backdrop, this current study offers more insights into how the menstrual cup has become an innovative solution to fighting period poverty in rural Ghana. **Methods:** The menstrual cup intervention in Ghana covered the period November 2022 to July 2023 on a sample size of 385 girls who received the CouldYou? menstrual cup. Participants were selected from four communities in the Wa East District including Funsu, Goripie, Jumo, and Piisi. Age ranged between twelve (12) and twenty-eight (28) years. Community-based participatory research (CBPR) tools were used to record views and elicit rich responses from the girls. Quantitative surveys were conducted using KoboCollect. The qualitative data, on the other hand, was collected through semi-structured interviews. **Findings:** The introduction of the menstrual cup has led to some significant changes in rural girls managing their period. The study has found the menstrual cup as a dominant product with an acceptability rate of 97% in Wa East, significantly ($p=0.00$) improving accessibility to hygienic products and reducing the in-take of unhygienic products. A major finding is the complementary and substitutive role the menstrual cup is playing in addressing menstrual poverty. As a substitute, the cup has replaced the usage of old cloths/rags significantly. Beyond substituting the unhygienic products, some beneficiaries are adopting the cup as the next best alternative to the menstrual pads. As a complement, girls use the menstrual cup in addition to menstrual pads citing the economic advantages of the cup and the difficulty in affording menstrual pads. **Conclusion:** The study concludes that the menstrual cup has influenced accessibility to hygienic products and reduced the usage of unhygienic menstrual products.

Whiles access to affordable sanitary pad is difficult in the rural communities of Wa East, the introduction of the menstrual cup offers an innovative and sustainable approach to fighting period poverty in Ghana.

INTRODUCTION

The Terminology Action Group of the Global Menstrual Collective define menstrual health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in relation to the menstrual cycle.” (Hennegan et al. 2021). Menstruation is a physiological process that happens to about 1.8 billion women and girls every month world-wide from menarche to menopause (Marcia, 2021). Approximately 500 million women and girls experience period poverty globally due to a scarcity of resources and the existing social stigma associated with women’s pain and health, and this figure has likely increased during the COVID-19 pandemic (Babbar et al, 2022). The normal menstrual cycle brings about numerous changes to girls, women, nonbinary individuals, and transgender men, which affects their lives in several ways. Unfortunately, few of them have the means to face it with dignity and minimum health standards.

The most vulnerable with lower incomes suffer the most, reflecting gender, racial, and social disparities. This precarious situation faced by women during their periods are also available for many other countries including the United States, Spain, Canada, Ethiopia, Ghana, Kenya, India, Indonesia, Nigeria, Uganda (Rossouw and Ross 2021; Sumpter and Torondel 2013). The problem unfortunately is not restricted to low- and middle-income countries and obviously has worsened during the pandemic. Millions of menstruating people cannot afford the costs and may be forced to stay away from work or school during menses and even experience social exclusion. Those living in poverty and vulnerability take the hardest blow. For example, in Kenya, a UNICEF survey found 7% of women and girls rely on old cloths, blanket pieces, news papers, chicken feathers.

Poor menstrual health contributes to inequity, increasing exposure to transactional sex to obtain sanitary items, this has long term consequences such as girls dropping out of school and early pregnancies. This greatly affects the future of the girl child a factor prevalent in the marginalized countries (Sommer et al 2016, House et al 2012). In Ghana, a study by Plan International in the Wa East district found 83% of rural girls who transacted sex for pads due to the problem of accessibility and affordability.

In recent times, the introduction of the menstrual cup has become an efficient and effective menstrual management strategy. Very different from other menstrual products, the menstrual cup does not increase infections (Howard et al., 2011; Kakani & Bhatt, 2017). The rate of bacterial infection associated with the cup is minimal or entirely absent (North & Oldham, 2011; Phillips-Howard et al., 2016), implying that the menstrual cup does not present adverse effects on the vaginal flora (van Eijk et al., 2019).

Period Poverty

According to the World Bank, poverty is a pronounced deprivation in well-being. The poor are those who do not have enough income or consumption to put them above an adequate minimum threshold. The broadest approach to well-being (and poverty) focuses on the capability of the individual to function in society. Poor people often lack key capabilities; they

may have inadequate income or education, or be in poor health, or feel powerless, or lack political freedoms.

Rossouw and Ross (2021) define menstrual poverty or period poverty as the lack of access to the much-needed hygiene products during monthly periods as well as being able to access adequate places to use them which includes basic sanitation services and receiving information about menstruation. Millions of menstruating people cannot afford the costs and may be forced to stay away from work or school during menses and even experience social exclusion.

