J Nur Today

RESEARCH ARTICLE

www.jolnt.com

e-ISSN 2456-1630

"A Study to Assess the Knowledge & Practice Regarding Menstrual Hygiene among Adolescent Girls Studying in a Selected School in Pune".

Lt Col Suman Dhaka[1]*, Lt Col B Vijaya[2], Maj Sumam T Mathew[3], Maj Anita Singh[4], Capt Manju Radhakrishnan[5] and Capt Chandrakala Bisht[6]

[1]Lecturer college of Nurisng, Army Hospital Research & Referral, New Delhi, India

[2]GD Matron, 92 BH, Srinagar, JK, India

[3]Sr Sister, INHS Asvini, Mumbai, MS, India

[4-5]Sr, Sister, 181 MH, Tengavalley, Arunachanl Pradesh, India

[6]Sr Sister Command Hospital Eastern Command, Kolkatta, WB, India

Greentree Group

Received: 24.03.2017

Edited : 04.04.2017

Accepted: 11.04.2017

Published:15.03.2017

ABSTRACT

In India about 20.9% of total population belongs to adolescent age group (10yrs-19yrs)[1].Adolescents belong to vital age group, not only because they are the entrant population to parenthood but also because they are threshold between childhood and adulthood. As they attempt to cross this threshold they face various physiological, psychological and developmental changes[2]. The most striking change in adolescent girls is the onset of menstruation. There is lack of information on the process of menstruation, the physical and psychological changes associated with puberty and proper requirements for managing menstruation[3].

KEYWORDS

- Assess: Level of knowledge in terms of poor, fair and good,
- Menstrual hygiene: Hygienic measures used during menstrual cycle.
- Adolescent girls: Female child in the age group of 11 - 18 yrs.
- Knowledge: Understanding level of adolescent girls regarding the concepts of menstruation & menstrual hygiene
- Practice: waysto carry out their menstrual hygiene in terms of usage & disposal of sanitary pads, maintaining personal hygiene and cultural believes.

INTRODUCTION

Need of the study

Most of the girls receive their gynaecological information from their mothers, religious books, older sister or a peer. Her understanding and acceptance of this new identity, in future, will be influenced by the feedback she receives from peers, educators and most importantly by her parents. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes. The social stigma attached to menstruation causes many girls and women to carryout dangerous unhygienic practices. Facing long-standing social stigmas attached to menstruating bodies, many become isolated from family, friends and their communities. Often, they miss school and productive work days and fall behind their male counterparts[4].

Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). The interplay of socio-economic status, menstrual hygiene practices and RTI are noticeable. Today millions of women suffer from RTI, its complications and often the infection is transmitted to the offspring of the pregnant mother.A study from UNICEF revealed that 1 out of 3 girls in South Asia knew nothing about menstruation prior to getting it while 48% of girls in Iran and 10% of girls in India believe that menstruation is a disease

(Water Aid 2013, Menstrual Hygiene Matters).[5] Thus good MHM has to be more than just facilities for washing and disposal, for addressing the practical dimensions without taking on the more strategic dimensions that surround this biological phenomenon with shame, silence and disgust will fail to bring dignity and safety to women[2].

In 2012, study on menstrual management in Uganda,conducted by the Netherlands Development Organization (SNV) and IRC International Wash and Sanitation Centre, in seven Ugandan districts, found that over 50 percent of senior female teachers confirmed there was no provision for menstrual pads for schoolgirls. About half of the girl pupils in the study reported missing of primary school for 1-3 days/ month. This translates into a loss of 8 to 24 school days per year. This means per term a girl pupil may miss up to 8 days of study. On an average, there are 220 learning days in a year and missing 24 days a year translates into 11% of the time a girl pupil will miss learning due to menstrual periods. Over 60% of the girl pupils are not present in the school during their menstruation while the senior head teachers noted that around 40% absent themselves[5].

MATERIALS AND METHODS

A descriptive survey approach was adoptedto obtain information about the knowledge and practice about menstrual hygiene within thepopulation.Purposive sampling was used to select a sample size of 200. All children studying in class 6th to 12th who attained menarche and were willing to participate were included for the study.A semi-structured questionnaire was prepared for assessing the socio-demographic profile knowledge and practice about menstrual hygiene. Ten questions were included for assessment of knowledge. Every item has more than two options with one most appropriate answer. The maximum score for the correct response to each item was one and for the wrong response it was zero. Thus for 10 items maximum obtainable score was ten. No negative scoring was given.

