Full Length Article

Knowledge, Attitude and Practices of Menstrual Health among Adolescent School Girls in Kurnool District, Andhra Pradesh

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Abstract

Background: The event of menarche associated with taboos and myths in our traditional society has a negative implication for women's health, particularly their menstrual hygiene. Women having better knowledge regarding menstrual hygiene are less vulnerable to reproductive tract infections.

Objectives: 1) To study the Socio-demographic profile of adolescent school girls.

2) To study the Knowledge, Attitude and Practices of menstrual hygiene among adolescent school girls.

Materials and Methods: A descriptive, cross-sectional study was conducted among 122 adolescent girls of two secondary schools situated in the rural field practice area of Kurnool Medical college, Kurnool with the help of a pre-designed and pre-tested questionnaire. Data were analyzed statistically by simple proportions.

Results: Out of 122 respondents, 48 (39.3%) girls were aware about menstruation prior to attainment of menarche. Mother and family members were the first informant regarding menstruation in case of 93 (76.2%) girls. 101 (82.8%) girls believed it as a physiological process. Regarding practices, 119 (97.6%) girls used sanitary pads during menstruation.

Conclusions: Menstrual hygiene, a very important risk factor for reproductive tract infections, is a vital aspect of health education for adolescent girls. Trained health personnel, motivated school teachers and knowledgeable parents can play a very important role in transmitting the vital message of correct menstrual hygiene to the adolescent girl of today.

Keywords: Adolescent girl, menstrual hygiene, reproductive tract infections, sanitary pad

Introduction

Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. Menarche is one of the most important developmental milestones during adolescence[1]. The bodily changes associated with puberty affect a girl's psychological and social development and the girl's life experiences influence the physical changes that are occurring

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as well[2]. Although menstruation is a natural process, it is linked with several misconceptions and practices which sometimes results into adverse health outcome.[2] In Indian society, menstruation is still regarded as unclean and dirty leading to isolation of the menstruating girls and restriction imposed on them. These practices have reinforced negative attitude towards menstruation in girls. Women are prohibited from religious activities, attending marriage or touching male members during menstruation. Today millions of women are suffering from reproductive tract infections and its complications.[3]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). Today millions of women are sufferers of RTI and its complications and often the infection is transmitted to the offspring of the pregnant mother. Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women[4].With the above background, this study was undertaken with the following objectives:

1. To study the Socio-demographic profile of adolescent school girls.
2. To study the Knowledge, Attitude and Practices of menstrual hygiene among adolescent school girls.

Material and Methods

A cross-sectional descriptive study was carried out among adolescent girls studying in school in rural field practice area of Kurnool Medical college, Kurnool, for duration of 3 months January to March 2023.

Inclusion criteria: Adolescent girls who are willing to participate in the study.

Exclusion criteria: Adolescent girls who have not attained menarche.

Considering 77.6% prevalence of menstrual hygiene among adolescent school girls in India according to NFHS-5, applying a non-response rate of 10% the sample size was calculated to be 121 using the formula n = $(Z\alpha 2pq)/d^2$ where n = estimated sample size

$Z\alpha$ =1.96; p=77.6%; d=relative precision 10% of p; q=(1- p) =22.4%

The sample size of 121 has been rounded off to 122. A pilot study was undertaken prior to actual study to check for feasibility of questionnaire .The Study was approved by the institutional ethics committee of the college. schools were considered as units of sampling. Of these 4 high schools in rural area, two schools were selected by simple random technique. 122 Adolescent girls from two schools had participated in the study. The school authorities were contacted and explained about the study. The girls were explained about the purpose of the study and were assured confidentiality. A predesigned, pretested questionnaire was used for collection of the data which included questions related to their socio-demographic profile, about menstruation, source of information and hygiene practiced during menstruation. A personal one to one interview was conducted.

Statistical analysis: Data collected is compiled in MS excel sheet; subsequently it was analyzed using SPSS version 26. Microsoft word and Excel have been used to generate graphs and tables. The descriptive statistics comprising of frequency, percentage and standard deviation for continuous variables like age was used.

Results

Table 1: Sociodemographic profile of the study participants.