Period poverty is the root cause of many evils in women's lives (Michel et al. 2022). According to Michel et al. 2022, period poverty is the lack of access to menstrual products, hygiene facilities, waste management, and education. Period poverty leads to loneliness, making it a double-edged sword and makes addressing period poverty a matter of urgency. Period poverty causes physical, mental and emotional challenges. The stigma that shrouds periods further prevents individuals from talking about it (Michel et al 2022).

The American Medical Women's Association (2021) define period poverty as the lack of accessibility or affordability of menstrual hygiene tools and educational material, such as sanitary products, washing facilities, and waste management. The term also refers to the increased economic vulnerability menstruating people face due to the financial burden posed by menstrual supplies, which are not only limited to menstrual pads and tampons, but also include costs accrued from pain medication and underwear used during the menstruation cycle (Hennegan and Montgomery (2021); Michel et al. (2022); United Nations Population Fund (2022).

Such resource-limited settings drive women and girls to improvise with unsanitary alternatives such as old blankets, chicken feathers, old rags, newspapers, and cow dung (Medical News Today, 2021). Difficulty affording menstrual products can cause women and girls to stay home from school and work, with lasting consequences on their education and economic opportunities. It can also exacerbate existing vulnerabilities, pushing individuals closer toward dangerous coping mechanisms (Michel and Tanner, 2021).

Period Poverty in Africa

Period poverty does not receive the needed attention and poses a major threat to the development of women and girls especially in developing countries (Crofts et al., 2012). The well-known problem of accessibility and affordability of menstrual products likely suggests that women and girls go through a lot in going about their normal duties whenever they menstruate. They either half-heartedly attend to daily routines and other relevant activities or forgo them entirely because of the physical discomfort, psychological distress and feelings of low self-esteem (Mason et al., 2019) due to stigmatization (Johnston-Robledo & Chrisler, 2013) and difficult access to menstrual absorbents. Several studies have shown that girls in low-income settings struggle or miss school when menstruating if they can't effectively manage their menstrual hygiene (Boosey et al., 2014). For example, in Ghana, it has been found that 95 percent of girls sometimes miss school due to menstruation (House et al., 2013). Safe, accessible menstrual hygiene products have a considerable positive impact on women and girls' occupational, social and educational capacity.

Vulnerable girls in Africa are struggling to access menstrual products, missing or dropping out of school. UNESCO 1 out of 10 girls in Africa miss school because they don't have access to menstrual products or there are no toilet facilities to use at schools.

Table 1: Period poverty in Africa

Country	Menstrual Poverty
South Africa	7 million girls cannot afford to buy sanitary products
Ghana	95% of girls sometimes miss school due to period poverty. 11.5 million women have limited access to hygiene management that separate waste from human contact
Uganda	28% of girls miss school during menstruation
Kenya	50% of school girls do not have access to menstrual products 65% of women and girls cannot afford sanitary pads (ActionAid, 2022) 2 out of 3 pad users in rural Kenya receive them from sex partners
Nigeria	More than 25% of women do not have adequate access to menstrual products and adequate privacy for menstrual hygiene management.
Malawi	Over 70% of girls regularly miss one week of school per month, cannot attend training or are disfavoured in their business activities

