



A KAP STUDY ON MENSTRUAL HYGIENE IN ADOLESCENT GIRLS

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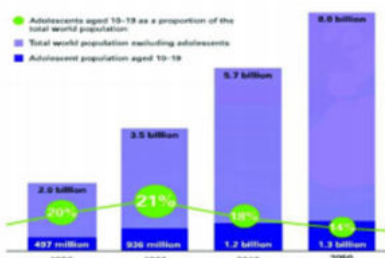
ABSTRACT**Objective of Study:** To study Awareness and hygienic practice among adolescent girls during menstruation.

Aims and Objectives: To study demographic profile of study group and to assess hygiene practices during menstruation. **Methodology:** This is an observational descriptive type of study done from 01 December 2015 to November 2016 in the department of Obstetrics and Gynecology, Patna medical college and hospital. In this study 180 girls were taken who attended gynecological OPD. Girls belong to the Adolescent age group of 10 to 19 years with any menstrual related complaints. Written and informed consent was taken from all participants and their guardians, parents. All parameters were recorded in a pre-structured questionnaire / proforma, that included identification bio-data, menstrual & menstrual hygiene history, demographic and socioeconomic profile. In this study, total number 180 adolescent girls were taken on the basis of random selection criteria according to inclusion criteria. A detailed history regarding menstrual complaints was taken and general physical examination height, weight and pre-structured questionnaire / pro-forma was filled for socio-demographic profile and menstrual hygiene. **Results:** In this study we have noticed that most of rural girls were illiterate, not educated and most of them not aware about menstrual hygiene and there is high prevalence of menstrual morbidities. **Conclusion:** We should educate them about menstrual hygiene and spread awareness about the various government services like supplying of sanitary napkins. Other government services like nutritional supplementations programs are conducting to improve health of the general population.

KEYWORDS : Adolescence, Absorbant, Menstrual hygiene**1. INTRODUCTION**

16% of world population belongs to Adolescent (10-19) age group and 21.5% or 1/5 of population of India. 18% of total population of Adolescent suffering from serious diseases and a large group of adolescent is neglected & belongs hard-to-reach population in that area needs of adolescent girls are particularly ignored. Menstrual hygiene practices of adolescent during menstruation are very important because it affects health in view of increased susceptibility or vulnerability to reproductive tract infections and sexually transmitted infections. Menstruation is a normal process but young girls and their parents are most of the time unaware about normal Menstrual patterns^[2]. It is very important now days to educate young girl parents regarding the menarche, difference between normal & abnormal menstruation, what is normal cycle length, menstrual hygiene^[3,4]. They also have unsaid anxieties & apprehensions and are subjected to social taboos and restraint during menses. Adolescent girls are not aware about their menstrual hygiene pattern and they are not prepared in terms of knowledge, attitude and skills towards menstruation. Out of 26 crore, Only 1.5 lakh adolescents only being trained across India in view of sexual and reproductive health, psychological aspects, drug abuse. A government scheme eg. Rshtriya Kishor Swasthya Karyakram, under which Union health ministry launched a Saathiya kit. Saathiya kit specially designed by expertise to promote adolescent health in villages by help of peer educators^[5,6]. Peer educators are best way to increase awareness and knowledge by answering teenage queries in the community in an informed manner & discuss about sensitive issues. Under the National RCH II program The Ministry of Health and Family Welfare, Government of India has launched Adolescent Reproductive and Sexual Health (ARSH) as a key technical strategy to promote adolescent health. So, the present study focused on these group individual because the adolescent girls would be tomorrow's responsible citizens of India and subsequently forming the next generation as well^[7,8].

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**Fig i: Proportion of adolescents and World population**

Onset of menstruation is between age of 12 and 13 or 2.5 years after the development of breast buds. The adolescent menstrual cycle is initially irregular for the first 1 to 2 years after menarche, this is reflecting an ovulatory cycles. On average, it takes 2 years after menarche before regular ovulatory cycles are achieved. As gonadal estrogen production increases during puberty, it increases sufficient to stimulate endometrial proliferation and ultimately resulting the start of menarche. The stages pubertal development occur in order to, concerned parents to be reassured by knowing that, on average, the length of time from breast bud development to menstruation is typically 2.5 years^[9].

