



**Research Article**

**ROLE OF MOTHER'S EDUCATION IN KNOWLEDGE, HYGEINE PRACTICES AND RESTRICTION DURING MENSTRUATION AMONG ADOLESCENT SCHOOL GOING GIRLS OF REWA**

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**ABSTRACT**

**Background:** Family, mainly the mother, has the most important role in the Health education, transformation of information and healthy behaviours of girls. Menarche is an important milestone in a girl's life and Role of mother is crucial in appropriate knowledge about reproductive health & safe practices. **Objectives:** To estimate menstrual awareness, menstrual hygiene practices and restrictions among school going adolescent girls with respective Mothers role. **Materials and Methods:** Descriptive cross-sectional study was conducted among 200 adolescent girls of 9<sup>th</sup> to 12<sup>th</sup> standard of different schools of Rewa, after informed consent from their parents and principles of respective schools. **Results:** Mean age of the participant girls was  $15.1 \pm 1.54$  years. Study concludes that good hygienic practices in study subjects associated with improved mother's education. Maximum number of study subjects of educated mothers used sanitary pads, changed absorbents ( $\geq 3$  times), soap used to wash genitalia, washed genitalia  $\geq 3$  times /day and bathed daily during menstruation. The girls of illiterate mothers had more restriction during menstruation than educated mother's girls. **Conclusion:** During study, it was observed that hesitation present in girls during interaction in sensitive subject like menstrual health, so it was necessary to create healthy environment so that everyone can discuss openly about their personal experience on this type of sensitive matters.

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**INTRODUCTION**

The word "Adolescent" is derived from the Latin word 'adolescere' which means to grow to maturity<sup>[1]</sup>. WHO has defined adolescence as the age group of 10-19 years.<sup>[2]</sup> Approximate 1.2 billion adolescents, make up 16% of the world's population<sup>[3]</sup>. In India, as per Census 2011, adolescent population is 253 million<sup>[4]</sup> which accounts for a quarter of the country's total population. In Madhya Pradesh, adolescent population is 22% (1,60,11,290) of total population of India<sup>[6]</sup>. Adolescents are the new population to parenthood and threshold between childhood and adulthood<sup>[7]</sup>.

Menstruation is a milestone event during a girl's life and therefore the beginning of reproductive life. Menstruation starts in girl at an average age of 13 is called menarche and on average continue menstruating till age 51, which is called menopause.<sup>[8]</sup>

Role of mother is important in determining the health of future generations. Most of the girls receive their gynaecological information from their mothers, religious books, older sister or a peer. However such information was usually given after menarche rather than before.

Girls with better knowledge regarding menstrual hygiene and safe sanitary practices like washing genitalia regularly, using sanitary pads, proper disposal of sanitary pads, are less vulnerable to Reproductive Tract Infections and its consequences<sup>[9]</sup>. Therefore, correct knowledge should be given about menstruation after primary education to girls.

In India, many women experiencing restrictions on cooking, work activities, bathing, worshipping, and eating certain foods. These restrictions were due to people's perception regarding menstruation as they consider it dirty and polluting. By educating both men and women regarding menstruation, we can overcome these false beliefs and taboos.<sup>[10]</sup>

Only 36 % of the Women in India use Sanitary Pads during periods<sup>[11]</sup>. The majority (72.1%) of urban girls and 27.9% of rural girls used sanitary pad.<sup>[12]</sup>

WHO estimated in 2008, globally 499 million new cases of RTIs occur yearly among women in the reproductive age group<sup>[13]</sup>. In India, one among four women in the reproductive age group has any one type of RTIs<sup>[14]</sup>. Consequently, the prevalence rate of RTIs in various states of India was 19% to 71%.<sup>[15]</sup>

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Rewa is a developing city, so this study was planned to assess the menstrual awareness & practices among adolescent school going girls of Rewa city.

**Aims and Objective**

To estimate the role of Mother in the menstrual awareness, menstrual hygiene practices and restrictions among school going adolescent girls of Rewa.

**The specific objectives of the study are**

- To assess the awareness & practices regarding menstruation.
- To find association between awareness of menstruation & practices for menstrual hygiene with mother’s educational status.