Source: Author's Construct

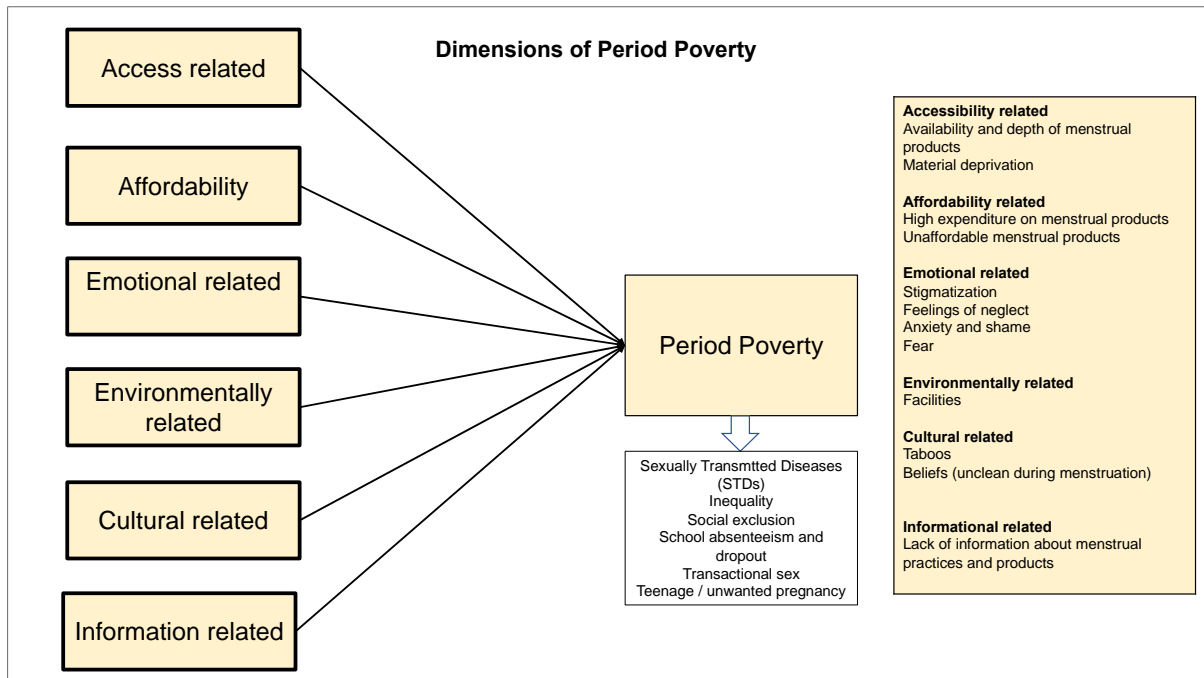


Figure: Dimensions of period poverty

Source: Author's Construct

This study combines the definitions of Michel et al. (2021) and the American Medical Women's Association (2021) to define period poverty as increased economic vulnerability menstruating people face due to the lack of access to menstrual products, hygiene facilities, waste management, and education. In Ghana, an estimated 11.5 million women have limited access to hygiene / sanitation management that separate waste from human contact. In Ethiopia, like in many parts of the developing world, Menstrual Hygiene Management is one

of the critical challenges adolescent girls face while they are in school (Tsegaye,2011). The prevalence of period poverty is a heightened issue in rural communities across low-income and middleincome countries (LMICs), where poor WASH facilities prevent women from exercising proper hygiene. The complex and unwelcomed consequences of these conditions can be severe, given that restricted access to menstrual products can induce bacterial infection in the reproductive tract. In some circumstances, young girls have traded sex for menstrual health products, which increases their risk of contracting sexually transmitted infections and experiencing sexual and gender-based violence. (Odey et al, 2021). Adolescent girls in sub-Saharan Africa are disproportionately vulnerable to sexual and reproductive health (SRH) harms. In western Kenya, where unprotected transactional sex is common, young females face higher rates of school dropout, often due to pregnancy, and sexually transmitted infections (STIs), including HIV. Staying in school has shown to protect girls against early marriage, teen pregnancy, and HIV infection.

Innovations in fighting Period Poverty in Africa

Many more organizations have implemented innovative solutions to address period poverty in Africa (Birech, 2019). Key among these innovations include the menstrual cup and reusable pads. The following section highlights some key organizations and their major innovative interventions in addressing menstrual poverty in Africa.

Femme International:

Femme International currently runs The Twaweza Program with schools and community groups across Kenya and Tanzania. The Twaweza Program program has two major components; education and distribution. Femme International's central components are either a washable pad or a menstrual cup. Additionally, a bar of soap that is protected, a towel, a steel bowl in which to boil and sterilize the cup, and a Twaweza workbook to use during the workshop and to take home as a resource (Femme International, 2023). In 2019, Femme International was among the 30 best-profiled innovations during the three-day WHO Africa Health Forum in Cabo Verde. A panel of independent evaluators assessed and profiled Femme International's programme as a scalable innovation with the potential for making sustainable impact.

CouldYou?

CouldYou? provides a scalable and sustainable solution to period poverty by providing menstruators with health education and their FDA registered, 100% medical-grade silicone CouldYou? menstrual cup. Since 2018, CouldYou? has distributed more than 150,000 cups globally with a focus in developing African countries including Mozambique, Ghana, Uganda, Kenya, Nigeria, South Africa, and Liberia. In 2022/23 CouldYou? sent 6,000 menstrual cups to distribute to women in Ukraine and to Ukrainian refugees in Poland to distribute to local health centers, NGO's and women on the front lines in Ukraine through a partnership with Ukraine American House, Project Keshet and Save the Child.

The Cova Project:

In 2019, The Cova Project Limited distributed 3,000 menstrual cups to girls across Liberia, rural South Africa and Malawi. In 2020 The Cova Project expanded to include projects in Ghana and Uganda, with the call for menstrual cups coming from all over the world. The Cova Project provides menstrual cups and menstrual health education to people who menstruate, across Africa to help bridge the 50-day school attendance gap due to menstruation. The Cova

Project work with exceptional local partner organisations to distribute these cups responsibly and with materials specifically tailored to the beneficiary communities.