RESULTS

Table 1 Distribution of sample as per Socio demographic data
n=200

Variable	Categories	Percentage
Age	11-12yrs	12.5
	13-15yrs	45
	16-18yrs	42.5
Mothers' education of the samples	Matric and less	9.5
	Intermediate	18.5
	Graduate	58
	Post Graduate	14
Mothers' occupation of the	House wife	75

samples	Skilled worker	2.5
	Business	1
	Professional	21.50
Monthly family income	10,000 -25000	2.50
	25000 -50000	48
	50000 -75000	20
	75000 -100000	18
	100000 -125000	0.50
	125000 -150000	1.50
	175000 -200000	4.50
	Above 200000	1
	Don't know	4
Religion	Hindu	88
	Muslim	6
	Christian	4
	Buddhist	1.50
	Sindi	0.50

The above table illustrates that maximum (45%) study sample were in the age group of 13 to 15 yrs followed by 43% in the age group of 16 to 18 yrs. The educational qualification of majority(58%) of the study sample's mother was graduation followed by 18.50% of the mothers were of intermediate level and only 19(9.50%) of them were with education of matriculation and less. Mothers of 150(75%) samples were housewives, 43(21.50%) of them were professionals,5(2.50%) of them were skilled workers and only 1(0.5%) of them are engaged in business. 88% of the samples belonged to Hindu religion. The total monthly family income of the majority of the samples falls in the range of Rs.10000-Rs.25000 and only 0.5% of the samples had income in the range of Rs.100000-Rs.125000.

Table 2 Knowledge scoring of the samples
n=200

Score	Poor	Average	Good	Excellent
No. of samples	13	26	64	97
Percentage samples	6.5%	13%	32%	48.5%

The above figure illicit that 48.5 % had excellent knowledge and 6.5% study sample had poor knowledge

Table 3 Beliefs and customs followed by the samples during periods
n=200

Category of practices	Responses	Percentage responses
Touch pickle	Yes	49.50
	No	50.50
Visit religious place/attend pooja	Yes	93
	No	7
Enter the kitchen	Yes	90.50
	No	9.50
Wash hairs	Yes	87
	No	14
Water the plants	Yes	77

	No	23
Allows you to go to school	Yes	95.50
	No	4.5

Above table demonstrates that 50.50% of the samples do not touch pickle ,76% of them have restriction in visiting religious place and attending pooja,18% of them do not wash hairs,23% of them have restriction in watering plants and 4.5% are not sent to school during periods.

Table 4 Methods adopted by the samples for relieving pain during periods n=200

Methods	**Percentage responses**
Rest	33.50
Exercise	3
Application of hot water bottle	17
Drinking Jeera water	3.50
Medicine	17
Nothing	48.5

Above table illustrates that 48.5% of them did not adopt any measure for pain relief during periods whereas 17% of them used application of hot water bottle and medicines for pain relief.

Table 5 Disposal of absorbents during periods
n=200

Practice of method of disposal of absorbents	Responses (in %)
Burn	2
Flush in bathroom	1.50
Dispose in dustbin without wrapping	1.50
Dispose in dustbin after wrapping with paper	95

Maximum study sample (95%) adopted disposal of absorbents by wrapping in paper and disposing it in dustbin and 2% of them burnt it.

Table 6 Experience of symptomatic ailments among the samples during periods
n=200

Category	Responses	Percentage responses
Burning urination	Yes	8
	No	92
Back ache	Yes	58
	No	42
Itching in genital region	Yes	19
	No	81
Pain abdomen	Yes	66
	No	34

The samples had associated symptoms of menstruation like pain abdomen and backache which were considered normal ,however 92% of them had burning micturation and 19% of them had itching in genital region.

Table 7 Association of the mother's educational qualification with subjects receiving premenstrual information
n=200

Educational qualification	Yes	No	Chi square	P value
Matric and less	17	02		
Intermediate	31	06	8.44	0.05

Graduate	102	14
Post graduate	23	05

The computed x^2(chi square) for a probability of 0.05 was 8.44 at 3 degrees of freedom. This observed value is much greater than the probability table value for x^2 at 3 degree of freedom. Hence it can be interpreted that there is significant association between mother's educational qualification and receiving premenstrual information

Table 8 Association of religion with the practice of touching pickle during menstruation
n=200

Religion	Yes	No	Chi square	**P value**
Hindu	93	83		
Muslim	04	08	16.509	0.05
Christian	03	05		
Buddhist	02	02		

The computed x^2 (chi square) for a probability of 0.05 was 16.509 at 3 degrees of freedom. This observed value is much greater than the probability table value for x^2at 3 degree of freedom. Hence it can be interpreted that there is significant association between Religion and practices followed.

