International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Tiwari HM et al. Int J Reprod Contracept Obstet Gynecol. 2026 May;15(5):1727-1733
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20261276

Original Research Article

Effectiveness of menstrual health and hygiene management training program among tribal women of Jharkhand

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Received: 16 March 2026
Revised: 17 April 2026
Accepted: 18 April 2026

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ABSTRACT

Background: Menstrual health is one of the many common biological processes that women experience and yet they face challenges to adapting healthier practices due to societal and cultural norms attached to the subject. The intensity of the issue is magnified for tribal women due to a lack of knowledge and accessibility to facilities. CInI (Collectives for integrated livelihood initiatives), Jharkhand based grassroot organization in collaboration with its 6 (FPC) farmer producer companies) implemented menstrual hygiene management (MHM) training for women from 7 blocks across 6 districts.
Methods: This study examines the effectiveness of the MHM program for tribal populations to assess their knowledge, attitudes and infrastructure facilities. A cross-sectional study was conducted amongst the MHM program attendees. Data was collected using questionnaires pre- and post-training from 465 participants.
Results: The post-training answers showed significant improvements in the understanding of menstruation. The 97.6% considered menstruation to be a normal biological process, and 43.4% adopted the practice of changing sanitary napkins three times a day.
Conclusions: The study highlights the need to tailor the menstrual health management program to the context of the community. The model leveraging existing community leaders and practitioners accelerates the program participation and outcome.

Keywords: Menstrual health and hygiene, Tribal women, Tribal health, Training and capacity building, Debunking myths around menstruation, Sanitary practices, Jharkhand

INTRODUCTION

Menstruation is the monthly shedding of blood and tissue from the lining of the uterus in the absence of pregnancy.[1] Menstrual health is complete physical, mental, and social well-being concerning menstrual health.[2] Out of 1.9 billion individuals who menstruate, about 500 million suffer from menstrual disorders. Menstrual health is a reproductive and sexual health issue and is affected by social determinants of health. Period poverty, which is defined as having insufficient access to menstruation education, period products, or proper water sanitation and hygiene facilities, affects millions of women globally.[2]

Poor menstrual hygiene practices are associated with a higher prevalence of reproductive tract infections and gynecological problems.[3] According to DLHS-4 conducted in 2012-13, 10.9% of women suffer from menstrual problems in India. The prevalence of women with menstrual issues was highest among the 36-40 years

age group, early age of marriage, women with no education, those using dry toilet facilities, and those belonging below the poverty line. Most common problems experienced were painful periods (5.4%), irregular periods (4.2%), frequent/short periods (1.5%), prolonged bleeding (1.3%), no period (1.1%), scanty bleeding (0.8%), excessive bleeding (0.6%), and intermenstrual bleeding (0.3%). A history of abnormal vaginal discharge in the past three months was significantly associated with high prevalence of menstrual disorders.[4]

In rural and tribal parts of Jharkhand and neighboring states teenage girls, and women face issues related to menstrual health and hygiene. Research indicates that tribal adolescent girls have a low understanding of menstruation; only 48.67% were aware of it before menarche.[5] Many women experience limitations during their periods, such as being excluded from social and religious events and using old garments as absorbents.[6]

Menstrual health and hygiene management (MHM) training conducted previously showed promising results in improving knowledge and practices among women and girls from low and middle-income countries. Awareness training, like the Jalodari Project in Assam, covered topics of menstrual basics, reproductive health, and hygiene practices. It was seen to empower participants and enhance their ability to manage menstrual health effectively.[7,8] In Gujarat, an intervention strengthening public health programs improved MHM knowledge and practices among tribal adolescent girls.[9] However, cultural barriers and sanitary waste disposal issues continue to persist.[10] A systematic review revealed a low prevalence of sanitary pad use (2%) and proper disposal methods (1%) among Indian tribal females, which highlighted the need for accelerated awareness programs and tribal health policies.[11]

The MHM Program represents the flagship initiative by the CInI in collaboration with six FPC operating several self-help groups (SHG) in seven blocks across six districts including Hazaribagh, Dumka, East Singhbhum, Deoghar, Khunti, and Dhanbad in Jharkhand. Recognizing the multifaceted challenges faced by these communities, the FPCs and CINI jointly undertook the pivotal task of addressing pertinent issues through the initiation of the MHM program. This study aims to assess the effectiveness of the MHM training program on the knowledge and practices of tribal women of Jharkhand.

