

## Original Research Article

# Poor menstrual management facilities in the work place, a major challenge experienced by working women: a cross sectional pilot study conducted in Kerala

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## ABSTRACT

**Background:** Secrecy and stigma around menstruation hinder effective menstrual hygiene management (MHM) in emergencies, causing distress, discomfort, and barriers to education, employment, and social well-being while increasing health risks. The main objective of the study is to identify the adequacy of facilities provided in the workplace for menstrual management. This study also attempts to assess the efficacy of supportive environment conducive for a menstruating woman (including menstrual products disposal) and subsequent distress associated in the workplace.

**Methods:** The study participants were all educated and employed women of menstruating age between 18-45 years, either working in private/ government organizations/ self-employed sectors in Kerala. Primary data was collected from 232 working women of Kerala using structured self-administered questionnaire enquiring about the sanitation and hygiene facilities. General health questionnaire (GHQ-12) was used to assess the severity of any mental discomfort at the onset of menstruation and during menstruation.

**Results:** The study revealed critical issues: 62.3% of women struggled with menstrual product disposal due to inadequate workplace facilities, 50.2% faced physical or mental discomfort from poor hygiene practices, and 71% reported a lack of menstrual management aids at work.

**Conclusions:** Workplace menstrual hygiene impacts women's well-being, attendance, and productivity but is often overlooked. Reliable empirical evidence on menstrual health remains limited.

**Keywords:** MHM, Mental and physical discomfort, Work efficiency

## INTRODUCTION

Menstrual hygiene management (MHM) is defined as “Women and adolescent girls using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using

soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials”.<sup>1</sup> Effective menstrual management is essential for the mental and physical wellbeing of women. A significant challenge to addressing MHM barriers in emergencies is the on-going secrecy, shame and taboo that frequently surround

menstruation, hindering adequate assessment and identification of contextually appropriate solutions.<sup>2-4</sup> To effectively manage their menstruation, adolescent girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials and services for their disposal, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma. Major challenge is the access to appropriate WASH facilities, for women and girls to manage their menstruation hygienically, which has also been associated with different reproductive tract infections and with psychosocial stress outcomes.<sup>5-9</sup> Menstrual health is integral to improving global population health, achieving the Sustainable Development Goals, and realising gender equality and human rights.<sup>10-12</sup>

The benefits of maintaining good hygiene during periods include a reduced risk of urinary tract infections, genitals rashes, and cervical cancer.<sup>13-15</sup> To support menstrual health, individuals should have the ability to choose care practices that are both comfortable and suitable for them, while also having access to affordable resources necessary for self-care.<sup>16</sup> These practices should support hygiene and minimise the risk of infection and harm. Women, girls, and others who menstruate must be able to care for their body with the level of privacy they desire such that they feel free from unwanted observation or disturbance, and in safety such that they are protected from risk of physical, emotional or social harm.<sup>17</sup> Safety must be considered in the location of infrastructure and services, the quality of menstrual materials, infrastructure, and disposal practices. The menstrual health of the individual requires that disposal practices protect from emotional and social harm, while disposal practices are also contributors to environmental health.<sup>18</sup> Research has identified a broad range of practices undertaken by individuals to care for their body during menses, and the infrastructure and services required to support these.<sup>19-22</sup> Difficulties managing menstruation are a source of distress irritation and discomfort, have been identified as barriers to education and employment, linked to potential reproductive tract infections and can compromise social well-being.<sup>16,23-26</sup>

### **Aims and objectives**

The current study is to understand the major challenges working women experience in work front, in highlighting significant lack of materials-soap, underpants and absorbing cloth, and facilities like latrines, bathing shelters and proper sanitary waste disposal. Objectives were to understand how stressful is menstruation and its associated events for women at work place, to identify factors that serve to make menstruation stressful in work places, to identify if working places are women friendly with adequate MHM and WASH facilities and to assess factors like adequate safe, private spaces for changing menstrual materials and its disposal.

## **METHODS**

This cross-sectional pilot study was conducted at SUT academy of medical sciences, Trivandrum, involving working women across Kerala from both government and private sectors. The study targeted professionals aged 18-45 years, including medical and paramedical staff, engineers, educators from schools and colleges, banking professionals, and IT sector employees.

### **Study period**

The study was conducted over a period of two weeks, from the first week to the third week of the November 2022.

### **Sample size**

The 231 participants took part in the pilot survey through convenience sampling technique, a non-probability sampling technique.

