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MENSTRUAL HYGIENE MANAGEMENT AMONG THE RURAL ADOLESCENTS OF RANCHI, JHARKHAND- A CROSS SECTIONAL STUDY.

Community Medicine

Dr Kashmira Jilani PG Student, Dept Of Community Medicine, Rajendra Institute Of Medical Sciences, Ranchi

Prof (Dr) Vidyasagar* Professor, Dept Of Community Medicine, Rajendra Institute Of Medical Sciences, Ranchi *Corresponding Author

Dr Chandramani Kumar Assistant Professor, Hazaribagh Medical College, Hazaribagh, Jharkhand

ABSTRACT

Background- Menstrual hygiene management (MHM) has become a globally recognized public health topic. The taboos surrounding this issue in the society prevents girls and women from articulating their needs and the problems of poor menstrual hygiene management have been largely ignored or misunderstood.
Aims and Objectives- This study aims to assess the status of menstrual hygiene management (MHM) among the study subjects.
Methods- Community based cross sectional study. Late adolescent girls (15-19 yrs) constituted the study population. Sample size calculated was 400. The sampling technique used in this study was a multi stage random sampling.
Results- Maximum participants used cloth 183 (46.2%) during menses, while 151 (38.1%) used both cloth as well as sanitary pads. Only 62 (15.7%) used only sanitary napkins. Majority 309 (92.5%) re-used the cloth. Among them 258 (83.5%) washed the cloth with soap and water while only 90 (29.1%) were able to dry the cloth in the sunlight. Maximum number of the participants disposed the absorbents in the trash 206 (52%).
Conclusion- MHM is not well observed among the rural adolescents.

KEYWORDS

MHM, Rural, Adolescents

INTRODUCTION

WHO and UNICEF(2014) have defined MHM as "Women and girls using clean menstrual hygiene management material to absorb or collect blood, that can be changed in privacy as and when necessary for the duration of the menstrual period, using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management materials."[1] Since 2014, May 28 is observed as the Menstrual Hygiene Day worldwide to raise awareness regarding the challenges women and girls face to deal with menstrual cycles and highlight solutions implementable at global, national, and local levels to address these issues.[2] Water, sanitation, and hygiene (WASH) play a large role in the lives of adolescent girls and women, both biologically and culturally. Gender equity becomes an issue when women and girls lack access to WASH facilities and appropriate hygiene education, affecting a girl's education, sexual and reproductive health, and dignity. Lack of adequate facilities and materials for menstrual hygiene has been linked to absenteeism of girls from school during their periods. Many may permanently drop out of school with the onset of puberty if the toilet facilities are not clean or do not provide privacy to girls while they are menstruating.

Around 1.2 billion adolescents today make up 16 percent of the world's population. Thus one in six of the world's population is adolescent. More than half of all adolescents globally live in Asia.[3] The average age of menarche in Western European countries appears to have dropped over the past 150 years from over 16 to under 14 years old. Menstrual hygiene management (MHM) has become a globally recognized public health topic. Menstrual hygiene management is a problem for adolescent girls in low and middle income countries (LMICs), particularly when attending school. Girls and boys are likely to be affected in different ways by inadequate water, sanitation and hygiene conditions in schools, and this may contribute to unequal learning opportunities. Sometimes, girls and female teachers are more affected than boys because the lack of sanitary facilities means that they cannot attend school during menstruation.[4].

India has the largest adolescent population in the world. There are over 355 million menstruating women and girls in India, but millions of women across the country still face significant barriers to a comfortable and dignified experience with menstrual hygiene management (MHM). Menstruation is still a taboo in India and it is common for people across society to feel uncomfortable about the subject. Coupled with it, is the fact that there is lack of information on the process of menstruation, and proper requirements for managing menstruation. The taboos surrounding this issue in the society prevents girls and women from articulating their needs and the problems of poor menstrual hygiene management have been largely ignored or misunderstood. Good menstrual hygiene is crucial for the health, education, and dignity of girls and women. In many families, the mother has limited experience in explaining the management of menstruation with regard to schooling, mobility or outdoor activities. Communities should be aware of the barriers to menstrual hygiene management that girls face in school, as well as their role in enabling girls to successfully manage menses in school and at home.[5] Taking cognizance of the quantum of morbidity and poor quality of life that a woman would have to bear in the absence of proper MHM perception and practices in the country, Government of India has incorporated MHM into national policies and programs as part of initiatives for improving health, well-being, and nutritional status of adolescent girls and women, as well as for reducing school absenteeism of adolescent girls. MHM has been made an integral part of the Swachh Bharat Mission Guidelines. Ministry of Drinking Water and Sanitation has published operational guidelines to be implemented by state governments, district level officials, engineers, and school teachers for improved MHM in the country.[5]

In Jharkhand only about 40% of rural aged 15-24 years use hygienic methods of protection during their menstrual period.[6] It is therefore the responsibility of those with influence – including government officials and teachers, to find appropriate ways to talk about the issue and take necessary actions.

