

AN EDUCATIONAL STUDY OF PROMOTION OF SAFE AND HYGIENIC MENSTRUAL PRACTICES AMONG WOMEN AND ADOLESCENT GIRLS OF RURAL MADHYA PRADESH, INDIA

Community Medicine

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ABSTRACT

Introduction : Menstruation is a monthly periodic shedding of uterine lining in reproductive age females.^{1,2} Safe and hygienic menstrual practices and proper disposal of menstrual material is a big challenge in rural areas. To deal with the issue and to raise awareness about the proper hygienic practices an educational intervention program was conducted among the women and adolescent girls in the rural area of Jabalpur district madhya pradesh.

Materials & Methods : Cross-sectional and educational intervention study was conducted among 150 female participants. Information was collected through pre and post surveys after an educational programme with audio-visual aids, posters, pamphlets and small group meetings, in three months' duration.

Results : Among 150 female participants only 20% were aware of hygienic menstrual practices. After educational intervention, post survey, 24% more participants adopted the use of sanitary pads during menstruation while use of clothes was reduced. More number of participants adopted the practice of burning and burying for disposal of used menstrual materials. 21.33% more females adopted practicing hand washing after changing menstrual materials in a post survey.

Conclusion : After educational intervention for the promotion of awareness and hygienic practices, the number of females increased to adopt the use of sanitary pads during menstruation. Number also increased in safe methods of disposal of used menstrual materials. Practice of hand washing after change of menstrual materials was also increased among participants. Less number of participants reported genito-urinary infections. Thus this study suggests the need of educational awareness for promotion of good menstrual hygiene and safe practices, which are crucial for health, education and dignity of girls and women.¹

KEYWORDS

Mensuration, Menstrual Material, Hygienic Practice, Safe Disposal.

INTRODUCTION

Menstruation or 'Period' is defined as normal vaginal bleeding that occurs in monthly cycles, preparing women for pregnancy. It is partly blood and partly tissue from inside the uterus usually occurring 21 to 35 days around the 28 days period if no pregnancy occurs.¹ It is largely due to the rise and fall of female hormone level.⁴

Globally, approximately 26 % of the female population is of reproductive age group,¹ hence they experience menstruation as well as issues related to menstrual hygiene, right from menarche to menopause.² Women during menstruation require access to proper materials and facilities without which they suffer from poor menstrual hygiene which may restrict their movements and dwindle self confidence.³ Therefore hygiene related practices of women during menstruation are of considerable importance in terms of health impact and increased vulnerability to reproductive tract infections.^{5,6}

Menstrual hygiene is an issue that every girl and woman has to deal with once she enters adolescence⁷ around the age of 12 years and until she reaches menopause in her fortieth.⁵

Women and adolescent girls,⁷ having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive tract infections and its consequences.⁵ Use of unclean sanitary pads or material like clothes or used clothes and insertion of unclean material into the vagina make bacteria easier access to vagina, cervix and uterine cavity that may cause local and reproductive tract infection.^{1, 6} Unsafe disposal of used sanitary materials may have potential risk of infecting others especially with Hepatitis B and rarely with HIV.^{1,6} Washing the hands properly is of utmost importance after the woman has wrapped and discarded the used napkins.⁸ Lack of handwashing after changing of menstrual material can also lead to spread of infections such as Hepatitis B or thrush.^{1,9}

Menstruating females from rural areas must be made aware of menstrual hygiene management that encompasses menstrual health and hygiene and an adequate knowledge to have access to menstrual hygiene products to absorb or collect the flow of blood during menstruation, privacy to change the materials and also access to the facilities to dispose of used menstrual materials.¹⁰

The Government of India in association with many state governments in 2019, implemented a 'Menstrual hygiene programme' for adolescent girls that combines health education, regular supply of sanitary pads/napkins and enabling them to other sanitary practices.¹¹

Ministry of health and Family welfare Government of India has introduced a programme of promotion of menstrual hygiene among women and adolescent girls in rural areas with the objectives to increase the awareness among the adolescent girls on the menstrual hygiene increase the access to and use of high quality sanitary napkins in rural areas and to ensure safe disposal of sanitary napkins in an environment friendly manner.¹¹ 'Freedays' scheme was implemented in 2011 for free distribution of the sanitary pads to the adolescent girls at the subsidised rate of Rs. 6 per pack focussing rural areas,¹¹ and on International Women's Day in 2018, launched a campaign "#YesIBleed" to create holistic approach to the issue of menstruation, that transcends class, culture and caste boundaries.¹²

In March 2018, Maharashtra government launched "Asmita Yojana" to provide sanitary pads to school girls and women at affordable price.¹³ Despite such efforts, a sizable section of rural women and adolescent girls face problems related to menstruation, hygiene and safe disposal practices.

