

Menstrual Hygiene Knowledge and Practice in Women of Reproductive Age Group

Putcha Sahithi¹, Desai Vidya Sripad²

¹House Surgeon, NRI Medical College & Hospital, Chinnakakani, Guntur, India

²Addl. Professor, Department of Biochemistry, Associate Dean (Academics & Exams), Nodal Officer (Exams), All India Institute of Medical Sciences (AIIMS), Mangalagiri, Andhra Pradesh, India

Abstract: *Menstruation is considered as unclean in the Indian society. There is a large lacuna in the knowledge about menstruation. As a result, they have a negative attitude towards this phenomenon. Good hygiene practices such as the use of sanitary napkins and adequate genitalia cleaning and washing of hands are essential. Aims & Objectives: To assess the knowledge about menstruation and menstrual hygiene practices in women of reproductive age group. Material and methods: A cross-sectional study was done among the reproductive age group females at NRI general hospital. Study population is 200. Structured and pretested questionnaire was used. Inclusion criteria: All females who have attained menarche and in reproductive age group. Exclusion criteria: Menopause women and surgical history like hysterectomy. Results: The majority of the study population belonged to rural area are 57.5%. Population belonging to below poverty line are 66%. 56.5% of women do not know about menstruation before menarche. Sanitary napkin users are 76.5%. Hand wash done with soap and water after toilet usage is 82.5% i.e.; among rural it is 73.91% and among urban it is 94.11%. Hand wash with soap and water in below poverty line group is 73.48% and among above poverty line it is 100%. 92.5% clean their genitalia every time after going to the washroom and 7.5% do it occasionally. Among the study population, 2.5% were diagnosed with urinary tract infections. 3.5% were diagnosed with vaginal infections. 1.5% were diagnosed with pelvic inflammatory disease. Conclusion: Significant association is seen between hygiene practices and education of women, age, socio-economic status and residential status, prior awareness and knowledge about menstruation.*

Keywords: Hygiene, Sanitary Napkins, Hand Wash, Reproductive Tract Infections

1. Introduction

Menstruation is considered as unclean in the Indian society^[1]. Good hygienic practices such as the use of sanitary napkin and adequate washing of the genital area are essential during menstruation^[1]. A key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity^[1]. There is a large lacuna in the knowledge about menstruation^[2]. As a result, they have a negative attitude towards this phenomenon^[2]. Several research studies revealed that there is a low level of awareness about menstruation and menstrual hygiene^[2]. Infections due to lack of hygiene during menstruation have also been reported^[3]. Women and girls of the reproductive age should have access to clean, soft and absorbent sanitary products that can protect their health in the long run^[4]. Menstruation can predispose women to life-threatening RTI (Reproductive Tract Infections) if proper hygiene is not maintained during menstruation^{[3],[5]}. RTI has become a silent epidemic that is devastating the women's lives which is closely related to poor menstrual hygiene^[6]. The use of rags or old clothes is a rule rather than exception in rural areas of India^[6]. Untreated RTIs are responsible for 10-15% of fetal wastage and 30-50% of prenatal infection^[6]. According to Thakur et.al study, 30-40% of young girls did not receive any information about menstruation before menarche^[7]. The knowledge and practices related to menstruation are dependent on socioeconomic conditions. Menstrual hygiene and management directly contributes to MDG-2 on universal education and MDG-3 on gender equality and women empowerment^[8].

2. Aims and Objective

To assess the knowledge about menstruation and also to assess menstrual hygiene practices in reproductive age group women.

3. Materials & Methodology

A cross-sectional study was conducted for six months from December 2018 to May 2019 at NRI General hospital. The study population is 200 females in the reproductive age group who have attained menarche.

Inclusion Criteria:

All Females Who Have Attained Menarche and in Reproductive Age Group Females

Exclusion Criteria:

Women not willing to give consent,
Menopause Women
Any Women who underwent Hysterectomy

A pre-informed verbal and written consent was taken from the study group. A preformed questionnaire was prepared that includes Age of menarche, socioeconomic status, rural or urban, educational status, any prior knowledge about menstruation, material used during menstruation, frequency of change of the material, perception on use of sanitary napkins, hygiene practices followed like genital area cleaning, washing hands after toilet usage and problems during menstruation like itching at the genitalia, foul-smelling discharge, irregular cycles etc. This questionnaire was asked to the females of reproductive age group who

attained menarche. All the data of the questionnaire was collected and reviewed statistically. Tests like Chi-square and Proportions were used for analysis by using SPSS software.