BeGirl:

The Period Panties for Girls is another innovation which is designed for empowerment and purpose. The drive behind it is BeGirl. It also designs the reusable period panties and pads for girls. Be Girl is working to close the gap in education that comes about when girls miss school or drop out. It designs and produces the Flexipad which can be filled with safe and absorbent materials washed and then dried indoors in less than one hour.

The Borgen Project:

Ebby Weyime believes the menstrual cup is effective in developing countries. Weyime believes that it can eradicate period poverty in her home country, Kenya. However, there are challenges to implementing menstrual cups in Kenya. To combat this stigma, Weyime travels through local communities and educates people on the realities of menstrual cups. Weyime has even created her own menstrual cup, The Grace Cup. The Grace Cup is the first and only menstrual cup company in Kenya.

Freedom Cup:

The Freedom Cup: The Freedom Cup works on a buy-1, give-1 model where every cup purchased allows them to give a cup to a woman in an underprivileged community. It has provided cups to girls in India, Africa, Nepal, Cambodia, the Philippines and more. This allows for a win-win situation where women who can afford it decrease their use of non-biodegradable sanitary products, and women in developing communities gain access to sanitation during their monthly bleeds.

The Saalt Cup:

Saalt Cup is a popular menstrual cup brand in the West. It commits 2% of its annual revenue to provide period care like menstrual cups in developing countries. Through donating cups and providing girls with education, Saalt is reducing stigmas and ensuring period care worldwide.

Sustainable Health Enterprise (SHE):

SHE is a locally owned enterprise which manufactures affordable, ecofriendly menstrual pads. It is made from local, absorbent and affordable banana fibre. Apart from distribution, they train community health workers on how to provide education to both boys and girls about puberty and menstrual hygiene. SHE's first advocacy campaign 'Breaking the Silence' brought the taboo of Menstruation to national attention as a result, the government of Rwanda included in its 2001 budget to procure sanitary pads for schools. SHE has also created a new market, creating jobs all across the value chain, from the banana farmer through the pad assembler to the pad distributor.

AFRIpads:

AFRIpads is a social business in Uganda that specializes in the local manufacture and global supply of cost-effective reusable pads. It also contributes to the development of a Ugandan rural industry that empowers its 90% female staff with productive employment. AFRIpad is

also a recipient partner for a number of buy-one' give-one programme with sustainable business enterprise in Canada, U.S and Australia.

Sector Network Rural Development (SNRD) Africa:

The Sector Network Rural Development Africa is a community of local and international GIZ staff working in the area of rural development in Africa. It constitutes a profound knowledge sharing hub and stands for a solid promoter of capacity development. The GIZ Global Project Employment in Rural Areas with Focus on Youth actively tries to embed menstrual health and hygiene as a cross-cutting topic into its project implementation and running partnerships in Malawi. The project sensitizes and disseminates menstruation cups to their female target group (Corbe, 2023).

Menstrual Cup Coalition:

In the next 5 years, Menstrual Cup Coalition aims to distribute 50,000 cups to those who need them, want them, and cannot afford them. MCC provides training on how to use them, and on reproductive health. Following the distribution of menstrual cups, they gather evidence to evaluate the impact of their work and use the latest research in menstrual health to ensure practices are up to date (MCC, 2023).

United Nations Population Fund (UNFPA), Malawi:

UNFPA Malawi, through its innovation programme, introduced menstrual cups as an alternative measure for management of menstrual hygiene among girls and women in Malawi. The menstrual cup was introduced with the aim of reducing absenteeism due to menstrual hygiene challenges and keeping girls in school.

OrganiCup:

OrganiCup, a women-led Danish menstrual cup company, is focused both on empowering menstruators and tackling menstrual waste problem. By providing silicone menstrual cups that are reusable for years and come in multiple sizes, this company is breaking barriers, destigmatizing periods, and generating much less waste. OrganiCup launched the "Campus Cup" program, an initiative to introduce their reusable menstrual cups to college students as a sustainable alternative to traditional menstrual products by providing students with free menstrual cups (Tu, 2021).

METHODS

The menstrual cup intervention in Ghana covered the period November 2022 to July 2023 on a sample size of 385 girls who received the CouldYou? menstrual cup. Participants were selected from four communities in the Wa East District including Funsu, Goripie, Jumo, and Piisi. Age ranged between twelve (12) and twenty-eight (28) years. Community-based participatory research (CBPR) tools were used to record views and elicit rich responses from the girls. Survey was conducted using KoboCollect. The qualitative data, on the other hand, was collected through semi-structured interviews.

