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Menstrual Hygiene - Adolescent Girls' Concerns'

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ABSTRACT

Background: Knowledge of adolescent girls regarding reproductive health including menstruation is not learnt in systematic manner and hence may be half baked and influenced by socio-cultural barriers.

Aims & Objectives: To study the knowledge, perceptions and practices of school going adolescent girls of 15-19 years of age regarding menstrual hygiene and identify the socio-cultural factors influencing them.

Material & Methods: The semi-structured questionnaire was used and data analysed using Microsoft Excel 2007 and Epi Info 7 software.

Results: 69.2% of the adolescent girls were aware about menstruation and mother was the key informant in 384 (76.80%). 100 (20.00%) thought that it is a Curse of God/Sin and 91 (18.20%) of the respondents perceived menstruation as a disease/abnormal bleeding. Only 149 (29.80%) of the subjects answered that uterus is the source of menstrual blood. Majority of the girls living in the joint families were not allowed to visit religious places and the association was found to be statistically significant ($p<0.05$).

Conclusion: Over 80 % are disposing of sanitary napkins in dustbin or open which may turn out to be hazardous. FamilyType affects awareness of adolescents, personal hygiene and imposed restrictions regarding menstruation .These were found to be significantly associated.

Keywords: Menstruation, menstrual hygiene, adolescent girls, sanitary napkins, personal hygiene.

INTRODUCTION

Largest adolescent population in the world is in India. They constitute 47% of the population. Physical, physiological and psychological developmental changes occur at this age. Adolescent girls often lack knowledge regarding reproductive health including menstruation which can be due to socio-cultural barriers in which they grow up.Because of differences various problems for the adolescent girls are manifested. So very crucial is to provide information, education and suitable environment for girls in order to make them competent to deal with menstrual issues. [1]

The immediate family environment, peers, societal norms, school environment, and the workplace influence the development of adolescents' personality, capacities and vulnerabilities.[1] Poor water, sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic items (absorbents) cause girls to experience menstruation as shameful and uncomfortable. [2]

Moreover poor personal hygiene and unsafe sanitary conditions result in gynaecological problems among the adolescent girls. Also there is high prevalence of reported cases of infections due to lack of hygiene during menstruation. It has been re-

ported that repeated use of unclean napkins or the improperly dried cloth napkins before its reuse results in harbouring of micro-organisms and causing vaginal infections. [3]

The accessible literature is either not from this region or has not covered the issues taken up by this study hence the present study was conducted to study the knowledge, perceptions and practices of school going adolescent girls of 15-19 years of age of this region regarding menstrual hygiene and identify the socio-cultural factors influencing.

METHODS

A cross-sectional study was conducted among adolescent girls in the age group of 15-19 years studying in the secondary schools located in the field practice area of Urban Health Training Centre, Tripuri, Patiala (Punjab) during the calendar year 2016.

To determine the sample size, a pilot study was conducted and the awareness regarding menstrual hygiene was recorded. It was found to be about 50%. This proportion is considered as the key variable in sample size determination.

Sample size was calculated using the formula $N=Z^2_{\alpha}p\ (1-p)/d^2$ where Zα = value at specified confidence level (1.96), P= the proportion of the event in population (50% or 0.5), d= margin of error (10% of p) = (0.1*0.5) and q= (1-p) = (1-0.5=0.5). The calculated sample size was 384. Applying a non-response rate of 15% the sample (approx. 58), the final sample size was 442. The sample is further rounded off to 500 accounting for contingencies such as non-responsiveness, consent withdrawal or recording error.

Due clearance was obtained from the institutional ethics committee.

Sampling procedure

Simple random sampling design was adopted in conducting this study. The field practice area, Tripuri, of Government Medical College, Patiala was selected purposely. There are three secondary schools located in the field practice area. All of them were selected for the study. From each school a list of 15-19 years of adolescent girls was obtained. 500 study subjects were selected by using simple random sampling, with the help of random number tables. An assent form was given to all the girls who were under 18 years of age and a consent form was filled by girls above 18 years. Permission to conduct the study was also taken from the school authorities.

The semi-structured questionnaire included topics related to knowledge and practices regarding menstruation. Data thus generated was entered and analysed using Microsoft Excel 2007 and Epi Info 7 software for both descriptive and inferential statistics. Pearson Chi-square test was used for testing the statistical significance of the association of various variables.

RESULTS

In the present study majority (76.8%) of girls being of age 15 -17 years age (mean 16.18±1.34 years), with urban background (87.6%) and were living in nuclear families (62.2%). About 66.7% of girls were from middle class families.