Variables		No. (%)
Age (Years)	12 to 14	69 (56.6%)
	15 to 17	53 (43.4%)
Age at menarche	<12	54 (44.3%)
	13	45 (36.9%)
	14	17 (13.9%)
	>/=15	6 (4.9%)
Religion	Hindu	63 (51.7%)
	Muslim	7 (5.7%)
	Christian	52 (42.6%)
Type of family	Nuclear	99 (81.1%)
	Joint	23 (18.9%)

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Socio-economic status	Lower class	62 (50.8%)
	Lower middle	56 (45.9%)
	Middle class	4 (3.3%)
Mother's literacy	Illiterate	72 (59%)
	Literate	50 (41%)
Father's literacy	Illiterate	52 (42.6%)
	Literate	70 (57.4%)
Mother's occupation	Unemployed	89 (73%)
	Employed	33 (27%)
Father's occupation	Unemployed	69 (56.6%)
	Employed	53 (43.4%)

In our study, majority 56.6% of the adolescent girls belonged to 12-14 years. The mean age at menarche was 12.8±0.9 years. 51.7% of adolescent girls belongs to Hindu religion. Majority 81.1% of the adolescent girls belonged to nuclear family. Majority 50.8% of the adolescent girls belonged to lower socio economic status followed by lower middle class, 45.9%. 59% of adolescent girl's mothers were illiterate and 73% of adolescent girl's mothers were unemployed .57.4% of adolescent girl's fathers were literate and 56.6% of adolescent girl's fathers were unemployed (Table 1).

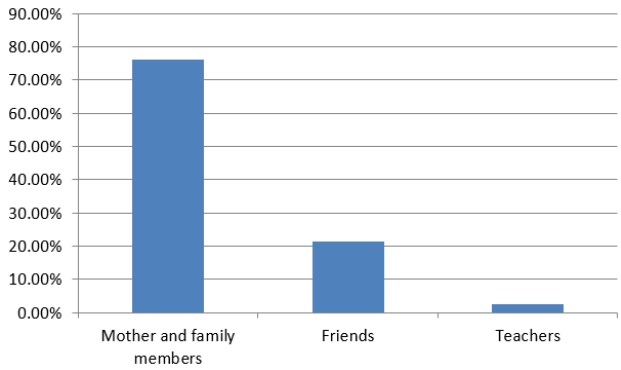

Figure 1: Source of information about menstruation before menarche

In our study, majority 76.2% of adolescent girls had the information regarding menstruation from their mothers and family members before attaining menarche, whereas 21.3% of adolescent girls had the information regarding menstruation from friends and 2.5% girls from teachers.(Figure 1).

Table 2: Knowledge of study participants about menstruation

Knowledge about	No. (%)
Menarche	
Yes	48 (39.3%)
No	74 (60.7%)
Menstruation	
Natural or physiological	101 (82.8%)
Don't know	21 (17.2%)
Source of Bleeding	
Don't know	115 (94.3%)
Bladder	3 (2.4%)
Vagina	4 (3.3%)

In present study. It was observed that 39.3% were aware about menstruation before attaining menarche. 82.8% of the total study subjects knew that menstruation was a normal physiological process. None of the adolescent girls were aware that the source of menstrual bleeding was from uterus. 3.3% girls said it was from vagina, 2.4% girls said it was from bladder. Whereas majority, 94.3%of adolescent girls said don't know. (Table 2).

Table 3: Attitude of study participants towards menstruation

Attitude	No.(%)
Indifferent	61 (50%)
Discomfort	49 (40.2%)
Scared	12 (9.8%)

In present study Majority (50%) of the girls felt indifferent on first menstruation while 40.2% reported discomfort, 9.8% felt scared.(Table 3).