Sample size was calculated using Cochran's formula:<sup>27</sup>

Cochran's formula for sample size calculation is

$$n_0 = Z^2 p(1-p) / e^2$$

Where,  $n_0$  = Required sample size

$Z$  = Z-score for the desired confidence level (typically 1.96 for 95% confidence)

$p$  = Estimated proportion of the population with the characteristic of interest (assumed to be 0.5 for maximum variability)

$e$  = Margin of error (typically 5% or 0.05)

Substituting standard values:  
 $n_0 = (1.96)^2 \times 0.5 \times (1-0.5) / (0.05)^2 = 384.16$

This initial sample size (384) is for an infinitely large population. Since the target population of working women in Kerala is finite, the finite population correction is applied:  $n = n_0 / 1 + [n_0 - 1] / N$

$N$  = Approximate population of working women in Kerala in targeted professional sectors (estimated conservatively at 10,000)

$$n = 384 / 1 + [384 - 1] / 10000 = 370$$

Given that survey-based studies often have response rates lower than 100%, an adjustment was made. Assuming an anticipated response rate of 65%, the adjusted sample size was:  $370 / 0.65 = 250$ . Although the planned sample size was 250, final number of participants who met all

inclusion criteria and completed study 231, yielding response rate of 92.4%.

### Inclusion criteria

Study participants were normally menstruating (i.e., average cycle length of 25-35 days that did not regularly vary in length month-to-month by  $\geq 7$  days) community women aged 18 to 45 were included.

### Exclusion criteria

Hormonal birth control methods, postmenopausal or premenopausal (e.g., hot flashes, irregular periods) status, pregnancy or trying to become pregnant, current or past PD (panic disorder) with or without agoraphobia, current generalized anxiety disorder, specific phobia, post traumatic stress disorder, social anxiety disorder, obsessive compulsive disorder, alcohol or substance dependence, or psychosis, current serious suicidal intent; g) contraindicated medical conditions (e.g., cardiovascular or seizure disorder, asthma); and current use of anxiety medication (e.g., Beta blockers, anxiolytics) were excluded.

### Research method

Questionnaire-general questionnaire and GHQ 12 were administrated.

The GHQ was designed as a self-administered screening test for detecting, and measuring, minor psychiatric disorders or psychological distress.<sup>28,29</sup> The 12-item version (GHQ-12) is widely used in clinical practice and research.<sup>29-32</sup> It has been found to have high internal consistency and good retest reliability.<sup>33</sup> Its validity has been proved by its linear associations with independent clinical assessments and it has been shown to have good discriminatory power.<sup>34</sup>

Ethical clearance was obtained from SUT academy of medical sciences prior to the commencement of the study.

### Statistical analysis

Descriptive statistics followed by chi square test.

## RESULTS

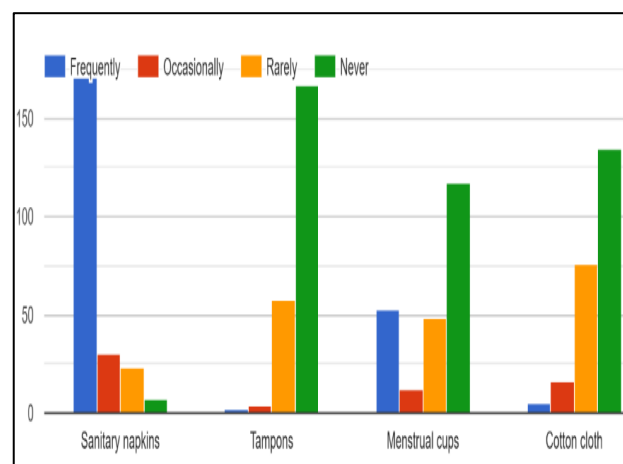
The results of the study brought to light some alarming issues. From the study, it was observed that majority of the working women preferred use of sanitary pads over other menstrual products like tampons, cups (Figure 1).

Majority of the study participants were found to be using sanitary napkins over other alternate menstrual products like tampons, menstrual cups etc.

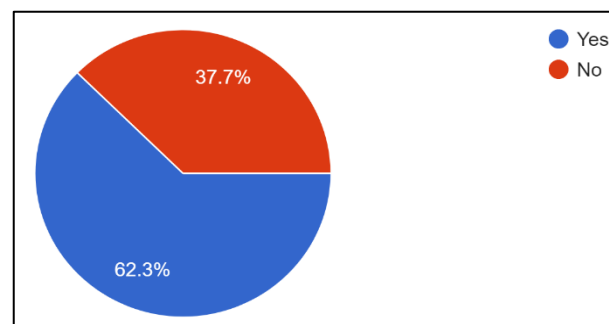
This study also showed that majority of working women (62%) had reduced frequency of menstrual waste product

disposal at work places, due to lack of facilities in work spaces and 50.2% of women have experienced both mental and physical discomfort as they could not follow proper menstrual hygiene environment in their offices.

