

Awareness and Practices on Menstrual Hygiene Amongst Adolescent Girls in Rajkot District of Gujarat

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Abstract :

Introduction : The knowledge established about the physiology of menstruation and unhygienic practises at adolescent age of girls predispose them to life threatening reproductive tract infections, infertility and various menstruation related morbidity conditions. And the same knowledge and practise is usually followed by them throughout life and also passed on to the next generations. **Objective :** To study the knowledge about physiology of menstruation and related problems. To study the level of awareness about safe menstrual hygienic practices. **Method :** A cross sectional study was done amongst 400 adolescent girls (school going and non school going but attending (Anganwadi Centre) from 4 villages of Rajkot district. Villages were selected randomly through multistage sampling technique. **Results :** The mean age of respondent in the study was 14.90+-2.90 years. Majority of school going girls were educated between 9 to 11th standard. 73.25% girls were using clothes while 26.75% were using sanitary napkin. Physiology of menstruation was known to only 5.7% of school going girls. Source of bleeding was known to only 24% girls. Correct Knowledge about the age of menarche was present amongst 83.50% study girls. 99% girls practiced cleaning of genitals with water. Infection related awareness was present amongst 56.25% girls. **Conclusion :** Study results show that there is poor knowledge about physiology of menstruation source of bleeding at the time of menstrual period and RTI/STI associated with poor hygiene practice. There is adequate knowledge regarding age of menarche and menstrual hygiene practice is good.

Key words : Menstrual Hygiene practices, RTI (Reproductive tract infections)

Introduction :

The menstrual period is a physiological process that occurs throughout the reproductive years of every woman [1, 2]. This process is associated with various mental as well as physical morbidities like premenstrual syndrome. Menstruation can also predispose women to life threatening RTI (Reproductive Tract Infection) if hygiene is not maintained throughout menstruation.

Issue of "Menstrual Hygiene" begins with initiation of menstruation. The practices, knowledge and attitude which develop at adolescent age, are usually followed by them throughout their life and also passed on to their next generation. Therefore any faulty belief or practice pertaining to menstruation will affect health of large number of women in reproductive age group. Usually adolescent girls are guided by their mother, elder sister or other family

members regarding menstrual hygiene practices. So, knowledge and beliefs of mother as well as other female family members regarding the menstrual hygiene in adolescents are important determinants. Menstrual hygiene practices also vary in rural and urban areas. In Indian culture, talking about reproductive function of body is considered taboo. Young females have poor knowledge and lack of awareness about physical and physiological changes associated with the onset and presence of adolescence. They hardly get any chance to learn about menstruation. Various myths and social beliefs are also prevailing to menstruation. Most girls are unaware about proper menstrual practices at the age of menarche [3].

Use of unhygienic cloths may lead to development of infection of reproductive tract which may seriously hamper the reproductive capacity or even life of female. Several research studies have

revealed gap between facts and beliefs of adolescent girls and showed that there is low level of awareness about menstruation among girls when they first experience it.^[3] Therefore there is a need for implementation of appropriate public health measures at various levels to generate awareness about safe menstrual hygiene practices among adolescent girls for the prevention of RTI and future complications.

Present study was conducted in four talukas of Rajkot district. The present study was conducted with the objectives to assess knowledge regarding menstruation and menstrual hygiene practices prevalent in these areas among adolescent girls.

Method :

A cross sectional study was carried out in Rajkot district by Community Medicine Department of P. D. U. Govt. Medical College, Rajkot during the month of February and March 2014. The sample size was calculated as 400 by the formula $4pq/l^2$, where p is taken as 0.5, assuming that 50% of the adolescent girls were having correct knowledge and practice regarding menstruation. Further sample was proportionately divided into 280 (70%) for school going adolescent and 120 (30%) out of school going adolescent based on the 70% girls are enrolled in higher secondary schools (as per DLHS-3). The sampling was done using multi-stage sampling method.

First Stage	<ul style="list-style-type: none"> • District was divided in four zone • From each zone one taluka was selected randomly by lottery method
Second Stage	<ul style="list-style-type: none"> • From each selected taluka, list of the villages was obtained and one village from each taluka was randomly selected by lottery method • From each village 100 participants were taken to complete 400 samples size.
Third Stage	<ul style="list-style-type: none"> • From each village 70 adolescent girls studying in school and 30 non school going girls registered in Anganwadi were selected for study

A pre formed, pre tested semi-structured questionnaire was used for data collection after piloting. A questionnaire was distributed to the girls in school and asked to fill the Performa while, adolescent girls from Anganwadi centres were interviewed for the data collection by field investigators. Informed consent was taken from the Principal in case study at school and from parents/guardian selected from the Anganwadi centres. The data entry was done in Microsoft Office Excel 2007 and data analysis in Epi info 7.0

Results :

Table 1: Socio-demographic profile of study participants

Socio-demographic variables	Frequency	%
Age in years		
13	65	16.25
14	118	29.50
15	90	22.50
16	66	16.50
17	43	10.75
18	11	02.75
19	7	01.75
School going		
Yes	280	70.00
No	120	30.00
Standard		
9	177	63.22
10	8	02.86
11	95	33.93
12	-	-
Total	280	100
Religion		
Hindu	375	93.75
Muslim	25	06.25
Christian	-	-
Caste		
General	92	23.00
SC	80	20.00
SEBC (OBC)	220	55.00
ST	8	02.00
Type of Family		
Joint	78	19.50
Nuclear	251	62.75
Three Generation	71	17.75
Total	400	100.00

As shown in table 1, the study included 280 school going and 120 non-school going adolescent girls of 13-19 years age group. Mean age of participants was 14.90 ± 2.90 yrs. Most (93.75%) of the girls were Hindu and majority of participants (62.75%) belonged to nuclear family.