Table 4: Distribution of study participants according to practices during menstruation

Practices	No.(%)
Food taboos	
Present	48 (39.3%)
Absent	74 (60.7%)
Absorbant used during menstruation	
Sanitary pads	119 (97.6%)
Reused old cloth	2 (1.6%)
Both	1 (0.8%)
Changing absorbant per day	
3-4 times per day	61 (50%)

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2-3 times per day	55 (45%)
1-2 times per day	6 (5%)
Practice of changing pads during school hours	
Yes	103 (84.4%)
No	19 (15.6%)
Method of disposal	
Throwing in dustbin	65 (53.3%)
Flushing in toilet	2 (1.6%)
Burning	55 (45.1%)
Daily bath during menstruation	
Yes	122 (100%)
Cleaning of external genitalia during menstruation	
Satisfactory (>2 times per day)	116 (95%)
Not satisfactory (</=2 times per day)	6 (5%)
Method used to clean external genitalia	
Soap and water	69 (56.6%)
Only water	53 (43.4%)

In our study, only 39.3% of adolescent girls had food taboos. Majority 97.6% of adolescent girls used sanitary pads as absorbent during menstruation, 50% of adolescent girls have habit of changing the absorbent 3-4 times a day, 45% of adolescent girls changes 2-3times a day, 84.4% of adolescent girls had practices of changing the absorbents during school hours, 53.3% of adolescent girls have a habit of throwing into dustbin followed by 45.1% of adolescent girls had habit of burning the absorbents. 100% of adolescent girls had a habit of taking daily bath during menstruation, 95% adolescent girls clean their external genitalia satisfactorily, 56.6% of adolescent girls uses soap and water as material for cleaning their external genitalia. 43.4% of adolescent girls uses only water for cleaning their external genitalia. (Table 4).

Table 5: Distribution of study subjects with respect to their restriction practiced during menstruation

Nature of Restriction	No.(%)
Going to temple	46 (37.7%)
Strenuous work	45 (36.9%)
Touching family members	12 (9.8%)
Talking with boys	1 (0.8%)
No restrictions	18 (14.8%)

In present study among 37.7% adolescent girls there is restriction for going to temple, 36.9% for strenuous work followed by 9.8% for touching family members whereas 14.8% had no restrictions.

Discussion

In the present study, the mean age at menarche among girls was 12.8±0.9 years. In a similar study by Thakre et al[5] observed that the mean age at menarche among rural girls was 12.86 ± 0.9 years.

In our study 51.7% of adolescent girls belongs to Hindu religion whereas in a study by Kailasraj et [a2] 100.0% of rural girls belongs to Hindu religion. In our study 81.1% of the adolescent girls belonged to nuclear family similarly in Kailasraj et al[2] study 76.8% rural girls belong to nuclear family. In our study 27% of adolescent girl's mothers were employed whereas in a study by Kailasraj et al[2] 49.5% of rural girl's mothers were employed.

In our study among 76.2% of girls, the main source of information was mother and family members regarding menstruation before attaining menarche, whereas 21.3% of rural girls the main source of information was friends and 2.5% girls from teachers. Similarly, a study conducted by Tiwari H et al [6]concluded that 60.7% of the girls were informed by their mother and 15.8% by their elder sister. 13.6% and 6% of the girls received information from their friends and teachers respectively. The findings were consistent with those of other studies like Jogdand et al[7], Kamaljit et al[8], Shanbhag D et al[9], Verma et al[10], Deo et al[11], where mother was the main source of information regarding menstruation before attaining menarche. Salve et al[12] study have observed that the main source of knowledge regarding menstruation was teachers (47%) and mothers and friends (21%) among rural girls.

In present study 39.3% of rural school girls had the knowledge regarding menstruation before menarche. Patel et al[13] observed that 47.57% of the rural girls were aware about menstruation before attaining menarche.

In the present study, it is observed that 82.8% of rural girls were aware that menstruation is a normal physiological process, where as 17.2% were unaware.

In a similar way, a study conducted by Shanbhag D et al[9] has shown similar results as 72.2% of rural girls know that it is a normal physiological process while 17% believed in a myth that menstruation occurs due to curse of God.

The present study found that 94.3% of rural girls were not aware of the source of the menstrual bleeding whereas 3.3% of rural girls said it was from vagina. Similar study done by Nagar et al.[14]observed that 76.23% girls were not aware of the source of the menstrual bleeding; only 2.58% were aware that the source of the bleeding was the uterus

In the present study, it is observed that nearly half of the girls (50%) have an indifferent attitude regarding menstruation while 40.2% of the girls experienced discomfort. Only 9.8% were scared and none were disgusted, which is remarkable. In contrast to this, Deo DS et al[11] confirmed in a study that 44.6% of the girls were scared and 33.9% of the girls had indifferent attitude. The remaining girls expressed discomfort and disgust in equal proportions (4.5%).

