

**Research Article**

A Study on Knowledge and Practice of Menstrual Hygiene Among Menstruating Women of Age Group 15-44 Yrs in A Rural Area, Tamilnadu

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Abstract

Background: Menstruation in women is a normal physiological process and key sign of reproductive health. Poor menstrual hygiene has not yet been recognized as a problem in many developing countries. Proper menstrual hygiene is essential for one's own well being and development.

Objectives: To assess the knowledge and practice of menstrual hygiene in women of age group 15-44 yrs and to find out the relationship between knowledge and practice of menstrual hygiene.

Materials and Methods: A community based, cross sectional study done at South Pichavaram, Chidambaram, Tamilnadu among women of reproductive age for a period of 8 months from January to August 2016. Data was collected using validated, structured, pre tested questionnaire and analyzed using SYSTAT12 software.

Results: out of 337 study participants, 29.7% had adequate knowledge about menstruation and menstrual hygiene and 46.6% had good level of menstrual hygiene practice. It was found that there was a positive correlation exists between knowledge level and practice of menstrual hygiene in the women.

Conclusion: Nearly 70% of the women were not having adequate knowledge about menstruation and menstrual hygiene. Nearly half of them were not having good practice during menstruation. Therefore there is a need to increase awareness about menstrual hygiene among the women by giving periodic health education.

Keywords: Reproductive age, menstruation, knowledge, hygiene, practice.

INTRODUCTION

The reproductive life of women starts with the onset of menarche that occurs between 11 and 15 yrs with a mean age of 13 yrs. A woman menstruates for 3-5 days average (minimum of 2 days and maximum of 7 days) each month until menopause which accounts to approximately 2100 days & equivalent to six yrs of her life of menstruation¹. Maintaining proper menstrual

hygiene is important for one's own wellbeing and development. It requires access to adequate water for washing clothes, privacy to change their absorbents, clean & safe absorbents, facilities to dispose the used absorbents. If any of these are not accessible, it leads to unhygienic practices. The areas of special concern include choice of the best female hygiene products, how often and when to change the feminine hygiene products, bathing care of the vulva and vagina as well as the

supposed benefits of vaginal douching at the end of each menstrual period².

But Social prohibition and negative attitude of parents in discussing the related issues openly have blocked the access of adolescent girls to right kind of information, especially in the rural and tribal communities³. Because of the lack of knowledge, they end up with repeated use of unclean menstrual absorbents, resulting in harboring of microorganisms that increase susceptibility to urinary, perineal, vaginal and pelvic infections⁴. If these infections are left untreated that will lead to several consequences like infertility, ectopic pregnancy, fetal wastage and prenatal infections, low birth weight babies and toxic shock syndrome⁵.

Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive tract infections and its consequences⁶. The knowledge, attitudes and practices regarding menstrual hygiene, which establishes at adolescence, are usually followed throughout life and also passed on to the next generation. Therefore faulty practices pertaining to menstruation will affect health of large number of women in reproductive age group. Hence it is necessary to assess knowledge and the practices of mother as well as other female family members regarding the menstrual hygiene.

This study was undertaken to assess the knowledge and practice of menstrual hygiene among the reproductive women of rural area of South Pichavaram, Chidambaram and to find out the relationship between knowledge and practice.

MATERIALS AND METHOD

The community based cross sectional study was conducted in a rural area of South Pichavaram, Tamilnadu. The area comprises of a population of 1620 consisting 350 households. The study population comprised of 337 women of reproductive age group ie 15-44 yrs, residing in that area. The ethical clearance was obtained from the institute. Also prior informed consent was obtained from eligible participants. The study was

conducted on 337 women for a period of 8 months from January –august 2016.

A pilot study was conducted on 50 women and out of them 30% had inadequate knowledge. Keeping this as prior information, 5% as absolute precision and level of significance as 5%, the required sample size was 323. However 337 women were included for the study using convenient sampling. A structured, pretested questionnaire was used and its content was validated in the pilot study. The women who have attained menarche, menstruating and gave consent to participate in the study were included. Those women who had undergone hysterectomy and pregnant women were excluded.

