

## ORIGINAL RESEARCH

# Knowledge, Attitude and Practices of Reproductive Health Among Adolescent Girls in Field Practice Area of Tertiary Care Centre, Hyderabad

<sup>1</sup>Mehaboobi Shaik, <sup>2</sup>Sayeedunnisa Sarah, <sup>3</sup>Moniza Maheen

<sup>1-3</sup>Assistant Professor, Department of Community Medicine, Deccan College of Medical Sciences, Hyderabad, Telangana, India

### Corresponding Author

Moniza Maheen

Assistant Professor, Department of Community Medicine, Deccan College of Medical Sciences, Hyderabad, Telangana, India

Email: [monizamaheen@gmail.com](mailto:monizamaheen@gmail.com)

Received: 12 June, 2023

Accepted: 15 July, 2023

### ABSTRACT

**Background:** Adolescents form precious human resources in every country & constitute 18% of the total population in India. The majority of adolescents lack basic knowledge about puberty, growth during puberty, safe sex, and hygiene. Adolescence is a period of rapid physical growth, sexual and psychological changes. **Aim:** The aim of the study was to understand the knowledge, attitude regarding reproductive health and to assess the practices regarding reproductive health among school-going adolescent girls of 6th to 10th standard. **Methods:** It is a cross-sectional study carried out among school-going adolescent girls of standard 6 to 10 in the field practice area of a medical college in Hyderabad. The study duration was from February 2022 to January 2023. The data collection tool used for the study was a semi-structured questionnaire. The data was analysed by using SPSS 20 software. **Results:** Among the total of 904 participants 45.7% were scared during the first menstrual cycle. Dysmenorrhoea was most common in class IV socioeconomic status (53.7%). 31.4% of study participants had occasional itching and 5.3% had continuous itching. About 10.6% of study participants consulted doctors during menstruation of which the majority of them belonged to 10 to 12 years (16.3%). 58.6% of study participants did household activities during menstruation of which the majority were studying 9<sup>th</sup> class (69.2%). **Conclusion:** The present study concluded that female adolescents had unsatisfactory knowledge, inadequate hygiene practices, and positive attitudes toward Reproductive Health.

**Keywords:** adolescent, school, attitude, knowledge, practices, reproductive.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

### INTRODUCTION

In India, out of 1.4 billion of the total population, 253 million are adolescents constituting around 18% of the total population. Adolescent females are 120 million around 47% of the total adolescent population in India. [1]

Puberty is the attainment of sexual maturity involving physical, hormonal, and psychological changes. Hormonal changes involve a rise in the secretion of estrogen and progesterone leading to maturity of ovarian follicles, endometrial thickening, and menstrual cycle. (2)

Adolescent girls constitute a vulnerable group, particularly in India. They do not get the proper knowledge due to the lack of appropriate health education programs in schools. Moreover, traditional

Indian society considers talks on such topics as prohibited and discourages open discussion on these issues. This leads to intense mental stress and they seek health advice from quacks and persons who do not have adequate knowledge on the subject. [3]

The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. Hygiene-related practices of menstruation are of considerable importance as it has a health impact and increased vulnerability to reproductive tract infections (RTIs). The interplay of socioeconomic status, menstrual hygiene practices, and RTIs is noticeable. (4)

The present study was done to understand their knowledge and attitude regarding reproductive health and to assess the practices regarding reproductive health among school-going adolescent girls of 6th to 10th standard

## METHODOLOGY

The study was carried out as a cross-sectional study. It was conducted in a medical college's urban, field practice area with a population of around 28628. The study was conducted from February 2022 to January 2023, Students from 6<sup>th</sup> to 10<sup>th</sup> standard from schools of field practice area were included.

The total number of students was 934, of which 22 were absent and 8 refused to participate in the study. A sample size of 904 was thus obtained. All students who were present on the day of study were included and students who did not give consent for participation were excluded.