Table 2: Description of Respondents

Community	Frequency	Percent	Valid Percent	Cumulative Percent
Funsu	223	57.9	57.9	57.9
Goripie	111	28.8	28.8	86.8

Jumo	17	4.4	4.4	91.2
Piisi	34	8.8	8.8	100.0
Total	385	100.0	100.0	

RESULTS

The current study is a follow-up survey to investigate the acceptability and benefits of the menstrual cup in the Wa East district as an intervention to address menstrual poverty in the district. Focus Group Discussions (FGDs) with participants gave insights into dialogues and conversation around menstruation, the menstrual cups, menstrual hygiene behaviors and practices, and social norms around menstruation. The study used several questions for the assessment. The findings are presented and discussed in the subsequent subsections. Respondents were granted the opportunity to give multiple responses on some questions since some employed multiple products for their menstruation management, attributable to cost of FHPs.

Menstrual Products Use

Table 1 shows the descriptive statistics of both pre- and post-menstrual cup intervention products used by the girls. Looking at the mean scores and the p-values, it sufficiently shows that the menstrual hygiene intervention is addressing menstrual poverty in Wa East.

Results show a significant increase in all products used by girls in Wa East by 28% ($p=0.000$) from 1.23 (~1) to 1.58 (~2). Access and use of hygienic products per participant including menstrual pad and the menstrual cup increased significantly ($p=0.000$) by 74% from 0.88 (~1) products before the cup intervention to 1.53 (~2) post cup intervention. The results have further shown a significant decline in the usage of unhygienic products by 85% ($p=0.00$).

Results in Table 2 show multiple products used by participants. Prior to the menstrual cup intervention, we established baseline metrics to gain insight on their menstrual health and set the metrics needed to compare the menstrual cups with the other menstrual products as done by (Mason et al., 2019; van Eijk et al., 2019). The widely used menstrual products prior to the CouldYou? initiative included sanitary pads, locally made menstrual products from dump cloths which they referred to as rags. Some used tampons or toilet rolls.

The study results have shown that the menstrual cup has influenced accessibility to hygienic products and a reduction in the usage of unhygienic menstrual products. From the literature, according to the World Bank, material deprivation and unaffordable menstrual products are major components of period poverty.

From the results, prior to the cup intervention in Wa East, 36.2% used the locally made menstrual product from dump cloth, however, this figure has been reduced to 5.2%, representing 85.6% decline in its usage.

Whiles access to affordable sanitary pads is difficult in the rural communities of Wa East, the introduction of the menstrual cup has seen a decline in the usage of sanitary pads. Study results show a 37.1% decline in the usage of sanitary pad from 88.8% pre-menstrual cup intervention to 55.8% post-intervention.

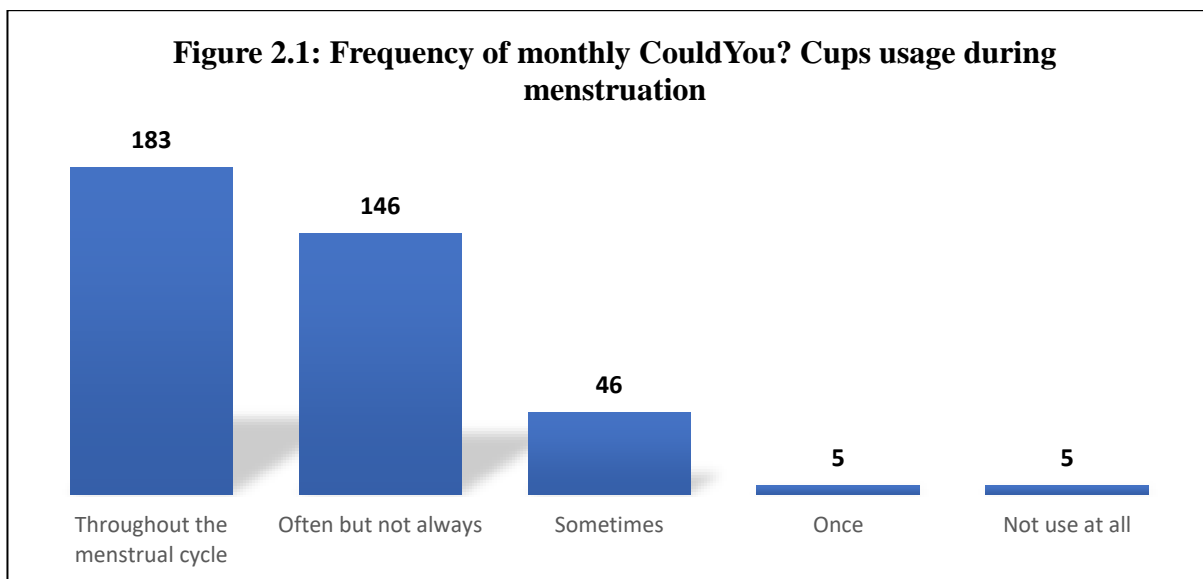
Table 3: Paired sample results of menstrual products usage