METHODS

A cross-sectional study was conducted to assess the knowledge and practices among women in the intervention districts pre and post-training. The MHM program was executed during the period from April 22-August 23. The FPCs in the intervention areas were engaged. Figure 1 depict the intervention districts.

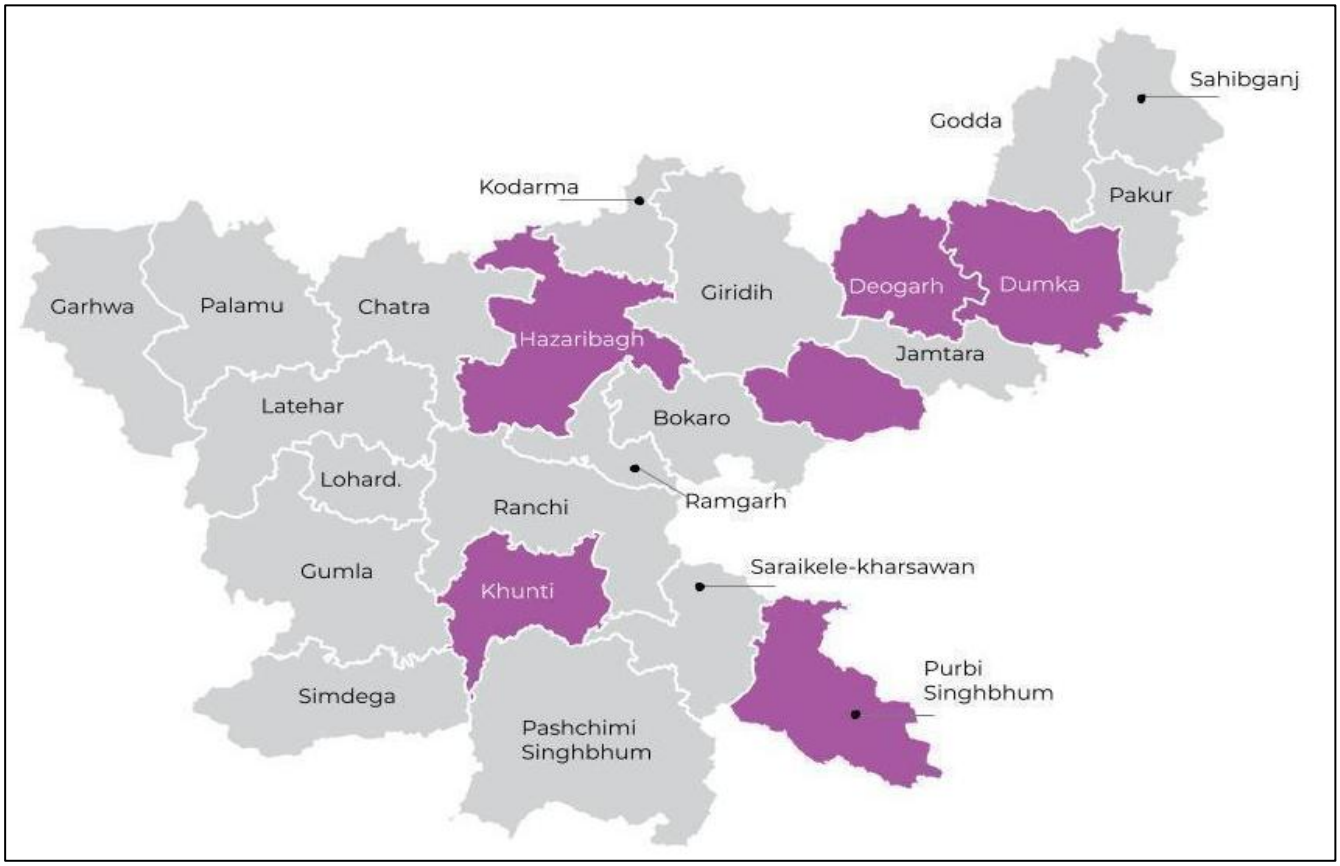

Figure 1: Intervention districts of MHM program in Jharkhand.