Women and girls constitute half of India's population. Yet, gender disparities remain a critical issue in India impacting women and girls' education, health, and workforce participation. Data shows that girls are largely on par with boys up to adolescence, but with the onset of puberty, outcomes for girls begin to diverge and girls face increasing restrictions to their mobility and agency. Good menstrual hygiene triggers health, confidence, and self esteem of women and is linked to gender equality and basic human rights.[7]This study aims to assess the status of menstrual hygiene management (MHM) among the study subjects.

METHODS

Jharkhand was created on November 15th, 2000 as 28th state of Indian union with Ranchi as capital. As per census 2011, total population of Ranchi district is 29,14,253 and around 57.0% of which resides in rural areas.[8] Rural field practice areas of department of Preventive and Social Medicine (PSM), Ormanjhi was selected for present study. Community based cross sectional study. Late adolescent girls (15-19

yrs) constituted the study population. According to NFHS-4 (2015-16), in Jharkhand, only about 40% of rural females, aged 15-24 years, used any hygienic methods of protection during their menstrual period.[6]

Thus taking prevalence (P) as 40, and Q(1-prevalence) as 60 and absolute precision of study (d) 5% the sample size was calculated using the formula: $\mathbf{n=4pq/d^2}$, sample size came out to 384. Taking 5% of non response rate the sample size came out to be around **400**

The sampling technique used in this study was a **multi stage random sampling**. Rural field practice area of RIMS, Ranchi has 3 sub center-Irba, Chakla and Anandi. 10 AWCs from these sub centers were randomly selected by lottery method, to be included in the study. Final sample size obtained was 400, and this had to be taken from 10 villages, so, 400/10=40 cases per village

From the list of all families available with the AWW, 40 families were randomly selected, and those houses were visited to interview the late adolescent females in the house.

INCLUSION CRITERIA was the girls who have attained menarche
(i) Girls in age group 15-19 years (by 15 years almost all girls attain menarche)
(ii) Those willing to participate and gave consent/ assent for the study.

A pretested, semi-structured questionnaire which included questions pertaining to the variables was used for data collection.

Ethical consideration

Study was conducted after approval by Institutional Ethical Committee of RIMS, Ranchi. Interview with study subjects were conducted after obtaining their written informed consent/assent in Hindi and appropriately explained.

Data were entered in MS excel spreadsheet after generation of proper template. Data entry was completed and data analysis was done using Statistical Package for Social Sciences (SPSS) software, version 20.0. Chi square test was applied to see the association between categorical variables. For all statistical analysis p-value 0.05 was considered significant.

RESULTS

The study was conducted on 400 adolescent females of age group 15 - 19 years, residing in Ormanjhi block at sub centres Irba, Anandi and Chakla. Among them it was observed that four participants, all 15 years of age had not attained menarche. So observations were made on 396 participants. Mean age of study subjects was **16.58 years**, SD±1.3 years. The mean age of menarche was **12.13 years** (SD±0.848).

Among the participants, 251 (63.4%) were non tribal, 219 (55.3%) were Hindu. Most of them were literate and 338 (85.4%) were students. Many participants resided in kutcha houses (41.9%) while 243 (61.4%) were living in a nuclear family. Most adolescents were unmarried (88.4%). The socio economic status was taken according to B G Prasad classification 2018 and it was clubbed into upper, middle and lower class. Class IV and V, were clubbed as lower class which included 326 (82.3%) participants.