There were 8 questions to assess the knowledge about menstruation and menstrual hygiene consisting of questions on meaning of menstruation, organs involved, normal duration, consequence of poor menstrual hygiene and nutrient lost during menstruation. The correct response for each question was awarded 1 mark and the remaining as 0. Hence the minimum and maximum score that can be acquired by the respondent were 0 and 8 respectively. Scores 1-3, 4-6, 7-8 points were graded as poor, fair, good knowledge respectively.

There were 11 questions to assess the level of practice of menstrual hygiene that included type of absorbent used, number of times of absorbent changed per day, reusing of absorbent, material used to wash the absorbent, place of drying, taking bath during menstruation, number of times of cleaning the genitalia and method of disposal. Here the minimum score that can be acquired by the respondent was 0 and maximum score 11. Scores 0-5, 5-7, 8-11 points were graded as poor, fair and good practice respectively.

After completion of the data, the information gathered was entered in Microsoft excel 2007 and statistical analysis was done using SYSTAT 12 software and expressed using descriptive statistics and Pearson correlation coefficient.

RESULTS

Table 1 depicts the socio demographic details of the study subjects. Majority 48.9% of the study

participants were in the age group 15-24 yrs and nearly half of the respondents (55.2%) were married and 43.3% were unmarried. 36.5% of the study participants have completed high school followed by 23.1% have completed degree/diploma. 45.4% of the study participants were unemployed and 44.2% of the respondent's family monthly income were between Rs.5001-10,000.

Table 2 shows the age at menarche and menstrual regularity. The age of menarche varied from 11-16yrs and majority (85.7%) of women attained menarche at the age of 13-15yrs followed by 10.4% at the age of 11-12yrs and 3.9% at the age of 16. The mean age of menarche of the study respondents is 13.45yrs. 84.0% of the study participants had their periods every month regularly while 16% of respondents had irregular pattern of menstruation.

Table 3 shows the knowledge of study participants about menstruation and menstrual hygiene. All women were aware about the normal duration of menstrual cycle and 96.4% knew the normal duration of menstruation. Nearly half of the women (55.5%) knew source of menstruation but only 26.7% were aware that the menstruation is caused by the hormonal changes. 90.2% responded that the sanitary pad is the ideal menstrual absorbent and 51.3% of respondents were aware that poor menstrual hygiene leads to reproductive tract infection and 19.3% responded both i.e reproductive tract infection and misfortune to home are the consequences of poor menstrual hygiene. Table 4 shows overall 45.7% of women had fair knowledge and only 29.7 % of women had good knowledge about menstruation and menstrual hygiene.

Regarding the menstrual hygiene practices it was found that 68.8% of the study participants used disposable sanitary pads as the absorbent, 21.7% of the women used old cloth and 9.5% used both cloth and pad for managing menstruation. 88.4% of women in this study had the habit of changing pad 2-3 times/day. All the study participants who used cloth during their menstruation (31.2%) had the habit of reusing the cloth and among them 21.1% of the participants use water and soap and

only 9.8% use antiseptics to wash the cloth. 26.7% of the women who reuse the cloth dried the washed cloth under sunlight and 4.5% dry the cloth inside the bathroom.

All the study participants had the habit of taking bath every day during menstruation. 53.7% of respondents had the practice of cleaning external genitalia frequently and 61.4% of respondents had the habit of washing their hand and genitalia only with water while 25.8% of respondents washed their hands with soap and water. Only 12.8% of the study participants used antiseptic for washing. 63.8% of respondents wash their genitalia in front to back direction. 78.6% of respondents had the practice of burning or burying the absorbent as shown in the table 5. Table 6 shows that 50.7% of women followed fair hygienic practices while 46.6% of women followed good hygienic practices during menstruation. There was a positive correlation exists between knowledge and practice among the study population as shown in the table no 7.