Most of the adolescent girls 69.2% were aware about menstruation (Table 1) and 384 (76.80%), got information about menstruation from their mother, followed by teachers 128 (25.60%), relatives/ friends in 95 (19.00%), and media in 48 (9.60%).

Majority opined that 353 (70.60%) of the respondents considered menstruation to be a normal phenomenon, followed by 194 (38.80%) who believed that it is associated with pregnancy, 100 (20.00%) thought that it is a Curse of God/Sin and 91 (18.20%) of the respondents perceived menstruation as a disease/abnormal bleeding.

149 (29.80%) of the subjects answered that uterus is the source of menstrual blood while 132 (26.40%) perceived vagina, followed by 96 (19.20%) said some other organ and 56 (11.20%) thought urinary bladder to be the source of menstrual bleeding. There were 67 (13.4%) of girls who gave no response. (Figure 1)

Among the 108, cloth users 20.37% changed the cloth once a day, 37.96% changed it twice and 16.67% subjects changed it thrice a day.

Table-1: Association of awareness regarding menstruation with type of family (n=500)

Type of Family	Aware (%)	Not Aware (%)	Total (%)
Joint	117 (61.9)	72 (38.1)	189 (100)
Nuclear	244 (78.46)	67 (21.54)	311 (100)

x^2 = 16.04583; df=1; **p-value**<0.001

Table-2: Distribution of subjects according to the practice of disposal after using sanitary napkin (n=389)

Method of Disposal	Subjects (n=389) (%)
Dustbin	317 (81.49)
Latrine	16 (4.11)
Common Dump	46 (11.83)
Others	10 (2.57)
Total	389 (100)

Table-3: Association between menstrual hygiene practices of study subjects and their type of family

Menstrual Hygiene Practices		Type of Family		Chi-Square	df	p-value
		Joint (%)	Nuclear (%)			
Bathing during menstruation (n=497)	Yes	166 (89.25)	305 (98.07)	18.2772	1	<0.001
	No	20 (10.75)	6 (1.93)			
	Total	186 (100.00)	311 (100.00)			
Cleaning private parts (n=500)	Yes	149 (78.84)	295 (94.86)	30.3326	1	<0.001
	No	40 (21.16)	16 (5.14)			
	Total	189 (100)	311 (100)			

P value >0.05 indicates non significant

Table-4: Association of restrictions during menstruation with type of family

Restrictions Practiced During Menstruation		Type of Family		Chi-Square value	df	p-value
		Joint (n=189) (%)	Nuclear (n=311) (%)			
Going to School	Yes	164 (86.77)	272 (87.46)	0.0498	1	0.823412
	No	25 (13.23)	39 (12.54)			
Cooking	Yes	168 (88.89)	291 (93.57)	3.4208	1	0.06438
	No	21 (11.11)	20 (6.43)			
Eating Sour Food	Yes	110 (58.20)	182 (58.52)	0.0050	1	0.943628
	No	79 (41.80)	129 (41.48)			
Visiting religious places	Yes	54 (28.57)	129 (41.48)	8.4407	1	0.003669
	No	135 (71.43)	182 (58.52)			

P value >0.05 indicates non significant

Table 5: Distribution of subjects according to their knowledge and perceptions regarding source of menstrual bleeding

Organ	Percentage of population (%)
Uterus	29.80
Vagina	26.40
Urinary Bladder	11.20
Others	19.20
No response	13.40

While there were 25% subjects who changed the cloth 4 or more times a day. Those who used sanitary napkin (389), most of them changed it twice (38.3%) or thrice (34.45%) a day. Majority of the adolescent girls (81.49%) disposed off the used sanitary napkin in the dustbin.

Table 3 shows a significant association between nuclear status of family and good menstrual hygiene practices (p<0.001).

Table 4 shows the association of restrictions practiced during menstruation by the adolescent girls with their type of family. Majority of the girls living in the joint families were not allowed to visit religious places and the association was found to be statistically significant (p<0.05).

DISCUSSION

The profile of subjects in this study was comparable to the findings of Kumar et al[4], where the mean age of the respondents was 16.84±3.05 years and 48.9% belonged to middle socio-economic class.

Kamath et al[5] from Karnataka reported mother as the main source of information both in urban 85.6% (n=231) and 82.9% rural (n=232) groups followed by sisters and friends. For Rajpoot et al [6] from Varanasi district, it was 44.8% by mothers. In an another study in Gujarat by Patel et al[7] reported that mothers were the key informant for 57.43% of the respondents and teachers were for 14.03% of the girls. Similar findings were reported by Omidvar et al [8] from Mysore, Thakre et al [9] , Khanna et al [10] , Tiwari et al [11], Udgiri et al [12] and Bobhate et al [13] in consonance with the findings of present study.