**MATERIAL AND METHOD**

A community based descriptive, cross-sectional study was carried out among the school going adolescent girls of government and Private schools of Rewa for 3 months from March 2019 to May 2019.

**Inclusion criteria:** adolescent school girls studying in class 9<sup>th</sup> –12<sup>th</sup> standard, who have attained menarche and willing for answer.

**Exclusion criteria:** Adolescent school girls and/or the parents who refused to give consent for the study and who did not attend menarche.

**Study tools and technique:** Multistage random sampling procedure was used. First of all, list of all higher secondary schools were obtained in Rewa city from School Education Department (DEO office). Out of total, 12 Government Higher Secondary schools, & 52 Private Higher Secondary schools & 1 Residential schools are available in Rewa. to get representation of the all section of community 2 Government schools, 2 private schools were selected randomly with help of random number table and 1 residential school (which is only residential school presented in Rewa) were taken. And girls of 9th to 12th standard were selected by systematic random sampling, from their school attendance register. Thus total 200 girls selected for proposed study.

Pretested, semi structured proforma was used to collect data after obtaining permission from Principals of respective schools and informed consent of parents after due explanation of cause, methods, and implication of the study. Proforma contained information regarding their socio-demographic profile, knowledge and practices regarding menstruation, imposed restrictions, hygiene during menstruation. confidentiality was maintained for the data collected throughout the study. After data collection, correct information regarding menstrual health were given to girls and queries were solved.

**Menarche:** it is first menstrual cycle in female humans.

**Menstruation:** A biological process in a woman where each month blood and other material is discharged from the lining of the uterus. Menstruation occurs from the onset of puberty until the menopause, except during pregnancy. [16]

**Statistical analysis:** Data were collected, compiled and analysed using MS Excel and percentage for qualitative variables and mean and Standard Deviation for quantitative variables were obtained. Appropriate statistical test was

applied wherever necessary to know the association between variables.

**RESULT**

**Table 1** Sociodemographic profile of study participants

Education Standard Number (%)		
1	9 <sup>th</sup> Class	36(18)
2	10 <sup>th</sup> Class	80(40)
3	11 <sup>th</sup> Class	51(25.50)
4	12 <sup>th</sup> Class	33(16.50)
Age group (years):		
1	12-14	31(15.50)
2	15-17	153(76.50)
3	18-19	16(8)
Mean age of study participants were 15.82±1.34 year		
Religion		
1	Hindu	175(87.50)
2	Muslim	18(9)
3	Others	7(3.50)
Mother's education		
1	Graduate & Above	78(39)
2	Up to Higher secondary	48(24)
3	UP to primary school	27(13.50)
4	Illiterate	47(23.50)
Mother's occupation		
1	Professional	16(8)
2	Service (gov./private)	23(11.50)
3	Business	13(6.50)
4	Housewife	142(71)
5	Other's	6(3)
Socio Economic Status (according modified B G prasad scale, updated 2020)		
1	Class I	50(25)
2	Class II	65(32.50)
3	Class III	44(22)
4	Class IV	30(15)
5	Class V	11(5.50)

Above Table depicts that out of 200 study participants, 80 (40%) of the study participants studied in class 10th. 153 (76.50%) belonged to 15 to 17 years of age group with mean age 15.82±1.34 year. Maximum belonged to Hindu (175,87.50%). Regarding education 153(76.50%) Mothers of study participants were literate, in which 126 out of 153 were educated up to higher secondary and above. Maximum mother of study participants, 172(71%) were housewife. Taking socio-economic status into consideration, maximum, 65 (32.50%) of the study participants belonged to upper middle class followed by 50 (25%) of upper class and only 11(5.50%) belonged to lower class.