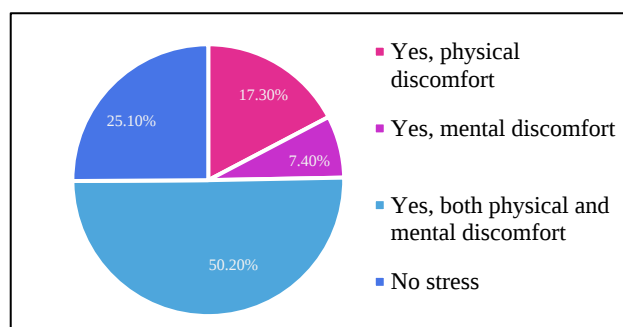
The 17.3% of working women experienced physical discomfort, 7.4% experienced mental discomfort and 50.2%-a vast majority of the study population, experienced both mental and physical discomfort during their menstrual cycle at work place.



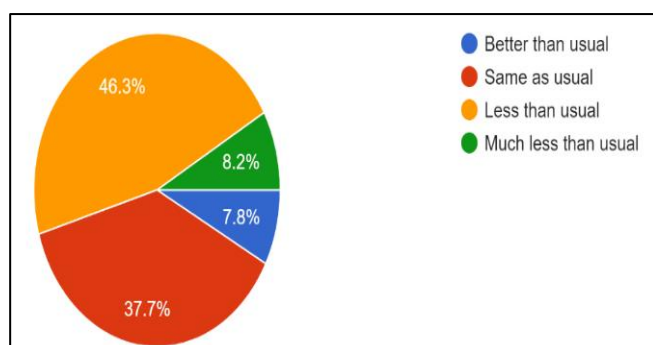
**Figure 1: Different types of menstrual products used by working women.**



**Figure 2: Disposal frequency of menstrual product at work place.**

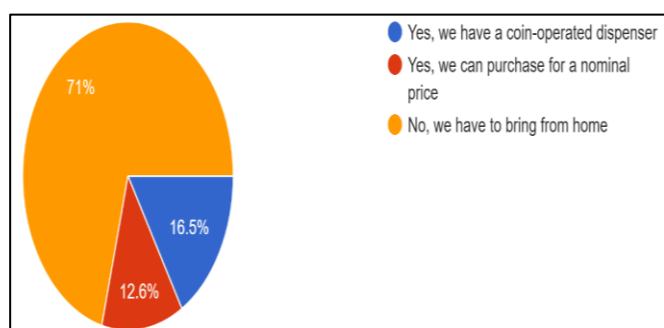


**Figure 3: Prevalence and percentage statistics of physical and mental discomfort among working women during menstruation onset.**



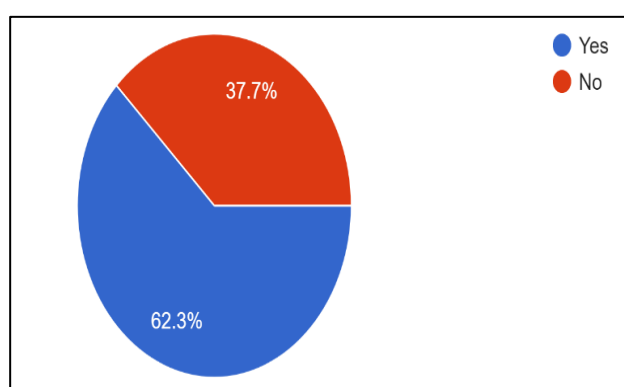
**Figure 4: Work efficiency of women at work place during menstruation.**

The 46.3% (Figure 4) women had reported that they could not concentrate fully on their work during their menstrual period.



**Figure 5: Aid for supply of menstrual hygiene products at work place.**

The 71% of women participating in this study (Figure 5) said that they have to bring their menstrual hygiene products from home and there is no provision for availability of the same at the work place.



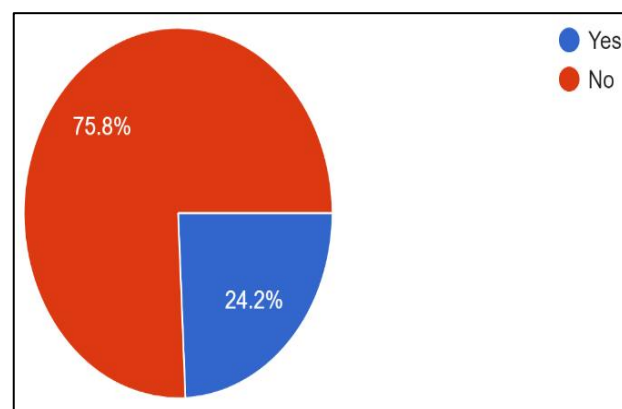
**Figure 6: Comparison of menstrual waste disposal frequency: office versus home experiences.**

More than 50% (50.2%) (Figure 3) of the women experienced some kind of physical and mental discomfort due to inability to follow proper menstrual hygiene practise at work place due to which the frequency of

menstrual waste disposal has been reduced tremendously as compared to that home.