On assessing, mistaken beliefs that menstruation and superstitions regarding menstruation were found. The reason for this could be that even though there has been a positive influence of urbanization, there is still a gap in the knowledge of adolescent girls and findings were consistent with the study conducted in Bangalore city by Shanbhag et al [14] (2012), which reported that 73.7% of the study subjects knew that menstruation was a normal phenomenon, and 35.8% of respondents thought it to be associated with conception/pregnancy.

Misconceptions emerged when asked about the source of the menstrual bleeding. Our findings were in line with findings at Chennai by Seenivasan et al [15] where only 20% knew that uterus is the source of bleeding while 26.4% thought it to be vagina. A study of west Bengal conducted by Bhattacherjee et al[16] (2012) on Experiences of menstrual hygiene among adolescent girls of slums of Siliguri found only 29.2% knew correctly that uterus is the source of menstrual blood. Absence of proper education at schools related to menstrual physiology,

lacuna in health education programmes with lesser focusing on menstrual hygiene or poor literacy level of mothers may be few of reasons responsible.

Since the type of absorbent used is an important factor associated with infection and symptoms, in this study we explored this aspect. The use of sanitary pad was relatively higher which can probably be due to high availability in this area, purchasing power and also due to influence of media which has increased the awareness regarding the availability and use of sanitary pads. These results were similar to study conducted by Rani et al [17] (2012) in Chandigarh where reported usage of sanitary pad was 67%. From Ballarpur (Chattisgarh) by Jitpure [18] (2016), it was reported that 62% adolescent girls used sanitary pads while 38% used cloth. Kanotra et al [19] (2013) and Yasmin et al[20] (2013) also reported similar findings.

For washing practices like bathing and cleaning private parts concordant findings were reported by Kumar et al [21] (2011) from Rohtak city (Haryana) in a study among school going adolescent girls i.e. , 92.9% of girls bathe daily during menstruation. A higher percentage, 97.6% of girls bathing daily during menstruation was reported by Nair et al [22] (2012). Other studies like Shanbhag et al [14] (2012), Omidvar and Begum [8] (2010) and Yasmin et al [20] (2013) reported similar results.

Families may act as a source of many taboos, restrictions and cultural beliefs with detrimental effects. Similar results were reported by Dasgupta and Sarkar [23] (2008), where 16.18% girls did not attend school and 70.59% girls did not attend any religious occasion. Tarhane and Kasulkar [24] (2015) reported 84% girls were restricted from visiting holy places; according to Kumar et al [21] (2011) 76.15% were not allowed to visit religious places.

CONCLUSION

Type of family to which they belong and age affect awareness of adolescents regarding menstruation. The menstrual hygiene practices were more prevalent in the nuclear families. Awareness regarding menstrual hygiene among the adolescent girls is low especially in the joint families. No significant association was seen between restrictions and type of family of the adolescent girls except that majority of the girls living in the joint families were not allowed to visit religious places Misconceptions glare, pointing to an area to work upon for making them understand about menstruation along with laying stress on hygiene practices .Mother being the key informant across all studies, emphasizes to target this area and use it for raising level of awareness.

Hence, knowledge and awareness regarding menstrual hygiene need to be promoted. The interventions need to be strengthened and instituted to improve the overall reproductive health status, especially of the adolescent girls.

RECOMMENDATION

Teachers may be encouraged to take active part in imparting menstrual hygiene educationas mothers being the first source of information,so girls should be educated and counselled about the menstruation and safe hygienic practices so that they can overcome their hesitance and communicate with their daughters about menstruation much before the age of menarche.

Enforcement of BCC (Behaviour Change Communication) activities in relation to adolescent friendly reproductive health services is an integral component of RMNCH+A.

Limitation of the study: The adolescent girls from a particular area were contacted and so the results may have inherent restrictions in extrapolating to all the adolescents having varied cultural and other socio demographic profiles.

Relevance of the study: (What it adds to the current knowledge) There are patches of ignorance in basic knowledge about menstruation despite urbanization and role of media. Mother is the key informant. Personal hygiene needs improvement .Cloth is still being used as absorbent which may not be properly dried before reuse leading to infections. The study of disposal of sanitary napkins highlights points to an important aspect drawing attention that over 80 % are disposing of sanitary napkins in a hazardous manner.

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