

Research Article

Menstrual hygienic practices among adolescent girls of rural North Karnataka region, India

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ABSTRACT

Background: Unhygienic practices during menstruation have significant impact on health and the event of menarche may be associated with taboos and myths existing in our traditional society which has a negative implication for women's health, particularly their menstrual hygiene. It was therefore decided to conduct a study to explore the level of menstrual hygienic practices among the adolescent girls.

Methods: A cross-sectional study was conducted during July to September 2015 in the rural field practice area of Shri B. M. Patil Medical College. A total of 215 girls who had attained menarche were interviewed. Statistical analysis was done using SPSS version 16.

Results: Mean age of menarche was 13 years, 82% were Hindus, 18% were Muslims, 46% of them used old cloth during cycles, 28.48% used both disposable pads and cloth, 25% of them reported that they use only sanitary napkins. There was significant association between usage of sanitary napkins and SES, age and educational status of girls. 52.55% of them told they used only single pad or cloth for whole day.

Conclusions: Menstrual hygiene a very important risk factor for reproductive tract infections and is a vital aspect of health education for adolescent girls. It is essential to design a mechanism to address and for the access of healthy menstrual knowledge.

Keywords: Adolescents, Menstruation, Hygiene, Practices

INTRODUCTION

Adolescence is the rapid transition in life from childhood to adulthood. World health organisation defines adolescence as the period between 10-19 years of life.¹ Adolescent girls constitute 1/5th of total population of which 4/5th are in developing countries.² This period has been recognised as a special period that requires specific attention.

Attaining menarche denotes the start of reproductive capacity and hence a milestone in a woman's life.³ There is a lack of information on menstrual hygiene among adolescent girls and this situation is made worse because

of the shyness and embarrassment in discussing about menstruation.³ Very little information is given to the girls about hygienic practices to be followed.⁴

Menstruation being a natural process but several misconceptions and practices are followed. The problems associated with poor menstrual hygiene should not be ignored. Poor menstrual hygiene is an important cause for reproductive tract infections.³

Menstruation is considered as unclean in Indian society. Good hygienic practices like usage of sanitary napkins, satisfactory cleaning of external genitalia during menstruation is essential.

Indiscriminate disposal of sanitary napkin should not be done. Taboos, misconceptions isolation, restrictions regarding menstruating girls and menstrual hygiene leads to degradation of women empowerment.^{3,5} Menstruation is an important cause for school absenteeism and school dropouts.³ Social prohibitions and the attitude of parents in not discussing the menstrual related issues openly has created less awareness among adolescent girls.⁵

The Objective of the study was to know the extent of menstrual hygienic practices among adolescent girls and to educate those regarding hygienic practices during menstruation.

METHODS

Study design

Community based cross sectional study

Study place

The present study was undertaken among the adolescent girls in the rural field practice area of Shri B M Patil Medical College, Hospital and research centre Vijayapur.

Study duration

3 months from June 2015 to September 2015.

Study population

Adolescent girls aged 10-19 years.

Sample size

Considering the usage of sanitary napkin as 64% from the previous study⁶. And relative precision of 10% at 95% CI the sample size was calculated as 215.

Sample size estimation

The sampling technique used was Simple Random Sampling. Total adolescent population of the study area was 2520, consisting of 1251 girls. Out of 1251 girls, sample size of 215 was selected by simple random sampling technique. Each participant was selected by random number tables till the required sample size was achieved.

Inclusion criteria

All unmarried adolescent girls aged 10-19 years

Exclusion criteria

Girls not willing to participate in the study.

Institutional ethical committee approval was taken. After explaining the purpose of the study and ensuring confidentiality of information, informed consent was taken from girls aged above 18 years and consent was taken from parents for those aged below 18 years. A pre-designed, pretested and semi-structured questionnaire was used.

RESULTS

Among the 215 adolescent girls the majority of the participants were between 14-17 years, major group belonged to Hindu religion and the type of family was nuclear family. Around 68.37% of the participant's mothers were illiterate. Major occupation of the respondent's father was agriculture followed by labourers and more than half of the respondent's father was illiterate and the major proportion of the respondents belonged to class III socio economic status (Table 1).

Table 1: Socio demographic profile of adolescent girls.