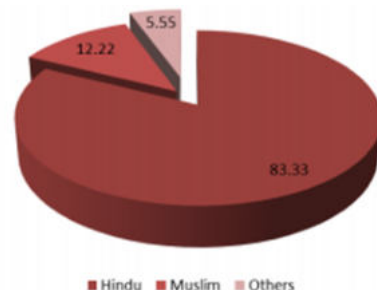
The pubertal sequence includes accelerated growth, breast development (the larche), development of pubic and axillary hair (pubarche), and onset of menstruation (menarche)^[10].

RESULTS

Socio-demographic profile of study participants

Table i: Religion wise distribution of study participants

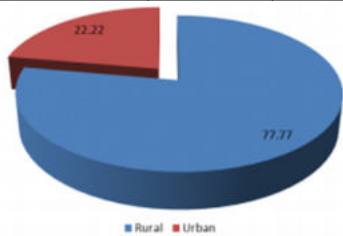
Religion	No.	%
Hindu	150	83.33
Muslim	22	12.22
Others	8	5.55
Total	180	100.00

**Graph i: Religion wise distribution of study participants**

In our study out of 180 adolescent girls 83.33% were Hindu and 12.22% were Muslims and only 5% belong to others. This high percentage of Hindu adolescent girls were because Hindus are in majority of number in our study and Muslims are in minority or less in numbers, because Muslims are very reluctant to about health and education issues of adolescent girls.

Table ii: Residence wise distribution

Resident	No.	%
Rural	140	77.77
Urban	40	22.22
Total	180	100.00

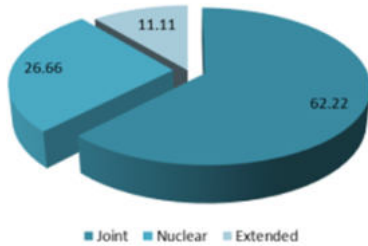


Graph ii: Residence wise distribution

In our study we collected data of their residence and around 77% are from rural area while 22% are from urban area. This high percentage of rural area is because our hospital is situated in rural area.

Table iii: Family structure of study participants

Family	No.	%
Joint	112	62.22
Nuclear	48	26.66
Extended	20	11.11
Total	180	100.00

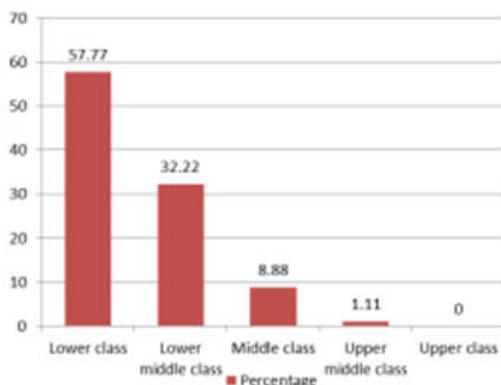


Graph iii: Family structure of study participants

In our study out of 180 adolescent girls 62.22% were from joint families and because of this the adolescent girls are not able to maintain their menstrual hygiene due to lack of Education and low per capita income. 22.66% adolescent belong to nuclear families, these girls are able to maintain their menstrual hygiene as per capita income is higher and only 11.11% girls belong to extended group of families, this percentage is very low because now a days extended families are very few.

Table iv: Socioeconomic class wise distribution of study participants (according to modified BG Prasad scale 2017)

Class	No.	%
Lower class	104	57.77
Lower middle class	58	32.22
Middle class	16	8.88
Upper middle class	2	1.11
Upper class	Nil	0
Total	180	100.00

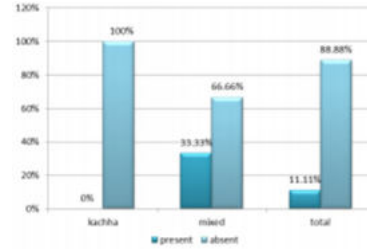


Graph iv: Socioeconomic class wise distribution of study participants (according to modified BG Prasad scale 2017)

After collecting data of their per capita income we divided them according to modified B G Prasad classification and 57% were from lower class and only 32% from lower middle class.