Therefore, this study was intended to increase knowledge about hygienic menstrual practices and safe disposal of used menstrual material right from adolescence which may escalate safe practices and help in mitigating the suffering of women and adolescent girls in rural areas.²

MATERIALS & METHODS

Before commencing the study, a pilot study was done to know the feasibility of the study and any requirement to modify the questionnaire. This was a community based educational interventional two point cross-sectional study conducted in village Behdan situated in rural area of district Jabalpur M.P. in three phases, 1st pre survey, 2nd educational programme to the participant females, 3rd post education survey. The participants were explained regarding the purpose of the study, verbal informed consent was taken from each

participant, prior to the data collection. Due care was taken to ensure privacy and confidentiality of information. The participants who gave the consent were interviewed by house to house survey with the help of predesigned, semi- structured questionnaire that included topics relating to awareness about the use of sanitary method during menstruation, hygiene practiced during menstruation, hand washing before after changing of menstrual materials and genitourinary tract problems or white discharge and way of disposal of used menstrual materials (clothes or sanitary pads). Variables include general information, questions regarding the knowledge and practice of menstrual hygiene and methods used for disposal of menstrual materials. After this survey participants were given education about the use of the safe and hygienic materials during menstruation, importance of handwashing and safe disposal of used menstrual material by practicing, burning, burying or not throwing in open space. All the participants were educated by using audio visual aids, pamphlets, posters and small group meetings. Follow-up visits were given to participants to ensure proper hygienic practices. After a two months period, a post educational survey was conducted on the same participants. Information was collected and the statistical analysis was done with the application of the statistical tests. The study was approved by the institutional ethical committee, medical college Jabalpur. Study population and Sampling - a total of 150 female participants, both married women and adolescent girls from rural areas. Purposive sampling method was adopted. Study design: Cross-sectional and educational intervention. Place of study: Village Bahden district Jabalpur Madhya Pradesh. Duration of study: September 1, 2018 to December 1, 2018. Inclusion criteria: Menstruating women and adolescent girls who have given consent. Exclusion criteria: Women and adolescent girls who did not give consent. Non-menstruating women and adolescent girls. Statistical analysis was done using SPSS (version 23, IBM, USA; 2015).

RESULTS

Table 1

Socio-Demographic Profile Of Study Population (N= 150)

Variables	No (%)
Marital Status	
Married Women	113 (75.33)
Adolescent Girls	37 (24.66)
Caste Category	
General	9 (6)
Other Backward Caste	66 (44)
Scheduled Caste	63 (42)
Scheduled Tribe	12 (8)
Educational Status	
Illiterate	6 (4)
Middle	40 (26.66)
High School	64 (42.66)
Higher Secondary	38 (25.33)
Graduate	2 (1.33)
Family Socio-Economic Status ¹⁴	
I	0 (0)
II	0 (0)
III	6 (4)
IV	24 (16)
V	120 (80)
Family Occupation	
Service	6 (4)
Farmers	62 (41.33)
Labourers	82 (54.66)
Awareness about hygienic practices	32 (20)

Note: Among 150 participants 113 (75.33%) were married women and 37 (24.66%) were adolescent girls. Only 32 (20%) study participants were aware about the use of hygienic practices during menstruation. The majority (44%) of females belonged to the OBC community, followed by 42% of SC category. The majority of (54.66%) participants belonged to labourer families, 41.33% were from farmer families, only 4% belonged to service families. Most of the females (42.66%) were educated upto High School. The majority of study participants (80%) belonged to lower socio-economic stratum - V.¹⁴

Table 2

Distribution Of Females Using Sanitary Methods In Pre And Post Education Intervention Surveys N=150

Participants Females	Females Using Clothes			Females Using Sanitary Pads		
	Pre (%)	Post (%)	Change (%)	Pre (%)	Post (%)	Change (%)
Married Women n= 113	98 (86.72)	63 (55.75)	-35 (30.97)	15 (13.27)	50 (44.24)	35 (30.97)
Adolescent Girls n= 37	6 (16.21)	5 (13.57)	-1 (2.7)	31 (83.78)	32 (86.48)	1 (2.70)
Total: N=150	104 (69.33)	68 (45.33)	-36 (24)	46 (30.66)	82 (54.66)	36 (24)