DISCUSSION

WHO has defined adolescence as the period between 10-19 years of life. Adolescent girls constitute about 1/5th total female population in the world. Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention as it is marked with menarche. It is still considered as something unclean or dirty in Indian society. This concept is responsible for related taboos.

Total 200 subjects were taken, in which majority (45%) of the subjects were within the age group of 13 to 15 yrs,43% in the age group of 16 to 18 yrsand minimum i.e., 13% of the subjects were within the age group of 10 to 12 yrs.On studying the educational qualification of the mother's of the sample under study, majority (58%) of mothers were graduates whereas only 9.5% were high school passed. On further study of characteristics of the sample, it was found that75% of mothers were housewives and only 43% were professionals.

The family income of the majority (48%) of adolescent girls were between Rs 25,000 to Rs 50,000 whereas minimum (0.5%) were from the income group of Rs 1 lakhs to 1.25 lakhs. Subjects under study followed Hinduism (88%), Muslims

(6%),Christians (4%) Buddhist (1.5%) and least were Sindhis(0.5%)

The present study also showed that 86.50%participants had awareness about menstruation prior to menarche. Interestingly, a study conducted by Adrija et al[6] reported that 72.1% of the urban participants and only 39.1% rural participants had knowledge prior to menstruation. Thus the present study's findings are comparable to study.

In the present study 78.5% samples have the correct knowledge that the menstrual bleeding is from uterus. The data is in consensus to the study done in Andhra Pradesh University by Drakshayaniet al[7]which also showed that around 78.5% girls knew that menstrual bleeding originated from the uterus.

It was observed in this study that 93.50% girls believed menstruation is a natural process, whereas in a similar study conducted in rural areas of Rajasthan by Khannaet al.[8] which showed 70% believed that menstruation was not a natural process. The findings are not in consensus with the study. This marked variation could be explained by difference in the urban and rural literacy rate and education.

In present study 58.5% girls reported mother as a first source of information. Close relation and better communication between mother and daughter may be the reason for present study finding. Singh et al[9]also presented similar results (64.9%)

In present study only 55.5% of them had correct knowledge about normal gap between two periods, which is 22-45 days. Moreover 4.5% lack knowledge that pregnant ladies do not menstruate. Majority (57.50%) of them believe that the, menstrual blood is dirty whereas 16.5% of them don't have any idea about it.

Association of mothers educational level and knowledge among the sample about premenstrual information shows high level of significance, The computed x^2 value for a probability of .001 was 16.509 at 3 degree of freedom. The observed value is much greater than the probability table value for chi-square at 3 degree of freedom, hence it can be interpreted that there is significant association between mother's education qualification and receiving premenstrual information. These findings are equivalent to the findings of Dasgupta and Sarkar[2] which showed that 67.5% girls were aware about menstruation prior to attainment of menarche and mother was the first informant regarding menstruation. Unfortunately 32.5% girls were ignorant about menstruation before menarche in this study, this gap might be due to poor literacy and socio-economic status of mothers which have fuelled the inhibitions of mother to talk to her

daughter regarding the significance, hygienic practices and a health attitude towards menstruation.

Association of religion and practice of touching pickle during mensturation was also assessed. The computed x^2 for a probability of .05 was 8.44 at 3 degree of freedom. This observed value is much greater than the probability table value for chi-square value at 3 degree of freedom. Hence it can be interpreted that there is significant association between religion and practices followed. These findings are equivalent to findings of Juyal R [10]. They found that 75.6% of respondents reported prohibition in touching of pickles ($p<0.05$).

CONCLUSION

The transition from childhood to adulthood is characterized by acceleration of physical growth and psychological and behavioral changes. Menstruation i.e., regular cycles of bleeding per vagina is a natural and necessary process in order to develop reproductive capabilities. With the onset of menstruation the ovaries begin to release ova, and thus a girl becomes capable of bearing a child. Adolescent girls often lack knowledge regarding reproductive health including menstruation hygiene which can be due to socio-cultural barriers in which they grow up. These differences create various problems for the adolescent girls. The need of the hour for girls is to have the information, education and an enabling environment to cope with menstruation issues. The current study highlighted the need for to provide education and equip them with skills regarding safe and hygienic practices and to make appropriate choices so as to enable them to lead a healthy reproductive life and prevent the risk for reproductive tract infections. All mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation before age of menarche. Education regarding reproductive health and hygiene should be included as a part of school curriculum. There is also a need to empower mothers and teachers to function as primary sources of information on menstruation including reproductive health as they are accessible to handle adolescent issues and facilitate referrals as the need arises.

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