Table No.1 Sociodemographic Profile of The Study Population

1)AGE	NO	PERCENTAGE
15-19	97	28.8
20-24	68	20.1
25-29	46	13.6
30-34	33	9.8
35-39	50	14.8
40-44	43	12.8
2)MARITAL STATUS		
UNMARRIED	146	43.3
MARRIED	186	55.2
WIDOWER	5	1.5
3)EDUCATIONAL STATUS		
ILLITERATE	4	1.2
PRIMARY	61	18.1
HIGH SCHOOL	123	36.5
HIGHER SECONDARY	71	21.1
DEGREE/DIPLOMA	78	23.1
4)OCCUPATIONAL STATUS		
UNEMPLOYED	153	45.4
EMPLOYED	73	21.7
STUDENT	111	32.9
5)MONTHLY INCOME		
3000-5000	18	5.3
5001-10,000	149	44.2
10,001-15,000	62	18.4
15,001-20,000	61	18.1
20,001-25,000	12	3.6
>25,001	35	10.4

Table No 2.-Distribution Of Study Participants By Age At Menarche

AGE AT MENARCHE	NO	PERCENTAGE
11	4	1.2
12	31	9.2
13	170	50.4
14	86	25.5
15	33	9.8
16	13	3.9
MENSTRUAL REGULARITY		
REGULAR	283	84.0
IRREGULAR	54	16.0

Mean age at menarche is 13.45yrs.

Table No 3: Knowledge Regarding Menstruation & Menstrual Hygiene

QUESTIONS	RESPONSE
what is menstruation?	urethral bleeding(13.9%) cyclical uterine bleeding(46.0%) don't know(40.1)
cause for menstruation	dietary change(30.3%) hormonal change(26.7%) behavioral change(0.6%) don't know(42.4%)
organs responsible for menstruation	Breasts(0.3%) ovary & uterus(55.5%) vulva & vagina(9.8%) don't know(34.4%)
normal menstrual cycle	25-28 days(100%)
average duration of menstruation	<2 days(3.6%) 2-7 days(96.4%)
ideal type of menstrual absorbent	Cloth(9.8%) sanitary pad(90.2%)
poor menstrual hygiene leads to	reproductive tract infection(51.3%) misfortune to home(13.0%) both(19.3%) general body infection(13.4%) cancer(3.0%)
nutrient lost during menstruation	Vitamins(9.8%) Iron(28.2%) Fat(9.2%) don't know(52.8%)

Table No 4. Knowledge Level Of Respondents About Menstruation And Menstrual Hygiene

LEVEL OF KNOWLEDGE	NO	PERCENTAGE
POOR(1-3 POINTS)	83	24.6
FAIR(4-6 POINTS)	154	45.7
GOOD(7-8 POINTS)	100	29.7
TOTAL	337	100

Table No 5. Practice Of Menstrual Hygiene Among The Study Participants.

QUESTIONS	RESPONSE
type of absorbent	old cloth(21.7%) sanitary pad(68.8%) both(9.5%)
storage of unused absorbent	Bathroom(12.2%) dress cabinet(50.4%) open shelves(11.3%) secret place(26.1%)
change of pads/cloth per day	One(2.4%) Two(50.4%) Three(38.0%) Four(9.2%)
reuse of cloth	Yes(31.2%)
used for washing the cloth	only water(0.3%) water with soap(21.1%) antiseptics with water(9.8%) not applicable (68.8%)
drying of cloth	Bathroom (4.5%) under sunlight(26.7%) not applicable(68.8%)
taking bath per day	one time(56.1%) twice a day(43.9%) never take bath(0%)
wash of genitalia per day	2-3 times(46.3%) 4 or > 4 times(53.7%)
material used for washing hands & genitalia	water alone(61.4%) water with soap(25.8%) water with antiseptics(12.8%)
disposing method of used absorbent	burning/burying(78.6%) domestic waste(21.4%)
direction of washing genitalia	front to back(63.8%) front to back & back to front(35.6%) side to side(0.6%)

Table No 6 Level Of Practice Of Menstrual Hygiene Among Study Participants

LEVEL OF PRACTICE	NO	PERCENTAGE
POOR(<5 POINTS)	9	2.7
FAIR(5 -7 POINTS)	171	50.7
GOOD(8-11 POINTS)	157	46.6
TOTAL	337	100

MEAN-7.36 SD-1.01.

