



‘Menstruation Awareness Activities’ for Improving the Knowledge, Awareness and Practices Regarding Menstrual Hygiene among Adolescent Girls: A Study Protocol

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Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Study Protocol

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ABSTRACT

Background: Menstruation is a normal physiological process that indicates the start of reproductive life. But sometimes it's considered as an impure phenomenon within the Indian society thanks to cultural taboos and insufficient and half-truths and causes unnecessary restrictions within the day to day normal activities of the menstruating girls. During a girl's life cycle, it is recognized as a special time that requires special consideration. During the life of a woman, Menarche may be a crucial biological milestone because it marks the beginning of her life's reproductive process. Usually, the average age at menarche is consistent across cultures, that is, between the ages of 12 and 13. Unfortunately, for women it gets worse because of lack of menstrual preparedness and management skills or because of shyness and embarrassment. This study aims to assess the knowledge and practices of menstrual hygiene management among adolescent girls from rural region of Wardha district.

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Methods: This will be a randomized controlled trial that will be conducted in adopted villages of field practice area of Jawaharlal Nehru Medical College, Wardha. Quantitative data will be collected using a self-administered semi-structured questionnaire. Qualitative data will be collected through focused group discussions (FGD). Pre and post intervention data will be collected and analyzed using SPSS, Appropriate tables and graphs will be prepared, and inferences will be drawn using the Chi-square test and t-test.

Results: Significant improvement in knowledge, awareness and practices of maintaining menstrual hygiene among adolescent girls in Wardha district.

Conclusion: Proper training and awareness can improve menstrual hygiene related practices in rural areas and assist in improving environmental health as well.

Keywords: Menarche; menstrual hygiene; adolescent girls; hygiene practices; sanitary napkins; awareness, practices.

1. INTRODUCTION

Menstruation is a normal physiological process that indicates the start of reproductive life. But sometimes it's considered as an impure phenomenon within the Indian society thanks to cultural taboos and insufficient and half-truths and causes unnecessary restrictions within the day to day normal activities of the menstruating girls [1]. As a cultural practice, the knowledge is passed from mother to daughter which is usually not sufficient and sometimes even incorrect [2]. Girls also seek information from their peers who themselves don't know far better. Thus, there's an eternal information gap during this regard [3].

"The WHO and UNICEF(2014) have defined menstrual hygiene management as "Women and girls use clean menstrual hygiene management material to soak up or collect blood that can be altered in privacy as and when needed for the menstrual cycle using soap and water for laundry and access to equipment for the lack of used menstrual management products [1].

According to the World Health Organization, someone aged 10 to 19 years is taken into account as adolescence [4]. Adolescence is the transition phase between childhood and adulthood, which is characterized by the child's expansion and growth. The physical, psychological, and biological growth of the child takes place during this era [5]. During a girl's life cycle, it is recognized as a special time that requires special consideration. During the life of a woman, Menarche may be a crucial biological milestone because it marks the beginning of her life's reproductive process. Usually, the average age at menarche is consistent across cultures, that is, between the ages of 12 and 13 [6,7] Unfortunately, for women it gets worse because of lack of menstrual preparedness and

management skills or because of shyness and embarrassment. Menstruation may be a normal action, but because it is considered unclean and dirty [8].

Before their first encounter, a significant number of women have scanty awareness of menstruation because menstruation is certain stuff that are not always spoken off in homes. For women's education, health and dignity, a much better understanding of good menstrual hygiene is essential. Being a very significant sanitation problem, which has been inside the closet for a long time, there is still a long-standing need to address it openly. Most adolescent girls are unprepared to manage the cycle in terms of details, skills, and attitudes [9]. This lack of information poor personal sanitary practices during menstruation has been related to serious ill-health starting from genital tract infections, tract infections, and bad odor [10,11,12]. Reusable towels (cloth ripped from girl's clothes and cotton fabric) and commercially available disposable sanitary pads range from products used during menstruation as adsorbents in low-income countries. For addressing the menstrual hygiene needs of women in low-income countries, practical, sustainable, and culturally appropriate approaches are recommended [13].