Table 1- Socio demographic profile of the participants (n=396)

S. No	Sociodemographic Profile		Frequency	Percent (%)
1	Ethnicity	Tribal	145	36.6
		Non Tribal	251	63.4
2	Religion	Hindu	219	55.3
		Muslim	118	29.8
		Christian	8	2
		Sarna*	51	12.9
3	Education	Illiterate	14	3.5
		Below Matriculation	270	68.2
		Matriculation Pass	112	28.3
4	Occupation	Student	338	85.4
		Employed	11	2.8
		Unemployed	47	11.9
5	Type Of House	Kutcha	166	41.9
		Semi Pucca	123	31.1
		Pucca	107	27
6	Type Of Family	Nuclear	243	61.4
		Joint	153	38.6
7	Marital Status	Unmarried	350	88.4
		Married	46	11.6
8	Socio Economic Status#	Class I / Class II — Upper Class	23	5.8
		Class III — Middle	47	11.9
		Class IV / Class V — Lower Class	326	82.3

*Local Religion of Jharkhand

#Acc to Modified B.G. Prasad classification 2018. Upper class includes class I and II, middle class include class III, and lower class includes class IV and V of the SES.

Table 2- Menstrual absorbent hygiene practice among the study subjects*

S. No	Menstrual absorbent hygiene practice			Frequency *	Percentage (%)
1	Absorbent Type (n=396)	Sanitary Napkin		62	15.7
		Cloth		183	46.2
		Both		151	38.1
2	Number Of Absorbents Used Per Day (n=396)	<2 PADS		154	38.9
		≥2 PADS		242	61.1
3	Number Of Sanitary Pads Required Per Month (n= 213)	≤ 8 PADS		180	84.5
		> 8 PADS		33	15.5
4	Re-use Of Cloth (n=334)			309	92.5
5	Wash Cloth With Soap And Water (n=309)			258	83.5
6	Dry The Cloth In Sunlight (n=309)			90	29.1
7	Disposal Of Absorbents (n=396)	Burn	In Open	13	3.3
			Incinerator	0	0
		Bury		171	43.2
		Trash		206	52
		Others		6	1.5

***n is indicated in the bracket with variables**

Maximum participants used cloth 183 (46.2%) during menses, while 151 (38.1%) used both cloth as well as sanitary pads. Only 62 (15.7%) used only sanitary napkins. Among those using sanitary napkins, majority 180 (84.5%) used ≤8 pads in a month. Of the 334 participants who used cloth, majority 309 (92.5%) re-used the cloth. Among them 258 (83.5%) washed the cloth with soap and water while only 90 (29.1%) were able to dry the cloth in the sunlight. Maximum number of the participants disposed the absorbents in the trash 206 (52%), followed by 171 (43.2%) who buried the absorbent and 13 (3.3%) burnt it. Other methods of disposal like flushing in the toilet were practiced by 6 (1.5%). None of the participants had the facility of incineration.

Table 3- Reason for not using commercial sanitary napkins by the study subjects (n=334)

S. No.	Reasons	Frequency	Percentage (%)
1	Expensive	162	48.5
2	Uncomfortable	73	21.8
3	Not Allowed	61	18.3
4	Not Available	38	11.4
	Total	334	100.0

Of the total participants, 334 were not using the commercial sanitary napkins or were using it sometimes along with the cloth. Approximately half of the girls 162 (48.5%) admitted that the cost factor was a restriction to not using pads regularly. For some it was uncomfortable 73 (21.8%) to use. Some girls insisted that they were not allowed 61 (18.3%) by the guardian to purchase out of shame or customarily. Yet 38 (11.4%) girls said that the pads were not freely available in their locality.

Table 4- WASH facility among the study subjects (n=396)

S.No.	Wash Facility	Frequency	Percentage (%)
1	Bathe Daily	227	57.3
2	Toilet In The House	315	79
3	Separate Wash Area For Girls In School/college	228*	61.1

*n=373 (participants who attended school/college)

Most study participants had a toilet in the house 315 (79%). Taking bath daily during menstruation was found in 227 (57.3%) participants. Of the 373 participants who attended school/college, separate wash area for girls was present in most of the cases 228 (61.1%).