4. Results

Table 1 shows the socio-demographic profile of the study population. It was found that the majority of study population 39.5% (79/200) belonged to 22-31 years of age. Majority of women, 36.5% (73/200) attained menarche at the age of 13 years. The majority of women who had education of degree and above are 38.5% (77/200), followed by 19.5%(39/200) had secondary schooling, illiterates are 4.5%(9/200). It was found that the majority of the women 66%(132/200) belonged to below poverty line group, while 34% (68/200) belonged to above poverty line group. Among the study population, rural and urban women are 57.5% (115/200) and 42.5%(85/200) respectively.

Table 1: Socio-demographic profile of the study population

Variable	No.(%)
Age-wise distribution	
Dec-21	69(34.5)
22-31	79(39.5)
32-41	40(20)
42-51	12(6)
Region	
Rural	115(57.5)
Urban	85(42.5)
Economic status	
Below poverty line	132(66)
Above poverty line	68(34)
Education	
Illiterate	9(4.5)
Primary	14(7)
Middle	29(14.5)
Secondary school	39(19.5)
Higher secondary	32(16)
Degree and above	77(38.5)
Age at menarche	
<11yrs	2(1)
11yrs	11(5.5)
12yrs	51(25.5)
13yrs	73(36.5)
14yrs	37(18.5)
15yrs	23(11.5)
16yrs	2(1)
>16yrs	1(0.5)

Table 2 shows menstrual hygiene practices among the study population. Among The Study Population, 82.5% Wash Hands With Soap And Water while 17% only with water and was not done by 0.5%.

Majority of women, 76.5% (153/200) used sanitary napkins during menstruation. About 17.5% (35/200) used cloth, while 6% (12/200) preferred both cloth and sanitary napkin (figure 1).

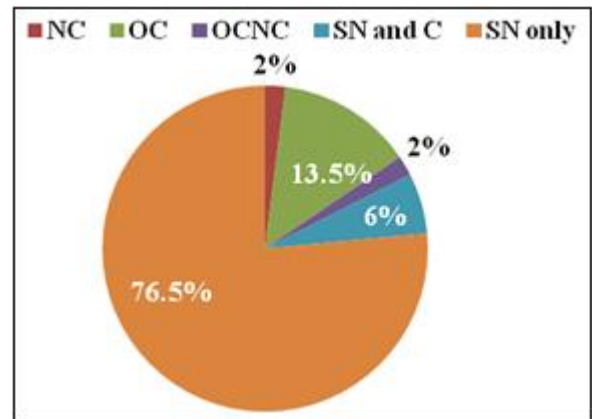


Figure 1: Material used during menstruation

The perception regarding the usage of sanitary napkins was that they are comfortable, they have adequate absorption and they do not stain the cloth.

The reason among the majority of women for not using sanitary napkins is that they are costly (5%) and some women had no knowledge about the sanitary napkins (15%).

The majority of women 43.5% (87/200) changed 2 sanitary napkins per day, followed by 39.5% (79/200) women who changed 3 sanitary napkins per day, and 12.5% (25/200) women changed >3 sanitary napkins per day.

It was found that among the study population, 69.5% (159/200) threw it in the dust bin and 9.5% (19/200) threw indiscriminately and 9%(18/200) burnt it (figure 2). Among those who reuse clothes, 13% (26/27) dry under sunlight and 0.5%(1/27) dry inside home. Among the study population, 92.5% clean genitalia every time after using the washroom.