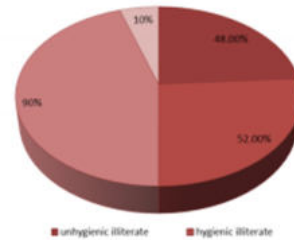
Table v: Housing status with sanitary latrine in study participant

Housing	Sanitary latrine				Total	
	Present		Absent		No.	%
	No.	%	No.	%		
KACCHA	0	0	120	100	120	100.00
Pucca + mixed	20	33.33	40	66.66	60	100.00
Total	20	11.11	160	88.88	180	100.00



Graph v: Housing status with sanitary latrine in study participants.

Out of 180 participants 120 are residing in kaccha house and devoid of sanitary latrines. 60 participants who are having mixed house are only 33% have sanitary latrine in their house.



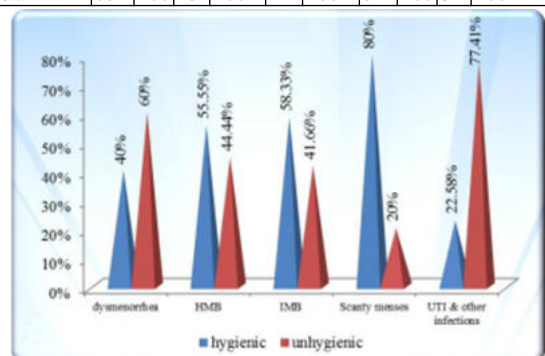
Graph vi: Relation between menstrual hygiene practices and education status

We have taken participants those who are using cloth and reusing it known as unhygienic participants. Since there is no scoring system to designate an adolescents girl as hygienic or unhygienic. This table shows that 52% participants were illiterate and 48% literate of adolescent girls are having unhygienic practices during menstruation, where as 10% illiterate adolescents girls & 90% literate are having hygienic practices.

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Table vi: Relation between menstrual morbidity and menstrual hygiene

Menstrual hygiene	Dysmenorrhoea		HMB		IMB		Scanty menses		UTI & Other infections	
	No	%	No	%	No	%	No	%	No	%
Hygienic	30	40	25	55.55	14	58.33	4	80	7	22.58
Unhygienic	45	60	20	44.44	10	41.66	1	20	24	77.41
Total	75	100	45	100	24	100	5	100	31	100



Graph vii: Relation between menstrual morbidity and menstrual hygiene

This table is showing the relation of menstrual morbidities and menstrual hygiene of 100 adolescent girls who are reusing the cloth during menstruation are considered as unhygienic. In this study 77.41% were having urinary tract infections and 60% of participants were having dysmenorrhea. 41.66% are having inter menstrual bleeding 44.44% having heavy menstrual bleeding. 20% are having scanty menses and other infections also present because they are having unhygienic conditions. Where as rest of the adolescent girls are having hygienic menstrual practices.

DISCUSSION

“Adolescence” is a transitional period of a human being where emotional, psychological and physical changes comes in the body & psyche. Menarche is a very important landmark of adolescence age group which prepares a girl for the future motherhood. H-P-O axis takes about 18 months to become mature^[11]. Adolescent girls have many problems regarding menstrual abnormalities and it was seen that they were very shy to discuss their problems and proper hygiene during menstruation. In our study participant group girls were lack of proper information about menstrual hygiene practices. About 70% of girls are not aware about cleanliness of their perineum & not aware of sanitary towels and proper disposal of them after usage. Lack of education in village areas a hurdle in their progress with high very rate^[12].

Only For 5.56% of adolescent girls Saintairy napkins were available. 27% were using homemade pads & 66.66% adolescent girls were using clothes. Out of these 100 girls reuses these cloths by washing. 70% girls were drying cloths in light and 30% in dark. Absorbents used by participants were either clothes or homemade pads. Most of these girls using clothes belonged to lower or lower middle class socio-economic status^[4, 13]. Adolescent girls who residing in the rural area are still devoid of education & still very lesser number of girls have completed school education. A study done by A das gupta *et al.* on menstrual hygiene in 2008 they stated that Cleanliness of the external genitalia was unsatisfactory in case of 15% girls. 40% girls used both cloth pieces and sanitary pads during menstruation. 73.75% girls reused cloth pieces and 57.5% girls properly disposed the cloth pieces or sanitary pads used, i.e they wrap the used cloth piece or sanitary pad in a paper bag and disposed in a place used for solid waste disposal. 11.25% girls used sanitary pads during menstruation, 42.5% girls used cloth pieces and 6.25% girls used new cloth pieces^[14]. Those who are living in joint or extended families, as they get information about menstrual hygiene from their their elders sisters or aunties, Adolescent girls were having more awareness & knowledge regarding menstrual hygiene practices. They never get a proper counselling & medical advice on time because they are very reluctant to discuss about their issues with a male doctors. In our country Most of the primary health centre are cared by male doctor in rural/village area. Knowledge and Information of menstruation and hygiene practice during menstruation is now days given to adolescent girls so that they will grow into healthy adult females^[15].