		Mean	Paired difference
Pair 1	All Products Post Intervention	1.58	.348 (p=0.00)
	All Products Pre-Intervention	1.23	
Pair 2	Hygienic Products Post Intervention	1.53	.653 (p=0.00)
	Hygienic Products Pre-Intervention	.88	
Pair 3	Unhygienic Products Post-Intervention	.05	-.304 (p=0.00)
	Unhygienic Products Pre-Intervention	.35	

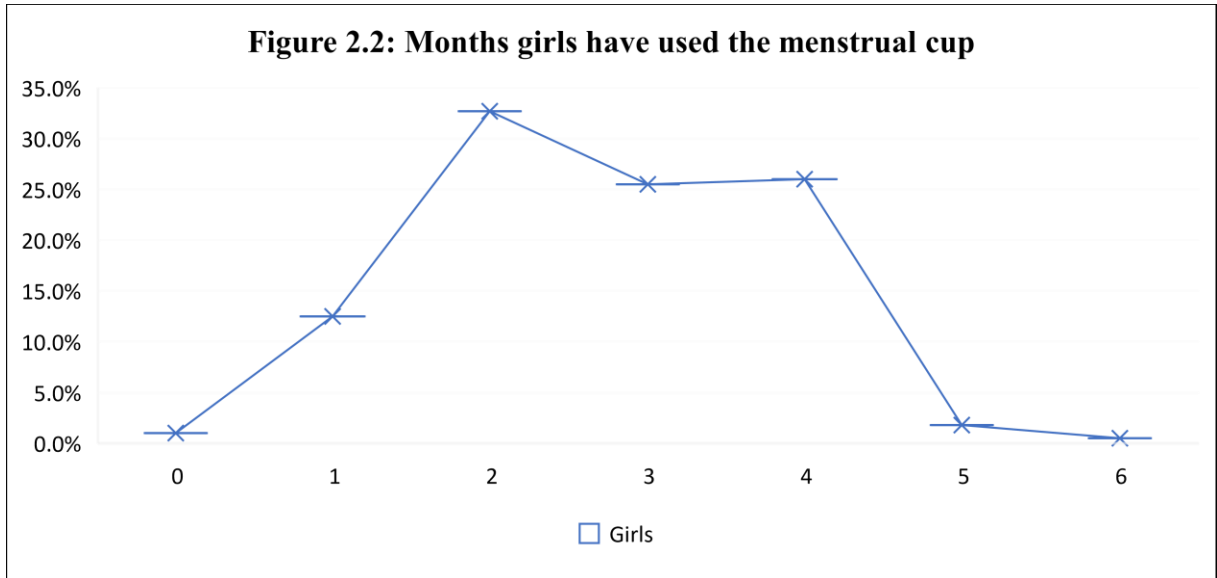
Table 4: Menstrual Products Use

Menstrual Product		Responses		Percent of Cases
		N	Percent	
Post (Current) menstrual products	Old cloths / Rags	20	3.3%	5.2%
	Sanitary Pad	215	35.1%	55.8%
	Menstrual Cup	374	61.1%	97.1%
	Tampon	2	0.2%	0.5%
	Papers	1	0.2%	0.3%
Pre (Previous) menstrual Products	Old cloths / Rags	136	28.6%	36.2%
	Sanitary Pad	334	70.2%	88.8%
	Tampon	4	0.8%	1.1%
	Papers	2	0.4%	0.5%

In exploring the usage of the product, participants were asked to indicate the number of months they have used the menstrual cup from the date of intervention. The project verified the usage by randomly selecting samples to include their cups during the survey. Cups were observed to validate its usage by the participants. From the time of the menstrual cup intervention to the time of the survey, most girls (32.7%) indicated their usage for the cup for 2 months; 26% for 4 months and 25.5% for 3 months.



Regarding the monthly usage frequency, from a Likert scale of 1 to 5, 5 being always and 1 being not use at all, 47.5% always use the menstrual cup throughout their menstrual cycle and 37.9% use it often during their period. The results further shows that 1.3% do not use the cup at all and 1.3% use it once during menstruation.



Perception of the CouldYou? Cups

Several items were put together in this study to investigate the perception of the beneficiaries on the CouldYou? Cups. The issue of convenience, the like for the cups and the ratings the beneficiaries would give to the cups were inculcated in the survey. A Kruskal-Wallis H test was deployed to test the statistical significance in convenience, willingness to use the cup, and like score for the cup between the beneficiary communities. Tables 5 and 6 present results of the Kruskal Wallace H test and the descriptive statistics for the perceptions about the menstrual cup.