In domestic solid waste or garbage cans, most women remove their sanitary pads or other menstrual items that inevitably become part of solid waste due to the lack of menstrual management practices across the world. Toilet facilities in India lack bins for the disposal of sanitary pads and handwashing facilities for menstrual hygiene for women who are menstruating.

They are lost by toilet flushing and dustbin throwing or solid waste management in urban

areas where modern disposable menstrual items are used [14], There are several choices, such as burying, burning and throwing garbage or pit latrines, for menstrual waste disposal in rural areas. Most women use reusable and non-commercial sanitary materials, such as reusable pads or clothes, in rural areas [15].

1.1 Rationale

The ability to hygienically handle menstruation is vital to women's integrity and well-being and is an essential component of basic hygiene, sanitation, and reproductive health services. Bad knowledge of physiology, unscientific beliefs, myths, and stereotypes, including the idea that their health and social lives are "contaminated", "dirty" and "impure" by menstruating women.

A key rationale in investing in knowledge and practices of menstrual hygiene since menstruation is considered something to not talk off and hence many girls are shy and they have a lack of awareness that contributes to bad menstrual procedures. Random throwing or burring sanitary napkins /clothes leads to soil and water pollution. Stray animals create a nuisance and maybe the channel for infectious disease transmission. Menstrual waste should be properly or hygienically disposed of. Many times girls may be unaware of safe disposal methods. Sometimes, because of family and social timidity, women may avoid their proper disposal. Hence practices of menstrual hygiene including waste disposal practices need to be assessed. Several research about menstrual hygiene have been performed. Identified gaps or barriers can be addressed by awareness activities which would be tailored for the respective community and would be conducted in their settings.

Keeping this view in mind, we have planned the interventional study in the community setting which will be included conducting various awareness activities for menstrual hygiene.

This study is planned to evaluate and compare the knowledge and practices of adolescent girls

in rural areas about menstrual hygiene and to improve it by conducting health awareness sessions.

1.2 OBJECTIVE

1. To study the knowledge and practices regarding menstrual hygiene among adolescent girls in rural area of Wardha district
2. To study the disposal practices of sanitary pad or clothes used during menstruation among adolescent girls in rural settings
3. To assess the effectiveness of Menstruation Awareness Activities in improving menstrual hygiene and waste disposal management practices conducted in their settings.

2. METHODOLOGY

Study design: This will be a community based interventional study (Randomized controlled trial).

Study settings: The planned study will be carried out in adopted villages of field practice area of the Department of Community Medicine, Jawaharlal Nehru Medical College of Wardha district.

There is a total of five adopted villages in the field practice area, namely Salod, Umari Meghe, Nimgaon Sabane, Waigaon (N), and Dahegaon Station.

Study participants: Adolescence girls of 12-19 years of Wardha district.

Study duration: Nine months.

Sample size and sampling technique: Two villages will be selected randomly in the district one intervention and the other control village. The sampling technique for the participants will be a complete enumeration of adolescent girls of selected villages.

Table 1. Vileege name and Adolescent girls

Sr No	Name of Village	No. of Adolescent girls
1.	Salod	250
2.	Umri, Meghe	84
3.	Nimgaon Sabane	32
4.	Waigaon(N)	285
5.	Dahegaon Station	90

The age group is between 12-19 years. A list of the adolescent girls will be obtained from the respective Anganwadi center and Gram Panchayat office.

Selection criteria for subjects under study:

Inclusion criteria:

1. The study will include adolescent girls of 12-19 years.
2. Residing permanently in the selected village.

Exclusion criteria:

1. Early adolescent girls of the year who has not attended menarche while conducting the baseline survey.
2. Adolescence girls who are not mentally fit will not be included in the study.
3. Migrants' girls will be excluded from the analysis, though they are involved in attending the activities.

2.1 Data Collection Tool

For quantitative data collection, a self-administered semi-structured questionnaire will be prepared and pretested. This data collection tool will be translated into the vernacular language (Marathi) and after retranslation, it will be validated with the help of language experts.

Qualitative data will be collected through focused group discussion (FGD), for this FGD guide will be prepared. Focused Group Discussion will be conducted during the baseline data collection that is before the intervention to understand the barriers and gaps in the knowledge and hygienic practices.