Table 5 – Association of Socio demographic profile with Type of absorbent (n=396)

S. No	Socio Demographic Profile		Type of absorbent			x2	df	P value*
			Sanitary napkin	Cloth	Both			
			Frequency (%)	Frequency (%)	Frequency (%)			
1	Religion	Hindu	28 (12.8)	110 (50.2)	81 (37)	46.373	6	<0.001*
		Muslim	32 (27.1)	30 (25.4)	56 (47.5)			
		Christian	0 (0)	4 (50)	4 (50)			
		Sarna	2 (3.9)	39 (76.5)	10 (19.6)			
2	Ethnicity	Tribal	8 (5.5)	94 (64.8)	43 (29.7)	36.486	2	<0.001*
		Non tribal	54 (21.5)	89 (35.5)	108 (43)			
3	SES#	Upper class	17 (73.9)	0 (0)	6 (26.1)	111.379	4	<0.001*
		Middle class	19 (40.4)	5 (10.6)	23 (48.9)			
		Lower class	26 (8)	178 (54.6)	122 (37.4)			
4	Education	Illiterate	1 (7.1)	11 (78.6)	2 (14.3)	12.670	4	0.013*
		<10th std	35 (13)	124 (45.9)	111 (41.1)			
		≥10th std	26 (23.2)	48 (42.9)	38 (33.9)			
5	Occupation	Student	57 (16.9)	143 (42.3)	138 (40.8)	14.271	4	0.006*
		Employed	1 (9.1)	8 (72.7)	2 (18.2)			
		Unemployed	4 (8.5)	32 (68.1)	11 (23.4)			

 # Upper class includes class I and II, middle class include class III, and lower class includes class IV and V of the SES.

***P<0.05- significant**

Type of absorbent used among candidates was found to be significant in religion (p value <0.001), and Muslim girls were found to use more of sanitary napkin (27.1%) than others. Among the ethnic group non tribal used more of sanitary napkin (21.5%) than the tribal and it was significant (p value <0.001). The upper class used sanitary napkin (73.9%) more than the other class and this was significant (p value <0.001). The use of sanitary napkin was more prevalent among the literate (p value =0.013) and among the students (p value =0.006).

DISCUSSION

Present study shows that, approximately half, of the subjects used cloth 183 (46.2%) during menses, while 151 (38.1%) used both cloth as well as sanitary pads. Only some, 62 (15.7%) used exclusively sanitary napkins. Among those using sanitary napkins, majority 180 (84.5%) used ≤8 pads in a month. Of the 334 subjects who used cloth, almost all, 309 (92.5%) re-used the cloth. Among them 258 (83.5%) washed the cloth with soap and water while only 90 (29.1%) were able to dry the cloth in the sunlight. In a study from Rajasthan [9] and Delhi [10], the majority of the young girls were using and reusing old cloth, homemade napkins, and very few used cotton wool or sanitary napkins. Cloth is the cheapest material used for protection during menstruation. All kinds of old, ragged, and rejected clothes are kept by women for this and used by the majority of women in the slum and in rural areas[11]. The main reasons for using homemade napkins were the inability to buy costly ready made sanitary napkins but also the lack of availability in rural areas.[12]

Over half, of the subjects disposed the absorbents in the trash 206 (52%), followed by 171 (43.2%) who buried the absorbent and 13 (3.3%) burnt it. Other methods of disposal like flushing in the toilet were practiced by 6 (1.5%). None of the subjects had the facility of incineration. Chandra-Mouli and Patel (2017), in systematic review found that, the common methods for disposing of materials beyond throwing them away with other trash included burning, burying, and flushing materials[13].

Regarding the use of sanitary napkin was that, 334 were not using the sanitary napkins available commercially or were using it sometimes along with the cloth. Table 5.32 showed that, approximately half, of the girls 162 (48.5%) admitted that the cost factor was a restriction to not using pads regularly. For some, sanitary napkin was uncomfortable 73 (21.8%) to use. Some girls insisted that they were not allowed 61 (18.3%) by the guardian to purchase out of shame or customarily. Yet 38 (11.4%) girls said that the commercial pads were not freely available in their locality. From research by UNICEF, in co–operation with the government of Bangladesh, it appears that women and girls in rural areas, who are often the poorest and cannot afford to buy sanitary napkins, catch their menstruation blood in an extra sari, or in cloths.[14].

The MHM practice adopted by the subjects was associated to the socio demographic aspects of the participants as shown in Table 5.46. The upper class used sanitary napkin (73.9%) more than the other class and this was significant (p value <0.001). Type of absorbent used among candidates was found to be significant with religion (p value <0.001), and Muslim girls were found to use more of sanitary napkin (27.1%) than others. Among the ethnic group, non tribal used more of sanitary napkin (21.5%) (p value <0.001). The use of sanitary napkin was more prevalent among the literate (p value =0.013) and among the students (p value =0.006).