Table 5: Mean ranks from Kruskal-Wallis H test

	Communities	Mean Rank	Mean
Convenience of the Cup	Funsi	212.20	4.47
	Goripie	179.00	
	Jumo	101.44	
	Piisi	158.56	
Preference (like) for the Cup	Funsi	213.81	4.33
	Goripie	160.09	
	Jumo	178.65	
	Piisi	171.15	
Willingness to use the Cup	Funsi	206.79	4.44
	Goripie	182.31	
	Jumo	138.21	
	Piisi	164.85	

Table 6: Kruskal-Wallis H test

	Convenience of the Cup	Preference (like) for the Cup	Willingness to use the Cup
Kruskal-Wallis H	29.895	23.273	13.701
df	3	3	3
Asymp. Sig.	.000	.000	.003
a. Kruskal Wallis Test			
b. Grouping Variable: Communities			

Convenience of the Menstrual Cup

For the convenience scoring, the Kruskal-Wallis H test showed that there was a statistically significant difference in convenience score between the communities, $\chi^2(2) = 29.8$, $p = 0.00$, with a mean rank convenient score of 212.2 for Funsì, 179 for Gorìpie, 101.4 for Jumo, and 158.5 for Piisi. The test score implies that participants from Funsì perceive the cup to be more convenient than the participants from the other communities. From the descriptive statistics, the average score of 4.47 presents a higher rank (agree) for the menstrual cup, for all communities.

From the Likert scale of 1 – 5, 1 being strongly disagree and 5 being strongly agree, 51.4% of the participants strongly agree that the menstrual cup is convenient and 44.7% agree to that assertion. On the contrary, 3.6% of these beneficiaries stood neutral regarding convenience in the use of the cup.

Specifically, within Funsì majority (61.4%) strongly agree to the statement that the menstrual cup is convenient to use. In Gorìpie, 42.3% of the respondents strongly agreed to same assertion, however, 56.8% agree that the product is convenient to use. In Jumo and Piisi, 82.4% and 47.1% agree to the convenience of the cup respectively. 11.8%, in Jumo, 14.7% in Piisi, 2.7% in Funsì, and 0.9% in Gorìpie neither agree nor disagree that the cup is convenient.

Table 7: The convenience of the menstrual cup

Community		SD	N	A	SA
Funsì	Count	1	6	79	137
	% within Communities	0.4%	2.7%	35.4%	61.4%
Gorìpie	Count	0	1	63	47
	% within Communities	0.0%	0.9%	56.8%	42.3%
Jumo	Count	0	2	14	1
	% within Communities	0.0%	11.8%	82.4%	5.9%
Piisi	Count	0	5	16	13
	% within Communities	0.0%	14.7%	47.1%	38.2%
<i>Percentages and totals are based on respondents.</i>					
<i>SA= Strongly Agree; SD= Strongly Disagree; A= Agree; N= Neither agree nor disagree</i>					

Preference (like) for the Menstrual Cup

For the convenience scoring, the Kruskal-Wallis H test showed that there was a statistically significant difference in preference score between the communities, $\chi^2(2) = 23.2$, $p = 0.00$, with a mean rank preference score of 213.8 for Funsì, 160 for Gorìpie, 178.6 for Jumo, and 171.15 for Piisi. The test score implies that participants from Funsì have higher preference for the cup

than the participants from the other communities. From the descriptive statistics, the average score of 4.33 presents a higher rank (like quite well) for the menstrual cup for all communities. From the Likert scale of 1 – 5, 1 being not like the menstrual cup and 5 being like the menstrual cup very well, 51.7% of the participants like the menstrual cup very well and 34.3% like the menstrual cup quite well. There was a strong dislike of (0.3%) for the menstrual cup, while 9.2% said they like the menstrual cup slightly.

Across communities, in Funsì, 61.9% like the menstrual cup very well whereas 41.2% participants in both Jumo and Piisi like the menstrual cup very well. In Goripie, 36% like the menstrual cup very well. Only 1 person in Funsì disliked the cup with 3.9% who are uncertain about their like for the cup.

