



# Impact of imparting knowledge and awareness on the usage of menstrual cups: A study based on project ‘Thinkal’ at Alappuzha Municipality in Kerala

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## ABSTRACT

**Objectives:** To assess the impact of educating and creating awareness among women on Menstrual Cups (M-Cups) as a healthy, safe, easy-to-use and affordable menstrual hygiene product with the support of medical professionals.

**Study design:** A two-group, non-randomized cross-sectional study.

**Methods:** The M-Cup awareness creation was carried out through the project ‘Thinkal’ and 4345 cups were distributed among the beneficiaries of Alappuzha Municipality in two separate groups. One group received awareness with the help of medical professionals and experienced users whereas the other group collected the M-Cup from the distribution centres (Municipality and Community Development Society) along with the information pamphlets without attending awareness sessions initially.

**Results:** Among the women who received the M-Cups without attending the awareness session, only 20.7% started using the M-Cup, whereas 40.6% who received awareness, started the usage which is approximately double.

**Conclusions:** A well curated awareness session was the most important factor which helped in transforming a woman into an M-Cup user.

## 1. Introduction

Menstrual hygiene and its management is a much discussed topic today and it plays an indispensable part in the well-being of women worldwide. But lack of information about menstruation and menstrual hygiene practices creates a culture of taboos leading to a big barrier in the field of menstrual hygiene management. Approximately 70% of the reproductive infections in Indian women are due to poor menstrual hygiene. Three main issues for menstrual hygiene crisis include lack of awareness, lack of materials, and lack of facilities; thereby leading to poor reproductive health, and environmental sustainability [1]. The lack of information about menstrual hygiene practices and products itself creates potential health risks such as vaginal infections, cervical cancer, Reproductive Tract Infections (RTI), Urinary Tract Infection (UTI), Hepatitis B, and different types of Yeast infections [2]. In many instances, RTI infection is transmitted to the offspring of the pregnant mother. Other problems associated with poor menstrual hygiene

practices are itching or rashes in the perineal region, bad odor, and also major complications such as pelvic inflammatory disease and toxic shock syndrome [3].

As a mark of transition from pieces of cloth (sometimes supplemented with charcoal, sand, ash, grass, wood shavings, newspapers, and hay or leaves), to Disposable Sanitary Napkins (DSNs), our society has had a major leap in accessing a modern, universally accessible product which could impart quality health and hygiene. Considering the environmental impact, the overall menstrual hygiene products available in India has been segregated into three broad categories as; (i) Reusable – cloth pads, hybrid pads with non cloth barrier, menstrual cups, (ii) Compostable disposable – tampons, sanitary pads with banana fiber or wood pulp, and (iii) Non-compostable disposable - Cellulose based sanitary pads with plastic barriers or with super absorbent polymers (SAP), Cellulose based panty liners [4]. The use of DSNs may offer a safe option for girls and women when changed regularly and used hygienically, their disposal and treatment is of increasing concern. Lack of

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proper disposal methods forces women to discard the menstrual waste into public spaces, urban sewage system, landfills, rural fields, and water bodies without any standard procedures [5]. Thus, the individual problem escalates being a social issue. If an estimated 121 million girls and women are using an average of 8 non-compostable sanitary pads in a month, the waste load generated in India is estimated to be 12.3 billion pads thereby generating 113,000 tonnes of menstrual waste annually [6].

An alternative to sanitary pads or tampons is the menstrual cup, which has received attention in small-scale studies in high income, and low/middle-income countries, including primary school girls. Menstrual cup is a nonabsorbent reusable bell-shaped device with a stem, which can be inserted into vagina to collect and hold menstrual blood during periods [7]. The stem of the cup helps for easy insertion and removal. The cup can be removed, emptied, rinsed in tap water and reinserted depending on the amount of flow, with a need to boil the cup only at the end of a cycle. Menstrual cups are an alternative to disposable menstrual products, even where water and sanitation facilities are poor. The estimated duration of use ranges from 5 to 10 years and clinical trial studies have demonstrated that, menstrual cup provides sanitary protection without discomfort, irritation or any other ill effects [8]. The multifold advantages of M-Cup involve safety, affordability, cost effectiveness, easy to use, low waste reduction, freedom of movement and activities in work life of women.