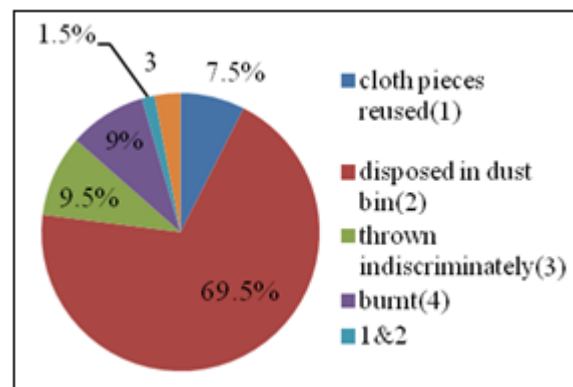


Figure 2: Method of disposal

Table 2: Practices of menstrual hygiene among the study population

Variable	No. (%)
Hand wash	
Soap and water	165(82.5)
Water	34(17)
Not done	1(0.5)
Cleaning genitalia	
Every time after using washroom	185(92.5)
Occasionally	15(7.5)
Material used during menstruation	
New cloth	4(2)
Old cloth	27(13.5)
New cloth and old cloth	4(2)

Sanitary napkin and cloth	12(6)
Sanitary napkin	153(76.5)
Frequency of change of material used during menstruation	
1/day	9(4.4)
2/day	87(43.5)
3/day	79(39.5)
>3/day	25(12.5)
Method of disposal	
Thrown into dustbin	139(69.5)
Burnt	18(9)
Cloth reused	15(7.5)
Thrown indiscriminately	19(9.5)
Reused and dustbin	3(1.5)
Reused and burnt	6(3)

Table 3: Knowledge about menstruation and menstrual history

Variable	No.(%)
Awareness about menstruation before menarche	
Yes	87(43.5)
No	113(56.5)
Source of information before menarche	
Friend	22(11)
Mother	16(8)
Sister	32(16)
Teacher	17(8.5)
No awareness	113(56.5)
Duration of the menstruation	
<2 days	5(2.5)
2-3 days	53(26.5)
3-5 days	133(66.5)
>5 days	9(4.5)
Menstrual cycle	
Regular	170(85)
Irregular	30(15)
Cause of Menstruation	
Curse of god	1(0.5)
Don't know	76(38)
Physiological process	123(61.5)

Table 4 shows the influence of socio-demographic factors on hygienic practices during menstruation. It was found that among 77 women with an education degree and above, 98.7% (76/77) washed hands with soap and water. 94.8% of women whose education is degree and above use sanitary napkin only. Among sanitary napkin users, 47.7% of women education is degree and above.

It was found that among illiterate women, majority 77.7% (7/9) used cloth during menstruation while among those who had a degree and above majority 94.8% (73/77) used sanitary napkins which is found to be statistically significant (P = 0.00000001).

Among the women who throw indiscriminately, 47.36% belong to 12—21 yrs age group. women who do hand wash with soap and water are 82.5% out of which 40.06% of the women's education is degree and above(P=0.0000004). Among the women whose education is degree and above, 98.7% do hand wash with soap and water (P=0.0000004).

Among only sanitary napkin users, 93.46% of women do hand wash with soap and water (p= 0.00000001). Among women who wash hands with soap and water, 86.66% use

sanitary napkin(P=0.00000001). Among cloth users, 46.8% of women do hand wash with soap and water while 53.19% do only with water(P= 0.00000001).

About 43.5% of women change sanitary napkin twice daily while 39.5% change thrice daily out of which 70.88% of women's education is above higher secondary.

Among the women of age group 12-21, 89.85% women use sanitary napkin only, while it is 16.66% among 42-51yrs women.

Among the below poverty line women, 88.63% (117/132) clean genitalia every time after using the washroom while it is 100%(68/68) among above poverty line women (p=0.004). Cleaning genitalia every time after using the washroom among the urban and rural women is 96.4% (82/85) and 89.56% (103/115) respectively.

Among the women whose education is degree and above, cleaning genitalia every time after using the washroom is 100% (77/77). Among the women who clean their genitalia every time after using the washroom, 80%(148/185) use sanitary napkins (p=0.00001). Among women whose education is degree and above, 94.8% use sanitary napkins. Among illiterates 77.7% use cloth (p=0.00000001).

Problems noticed in the study population are curdy white discharge in 1%, profused white discharge in 2%, profuse along with foul-smelling vaginal discharge in 0.5%, vaginal itching in 4%, pain in the lower abdomen in 3.5% and increase in frequency of micturition along with burning micturition in 3%.