**Table 2** Present knowledge of study participants regarding menstruation

S.N.	knowledge of menstruation	Number (%) Yes	Number (%) No
1.	Have you heard about menstruation before menarche	137(68.50)	63(31.50)
2.	Is Menstruation a disease?	17(8.50)	183(91.50)
3.	Is pregnant women menstruate?	36(18)	164(82)
4.	Menstruation stops in particular age	183(91.50)	17(8.50)
5.	Is pain during menstruation normal?	150(75)	50(25)
6.	From where does menstrual blood originate?		
6.1	Uterus	110(55)	
6.2	Other(vagina, urethra etc)	38(19)	
6.3	Not known	52(26)	
7.	Have you heard about any of these products?		
7.1	Sanitary pad*		188 (94)
7.2	Cloth (Home made reusable pads) *		69(34.5)
7.3	(Other) Tampon, Menstrual Cup*		54(27)

\*Multiple responses

Above table depicts that,137(68.50%) study participants heard about menstruation before menarche. 91.5% study participants answered that menstruation is normal phenomenon and 82% study participants knew that the pregnant women does not menstruate.91.50% study participants knew that menstruation stops after particular age.55% study participants knew that uterus is source of menstrual blood and 52(26%) did not know the origin of blood.94% study participants heard about sanitary pads and only 27% study participants heard about menstrual cup and tampon.

**Table 3** Participants Knowledge about menstruation with respect to Mother's education

Mother's education	Graduation & above 78 (%)	Up to higher secondary 48 (%)	Up to primary 27 (%)	Illiterate 47 (%)	$\chi^2$ value	P value
<b>Have you heard about menstruation before menarche</b>						
Yes(137)	74(94.87)	30(62.5)	16(59.26)	17(36.17)	49.77	0.0
No(63)	04(5.13)	18(37.5)	11(40.74)	30(63.83)		S
<b>Is Menstruation a disease?</b>						
Yes(17)	0(0.0)	05(10.42)	07(25.93)	05(10.64)	18.291	0.0
No(183)	78(100)	43(89.58)	20(74.07)	42(89.36)		S
<b>Is pregnant women menstruate?</b>						
No(164)	76(97.44)	44(91.67)	17(62.96)	27(57.44)	41.456	0.0
Yes(36)	02(2.56)	04(8.33)	10(37.03)	20(42.56)		S
<b>Source of menstrual blood?</b>						
Uterus(110)	68(87.17)	21(43.75)	01(3.70)	20(42.55)	78.741	
Other (vagina, urethra etc) (38)	05(06.41)	06(12.50)	10(37.04)	17(36.17)		0.0
Not Known(52)	05(06.41)	21(43.75)	16(59.26)	10(21.28)		S
<b>Knowledge about Absorbents</b>						
Sanitarypad, 188* (%)	78(100)	48(100)	27(100)	35(74.47)	6.8270	0.032
Cloth, 69* (%)	08(10.26)	14(29.17)	24(88.89)	23(48.94)		S
Others (Tampon, menstrual cup) 54* (%)	27(34.62)	10(20.83)	07(25.93)	10(21.27)		

Above table shows that Maximum study participants (94%) of mothers educated graduation & above, knew about menstruation before menarche as compare to 36% study participants of illiterate mothers. 100% study participants of mothers having education graduate and above, responded menstruation as normal phenomenon and menstruation stops at particular age. Almost 100% study participants responded that pregnant women do not menstruate.,87% of study participants of mothers(> graduation and above) reported correctly about origin of menstrual blood whereas only 7% did not know about that. Significant association was found between level of education of mother and knowledge of study participants and positive association between knowledge of study participants about absorbents with mother's education.

**Table 4** First source of information/knowledge regarding menstruation

S.N.	Who tell you about this first?	Number (%)
1.	Mother	119(59.50)
2.	Sister	48(24)
3.	Friends	26(13)
4.	Teacher	04(2)
5.	Other (Book/media)	03(1.50)

Above table gives idea regarding source of information about menstruation before menarche, Mothers were main source of information in maximum study participants 119 (59.50%) followed by sisters (24%).