*Thinkal* is a flagship project of HLL Lifecare Ltd, a Government of India enterprise under the Ministry of Health and Family Welfare, implemented by its social and educational initiative HLL Management Academy (HMA). It is a pioneering initiative to educate and create awareness among women and girls on Menstrual Cups (M-Cups) as a healthy, safe, easy-to- use and affordable menstrual hygiene product. Also, M-Cups are distributed free of cost and continued support of medical professionals are provided for the beneficiaries. The name *Thinkal* in Dravidian languages means ‘moon’ and evokes the relationship of moon’s cycles with menstrual cycles. The project *Thinkal* was conceived during the Kerala floods in 2018 when the relief camps in Alappuzha Municipality, a water laden area, was faced with the crisis of disposal of sanitary napkins. *Thinkal* was well received by the beneficiaries, Government agencies, other stakeholders and the public. As part of the project, the study was conducted to assess the impact of educating and creating awareness among women on Menstrual Cups (M-Cups) as a healthy, safe, easy-to- use and affordable menstrual hygiene product with the support of medical professionals.

## 2. Methods

The study was carried out as a cross-sectional study involving two groups where one group received an awareness session and the other did not. The M-Cup distributed through the project *Thinkal* is made of medical grade, platinum cured silicone rubber and reusable for five to ten years was used for our study purpose. The M-Cup awareness creation and distribution of 4345 cups were completed successfully within 3 month period of time. To understand the acceptance of the M-Cup, a profiling of the M-Cup users has been done on various factors like; age, education and occupation. The M-Cup was distributed among women above 18 years of age, after having a clear understanding on its use and maintenance. Menstrual awareness sessions conducted with the help of medical professionals and experienced users involved a module that holistically taught about menstruation, body parts involved, their role and location, hygienic maintenance, introduction to M-Cup history, material, usage – insertion and removal, when to use and when not, impact of age, sexual activity and past medical history on users, maintenance, storage, and replacement. The project was implemented involving all stake holders including the local government bodies, officials, women Self- Help groups (SHGs), Non- Governmental Organizations (NGOs), other local specific groups and the media.

## 3. Results and discussion

The women who attended the awareness session started using the M-Cup within the first month which highlights the importance of creating awareness for M-cups which could create fear and concerns. Many women, who had already collected the M-Cup from the distribution centres (Municipality and Community Development Society) along with the information pamphlets, started the usage only after attending the awareness sessions. An additional time period of 3 months after receiving the same also helped to improve their M-Cup usage-learning process, either from the awareness session or their friends who started using it. At the end of the awareness sessions and the feedback received, the women were found motivated to start using the M-Cup. Report shows that the fears and doubts they initially had were vanished. Majority of the women shared their positive feedback to the facilitators. They were free to ask any queries to the facilitators and happy testimonials were shared along with the queries. It was observed that, there was a higher acceptance of the M-Cup among women in the age group of 25–45 years. Among the women who received the M-Cups without attending the awareness session, only 20.7% started using the M-Cup, where as 40.6% who received preliminary awareness, started the usage which is approximately double. The major concern regarding the M-Cup usage was the fear of getting stuck in the vagina, urinary infection while using it in the public toilet, and leakage. After attending the awareness sessions, about 91.5% beneficiaries shared their interest and acceptance on using M-Cups in the future. A well curated awareness session was the most important factor which helped in transforming a woman into an M-Cup user.

## 4. Conclusions

Creating additional awareness is extremely important for the usage of M-Cups. This is mainly because insertion products are culturally new, and does not have the right vocabulary, context or narrative for conveying the same. The distribution of M-Cups as part of *Thinkal* project busted myths and helped to create awareness among a group of women, thereby opening a new phase to menstrual hygiene management. It could help them in overcoming the limitations and making them feel more confident. Based on the key learnings and the encouraging responses of the beneficiaries from the pioneering project *Thinkal* in the Alappuzha municipality of Kerala, HLL Lifecare Ltd is currently implementing *Thinkal* in various parts of India.

### Ethical approval

None sought.

### Declaration of competing interest

We wish to confirm that there are no known conflicts of interest associated with this publication, and all the authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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