Note. Study shows that (N=150), 104 (69.33%) participants were using clothes and 46 (30.66%) used sanitary pads during their menstruation in pre survey, whereas in post survey after educational intervention program the use of clothes reduced to 68 (45.33%) and increase in use of sanitary pads to 82 (54.66%) was recorded, that showed a significant association with use of sanitary methods and pre and post education change in hygienic menstrual practices. (The chi-square statistic is 17.6599. The p-value is .000026. The result is significant at $p < .05$). Study also recorded that 86.72% married women (n= 113) and 16.21% adolescent girls (n= 37) were using clothes in pre survey, but in post survey after education intervention its use was reduced to 55.75% in married women and 13.57% in adolescent girls. (The chi-square statistic is 0.1723. The p-value is .678104. The result is not significant at $p < .05$). It shows that there is no significant association between sanitary method (clothes) and marital status of participants. In a pre survey 13.27% married women and 83.78% adolescent girls were using sanitary pads which was increased to 44.24% in married women and 86.48% in adolescent girls in the post survey. (The chi-square statistic is 9.4875. The p-value is .002069. The result is significant at $p < .05$). It shows that use of sanitary pads, after education awareness has been found to increase significantly with thier marital status.

Table 3 *Distribution of females practicing methods of disposal in pre and post survey, N= 150*

Method of disposal	Pre survey %	Post survey %	Change %
Burning	116 77.33	126 84	10 6.67
Burying	8 5.33	12 8	4 2.67
Open Field Disposal	26 17.33	12 8	-14 -9.33

Note. Depicts the different methods of disposal of menstrual materials practiced by study participants. In a pre education survey, 116 (77.33%) participants were using burning, 8 (5.33%) used burying and 26 (17.33%) were having open field disposal of used menstrual material waste. A significant change occurred in a post survey, related to methods of disposal of menstrual materials, burning increased to 126 (84%), more number of participants used burying 12 (8%) whereas habit of open field disposal by participants dropped to 12 (8%). (The chi-square statistic is 6.3711. The p-value is .041355. The result is significant at $p < .05$.) It shows that after education intervention, awareness regarding hygienic disposal has been found to increase significantly.

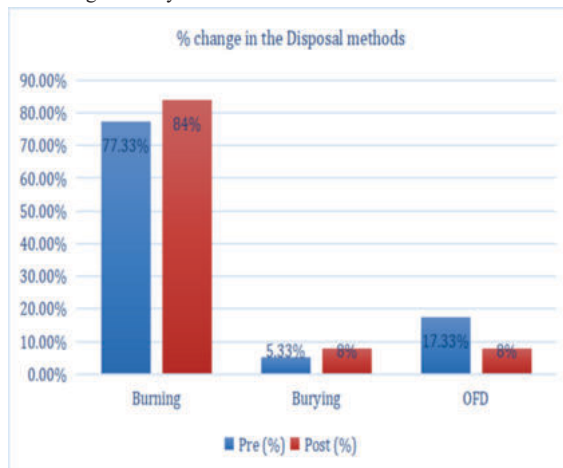


Figure 1

Showing Change In Percentage Of Participants Practicing Hygienic Method Of Disposal Of Menstrual Materials In Pre And Post Surveys.

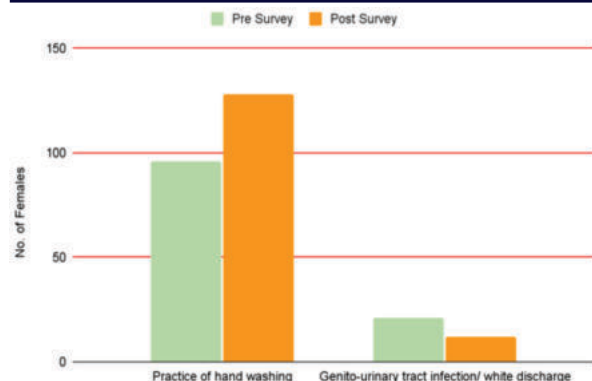


Figure 2
Distribution Of Females Practicing Hand Washing And Genitourinary Tract Infection/ White Discharge In Pre And Post Education Intervention Surveys. (N=150)

Note. In the pre education survey (N=150), 96 (64.2%) women were practicing hand washing after the change of menstrual materials, which was increased to 128 (85.81%) in the post education survey. Participants found with genito urinary tract problems (white discharge) were 21 (14%) in the pre education survey, while less number of participants 12 (8%) reported in the post education survey.

