



MENSTRUAL CUP A BETTER ALTERNATIVE FOR MENSTRUAL HYGIENE MANAGEMENT: A REVIEW

Gynaecology

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ABSTRACT

Menstrual cups have been available for decades, but their use was limited due to less awareness. Menstrual cups were rated significantly better for comfort, quality, menstrual blood collection, appearance. Menstrual cups can be a better solution for menstrual hygiene. The present review was aimed to explore the benefits and uses of menstrual cups over traditional methods and contribution of cups for better menstrual hygiene among females. Eligible studies were gathered from Database and studied for relevant evidences. There are evidences that menstrual cup are better alternative but further research is needed to establish a better and economical alternate for Menstrual Hygiene Management.

KEYWORDS

Menstrual Cups, Menstrual Hygiene Management.

INTRODUCTION:

Menstruation is the natural phenomenon of the reproductive cycle in which blood from the uterus exits through the vagina. It is one of the indicators of the onset of puberty among girls which begins at age of 11-14 years. Despite being a phenomenon unique to girls, menstruation has always been surrounded by myths and secrecy. These myths and taboos surrounding menstruation snatch the privilege from women and girls from many aspects of social and cultural life.

During menses females use cotton cloths, sanitary pads, tampons. Girls and women need to use effective, safe, and affordable menstrual products. In the last few years, menstrual cups have emerged as an eco-friendly alternative over disposable sanitary pads and tampons. Whereas Disposable sanitary pads absorb menstrual blood, these menstrual cups are flexible and made up of silicone that collects the menstrual blood from within the vagina. They can last for up to 10 years as these can be re-used. They are much cheaper than buying thousands of single-use products. Menstrual cups have slowly grown in popularity, many women, girls do not know they are an option and even its benefits.^{1,2}

What are Menstrual Cups?

Menstrual cups are small, flexible, soft, pliable, sterilized, and easy to clean medical-grade materials, such as silicone, rubber, latex shaped like a bell. After every 4-12 hours (depending upon the menstrual flow) female has to remove the menstrual cup from her vagina, emptied the collected menstrual blood in the toilet, washes the cup under running water and re-inserts it. Female has to sterilize the cup at the end of every menstrual cycle usually by boiling in water.^{3,4}

In low-income settings, many women and girls face activity restrictions during menses, owing to lack of affordable menstrual products.⁵ But still in various developing countries like India many women and girls have lack of knowledge and practice related to hygienic menstrual practice despite of so many availability of alternatives used during menstruation

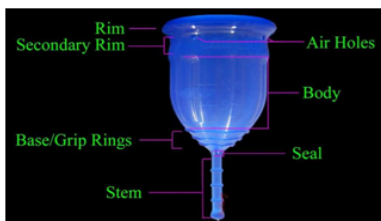


Figure 1: Parts of menstrual cup²⁰

All about sanitary pads?

About 355 million girls and women experience menstruation in India, out of which approximately 121 million use disposable sanitary napkins. Nearly 70 per cent of women living in urban India use sanitary pads compared to 48 per cent women in rural India. If we roughly take

the number of sanitary pads used per menstrual cycle as eight, over 12.3 billion disposable sanitary pads are generated every year. The disposal of such plastic pads have become a huge concern.⁶

The material used in pads can cause various health problems as most of these plastic materials have chemicals that can complicate embryonic development. The cellulose in super-absorbent pads can cause cervical cancer, the second leading cause of cancer-related deaths among women. Dioxin present in pads and tampons can cause abnormal tissue growth in the reproductive organs. Rayon used to increase the absorbing capacity of pads, also contains dioxin. Deodorants used in pads can cause infertility and birth defects. Pesticides and herbicides sprayed during the rearing of cotton, used in making pads, can make its way into your bloodstream and cause cancer. Sanitary napkins also contain synthetic material, which blocks wetness and temperature, leading to the growth of yeast and bacteria. If you don't change your pad or tampon in 4 hours, it can cause Toxic Shock Syndrome and even death.⁷

According to Menstrual Health Alliance India, one sanitary pad could take 500 to 800 years to decompose as the plastic used is non-biodegradable and can lead to health and environmental hazards. Most of these pads have over 90 per cent plastics and each pad is an equivalent to four plastic bags. Data on menstrual waste management from the Ministry of Drinking Water and Sanitation (MDWS) shows that 28 per cent of such pads are thrown with routine waste, 28 per cent are thrown in open, 33 per cent are disposed via burial and 15 per cent are burnt openly.⁸

Handling of sanitary waste in India

According to the Solid Waste Management (SWM) Rules, 2016, every waste generator must segregate waste into three fractions — wet, dry and domestic hazardous waste. Every household needs to ensure that sanitary waste should be properly wrapped. The rules say that sanitary waste should be kept in the dry waste bin and should be handed over separately.

However, there is no uniform way to dispose such pads so that they are identifiable. In most of the cases, it is disposed in bins even without wrapping. The waste collector separates the waste from other household waste with bare hands, making them more susceptible to infections and diseases such as HIV and Hepatitis. From here, it would either be washed into drains or end up in dumpsites, water clogging and contamination.²

Facts related to menstrual hygiene:^{9,10}

- Only 18% of women and girls are aware of menstrual pads and know how to properly use them in order to prevent infection.
- 23 million of girls drop out of school every year, because of lack of menstrual hygiene management facilities, including availability of sanitary napkins
- 10% of the girls in India believe menstruation is a disease (UKAID) and only 13% of the girls are aware of menstruation

before their first period (UNICEF/MHM).