Among the study population, 2.5% were diagnosed with urinary tract infections. 3.5% were diagnosed with vaginal infections (2% bacterial vaginosis, 1% candidial infection, 0.5% with trichomoniasis) and 1.5% were diagnosed with pelvic inflammatory disease.

Table 4: Relationship of socio-demographic profile and practice of menstrual hygiene of study population

Variable	No.(%)
Hand wash with soap and water	
Rural (n=115)	85(73.91)
Urban (n=85)	80(94.11)
Below poverty line (n=132)	97(73.48)
Above poverty line(n=68)	68(100)
Based on age group	
12-21 (n=69)	63(91.3)
22-31 (n=79)	68(86.07)
32-41 (n=40)	29(72.5)
42-51 (n=12)	5(41.66)
Based on education	
Illiterate (n=9)	5(55.5)
Primary (n=14)	9(64.28)
Middle (n=29)	21(72.41)
Secondary (n=39)	29(74.35)
Higher secondary (n=32)	25(78.12)
Degree and above (n=77)	76(98.7)
Cleaning genitalia every time after using wash room	
Rural (n=115)	103(89.56)
Urban (n=85)	82(96.47)

Below poverty line (n=132)	117(88.63)
Above poverty line (n=68)	68(100)
Based on age group	
12-21 (n=69)	66(95.6)
22-31 (n=79)	75(94.9)
32-41 (n=40)	36(90)
42-51 (n=12)	8(66.6)
Based on education	
Illiterate (n=9)	7(77.77)
Primary (n=14)	13(92.85)
Middle (n=29)	26(89.65)
Secondary (n=39)	33(84.61)
Higher secondary (n=32)	29(90.62)
Degree and above (n=77)	77(100)
Material used in relation to hand wash with soap and water:	
Sanitary napkin (n=153)	143(93.46)
Cloth (n=47)	22(46.80)
Material used in relation to cleaning genitalia every time after washroom	
Sanitary napkin (n=153)	148(96.73)
Cloth (n=47)	37(78.72)
Material used in relation to the education	
Sanitary napkin users among those with education degree & above(n=77)	73(94.8)
Cloth users among illiterates (n=9)	7(77.7)

5. Discussion

In this study, 43.5% have awareness about menstruation before menarche which is different from the similar study conducted by Madhu Latha Alexander et.al which shows 64%^[15].

In the present study, 61.5% know that menstruation is a physiological process. In Other similar study conducted by S.upashee 76.9% know that it is a physiological process^[9].

In this study, majority i.e; 66.5% attained menarche between 13-15 years which is different to the study conducted by S Sangeetha balamurugan et al, which shows 60% attained menarche between 13-15 years age^[6].

In the present study, 76.5% used sanitary napkin only while it is 35% in the study conducted by S sangeetha balamurugan et al^[6].

Regarding the method of disposal, in this study, 9.5% threw indiscriminately which is different from the study conducted by Dhara j Prajapati, where it is 26%^[10].

The reason for using the sanitary napkins in this study is that they are comfortable among 82%. A similar study conducted by Dhara j prajapati et al, shows it is 46.4%^[10].

The reason for not using the sanitary pads in this study is because of lack of knowledge in 15%. A similar study conducted by Subash B thakre et al, shows 46.4% donot have a knowledge regarding them^[11].

In this study hand wash with soap and water is done by 82.5% which is similar to the study conducted by dhara J prajapati et al, where 80% do hand wash with soap and water^[10].

In this study, 92.5% clean their genitalia every time after going to the washroom. In the study conducted by Priya S et al, 67.9% clean their genitalia every time after going to the wash room^[14].

6. Conclusion

Hand wash (with soap and water), cleaning genitalia (every time after going to bathroom), material used during menstruation are highly dependent on the education, region of living (urban or rural), economic status and age of the women. Menstrual hygiene, a very important risk factor for reproductive tract infections, is a vital aspect of health education for adolescent girls. Schools should be an entry point for improving menstrual health by integrating menstrual hygiene into the curriculum, providing toilets and even supplying the sanitary napkins.

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