Variable		Frequency (%)
Age (years)	10-13	18 (8.37)
	14-16	121 (56.27)
	17-19	76 (35.34)
Religion	Hindu	177 (82.32)
	Muslim	38 (17.67)
Type of family	Nuclear	109 (50.69)
	Joint	42 (19.53)
	Three generation family	64 (29.76)
Mother's literacy	Illiterate	147 (68.37)
	Literate	68 (31.62)
Mother's occupation	Housewife	164 (76.27)
	Labourer	51 (23.72)
Father's literacy	Illiterate	122 (56.74)
	Literate	93 (43.25)
Father's occupation	Agriculture	118 (54.88)
	Labourer	79 (36.74)
	Business	18 (8.37)
Socio economic status	Class I	14 (6.51)
	Class II	37 (17.2)
	Class III	93(43.25)
	Class IV	40 (18.6)
	Class V	31 (14.4)

The results showed that majority of the participants used old cloth as menstrual absorbent and the major reason cited for not using sanitary napkin was high cost, disposal problem followed by shyness. Of all the participants who used old cloth as menstrual absorbent majority dried them inside house and most of the participants were using single absorbent per day and reported that they were not comfortable in changing pads at school (Table 2).

Around 78% of the participants followed one or the other cultural restrictions and majority were avoiding religious functions followed by to restrict from work/play outside. Around 7.69% were remaining absent to school during

menstruation and 14.2% were sitting outside the house (Table 3).

The usage of sanitary napkins during menstruation and the satisfactory cleaning of external genitalia was

significantly associated with the participants age, their mother's literacy status and the socio-economic status of the family (Table 4).

Table 2: Practices during menstruation.

Variable	Frequency (%)	
Use of material during menstruation	Sanitary pad	54 (25.1)
	Old cloth	99 (46.04)
	Both cloth and pad	62 (28.5)
Reasons for not using sanitary pad (n= 89)	Lack of knowledge	19 (8.8)
	High cost	32 (14.9)
	Unavailability	12 (5.6)
	Shyness	23 (10.7)
	Disposal problems	21 (9.5)
If cloth, place of drying (n=161)	Away from sunlight	149 (69.3)
	Under sunlight	66 (30.7)
Cleaning of external genitalia	Satisfactory *	69 (32.09)
	Unsatisfactory	146 (67.9)
Material used for cleaning external genitalia	Cleaning only during bathing	110 (51.6)
	Only water	74 (34.4)
	Soap and water	31 (14.4)
Number of absorbents used/day during last menses	1	113 (52.5)
	2	57 (26.5)
	3	32 (3.2)
	>3	13 (5.3)
Change of pad at school (n=116)	Yes	19 (8.8)
	No	97 (83.6)
Bathing during menstruation	Yes	(72.6)
	No	(27.4)
Methods of disposal of sanitary pad (n=116)	Burn it	26 (22.4)
	Throw it in routine waste	75 (64.6)
	Burial	14 (12.06)

*Satisfactory cleaning of external genitalia: cleaning for more than 2 times a day during menstruation; Unsatisfactory cleaning of external genitalia: cleaning less than or equal to 2 times a day during menstruation.

Table 3: Cultural restrictions during menstruation.

Variable	Frequency (%)	
Cultural restrictions during menses	Yes	169(78.6)
	No	46(21.4)
If yes, which (n=169)*	Avoiding Religious functions	97(57.4)
	To remain separate	26(15.4)
	To touch stored food	49(28.1)
	To sleep on routine bed	17(10.05)
	Sitting outside the house	24(14.2)
	To touch other family members	5(2.9)
	To play/ work outside	145(85.8)
	To go to school	13(7.7)
To avoid food	48(28.4)	

*multiple responses

The hygienic practices of changing sanitary pads regularly and even at school and using adequate number of pads / day during menstruation was significantly

associated with the participants age, mothers literacy and the socio economic status of the family (Table 5).

Table 4: Association between socio demographic factors and menstrual hygienic practices.