**Table 5** Current practices during menstruation with Mother's Education

Mother's Education	Graduation & above, 78(%)	Up to higher secondary, 48 (%)	Upto primary, 27 (%)	Illiterate 47 (%)	$\chi^2$	p-value
<b>What do you normally use during your period?</b>						
Sanitary pad(174)	75(96.15)	45(93.75)	14(51.85)	40(85.10)		
Cloth(13)	00(0.0)	01(2.08)	08(29.62)	4(8.52)		0.00
Menstrual Cup + Tampon (03)	02(02.56)	01(2.08)	00(0.0)	00(0.0)	49.027	S
Sanitary pad + Cloth(10)	01(1.28)	01(2.08)	05(18.51)	03(6.38)		
<b>How many times you change absorbents?</b>						
3 times /day	68(87.17)	44(91.66)	22(81.48)	20(42.55)		0.00
2 times /day	06(7.69)	02(4.16)	03(11.11)	02(4.25)	61.76	S
Once	04(5.12)	02(4.16)	02(7.41)	25(53.19)		
<b>How do you dispose it?</b>						
Burn	02(2.56)	20(41.66)	17(62.96)	20(42.55)		0.06
Dustbin	75(96.15)	27(56.25)	10(37.03)	27(57.44)		NS
Flush	01(1.28)	01(2.08)	00(0.0)	00(0.0)		
<b>What do you use to wash genitalia?</b>						
Plain water	08(10.25)	18(37.50)	11(40.74)	05(10.63)	7.98	0.00
Soap	70(89.74)	30(62.50)	16(59.23)	42(89.36)		S
<b>How many times you wash genitalia?</b>						
Once	01(1.28)	08(16.66)	03(11.11)	08(17.02)		0.00
2 times	07(8.97)	10(20.83)	08(29.62)	20(42.55)	20.68	S
≥3*	70(89.74)	30(62.50)	16(59.25)	19(40.42)		
<b>Do you take bath daily during period?</b>						
Yes	77(98.71)	46(95.83)	25(92.60)	30(63.83)	39.75	0.00
No	01(1.28)	02(4.166)	02(7.40)	17(36.17)		S

Regarding practices above table shows significant association between hygienic practices during menstruation with mother's education. Most of the (97%) study participants of mother's educated graduation & above, used sanitary napkins, out of them, no one used cloth as absorbents, 87% of study participants changed absorbents 3 times/day, 90% study participants washed genitalia ≥3 times/day. 80% study participants of illiterate mothers were using sanitary pads, only 42% changed absorbents 3times and 40% washed genitalia ≥3 times/day. Association has not been found between level of mother's education and method of disposal of absorbents. Almost 100% Study participants of educated mother's took bath daily in contrast of only 63% study participants of illiterate mothers. This study found that study participants of illiterate mothers had more restriction than educated mother's study participants. 95% had restriction to went to worship place and 32% missed school, whereas 11% Study participants of educated mother(> graduation) missed school. this shows significant association between restriction of activity during menstruation with mother's education.

## DISCUSSION

This study find out the impact of mother's role regarding menarche and menstruation information in teenage girls ages 10 - 19 years. Numerous similar studies have been conducted nationally and internationally on the knowledge and awareness regarding menstrual hygiene. The present study revealed that maximum number (76.50%) of the study subjects belonged to middle adolescents age group (15-17 year) and mean age of the study subjects was 15.82±1.34years, Similar findings were also obtained by Sharvanan E Udayar *et al*<sup>[30]</sup> Hema Priya S. *et al*<sup>[27]</sup>and Juyal R *et al*<sup>[21]</sup>. In our study, maximum study subjects were Hindu (87.50%), followed by muslims (9%). Similarly Hindu (83.3%) followed by muslims (10.6%) observed by Shantanu Sharma *et al*<sup>[26]</sup> a study in Delhi. In present study that most of the mothers (76.50%) were

educated, out of which 13.50% were educated upto primary school, 24% up to higher secondary and 39% graduate & above while 23.50% had no formal education.

Rajea Sultana<sup>[12]</sup> study done at Bangladesh, found that the population in urban areas had majority of mother's educated secondary and above (75%), According to study of Prakash Mathiyalagen *et al*<sup>[28]</sup> which was done in Union territory India, 30% mothers were illiterates. In the present study most of the mothers of study subjects (81.9%) were housewives, 23(11.50%) were in jobs, 19(9.50%) were self employed. Similar findings are obtained by Kartik Ramachandra *et al*<sup>[22]</sup> that mothers of most of the respondents were house wives. While in study conducted by Hema Priya *et al* and Sharvanan *et al*, 50% mothers were house wives. In present study, as per Socio economic status, maximum participants (32.50%) belonged to upper middle class(class II), followed by Upper class (class I 25%) and Lower middle class (class III 22%), according to Modified B. G. Prasad Scale, updated 2020 similarly in the study of Prakash *et al*<sup>[28]</sup> lower middle class population was comparatively more than those of middle class. whereas 49% subjects belonged to lower class(class V) in study done by Nandini Gupta *et al*<sup>[29]</sup>.