CONCLUSION

Approximately half of the participants used cloth 183 (46.2%) during menses, while 62 (15.7%) used sanitary napkins. Of the 334 subjects who used cloth, almost all, 309 (92.5%) re-used the cloth. Among them 258 (83.5%) washed the cloth with soap and water while only 90 (29.1%) were able to dry the cloth in the sunlight. Over half of the subjects disposed the absorbents in the trash 206 (52%). Approximately half of the girls 162 (48.5%) admitted that the cost factor was a restriction to not using pads regularly. The unsafe disposal of used napkins create nuisance. Due to lack of efficient disposal mechanism at the community and institutions (schools, colleges, and workplaces), used sanitary pads were dumped unhygienically.

RECOMMENDATIONS

Menstrual hygiene management should be mainstreamed within the school curriculum. There should be continuous flow of information to create awareness. Innovative IEC approaches like utilization of community contact opportunities (e.g. VHNDs) and proactive involvement of mass media and social media would further minimize barriers to MHM awareness. Decentralized models for production of low-cost sanitary napkins by community based organizations/self-help groups might be promoted as a viable solution to match the requirement. Non-government organizations should come forward to educate rural people about menstruation, menstrual hygiene management, importance of toilets at homes, hand washing, diseases related to reproductive tract due to poor hygiene. Sanitary napkins in no way can be considered as luxury items for women. Removing the tax on sanitary napkins will not only increase their accessibility but also will facilitate a positive change in the personal hygiene of millions of women. Cost effective incinerators for safe disposal of absorbents should be designed.

LIMITATIONS

As it was self-reported study about personnel issues, there is a

possibility of reply of only socially acceptable answer in the responses. Interventional studies especially, health education interventions like school-based sessions, can give an improved association post intervention.

CONFLICT OF INTEREST – None

REFERENCES

[1] SHARE Consortium, London School of Hygiene & Tropical Medicine, Policy Brief, Menstrual Hygiene Management. Available from: http://www. menstrualhy gieneday. org/wp-content/uploads/2017/01/SHARE_MHM_policybrief_2017.pdf. [Last accessed on 2019 Mar 14].

[2] Resources on MHM; About Menstrual Hygiene Day. Available from: http://www.menstrualhygieneday.org/about/about-mhday/. [Last accessed on 2019 Mar 30].

[3] https://www.unicef.org/wash/schools/files/wash_who_standards_low_cost_settings_2010.pdf

[4] De Santis V, Bernasconi S 2014. Onset of menstrual cycle and menses features among secondar school girls in Italy: A questionnaire study on 3,783 students. Indian Journal of Endocrine Metabolism,18(7): 84-92

[5] Menstrual hygiene management-guidelines 2015 http://www. mdws. gov. in/sites/default/files/Menstrual%20Hygiene%20Management%20-%20Guidelines_0.pdf [Last accessed on 2019 Sept 19]

[6] International Institute for Population Sciences (IIPS), India: Fact Sheet of Jharkhand. NFHS- 4

[7] Sinha RN, Paul B. Menstrual hygiene management in India: The concerns. Indian J Public Health 2018;62:71-4.

[8] Office of the Director of Census Operations, Ranchi, Jharkhand. RIADA, Central office building, 2nd floor, Namkum, Ranchi. www.censusindia.gov.in [Last accessed on 2019 Feb 08]

[9] Khanna A, Goyal RS, Bhawsar R. Menstrual practices and reproductive problems: a study of adolescent girls in Rajasthan. J Health Manage (2005) 7(1):91107. doi:10.1177/097206340400700103 9.

[10] Nair P, Grover V, Kannan A. Awareness and practices of menstruation and pubertal changes amongst unmarried female adolescents in a rural area of East Delhi. Indian J Community Med (2007) 32:156–7.doi:10.4103/0970-0218.35668

[11] Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. Reprod Health Matters (2001) 9(17):16–25.doi:10.1016/ S0968-8080(01)90004-7

[12] Thakur H, Aronsson A, Bansode S, et al. Knowledge, practices, and restrictions related to menstruation among young women from low socioeconomic community in Mumbai, India. Front Public Health 2014;2:72.

[13] Chandra- Mouli, Patel SV. Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low- and middle-income countries. Reproductive Health (2017) 14:30 DOI 10.1186/s12978-017-0293-6

[14] Ten Varina Tjon A. Menstrual Hygiene: A Neglected Condition for the Achievement of Several Millennium Development Goals. Zoetermeer, 10 October 2007