Table 8: Preference (like) for the menstrual cup

Community		D	LS	U	LQW	LVW
Funsì	Count	1	8	12	64	138
	% within Communities	0.4%	3.6%	5.4%	28.7%	61.9%
Goripie	Count	0	7	17	47	40
	% within Communities	0.0%	6.3%	15.3%	42.3%	36.0%
Jumo	Count	0	0	2	8	7
	% within Communities	0.0%	0.0%	11.8%	47.1%	41.2%
Piisi	Count	0	0	7	13	14
	% within Communities	0.0%	0.0%	20.6%	38.2%	41.2%
<i>Percentages and totals are based on respondents.</i>						
<i>D=Dislike; LS=Like Slightly; U=Uncertain; LQW=Like Quite Well; LVW=Like Very Well</i>						

Willingness to Use the Menstrual Cup

Participant’s willingness to use the menstrual cup is one of the measures of acceptability for this study. Results from the Kruskal-Wallis H test showed that there was a statistically significant difference in the willingness to continue using the menstrual cup score between the communities, $\chi^2(2) = 13.7$, $p = 0.00$, with a mean rank score of 206.7 for Funsì, 182.3 for Goripie, 138.2 for Jumo, and 164.8 for Piisi. The test score implies that participants from Funsì are more willing to use the menstrual cup than the other communities. From the descriptive statistics, the average score of 4.4 presents a higher rank (willing) to continue using the menstrual cup.

From the Likert scale of 1 – 5, 1 being very unwilling to use the menstrual cup and 5 being very willing to use the menstrual cup, 50.4% girls are very willing to use the cup with 44.4% who are willing to continue with the cup. Specifically, in Jumo, all participants are willing to continue using the cup. Across all communities, only 0.3% are unwilling to use the menstrual cup.

Table 9: Willingness to use the menstrual cup

Community		NU	U	N	W	VW
Funsì	Count	1	1	11	80	130
	% within Communities	0.4%	0.4%	4.9%	35.9%	58.3%
Goripie	Count	0	0	5	57	49
	% within Communities	0.0%	0.0%	4.5%	51.4%	44.1%
Jumo	Count	0	0	0	14	3
	% within Communities	0.0%	0.0%	0.0%	82.4%	17.6%

Piisi	Count	0	0	2	20	12
	% within Communities	0.0%	0.0%	5.9%	58.8%	35.3%
Percentages and totals are based on respondents. VW=Very Willing, W=Willing; NU=Never Use; U=Unwilling; N= Neither willing or unwilling						

DISCUSSIONS

This current study offers more insights into how the menstrual cup has become an innovative solution to fighting period poverty in rural Ghana. The study has examined the use and acceptability of the menstrual cup in communities in rural Ghana with difficult access to menstrual products.

The study reveals some exciting learnings about the menstrual cup. Participants have seen significant changes in managing menstrual flow and they attribute these changes to the menstrual cup. Findings have shown that the menstrual cup has influenced accessibility to hygienic products and a reduction in the usage of unhygienic menstrual products. A major finding is the complementary and substitutive role the menstrual cup is playing in addressing menstrual poverty. As a substitute, the cup has replaced the usage of old cloths/rags significantly. Beyond substituting the unhygienic products, some beneficiaries are adopting the cup as the next best alternative to the menstrual pads. As a complement, girls use the menstrual cup in addition to menstrual pads citing the economic advantages of the cup and the difficulty in affording menstrual pads.

The study finds the menstrual cup as a dominant product among the multiple products used which is justified by 97.1% acceptability rate. Consistent with the findings of Beksinska et al., (2015), this study has established that many novice users accepted the menstrual cups due to the benefits they offer. Rural girls in Ghana like the menstrual cup. They also see the cup to be convenient, and are willing to continue using the menstrual cup, which further justifies the high rate of acceptability of the menstrual cup.

ETHICAL CONSIDERATION

Menstruation is a sensitive phenomenon. This study ensured that the dignity and confidentiality of the study participants are protected. As a matter of ethics, the researcher first sought the consent of the participants. The confidentiality of the research was emphasized from the beginning of the interviews and the purpose of the study was always shared with the participants. The data for this study are all protected from public access and protected with passwords. Computers with these data are accessible to only the research team and all printed documents are locked up in file cabinets.

CONCLUSION

This study has examined the menstrual cup as an innovative solution to addressing the problem of period poverty. The study has determined that the menstrual cup is an accepted intervention in rural Ghana. While the study has revealed some exciting learnings about the cup, the findings in general are consistent with similar studies conducted in other countries.

The introduction of the menstrual cup has seen some significant changes and the participants attribute the changes in their menstrual flow management. Two products that have dropped significantly are papers and rags/old cloths.

This study has found the menstrual cup as a dominant product with an acceptability rate of 97%. On the product preference, the study found a statistically significant difference in preference score between the communities. It is found that participants from Finsi have higher preference for the cup than the participants from the other communities.

Findings indicate that the menstrual cup has influenced accessibility to hygienic products and reduced the usage of unhygienic menstrual products. While access to affordable sanitary pad is difficult in the rural communities of Wa East, the introduction of the menstrual cup has offered an alternative that addresses the affordability and accessibility problems of hygienic menstrual products.

This study therefore concludes that the menstrual cup has been widely accepted as an innovative solution to addressing period poverty in rural Ghana.

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