Variables	Use of material during menstruation				Cleaning of external genitalia			
	Sanitary pad	Old cloth	Both		Satisfactory	Unsatisfactory		
Age	10-13	02	11	05	X ² 43.7 0.000	05	13	X ² 12.7 0.002
	14-17	13	64	44		28	93	
	18-19	39	24	13		36	40	
Education	Primary school	02	13	39	X ² 27.6 0.000	01	08	X ² 4.42 0.110
	High school	06	64	29		31	79	
	College	01	33	28		37	59	
Mothers literacy	Illiterate	13	91	43	X ² 74.4 0.000	13	134	X ² 115.0 0.000
	Literate	41	08	19		56	12	
SES	Class I	7	02	05	X ² 53.9 0.000	09	05	X ² 22.2 0.000
	Class II	18	09	10		11	26	
	Class III	29	35	29		39	54	
	Class IV	0	32	08		04	36	
	Class V	0	21	10		06	25	

Table 5: Association between socio demographic factors and menstrual hygienic practices.

Variables	Change of pad at school			Number of absorbents used/day			
	Yes	No		≤2	≥2		
Age	10-13	02	05	X ² 37.7 0.000	18	0	X ² 6.10 0.047
	14-17	08	49		96	25	
	18-20	09	43		56	20	
Education	Primary school	0	03	X ² 14.0 0.029	09	0	X ² 33.5 0.000
	High school	05	41		93	17	
	College	14	53		21	28	
Mothers literacy	Illiterate	03	53	X ² 38.9 0.000	133	14	X ² 36.5 0.000
	Literate	16	44		37	31	
SES	Class I	02	10	X ² 53.7 0.000	09	06	X ² 28.5 0.000
	Class II	04	24		20	17	
	Class III	06	52		86	07	
	Class IV	03	05		29	11	
	Class IV	04	06		26	05	

DISCUSSION

In the present study the mean age of menarche was found to be 13.45 which is similar to other studies as reported by Salve SB et al, Khanna et al, and it is 12.8 years as reported by Dasgupta A et al.⁷⁻⁹ In our study around 46.06% preferred old cloth pieces rather than sanitary pads as menstrual absorbent which is similar to studies reported by Ud giri R et al, Khanna et al, Dasgupta A et al, Subhash B et al.^{5,8-10} Whereas Kamath R et al, Shanbhag et al, reported a higher proportion (64%) of usage of sanitary napkins compared to old cloth pieces.^{6,11} The reasons cited by the participants for not using sanitary pad was high cost, shyness to buy, lack of knowledge and disposal problems. Dasgupta A et al,

reported poverty, high cost, ignorance dissuaded the study population from not using the menstrual absorbents available in the market.⁹

Cleaning of external genitalia was unsatisfactory among 67.9% of girls which is lesser as compared to Subhash B et al, who reported 79.45%.⁵ Mudey AB et al, reported 66.15% of the adolescent girls were unsatisfactorily cleaning their external genitalia.¹² Majority of them used only water for cleaning external genitalia which is similar to the study by Shubash B et al.⁵ Lack of knowledge and privacy in rural set up could be a reason for unsatisfactory cleaning of external genitalia.

Juval et al reported that majority were drying the cloth away from sunlight which is similar to our results.⁴ The reason cited for drying the cloth inside the house as menstruation is considered as impure and meant to be hidden which reflects the taboos found in the society. When asked for the number of absorbents used per day during the last menses majority were using only one absorbent per day and majority reported that they were not comfortable changing pads at school which is similar to the study reported by Subhash B et al which is significantly associated with participants age, mothers literacy and their socio-economic status.⁵

Majority of the girls followed one or the other restrictions during menstruation among which avoiding holy places and not to work/play outside was more. A number of studies Khanna A et al, Mudey AB et al, Salve SB et al, reported different restrictions during menstruation.^{7,8,12} Various taboos and misconceptions might be a reason for various restrictions practiced during menstruation.

CONCLUSION

In our study hygiene during menstruation is not satisfactory hence there is a need to educate the adolescent girls about healthy and hygienic practices during menstruation and to prevent the reproductive tract infections. Teacher's parents should educate the girls prior to attaining menarche and proper hygienic practices should be followed. Menstruation should not be treated as dirty and it should not be a hindrance to daily activities. Sanitary pads should be made available at affordable price and it should be easily available. Clean toilet facilities, water facilities and facilities to dispose sanitary pads should be made available at schools.

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