

## STUDY OF MENSTRUAL PRACTICES IN INDIA – ACQUAINTANCE WITH MENSTRUAL CUPS

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### Abstract

**Background:** All those who menstruate need the awareness and access to their choice of menstrual materials that are safe, comfortable and support sustainable production and use. It is necessary to address menstruation to understand the need to take subsequent steps for a woman who menstruates for a period of 40 years of her life.

**Method:** A cross-sectional, standardized questionnaire based survey method was used to collect information from a sample size of 500 people after prior institutional ethical clearance. Statistical knowledge was applied using Microsoft Excel and Statistical Package for Social Sciences (SPSS). An aggregate was made where socio-demographic and menstrual characteristics were compared. Insight was made to acknowledge female genital health concerns through scholarly articles available on the web.

**Results:** 2.2% of sexually active women use menstrual cups. 3.7% of them prefer to use sanitary napkins along with menstrual cups only for gym and swimming. They reported cups were more comfortable. Other reasons for preference were they are environment friendly and reusable. However, 96.4% of sexually inactive women use sanitary napkins. The reasons for them not using cups were found to be (in descending order): not knowing how to use, want to use but afraid, not available in local medical stores and cultural beliefs. Usage of cloth still made it to 0.8%.

**Keywords:** Menstruation, menstrual cups, environment friendly

### Introduction

Menstruation or period is normal vaginal bleeding that occurs as part of a woman's monthly cycle. Every month, a female's body prepares for pregnancy. If no pregnancy occurs, the uterus or womb sheds its lining. The menstrual blood is partly blood and partly tissue from inside the uterus. It passes out of the body through the vagina. This is a normal and healthy part of life for most women. Roughly half of the female population i.e. around 26 per cent of the global population is of reproductive age and each day more than 300 million women are menstruating. Yet, as normal as it is, there is increasing recognition that this natural process is stigmatized around the world. [11] A lack of information about menstruation leads to damaging misconceptions and discrimination, and can cause women to miss out on normal experiences and activities. [8] Stigma, taboos and myths prevent young girls and boys from the opportunity to learn about menstruation and develop healthy habits. [4] Research indicates that a vast information gap exists among females regarding awareness about menstruation and menstrual hygiene which do have an impact on the practices during menstruation and the associated gynecological

morbidities. Many girls and women have limited options for affordable menstrual materials. [15] Girls and women with disabilities and special needs face additional challenges with menstrual health. There is interplay of socio-economic status and menstrual hygiene practices which has been linked to increased risk of urinary and reproductive tract infections [RTI]. Millions of women suffer from RTI and its complications even leading on to the infection being transmitted to the offspring from the pregnant mother. Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences. [5] Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. Access to clean, reliable materials to absorb menses, supportive sanitation infrastructure, and biological and pragmatic information about menstruation were highlighted as core challenges. [2] This also traces to the age old researches where menstruation was experienced with discomfort and fear. But over the years concern has been shifted in association with menstrual cups. A menstrual cup is a device that is inserted into the vagina during menstruation. It acts by collecting menstrual fluid. They

are usually made of flexible medical grade non-toxic, non-allergic silicone and shaped like a bell with a stem. [9] The stem helps for easy insertion and removal. Once inserted; it opens to an oval shape, positioned between the posterior fornix and the notch behind the pubic bone, covering the cervix. The bell shape of the cup helps it to get sealed against the vaginal walls below the cervix. Removal is accomplished by hooking a finger over the rim behind the pubic bone. The cup has to be removed, emptied, rinsed and reinserted depending on the amount of the flow (usually every 6-12 hours). According to State of India's Environment 2019 Survey, the Menstrual Hygiene Alliance of India (MHAI) has approximated that there are 336 million menstruating women in India, of which 36 per cent use disposable sanitary napkins that totals to 121 million women. This implies that India has 12.3 billion disposable sanitary napkins to take care of every year, majority of which are not biodegradable/compostable. [14] Menstrual cups greatly reduce the waste generated from menstrual cycles as it is reusable, unlike sanitary pads and tampons. Hence, it is more eco-friendly. Since it can be used for five or more years, it is more economical too. Thus the fact that Menstrual Hygiene Management (MHM) is an integral part of the Swachh Bharat Mission Guidelines (SBM-G) is justified.