The FPCs exhibit an average membership of 2000 women per FPC. Any married woman can become a FPC member. The overarching objective of the FPCs is centered on the augmentation of per capita income through the adoption of advanced farming practices. To facilitate this, participants receive mentorship, access to market linkages, and the provision of necessary machinery. Facilitated by trained coordinators, the program was delivered in native languages, incorporating practical demonstrations to enhance the efficacy and engagement of the training sessions. For every district, a team of 5 members was formed which included health program coordinators/ trainers, village volunteers, and support staff. Figure II demonstrates the FPC organizational structure.

Women were pre-informed about the MHM sessions during FPC meetings, as well as through outreach efforts run by the volunteer team. The provision of snacks during training sessions acted as a motivator for the participants. The questions were further broken down into personal anecdotes and simple examples to make it easier for the participants to understand. The training component of the program encompassed four modules distributed over four weeks. Figure 3 displays the components of each training module.

A total number of 35000 women were covered under the training program. However, FPC members who attended all 4 MHM training modules were selected to undergo baseline and end-line surveys (n=7121). The respondents were selected purposely for the study. Hence the final number of participants in the study was 465. All women of reproductive age as well as post-menopausal women were included in the study. Among Indian women, the age of menarche varies between ages 7 to 15 years, whereas the age of natural menopause varies between 40-50 years.[12,13] Figure 4 depicts the selection of respondents for the study.

Baseline and end-line survey was conducted between an interval of 6 months. Data collection was done by the village volunteers through interviewers administered structured questionnaires. Informed consent was obtained from each respondent. The questionnaire comprised a total of 24 questions in the Hindi language which were verbally translated into various tribal languages. Village volunteers working as the coordinators of the MHM program were trained in interview techniques before conducting the study.

The questionnaire contained sections of knowledge and practices that comprised topics involving the basics of menstruation, support systems, myths, health-seeking behavior, awareness of various menstrual products, prevailing menstrual practices and available infrastructural support. Data was analyzed using Microsoft excel. Univariate analysis was done.

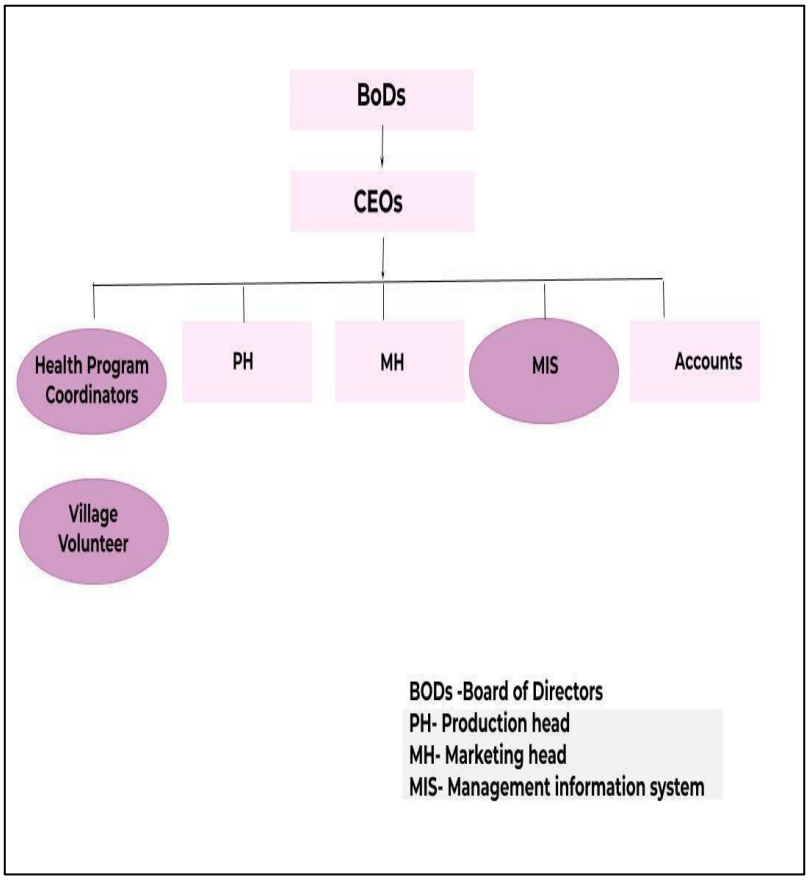

Figure 2: FPC organizational structure.