Table 2 : Knowledge of participants regarding menstruation

Variables regarding knowledge	n	%
Age of menarche (n=400)		
10 to 15 Years	334	83.50
>15 Years	13	03.25
Don't Know	53	13.25
Source of menstrual blood (n=400)		
Abdomen	8	02.00
Intestine	3	00.75
Uterus	96	24.00
Don't know	293	73.25
Knowledge about physiology of menstruation(n=400)		
Disposal of bad blood	193	48.25
Change in hormonal level	22	05.50
Weight gain	3	00.75
Don't know	182	45.50
Awareness about sanitary Napkin (n=291)		
Source of information (n=291)		
Mother	87	29.90
Sister	42	14.43
Friend	60	20.62
Media	65	22.34
ASHA	0	00.00
Other	37	12.71
Received information regarding menstruation(n=400)		
Place of information given regarding menstruation (n=276)		
School	150	54.35
Home	113	40.92
Anganwadi	-	-
Other	13	04.71
Source of information regarding menstruation (n=276)		
Teacher	139	50.36
Mother	98	35.51
Health provider	16	05.80
Other	23	08.33

In Rajkot district, 83.50% of girls had correct knowledge regarding age of menarche (table 2) and only 24.00% girls knew about source of menstrual bleeding. The physiology of the menstruation was correctly answered by only 5.7% of school going adolescent girls. The awareness regarding sanitary

napkin was in almost 3/4th of the girls of the district with the major source of knowledge being mother (29.9%), media (22.34%) and friend (20.62%). Out of 276 girls who received information regarding menstruation, major sources of information were teachers (50.36%) and mothers (35.51%).

Table 3: Comparison of knowledge among school going and non-school going adolescent girls

Sr. No	Knowledge	Overall	School Going	Non-school going	SEP Z value
1	Source of Menstrual Blood	96 (24%)	82 (29.29%)	14 (11.67%)	3.47
2	Physiology of Menstruation	16 (04%)	16 (5.71%)	00	2.70
3	Age of Menarche	334 (83.5%)	263(93.93%)	71 (59.17%)	6.97
4	Relation between menstruation and pregnancy	169 (42.25%)	137 (48.93%)	32 (26.67%)	3.65
5	Anaemia due to loss of blood in MC	60 (15.0%)	49 (17.5%)	11(9.17%)	0.35
6	Occurrence of Infection During MC if Hygiene is poor	225 (56.25)	182 (65.0%)	43(35.83%)	4.72

As per table 3, the knowledge regarding source of menstrual blood was more among school going girls (29.3%) as compared to non-school going girls (11.7%) in Rajkot district. The relationship between menstrual cycle and pregnancy was known to almost

half of the school going girls while in non-school going girls, only 26% were aware about it. Anaemia may occur due to loss of blood in menstrual cycle was known equally among school going as well as non-school going girls.

Table 4 : Menstrual hygiene practices during last menstruation

Variables	Rajkot			
Absorbent used during last menstruation				
Cloth	293 (73.3%)			
Sanitary Napkin	107 (26.7%)			
Cleaning genitals(n=400)	395 (98.8%)			
Method of cleaning genitals				
Soap water	134 (33.9%)			
Water	240 (60.8%)			
Antiseptic	19 (04.8%)			
Other	02 (00.5%)			
Which type of problem (Problems faced with the adsorbents)				
	Cloth		Sanitary Napkin	
	N	%	n	%
Itching	12	44.44	3	60.00

Ill Fitting	-	-	-	-
Staining on Cloths	-	-	-	-
Rashes	12	44.44	1	20.00
Other	3	11.11	1	20.00
Total	27	09.22	5	04.67
Method of disposal				
Dustbin & Burning	256	87.37	104	97.20
Toilet	37	12.63	3	02.80
Other*	-	-	-	-
Total	293	100.00	107	100.00

*Others included washing and burial for cloths and sanitary pad, respectively.

Table 4 shows that in Rajkot district, 293 girls had used Cloth and 107 girls had used Sanitary Napkin during last menstrual cycle. Nearly 99% girls were cleaning genitals during menstruation and most of them (>95%) were using plain water or soap with water to clean the genitals. The most common

problems faced with cloth as absorbent were itching and rashes while itching was the major complain while using sanitary napkin as an absorbent. The method of disposal used was through dustbin and burning in 87.4% of those using cloth as absorbent and 97.2% in those using sanitary napkins.