DISCUSSION

Periods are the integral part of a woman's life and so are the sanitary pads which are mostly made up of cotton to absorb the menstrual blood.¹⁵ In our study it was found that 69.33% participants were using clothes and 30.66% sanitary pads as menstrual absorbent. In a study conducted at Kancheepuram by Angeline Grace G et al found that 28.6% of the females reported the use of sanitary pads during menstruation. Other absorbent uses were disposable clothes by 46.3% and reusable clothes 25.1%.¹⁶ After education intervention post survey shows that use of clothes reduced to 45.33% whereas use of sanitary pads was enhanced to 54.66%. According to National family health survey (2015-16), 58% of women aged 15 to 24 years used locally prepared napkins, sanitary napkins and tampons about 78% of women in urban areas use hygienic methods of protection during menstrual period, whereas only 48% of the women in the rural areas have access to sanitary napkins.¹⁷ Our study showed 13.27% of rural women were using sanitary pads, whereas (NFHS-4) 2-3% of women living in rural India use disposable sanitary napkins.¹⁷

Our study found that 83.78% adolescent girls were using sanitary pads that were enhanced to 86.48% after education awareness about the safe and hygienic method. In a study by Das Gupta et al found that the only 11.25% of the adolescent girl in the rural area were using sanitary pads.¹⁸ Sawmya et al 2014, in her study of menstrual hygiene practices found that 51.5% adolescent girls were using sanitary pads or napkins as menstrual absorbent while 45.6% were using the clothes. 97.6% of the girls practice any type of the restriction during menstruation.⁵ In a study by Prajapat J et al 2015, found that 26.1% of adolescent girls were using sanitary pads, whereas 33.8% of them faced the problem of drying and washing.¹⁹

In the current study we found that of the methods of disposal of used menstrual materials, 77.33% females were practicing burning, 5.33% used burying and 17.33% were using open field disposal. In a study conducted by Rajasri G et al, (2020) 37.7% of the girls disposed of their pads by burning, 4.9% buried them and 50.8% disposed of in dust bins.²⁰ A study conducted by Hema Priya et al (2017) at Puducherry reported that 60.8 % of girls burnt or buried used menstrual absorbent.²¹ In a study by Sharma N. found that 7% girls flush down the menstrual absorbent in toilets and 4.51% through it in open spaces.²² By using unclean sanitary pads or clothes bacteria may have easy access to vagina causing local infection and travel up to the vaginal cervix, and enter the uterine cavity causing various reproductive tract infections.^{1,6,9} In our study 14% participants reported the problem of genito urinary infection (white discharge) in the pre survey, which was reduced to 8% in the post survey after educational intervention. Nair et al 2019, in a study at Bhopal found that 56% of girls were aware of vaginal discharge with foul smell due to unhygienic practices during menstruation.^{23,6} Unsafe disposal of used sanitary materials may have potential risk of infecting others specially with Hepatitis B.¹ In the

present study, in a post survey 85.81% participants were practicing hand washing after changing of menstrual materials. Similar result was reported in the study by Rajbhandari A K et al in 2018 in Nepal where 98.8% females practiced hand washing after changing menstrual pads.²⁴ Lack of hand washing after changing menstrual materials can lead to spread of infection such as hepatitis B or thrush.^{1,9} In a study by Rajasri et al (2020) in Karnataka found that 79.2% of the urban and 73% of rural girls said that they had adequacy of water and other sanitation facilities at school.²¹ In urban areas where modern disposable menstrual products are used, they dispose of them by flushing in toilets and throwing in dustbin or through solid waste management,²¹ but in rural areas there are many options for disposing menstrual waste such as by burning, burying and throwing in garbage or in a pit.^{1, 21,25}

CONCLUSION

The present study shows that the significant shift was found among participants in adopting sanitary methods and safe disposal of menstrual materials. Thus an effective change and improvement occurred in safe menstrual hygiene practices and in proper method of disposal of menstrual material, including hand washing and reduced genitourinary tract infections (white discharge), after the educational intervention program. It indicates that if awareness is made among the rural women and especially among adolescent girls, right from the early beginning of the menstrual period or menarche, the habit of adopting hygienic practices and safe disposal of menstrual materials can be established. Hence promotion of safe hygienic practices and hand washing can be helpful to prevent the unsafe menstrual practices and reduce genito-urinary tract related health problems among the rural women and adolescent girls. The Government and Non governmental organisations (NGOs) should come forward to make women aware of proper menstrual hygiene and safe disposal with provision of adequate funds. Further scientific research is needed to encourage suitable disposal techniques and safe and hygienic menstrual practices in rural areas and urban slums.²⁵

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