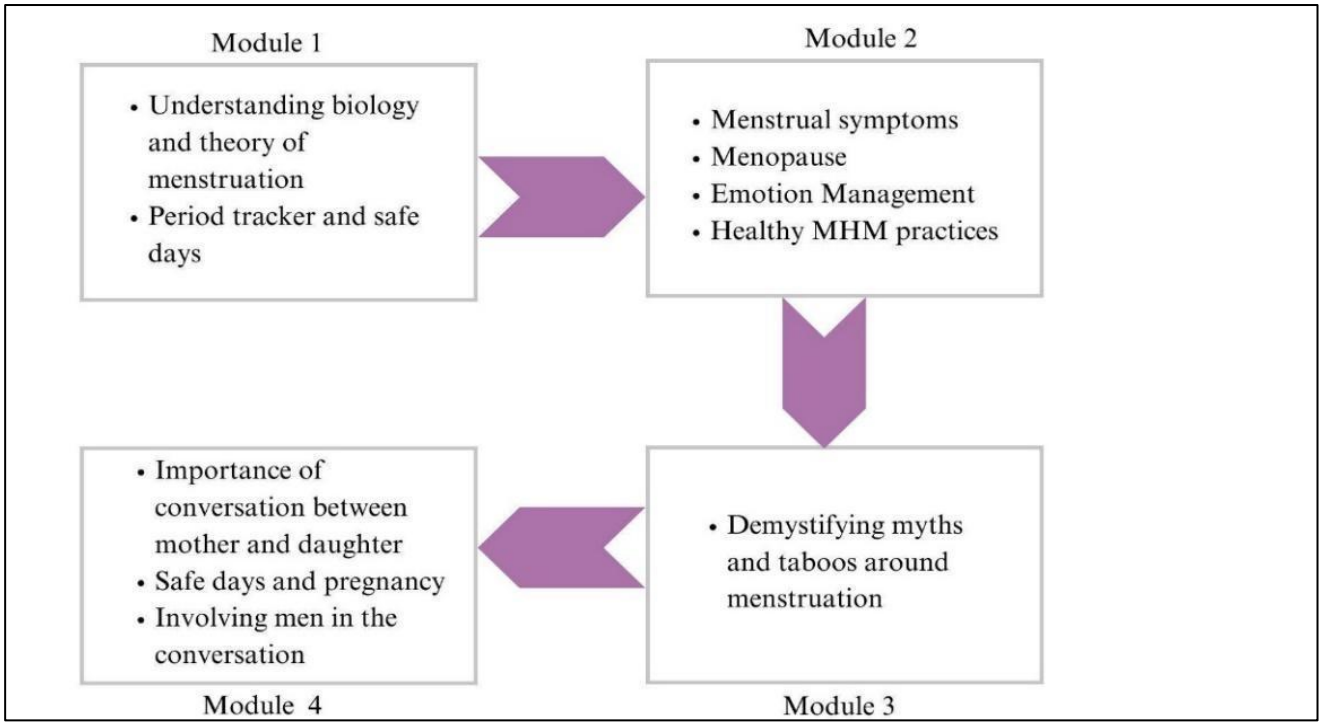

Figure 3: Components of the training module.

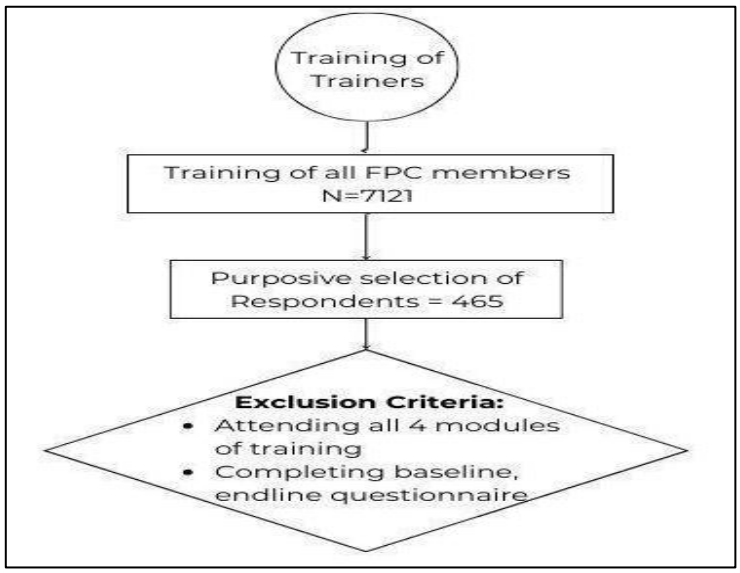

Figure 4: Selection of respondents.