In Present study, mean age of menarche in adolescent school going girls were 13.24±1.20 year. Maximum girls (80%) attained menarche between 12-14 years of age with minimum age was 10 year and maximum was 17 year. Similar findings by Shabnam Omidvar *et al*<sup>[18]</sup> in South India, age at menarche in the selected group ranged from 10-17 years, with a mean of 13.4±1.2 years.

In present study, mother was main informant in 59.50% girls, followed by sister (24%), friends (13%) and others (Teacher, media) 3.50%, That indicates good bonding and communication between mother and daughter.

Similar findings by Shanbhag D *et al*<sup>[20]</sup> that, in a large proportion, the knowledge was imparted to them by the mother (55.1%), followed by friends (17.4%) and sister (14.2%), Subhash B. Thakre *et al*<sup>[19]</sup> and Sanjay Dixit *et al*<sup>[23]</sup> also gave same results.

In present study, 137(68.50%) girls heard about menstruation before menarche. 91.5% girls answered that menstruation is normal phenomenon and (55%) girls knew that uterus is source of menstrual blood and 52(26%) not knew the cause of menstruation. Similar findings were evident that only 58.5% of the participants were aware about menstruation before menarche, only 22 (8.3%) knew about the source of menstrual blood is uterus and 178 (67.6%) knew that it's a natural phenomenon in study of Channawar Kanchan *et al*<sup>[25]</sup>. Same results were obtained in Study of Sanjay Dixit *et al*<sup>[23]</sup> and Prakash Mathiyalagen *et al*<sup>[28]</sup>. knowledge about menstruation was evidently present in adolescent girls in all the studies but some girls had lack of knowledge which needed to be worked upon.

Overall increase in knowledge were seen in present study with increased mother's education level. 100% girls of educated mother's (>gradation), knew that menstruation is normal phenomenon, 88% knew the uterus as source of bleeding. So it is significantly associated (p=0.00). The reason may be the awareness and education imparted to their child by mothers, played a main role.

In present study, The girls of illiterate mothers had more restrictions than educated mother's girls and shows negative association between restriction of activity during menstruation with mother's education.

In present study, association of mother's education of participants in relation to sanitary pad users was found to be significant (P =0.00), 27% girls of educated mother's used tampon and menstrual cup. Similar finding were observed in the study of Sharvanan E Udayar *et al*<sup>[30]</sup>, study participant's mother's education was found to be statistically significant in relation to sanitary pad usage.

It is also observed that 89% girl's of mothers educated graduation and above and only 40% girl's of illiterate mother had satisfactory menstrual hygiene practices and this result is significantly associated.

In the study of KanyadiSuhasini *et al*<sup>[24]</sup>, with the increased maternal literacy status, the practice of perineal hygiene in adolescent girls was increased which was statistically significant (p<0.001).

## CONCLUSION

The present study has underscored the need of adolescent girls to have adequate knowledge about menstruation before menarche and bring them out of traditional beliefs, misconceptions and restrictions. However, it seems that mothers are the best people to transmit basic information regarding reproductive health to their daughters, but embarrassment, inadequate knowledge and misconceptions of mothers about reproductive health, can prevent them from arming their teens with required knowledge. Therefore, approach with a focus on training of mothers, with help from community groups, peer groups, health professionals and officials of the ministry of health.

The girls should be educated about the reality of menstruation, physiology, about the importance of menstruation and development of secondary sexual characters, about proper hygienic practices and selection of disposable sanitary menstrual absorbent, by teachers and family members (Mothers). Proper rapport between the mother and the girl child should be encouraged. Mothers should discuss to girls directly before menarche about menstruation, Mothers should be educated during parent teacher meeting session in school, written content and pictorial material related reproductive health should be distributed to them. It will be compulsory to celebrate Menstrual Hygiene Day in school and should educate girls and her Mothers at that day.

Conflict of Interest: None declared.

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