Data collection tool contain their socio-demographic profile, knowledge, attitude, hygiene practices during menstruation (types of absorbent used and method of its disposal). Confidentiality of the participants will be maintained for the data collected throughout the study.

Study variables:

1. Socio-demographic information.
2. Knowledge, attitude and practice of menstrual hygiene
3. Usage of absorbent and its disposal method.

Randomization: There is a total of five adopted villages in the field practice area, namely Salod, Umari Meghe, Nimgaon Sabane, Waigaon (N), and Dahegaon Station. Two villages from above five villages will be selected for the study randomly. One will be as an intervention arm in which intervention will be given and the other will be as a control arm with no intervention.

Baseline data: Baseline data will be collected from both the intervened and control group. A list of adolescent girls will be procured from Anganwadi and Gram Panchayat. The participants will be interviewed in their respective settings (schools, Anganwadi centers and houses) with maintaining complete privacy to assure the avoidance of disturbance or hesitation faced by the participants.

Intervention Package: A need-based intervention package will be developed based on data collected in the baseline survey.

Intervention will consist of various health awareness activities such as

Audio-visual sessions: Distribution of pamphlets containing information about the menstruation and menstrual hygiene.

Quiz activity to promote the involvement of girls to share their opinion.

Role play/skit by involving adolescents peer group.

Online Chatting group (What's app group- to share information, maintain connectivity and discussion).

These activities will be conducted in their respective settings according to their convenience and suitability such as Anganwadi center, schools, and houses.

[If COVID-19 pandemic situation will be not be resolved, then above intervention will be conducted on virtual platform].

In a control village, no intervention will be given.

End line data: End line data will be collected from both the intervention and control group. We will allow some waiting period of about 3-5 months after the intervention for behavioral change.

2.2 Data Analysis

Data will be analyzed using SPSS, Appropriate tables and graphs will be prepared, and inferences will be drawn using the Chi-square test and t-test.

2.3 Implications

This work will definitely assist in improving menstrual hygiene practices among adolescent girls. This study will encourage the participants to adopt and maintain good menstrual hygiene. This knowledge can be shared among peer groups. This behavioral change will be helpful to them throughout their reproductive life. So that there will be a decrease in reproductive tract infections. Environmental pollution which is caused by the disposal of menstrual absorbent in soil or water can be decreased. So, environmental health will be improved.

Expected results: This study will enhance the knowledge of adolescent girls regarding menstruation as well as it will help in improving ongoing menstrual hygiene practices.

3. DISCUSSION

In a research on the management of menstrual hygiene among women and adolescent girls was conducted by Shyam Sundar et al. in Nepal, a semi-structured questionnaire was used to collect quantitative data consisting of socio-demographic attributes, pre-earthquake menstrual behaviors, perceived needs and menstrual hygiene practices [13].

A comparative analysis of attitudes and practices regarding menstrual hygiene among teenage girls in urban and rural areas of the Jodhpur district was conducted to evaluate and compare adolescent girls' menstrual hygiene skills, attitudes and practices in rural and specific areas of Jodhpur. The differences in awareness, perception, and related behaviors were analyzed. Many disparities were reported between urban and rural teenage girls in awareness, interpretation, and activities related to menstrual hygiene [3].

A report by Jagruti Prajapati and Riddhi Patel entitled "Menstrual hygiene among adolescent girls: a cross-sectional study in the urban community of Gandhinagar." used the semi-structured questionnaire containing menstrual awareness subjects, a source of menstrual

details and hygiene practiced during menstruation [16]. A number of related studies were reviewed [17-19]. Selvanathan et. al. reported on quality of life after hysterectomy and uterus-sparing hysteroscopic management of abnormal uterine bleeding or heavy menstrual bleeding [20]. A few related studies were reported by Sawal et. al. [21] and Choudhary et. al. [22-27].

4. CONCLUSION

The conclusion will be drawn after completion of the final experiment.

CONSENT

All the participants selected for the study will be explained in detail about the study. Signed informed consent will be obtained from each participant and confidentiality of the data will be maintained throughout the study.

ETHICAL APPROVAL

Institutional Ethics Committee approval has been obtained from the ethics committee of DMIMS University.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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