RESULTS

Table 1 shows the socio-demographic characteristics of the respondents. The mean age of the respondents was 30.5 years. 84% of the respondents were married.

Table 2 shows the baseline and end-line findings regarding menstruation-related knowledge of respondents. A significant shift was seen in women's understanding. 37.5% of the women believed that menstrual blood is dirty however this figure significantly declined to 1.3% after the training. Post training 97.6% of the women recognized that menstrual blood is a normal biological process compared to only 49.7% who agreed with this statement during the baseline survey. The 29% of the women had poor knowledge regarding the harmful white secretions from the vagina during the baseline survey which decreased to only 1.1% of the women post-training.

Table 3 shows the practices of the respondents followed during menstruation. The usage of cloth and sanitary napkins grew to 40.3% in the end line which is a 13% increase in the overall number. However, the answer to using sanitary napkins reduced from baseline to end line

by 7%. For women adapting the practice of changing napkins 3 times a day, the number grew 5 times leading to 43.3% by the ending which was earlier limited to 8.39%. Only 41.5 % (193) of the women using cloth pads dried up the washed pads in the sun; however, this number rose to 80.64% (375) post-training.

Women who used to throw napkins in ponds or open premises were significantly reduced to less than 1% while 66.2% of women started burning as the means of disposal of used menstrual products. The practices related to restricted access to religious places and isolation of the women under the cycle decreased to 1.3%, and 9% respectively. 82.8% (385) noted never visiting a doctor for any menstrual-related issues at the program's start which remained relatively unchanged at 81.51% after the program's completion.

Table 4 highlights the infrastructure details of the area. More than 50% of the respondents had to travel 1-5 km to purchase sanitary napkins. Only 1% (5) received napkins from Anganwadi and Asha workers. 84.5% of the women mentioned having attached toilets at home ensuring convenience and privacy.

Table 1: Socio-demographic characteristics of the respondents, (n=465).

Socio-demographic characteristics	N	Percent
Age (in years)		
Below 15	39	8.38
16-45	408	87.74
46 and above	18	3.87
Marital status		
Married	391	84%
Unmarried	74	16%

Table 2: Knowledge regarding menstruation among the respondent, (n=465).

Knowledge statements	Baseline	%	Endline	%
Menstrual blood is normal	231	49.7	454	97.6
Menstrual blood is dirty	166	35.7	6	1.3
Menstrual blood and urine come from the same place	158	33.9	21	4.5
Menstrual blood and urine do not come from same place	212	45.6	437	93.9
White secretion is not harmful	139	29.8	5	1.1
Menstruation is not related to pregnancy	24	5.2	8	1.7

Table 3: Practices followed during menstruation, (n=465).

Particulars	Options	Baseline	%	Endline	%
Menstrual products	Cloth	108	23.4	89	19.1
	Sanitary napkin	223	47.9	187	40.2
	Both	129	27.7	188	40.3
Sanitary napkin purchase	Self	185	39.8	113	24.3
	Husband	73	15.7	50	10.7
	No response	71	15.27	63	13.5
	Multiple purchasers	89	19.1	221	47.5
Change pad thrice a day	-	39	8.4	202	43.4
Drying cloth outside in the sunlight	-	193	41.5	375	80.6
Disposal of used napkins	Burn	59	12.7	308	66.2
	Throwing in open	30	6.4	1	0.2
	Throwing in river/ pond/ lake	64	13.8	1	0.2
Visit religious places during periods	Yes	123	26.4	413	88.8
	No	292	62.8	42	9
Isolation during periods	Yes	272	58.5	455	97.8
	No	118	25.4	6	1.3
No entry to kitchen during periods		63	13.5	4	0.8
Had gynecological consultations for menstrual irregularities		385	82.8	379	81.5
Discussion related to menstruation with others	Husband	100	21.5	63	13.5
	Mother	57	12.3	25	5.4
	Friend	109	23.4	52	11.2

Table 4: Infrastructure facilities, (n=465).