#### Aims and objectives:

1. Assess and explore perceptions regarding knowledge, attitude and practices during menstruation among a group of girls and women in India highlighting their little acquaintance with menstrual cups and deep analysis of reasons for the same.
2. Undertake systematic search and synthesis of extant qualitative studies to draw out common themes as well as appraise the coverage and quality of existing research on women's and girls' menstrual practices.

#### Material and Methods:

Study design - Questionnaire based survey method was used to collect data.

Study setting and population - A sample size of n=500 people was taken under consideration after obtaining institutional ethical clearance. Statement for getting informed consent of the subject was mentioned in the Google form.

Study Tools and Technique - A pre designed, pre structured standardized and validated questionnaire based survey method was used to collect data.

Methodology - The questionnaire was used to collect data regarding their socio-demographic profile, imposed restrictions, knowledge, and perceptions regarding menstruation, perception regarding advantages and disadvantages of sanitary napkins and menstrual cups, hygiene during menstruation, and reproductive morbidities. Simple questions regarding details of cup and

its usage were included in the questionnaire. Most of the questions were in the form of MCQs [Multiple Choice Questions]. The conclusive questionnaire ended with whether they used a menstrual cup and what was their experience. If not used, then the reason behind it was recorded. Confidentiality was maintained for the data collected throughout the study. The subjects were allowed to enquire clarifications if any. They were also explained about the purpose of the study and were briefed about the questionnaire. All the eligible women who were meeting the criteria were selected for consideration. Statistical knowledge was then applied using Microsoft Excel and Statistical Package for Social Sciences (SPSS). An aggregate was made where socio-demographic and menstrual characteristics were compared. Insight was made to acknowledge female genital health concerns through scholarly articles available on the web including PubMed, The Global Health Database and Google scholar and References.

Inclusion criteria:

Volunteering females of reproductive age group [15-44 years].

Females having regular menstrual cycles.

Exclusion criteria:

Females having any sort of gynecological and genitourinary pathological association.

Who do not understand the nature/purpose of the study.

#### Data analysis:

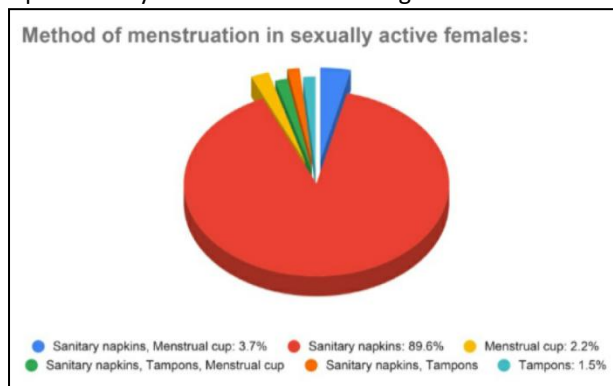
Data collected through Google forms was entered into Microsoft Excel sheets. Simple descriptive statistics like percentages and proportions were used for describing the results of the study. Statistical knowledge was applied using Microsoft Excel and partly Statistical Package of Social Sciences [SPSS] and hence appropriate characteristics were compared and analyzed.

#### Results:

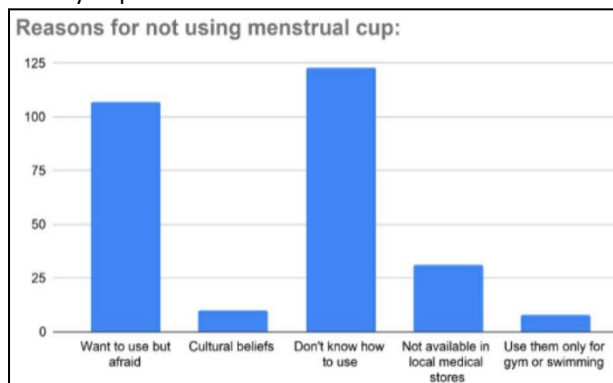


**Figure 1:** Pie chart demonstrating method of menstruation in sexually inactive females belonging to reproductive age group. Vast majority of females [96.4%] are shown to use sanitary napkins. 1.4% of them use tampons. 0.8% still uses cloth. Various reasons were told about not using menstrual

cups and they are demonstrated in figure 3.