In our study adolescent girls belongs to the low socioeconomic status they have literacy percentage is very less and were not aware about the menstrual hygiene. This practice will effect their sexual life and reproductive. Finally they get infections of the reproductive tract system due to poor hygienic practice. It is very common practice that they are reusing the cloth for ≥ 3 cycles and without washing it properly with soap and drying inside also. In our study 90% were literate amongst 80 hygienic participants. This shows education plays an very important role in the life style of a growing adolescent girl age group^[16].

Around 52% were illiterate out of 100 participant who were considered unhygienic. Only 48% of participants were found to be literate. Overall literacy rate in the female population of Bihar according to census book of India, 2011 is 52.66% This high percentage of literate adolescent girls being considered as unhygienic because we have included girls those are reusing cloth as absorbent as an unhygienic method. Study conducted by Shantanu Sharma *et al.* in may 2017 in Delhi state that literacy of adolescent girls affect the menstrual hygiene and so we need to strengthen the menstrual hygiene management program of the country by Media camping for improving water and sanitation thereby improving overall health of adolescent girls^[16,17]. Multiple strategies need to be used to address this issue such as education on reproductive health & Menstruation and Most of these girls are bound to reuse of cloths because of financial constraints.

Fakhri *et al.*, (2012) carried out a study on promoting menstrual health

among 698 Persian adolescent girls from low socioeconomic back grounds: a quasi experimental study in Mazandaran province, Iran. Regarding parental education, 77.5% of fathers did not have a diploma & 11.6% held an academic degree. Of the mothers, 87.6% had gone to school & 4.1% had an academic degree^[9,17].

Kumar *et al.*, (2013)^[9] carried out a study on menstrual pattern among unmarried women from northern India. A total of 744 respondents took part in the study. Regarding parental education, 169 (22.7%) fathers had completed high school education, 119 (16.0%), 117 (15.7%) & 116 (15.6%) were illiterate, graduated & educated up to intermediate level respectively. 80.8% girls belonged to Nuclear families & 17.9% belonged to^{joint} families.

Tegegne *et al.*, (2014) conducted a study on menstrual hygiene management & school absenteeism among 595 female adolescent students in North East Ethiopia. Mothers of most girls were illiterate 224 (42.5%) & were not gainfully employed (housewives), 361 (62.89%) & third of their fathers could only read and write i.e. 210 (36.59%) & most were farmers i.e 381(66.38%)^[10,18].

Omidvar *et al.*, (2010) carried out a study on 350 unmarried females aged 15-22 years to find out the factors influencing hygienic practices during menses among girl from south India and observed that among 350 girls, the age at menarche in the selected group ranged from 10-17 years, with a mean of 13.4 \pm 1.2years^[6,18].

Mudey *et al.*, (2010) conducted a cross sectional study amongst 300 school going adolescents girls (10-19years) on awareness regarding safe & hygiene practices in rural area of Wardha district of Maharashtra, India. Majority of the respondents reported age at menarche at 13-15 years (56.67%). It was then seen in 10-12 years more than 15 years & less than 10 years in 29.3%, 11.0% & 3.0% students respectively^[13,19,20].

CONCLUSION

In our study we have seen that rural girls were not educated and they were not aware of menstrual hygiene and there is high prevalence of menstrual morbidities.

Due to unhygienic practices most probably because of poor socioeconomic status and lack of education and awareness about hygiene many of the girls were suffering from reproductive tract infections.

We need to educate them about hygiene and spread awareness about the various services provided by the government like supplying of sanitary napkins to overcome infections. Other programmes where in nutritional supplementations provided should be told to the general population to improve their health.

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