Particulars	N	Percentages (%)
Have to travel 1 to 5 km to buy sanitary pads	233	50.1
Buy sanitary pads from village shops	280	60.2
Buy sanitary pads from Anganwadi / Asha workers	5	1
Toilet facility at home	393	84.5

DISCUSSION

This study was conducted to assess the knowledge and practices among tribal women of Jharkhand and the shift in their behavior post-MHM training. The baseline findings of the study reveal that knowledge regarding menstruation is lacking in the tribal areas of Jharkhand. The initial and most prevalent myth concerning menstrual blood is its perceived impurity and lack of hygiene, a belief held by 35.7% of women as noted in the baseline. A study that was conducted in Bengaluru in 2019, revealed that 75.2 % of the students believed that menstrual blood is poisonous whereas 56.9% of the students of a school believed that menstrual blood originated in the urinary bladder[14] as compared to 46.9% of the respondents during our baseline survey. In the same study, better menstrual practices were observed including drying of cloth pads in the sun, and proper disposal of sanitary napkins as opposed to poor practices followed by the respondents of the current study. This could be attributed to the fact that the above-mentioned study was carried out among school students in an urban district. It also shows the socio-economic disparities among urban and tribal areas of India. The restrictions to holy places and social isolation as reported in the current study are prevalent all over the country.[14,15]

Significant improvements in knowledge, attitude, and practices among tribal women were seen when we compared the baseline and end-line results of the study, proving the effectiveness of the MHM program. The understanding that urine and menstrual blood come from separate anatomical structures improved significantly among women, increasing from 45.6% to 93.9% after training. Similarly, in a study conducted among adolescent girls in Maharashtra, the impact of structured education on menstrual hygiene was evaluated. There was a profound shift in knowledge, with the percentage of girls correctly identifying that menstrual blood comes out of the vagina increasing from 32% to 93% after health education.[15] The percentage of women who changed pads three times a day also improved significantly. Similarly in another study, 17% of the girls reportedly changed their pads 6 hourly which increased to 71 % after training. The study also noted major improvements in knowledge and understanding regarding the drying of cloth pads in the sun and the proper disposal of used sanitary pads.[15]

The mother is the primary source for the information to be received for menstruation. In a study conducted with adolescent girls in the Kanyakumari district, 93% of the participants approached their mother for menstruation-related issues, confirming the belief contradictory to this study where the highest number of participants (23%) relied on friends.[16] Other studies indicate that most adolescent girls depend on external sources such as teachers and not mothers or sisters to talk about menstruation indicating the uneasiness around the subject.[17]

Knowledge regarding harmful secretions from the vagina was scarce among the respondents, which however improved post-training. Abnormal white discharge, a common issue for Indian women, can indicate reproductive tract infections[18] or future malignancies.[19] Sadly, it was noticed that visiting a doctor or medical facility for menstrual irregularities was not a common habit in the study population. In a population-based cross-sectional study in rural parts of India, 92% of the women were found to have gynecological diseases, however only 8% were found to ever have received some sort of treatment indicating huge gaps in health-seeking behavior of women and access to medical services.[20]

This study did not cover the other demographic factors such as educational qualification, financial background, and family size of the participants which are important determinants for behavior. Having answers for baseline and end line was the criteria in deciding the sample size, which means less than 10% of the population out of the total number of participants participating in the study was considered. Questions related to vaginal infection or gynecological issues were unanswered by more than 75% of the women, the reason for which remains unclarified, necessitating further investigation to understand if there was a lack of clarity in the question or a communication gap resulting in no responses.

CONCLUSION

The program highlighted the need for awareness initiatives that communicate and understand women's menstrual needs and journey. Understanding the local context and tailoring the program to the audience's needs will bring a larger impact and will lead to behavioral shifts as seen during the initiative.

ACKNOWLEDGMENTS

The authors would like to thank to Mr. Ganesh Neelam for the guidance.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Tiwari HM, Meet S, Rahul RR, Oswal K, Chhabra R, Rana U, et al. Effectiveness of menstrual health and hygiene management training program among tribal women of Jharkhand. Int J Reprod Contracept Obstet Gynecol 2026;15:1727-33.