**Figure 2:** Pie chart demonstrating method of menstruation in sexually active females. Majority is still occupied by women using sanitary napkins [89.6%]. Tampons made it to 1.5%. A striking difference here was that 2.2% of women solely used menstrual cups in contrast to sexually inactive women where its prevalence was even lower. 3.7% of the women use menstrual cups along with sanitary napkins. These women reported their reasons for using menstrual cups some of which include they are environment friendly, reusable i.e. cost effective, comfortable for longer duration etc. Usage of cloth was not reported here. Remainder of the women used a combination of cups, tampons and sanitary napkins.



**Figure 3:** Graph showing reasons for not using menstrual cups by most women. The reason given by most of the women included not knowing how to use. Approximately 106 women wanted to use menstrual cups but they were afraid of catching any disease or so for that matter. Other reasons found were [in descending order]: lack of availability in local medical stores, cultural beliefs and using menstrual cups only for gym and swimming like activities.

#### Discussion:

The increasing number of publications on MHM is encouraging, showing an interest among researchers. [1] Unfortunately it is seen that the majority of the females were not using menstrual cups because they were not at all familiar with the procedure of inserting and removing

the cup. It was also said that they didn't look into other options as they were comfortable and used to with sanitary pads. [13] This shows that women are not aware enough about the positive aspects of menstrual cups over conventional methods of managing menstruation like sanitary napkins. [6] They didn't have a clear idea regarding material used in cups, its sterilization technique and association with Toxic Shock Syndrome (TSS) and cervical cancer. And there comes the second most reason where women are afraid to use menstrual cups as they were of the belief that they could catch infection if they inserted the cup into the vagina. Here, it is to be remembered that in an article published in the year 2015 by Mitchell MA et al, [10] only one case of confirmed TSS was found in association with usage of cup. Other researchers supported that this could be avoided by using small sized cup and boiling of the cup in between the cycles. Talking about the usage of cup while swimming, there were very less females who knew that it could be used and had an advantage over sanitary pads. All of this point in one direction stating lack of satisfactory awareness. [3] This is probably because menstrual cup has not been promoted in India as much as it should have been. Also because despite following the western culture, India is still an unreasonably conservative country where even some of the educated ones think that inserting a cup inside the vagina might lose their virginity in contrast to sanitary napkins. Thus inserting a penetrating device is considered quite scandalous. These types of myths promoted by them and other women of their family made it highly unlikely for them to understand about menstrual cups. [7] However it is true that virgins and young girls have vaginal muscles that tend to be tighter, which can make insertion a bit more difficult. But the need of the hour is to make young girls understand that virginity should not be an obstacle for cup usage. This strikingly make above results clearly speak for itself the difference of menstrual cup usage between sexually active and inactive females. Women also reported that cups were not available in the local medical stores. This raises yet another question as to why we don't see any radical ads on menstrual cups. Well this may be because almost all makers and suppliers of menstrual cups are social entrepreneurs and start-ups. Unlike profitable multinational companies, these organizations rely heavily on digital medium to promote their products. Naturally, urban women are the first consumers. Also why would a rural medical store person have a stock which people are reluctant to buy?! Here comes yet another reason where public organizations need to dig in to the reasons. On the other side of the coin there are the females who prefer menstrual cups for their cost effectiveness (reusability), little to no discomfort, improved hygiene and no harm to environment. [12]

**Conclusion:**

The results of my study add to growing number of studies which demonstrate a strong and consistent association between awareness, availability and choice of menstrual practices for betterment of health and hygiene. Active translation of product advocacy and delivering research based educational advice should be the concern. In spite of limitations of this study, it surely suggests that menstrual cups should be the game changer for India but in the glimpse of current scenario unfortunately it is not. Henceforth, the barriers are to be removed and this bloody brilliant idea is to be at the very least acknowledged and put into practice. Increasing awareness and easy availability of this product can help in increasing the use.

**Abbreviations:**

RTI: Reproductive Tract Infection

MHM: Menstrual Hygiene Management

SBM-G: Swachh Bharat Mission Guidelines

TSS: Toxic Shock Syndrome

Ethical approval: The study was approved by institutional ethics committee.

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