Table No.7. Correlation Between Knowledge And Practice Of Menstrual Hygiene

	PEARSON CORRELATION COEFFICIENT	KNOWLEDGE
	r	0.457
PRACTICE	p	<0.001

DISCUSSION

In the present study, majority of women 85.7% attained menarche at the age of 13-15yrs followed by 35(10.4%) at the age of 11-12yrs and 13(3.9%) at the age of 16 yrs. The mean age of menarche among the study participants was 13.45 yrs. Similarly, a study by Sangeetha Balamurgan et al⁷ found that maximum number of girls attained menarche between 13-15yrs(60%) and mean age of menarche of the respondents was 13.15 yrs. 84% of the respondents had regular cycles and 16% of women had irregular cycles which was similar to the study report by Bhavik Rana et al⁸ where 19% of the study participants had irregular menses.

It was observed from the present study, among 337 women majority 45.7% of the study participants had average knowledge about menstruation and menstrual hygiene. 29.7% and 24.6% of women had good and poor knowledge respectively. Studies conducted by other authors like Adhikari P et al⁹ and LawanUM¹⁰ et al had observed similar findings. Nearly half of the respondents 55.5% knew the source of menstruation. In contrast to the current finding, studies carried out by Jugal et al¹¹(29.1%), Adhikari P et al⁹ (25.3%) and Adwitiya Das et al¹² (20.8%) showed that the study participants had low level of knowledge about the source of menstruation. Regarding the normal duration of menstruation 96.4% of women had given correct response and this is consistent with findings from the studies by Kamath R et al¹³(92%) and Karthik R et al¹⁴ (92%).

50.7% of women in current study followed moderate hygienic practices and 46.6% of women followed good hygienic practice which is contrast to the study done by Patilsudha rani¹⁵ that showed 36.3% of women practiced moderate and 26.2% of women practiced good hygiene. In the present study 68.8% of respondents used sanitary pad, 21.7% of women used old cloth and 9.5% used both cloth and pad which is in concordance with the study done by Kamakhya kumar et al¹⁶.Whereas the study done by Sangeetha Balamurgan⁷ revealed lower usage of sanitary

pads in which 52% of women used cloth as menstrual absorbent, 35% of women used pad and the rest 13% used both. The Government of India had launched a scheme for the promotion of menstrual hygiene among adolescent girls in rural areas of the country. The main focus of the scheme is to increase awareness among adolescent girls on menstrual hygiene, built self-esteem and increase access and use of high quality sanitary pads by adolescent girls in rural areas¹⁷. The pads were given at schools and also in the community by anganwadi worker. This scheme of supply of sanitary pads at low cost by the Government had a great impact in improvement of menstrual hygiene by the adolescent girls and this practice makes them to carry through rest of their reproductive life.

It was observed from the present study, among the study participants who used cloth, all had the habit of reusing the cloth (31.2%) for the next menstrual cycle. 21.1% used water and soap for washing the cloth and 26.7% of women dried the washed cloth under sunlight which is in concordance with the study done by Patilsudha rani¹⁵.

88.4% of women in this study had the habit of changing pad 2-3 times/day. Similar result has been reported by the studies done by Adwitiya Das et al¹² (83.0%) and Anjuade¹⁸ (91.2%). All the study participants had the habit of taking bath every day during menstruation. Anju Ade et al¹⁸ reported similar finding in their study.

To prevent infections, it is essential to maintain good menstrual hygiene which requires frequent washing of private parts with soap or antiseptic and water. 53.7% of the study respondents in our study had the practice of cleaning external genitalia frequently and 61.4% of women use only water for washing. The study conducted by Patilsudha rani¹⁵ also reported similarly, where 58.3% wash frequently and 62.3% of women use water only for cleaning.

Among the 337 women, 78.6% of them burn or bury the used absorbents and only 21.4% of women disposed it by adding to the domestic waste. It was belief that the used absorbents shouldn't be seen by any other family persons

especially male or otherwise it may bring misfortune to the family, so it was their custom either to bury or burn the used absorbent. Similar finding was reported in the study done by Hema Priya S et al¹⁹ where majority of the study participants (60.8%) burn their used absorbents and 29% of girls disposed in domestic waste.

CONCLUSION AND RECOMMENDATIONS

Nearly 70 % of the women were not having adequate knowledge about menstruation and menstrual hygiene. Nearly half of them were not having good practice during menstruation. Hence health education should be given to all women to gain adequate knowledge about menstruation and its management. All women should be encouraged to use the sanitary pads for which these pads should be affordable to every women of our society.

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