- Over 77% of menstruating girls and women in India use an old cloth, which is often reused.
- Cultural and religious sentiments can lead to stigmas that can result in isolation and feelings of impurity
- 87% of the women and girls are unaware about menstruation and do not have any knowledge about the purpose of menstruation as biological process. (UNICEF/MHM)
- In India the majority of women in rural areas mostly use reusable cloths to absorb menstrual blood (Wateraid)
- A study by Rutgers, an organization for sexual and reproductive health and rights, revealed that for the absorption of the menstrual blood, 89% Indian women used cloth, 2% used cotton wool, 7% sanitary pads and 2% ash, IndiaSpend had reported on June 19, 2017. Among those who used cloth, 60% changed it only once a day.
- The fourth round of the National Family Health Survey (NFHS-4) released in 2015-16 found that 48% of women (aged 15-24) in rural areas practise menstrual hygiene. Only in seven of India's 36 states and union territories did 90% or more women in the 15-24 age-group use hygienic protection during menstruation.

Benefits of menstrual cup:³

- Economical: It is affordable as it can be reuse. They are reusable for up to ten years.
- Environment friendly: Using tampons and sanitary pads is a big threat to environment from processing to production. one sanitary pad could take 500 to 800 years to decompose as the plastic used is non-biodegradable. Cups are eco-friendly.
- Inodorous: Using scented hygiene product is discouraged by medical expert because the added chemicals cause irritation and further vaginal infections due to reaction between expelled blood, preservative gel and vaginal flora. So with cups there is no need to be too conscious about unpleasant menstruation odor.
- Menstrual cups are safer: Because menstrual cups collect rather than absorb blood, you're not at risk of getting toxic shock syndrome (TSS), a rare bacterial infection associated with tampon use.
- Menstrual cups hold more blood: A menstrual cup can hold about one to two ounces of menstrual flow. Tampons, on the other hand, can only hold up to a third of an ounce.
- Accessible and convenient: the cup is made up of silicon and rubber, designed to be flexible, soft edges and are flexible for quick and easy insertion.

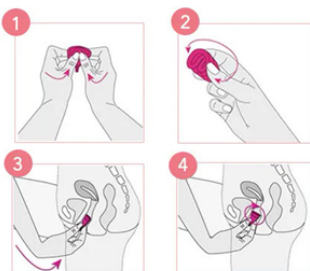


Figure 2: Insertion of menstrual cup 21

Poor knowledge about menstrual hygiene management:

Time to time many studies was conducted by researchers regarding knowledge about menstrual hygiene management and most of the time shows poor or inadequate knowledge among the females. A descriptive cross sectional study was done on 100 adolescent girls in Shimla, Himachal Pradesh. That revealed that most (71%) of girls had inadequate knowledge about menstrual hygiene. 11 A study conducted in West Bengal on 541 adolescent girls. It was concluded that more than half of girls in rural areas use home-made sanitary pads and reused the same in the subsequent period as compared to girls living in urban areas. Practice of Cleaning of external genitalia was more in urban areas than rural girls.¹²

Menstruation is a biological process but still most of the girls are unaware about cause and source of menstrual bleeding. Use of old clothes was practiced in some proportion of females. There is significant association between reproductive morbidity and poor menstrual hygiene practice as revealed by a school based cross-sectional study in Puducherry among 242 adolescent school girls.¹³ There is need to create awareness about menstruation before

menarche as most of the females was not aware about menses before menarche. Use of old clothes was also practiced among girls along with sanitary pads. About 22% used water and no soap for hand washing as revealed by a study conducted in Kolkata on 160 menstruating women and urban slum area among the 100 adolescent girls.^{14,15}

Adaptability and effectiveness of menstrual cup:

Menstrual cups have been available for decades, but their use was limited due to less awareness. There are numerous studies that supports that menstrual cups are better than old traditional methods. Menstrual cups were rated significantly better for comfort, quality, menstrual blood collection, appearance, and preference over sanitary pads and tampons. 5 The cup was preferred for comfort, dryness, and less odor. Insertion and removal was easy. Problem of leakage was encountered in among very less participants. There were few side effects like rashes, dryness or infection as revealed by a study, Gujarat, India among 158 participants aged between ages of 20 to 50 years with regular menstrual cycle. 16 Participants reported that cup use make them "free" to do what they normally do when they are not in their period, e.g. walking, biking and attending social gatherings and found them more reliable in a pilot project conducted in Uganda. 17 Menstrual cups found to be beneficial in boosting confidence of women and girls in social problems as leakage problem is very less and they can do their work freely what they use to do during their non-menstruating days. 18 Hand washing practice found to be more among females who use menstrual cups as compared to girls using traditional methods. 19

CONCLUSION:

This review puts light on evidence to establish the effectiveness of menstrual cup as a better alternative. Further research is needed to establish a better and economical alternate for Menstrual Hygiene Management among women's.

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