In present study it was observed that 39.3% of rural girls had food taboos. Shanbhang et al[9] in their study stated that rural girls had food taboos like 21.6% avoided sweets, 3.9% spicy food, 9.1% curd and milk products.

In the present study it was observed that 97.6% rural girls used sanitary napkins, 1.6% girls used reused old cloth. In contrast, a study conducted by Dasgupta A et al[4], it was concluded that only a shocking proportion of 11.25% of the girls were using Sanitary pads and 6.25% of the girls were using new cloth pieces. Majority of the girls constituting 42.5% were using old cloth pieces while the remaining 40% of the girls were using all of the above mentioned absorbant materials. Whereas Dube et al[15] observed, 65% of the rural girls use home-made disposable pads during menstruation, which were made up of old torn out clothes. Patle et al[16] observed that 43.4% of rural girls were using sanitary pads. The use of old piece of cloth was higher among rural group 56.6%.

The present study observed that 50% of the rural girls change absorbents 3-4 times per day, 45% change absorbents 2-3 times a day. Shanbhang et al[9] observed that 39.8% change absorbents twice a day, 29.5% 3 times a day and 21.7% once a day. Nair et al[17] observed 74.8% adolescent girls were changing pads 2-3 time a day and 17.3% more than 3 time a day.

In the present study it was observed that 84.4% of rural girls change the pad in the school hours during menstruation. Nagar et al[14], in their study they observed that only a small proportion, 11.37% of girls change the pads at school hours.

The present study observed that 53.3% of rural girls dispose the used absorbent by throwing into dustbin, 45.1% by burning, 1.6% of the girls by flushing it in toilet. On the other hand, Thakre SB et al[5] conducted a study which confirmed that 60.96% of the girls burn the absorbant whilst only 12.33% of the girls throw it in the dustbin, 22.6% of the girls disposed the absorbant by flushing in the toilet.

In the present study it was observed that 100% of the rural girls had daily bath, similar study by Yasmin et al[18] observed that 85.7% of urban girls said that they take daily bath during menstruation.

In our study, 95% rural girls clean their external genitalia satisfactorily. Whereas in Kailasrajet al[2] study 65.8% rural girls clean their external genitalia satisfactorily.

In our study it was observed that of the 56.6%rural girls wash their external genitalia with soap and water, 43.4% were using only water for washing the external genitalia. Kamalijit et al[8] have concluded that 56.1% rural girls were using soap and water, 46.4% were using only water for washing the external genitalia.

The present study found that among adolescent girls there is restriction like 37.7% for not going for temple, 36.9% for strenuous work , 9.8% for touching family members and 14.8% did not practice any restriction. A study done by Nagar et al[14] found, among rural girls 73.29% did not attend any religious functions, 28.77% did not do house hold work, 7.53% not allowed to go to school and 23.29% did not practices any restriction.

Conclusion

Many girls attain menarche as early as 12 years hence, formal as well as informal means of communication such as mothers, sisters and friends, need to be emphasized for the delivery of such information. A vital role is played by the mothers to deliver appropriate information on reproductive health to her girl about menstruation before she attains menarche. Teachers who are in fact second mothers should be involved in imparting

reproductive health education, including menstrual hygiene to their students. They have to be given requisite skills by organizing workshops as well as programmes wherein they could interact with gynecologists. Such sessions should involve the mothers too so that they can handle the needs of their ward. Reproductive tract biology should be included in the curriculum from Class VI onwards so that the girls are able to recognize the changes in their body and prepare themselves for the next phase of life, i.e., puberty without fear and disgust. Immense effort is needed to curb myths about menstruation among the adolescent school going girls. There are a numerous reproductive health implications pertaining to menstruation and its management which in turn significantly alters the quality of life positively or negatively. These invariably necessitates an urgent addressal by all the stakeholders-family, school community, civil society, and service providers to enable proper hygiene practices and to ingrain correct menstrual perceptions and to abolish myths regarding the process of menstruation amongst this segment of the population.

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