#### **Occurrence of reproductive tract infections in working women (Figure 7)**

A quarter of the study population (24.2%) of working women have experienced some kind of reproductive tract infections like itching, vaginal discharge, pelvic inflammatory disease etc. due to unhygienic menstrual practises.



**Figure 7: Prevalence of reproductive tract infections among working women.**

## **DISCUSSION**

Menstruation poses particular challenges to young women living in India and other South Asian countries due to high levels of menstrual stigma.<sup>35-37</sup>

Indeed, menstrual hygiene has been framed as a human rights issue, implicating rights to privacy, health, education, work, and water and sanitation.<sup>38</sup> Denying adequate provision for menstruating individuals to manage menstruation in work and educational settings, as well as the stigma of menstruation itself, are threats to gender equality.<sup>38</sup> According to the human rights framework, the provision of MHM education and the reduction of menstrual stigma are preconditions for effectively addressing the material needs of menstruation such as disposal facilities and affordable, hygienic menstrual hygiene supplies.<sup>38</sup>

The potential MHM barriers faced by adolescent girls and women in workplace environments in low- and middle-income countries has been under addressed in research, programming and policy. Despite global efforts to reduce poverty among women in such contexts, there has been insufficient attention to the water and sanitation related barriers, specifically in relation to managing monthly menstruation, that may hinder girls' and women's contributions to the workplace, and their health and wellbeing. There is an urgent need to document the specific social and environmental barriers they may be facing in relation to menstrual management, to conduct a

costing of the implications of inadequate supportive workplace environments for MHM, and to understand the implications for girls' and women's health and wellbeing. This will provide essential evidence for guiding national policy makers, the private sector, donors and activists focused on advancing girls' and women's rights.

A key challenge to addressing the potential WASH and MHM-related inequities facing adolescent girls and women is determining who should take responsibility for ensuring adequate and MHM-supportive facilities in workplaces. For MHM in the school environment, the Ministry of Education is a clear lead institution. In contrast, the range and types of "workplaces" in LMIC are numerous, with businesses being diverse in size, location and scope, and many girls and women working in both the informal and formal sectors. Identifying one institutional body that will have ultimate responsibility is thus complex and potentially not an appropriate way forward. Ministries of Health and trade related ministries certainly have a role to play, particularly in establishing regulations and enforcement related to occupational health and staff welfare.

Similarly, private companies and employers also have a responsibility to prioritize this issue and take action. There has been some nascent action from the private sector already, with the CEO Water Mandate highlighting the role of the private sector in providing water and sanitation in the workplace.<sup>39</sup> The notion that a basic WASH standard should be in place-so that women can urinate, defecate and manage menstrual blood flow with privacy, safety, and comfort while participating in informal or formal work in a given context – has not been specifically included in the 2030 agenda for sustainable development.<sup>40</sup>

### Limitations

The present study examines the life experiences of menstruating women in work places. This study was intended to generate information as well as hypotheses about potential areas for intervention. However, findings should not be considered representative or generalizable to women across Kerala, though many of our findings are consistent with other research. Furthermore, the sample size for this pilot study was very small as compared to that of other population studies.

### CONCLUSION

It is worrying concern that the frequency of menstrual product disposal at workplace is much lower due to lack of facility when compared to the frequency of disposal at home. The fact that the participants had faced some kind of physical and mental discomfort during and at the onset of their periods is definitely a matter of apprehension. It can be observed that for various reasons, this issue of adequate menstrual health management at the workplace is generally overlooked and under addressed. Adequate

and reliable empirical evidence in respect of the menstrual health management challenges faced by women in their workplaces is a prerequisite for suitable corrective actions and policy responses. It is suggested that employers need to urgently address this situation and bring drastic changes in the current policies to accommodate this perpetual issue faced by their women folk. Improving WASH standards that are supportive of MHM for women in the workplace is beneficial to population health and economic development. It also contributes to human dignity and the attainment of human rights. Specific recommendations include: governments must make policies that will regulate (and enforce) the provision of gender appropriate WASH facilities in work environments, transportation hubs and other public spaces. Two, there is a need for enhanced global advocacy about the essential importance of providing improved WASH workplace standards to support adolescent girls and women with all their sanitation needs, including MHM. Such advocacy can serve to break taboos over discussing how to address MHM and WASH-related barriers in workplace environments, and put pressure on the private sector, national governments and international bodies to address this critical neglected issue of health inequity for women.

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