Table 5: Association between absorbents used by participants and their mothers

Absorbent used by Participants	Absorbent used by mother		Total
	Cloth	Sanitary napkin	
Cloth	254(99.22)	2(00.79)	256 (100.0)
Sanitary napkin	54(65.86)	28(34.15)	082 (100.0)
Total	308 (91.12)	30 (08.88)	338 (100.0)
	Chi square value 85.48, P value<0.0001		

Statistically significant association was found between the absorbent used by the mother and study participants. It indicates that there were all chances that same types of the adsorbent were used by the adolescent girls, which were used by their mothers.

Discussion :

In most of the Indian traditional societies, open discussion in public on a topic like process of Menstruation and its related health problems, is considered as a taboo and it is often discouraged. This leads to lack of proper knowledge and affects safe practice of menstrual hygiene in adolescent girls and also pose them to the risk of anxiety, reproductive infections as well as pregnancy related issues.

In the present study, an effort has been made to assess the correct knowledge regarding physiology of menstruation and safe menstrual hygiene practices amongst adolescent girls of rural and urban areas of Rajkot district.

The mean age of participants was 14.90±2.90 and 83.50% had adequate Knowledge regarding age of menarche this study.

In the present study 24 % girls were having adequate knowledge about source of bleeding during menstruation and results are similar to a study done in Uttarakhand in which 29.1% girls had correct knowledge.^[4] While 40% girls showed the correct knowledge in another study conducted by Jasrotia RB

and Kanchan A.^[8] But a study done in Nagpur city, only 2.5% girls stated that menstrual bleeding come from uterus.^[5]

It was observed in our study that only 4% of girls believed that menstruation is a physiological process. The result is similar to the findings of the study done by Mudey AB et al. in which most of the girls out of 300 had poor knowledge about the same.^[6] The reason may be that the issue is not frequently discussed at home or schools. But in the studies conducted by Jasrotia RB et al. and Das gupta A et al. a significant proportion of girls 74% and 86.25% respectively considered it as a Physiological process.^[8,9]

It was seen that the knowledge regarding relation of menstruation and pregnancy was present in 42.25% girls as compare to 35.8% adolescent girls of Kheda district.^[10]

The study reveals that most of (73%) the girls used cloth during menstruation. The reason may be lack of awareness or low socioeconomic status. The findings were consistent with the other study done by Thakre SB in Nagpur.^[5] Government Of Gujarat has launched a program in Kheda district where Sanitary Napkin are being provided at subsidized rate through schools, so use of cloth was less 61% in Kheda as compared to Rajkot district.^[11]

The use of SN in last MC was 27% in our study while 38.4% in a study done by Juyal R et al.^[4] The above observation may be due to lack of proper health education program in school which focuses on the menstrual health and hygiene among girls. 39% girls were using sanitary napkin in Kheda^[11] and in a study by Shanbhag D et al. it was seen that 44.1% used sanitary napkin.^[7]

Personal hygiene during menstruation was variable in different studies. In present study 99% girls were cleaning their genitals properly as compare to 95% in Kheda.^[11] Similar result was seen in a study by Juyal R et al. in which the result was 94%.^[4] In other study only 59.33% girls maintain their personal hygiene during menstruation.^[6]

9.22% girls using cloths faced problems like infection or itching during menstruation in present

study as compare to 66% girls in Kheda district.^[11] Similarly most of the girls developed infection and complained of white discharge, itching and burning micturition during their periods in a study by Mudey AB et al.^[6] As we know that cloth users are more prone to develop genital tract infection; 65.70% respondent developed infections in a study done in Rajasthan state that there is strong and significantly relationship between RTI and hygiene practice during menstrual cycle.^[12]

In a study done in Rajasthan In above study the commonly used method of disposal of used absorbent is dustbin or burning 93% which goes in common solid waste disposal.^[12] In study conducted by Thakre SB et al. common practice was wrapping in paper and disposing in dust bin or burning it. The same findings were reported by other studies.^[13-16]

Conclusion and Recommendations :

The knowledge regarding the various aspects of menstruation is poor, especially among non-school going girls. Majority of adolescent females still follow the practice of usage of cloth as an absorbent for menstrual blood. They are unaware of proper disposal techniques of sanitary pad or other material used as absorbent which may promote various communicable diseases among themselves as well as in the community. Stringent efforts are required to promote the menstrual hygiene practices among rural females. ANM and ASHA could be important source for promoting Menstrual Hygiene related awareness and practices, but it is required to ensure proper actions by both ANM & ASHA for effective implementation. Mothers and elder sisters are playing important part in the hygienic practice during menstruation among girls; especially in out of school adolescent girls; so inter-personal communication sessions of the Mothers must be arranged along with adolescent girls at Anganwadi centers or in the schools. Impact of television, local channels, radio as well as Newspaper and pamphlets in increasing the awareness about use of Sanitary Napkin is observed and that should be used for mass campaign. The findings of the study can be utilized for making new policies and planning programs for improving the menstrual hygiene of adolescent girls especially of rural areas.

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