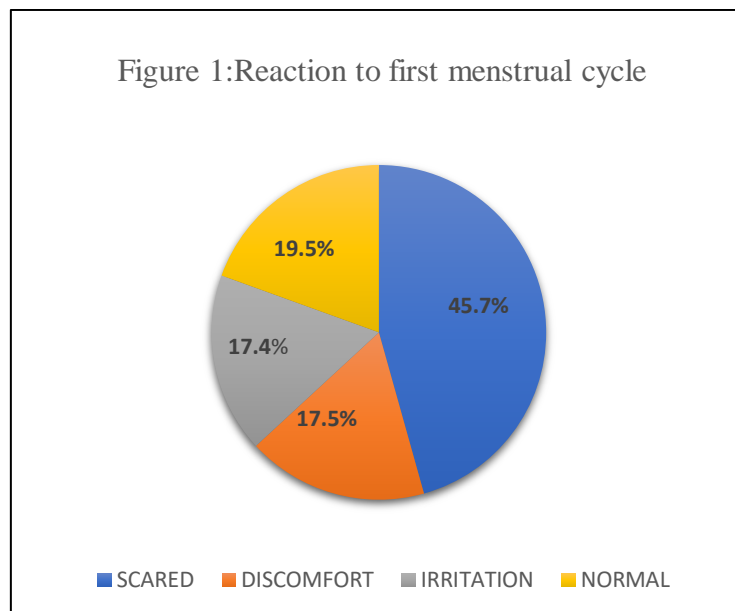
The approval by the institutional ethical committee was taken. After taking the informed consent of the

participants a total of 904 school students were interviewed using a pre-tested questionnaire. Questions pertaining to socio-demographic and reproductive health.

Collected data was entered in Excel format and analysis was done by using SPSS version 20. Data were expressed as a percentage and a P-value <0.05 was considered statistically significant.

## RESULTS

The majority of the study participants were in the age group 13 to 15 years i.e., 60.1% followed by 10 to 12 years (5.7%) and 16 to 18 years (14.1%) In the present study majority of the study participants were studying 8<sup>th</sup> class i.e., 29.8% followed by 9<sup>th</sup> class (20.1%), 10<sup>th</sup> class (19.1%) 7<sup>th</sup> class (19.5%) and 6<sup>th</sup> class (11.1%) and the majority belonged to class II socioeconomic status i.e. 45.6% followed by class III (39.5%), class IV (9.1%) and class I (5.9%).



In the present study, the majority were scared during the first menstrual cycle i.e.45.7% and 17.4% of study participants were irritated during the first menstrual cycle. (Figure:1)

**Table 1: Age In Group Vs Menstrual History**

	10-12 N=233 (%)	13-15 N=543 (%)	16-18 N=128 (%)	TOTAL N=904 (%)
<b>MENSTRUAL CYCLE</b>				
REGULAR	196 (84.1)	496 (91.3)	123 (96.1)	815 (90.2)
IRREGULAR	37 (15.9)	47 (8.7)	5 (3.9)	89 (9.8)
<b>COMMON PROBLEMS</b>				
BACK PAIN	62 (26.6)	269 (49.5)	72 (56.2)	403 (44.6)
DYSMENORRHEA	107 (45.9)	183 (33.7)	37 (28.9)	327 (36.2)
MULTIPLE	23	35	7	65

	(9.9)	(6.4)	(5.5)	(7.2)
NONE	41 (17.6)	56 (10.3)	12 (9.4)	109 (12.1)

P-value = <0.05\* It is significant.

In the present study, 9.8% of study participants had irregular menstrual cycles, of which the majority (15.9%) fall under the age group 10-12 years. The most common menstrual problem was back pain (44.6%) followed by dysmenorrhoea (36.2%). Back

pain was more common in the age group 13-18 years (56.2%) while dysmenorrhoea was most common in the age group 10-12 years (45.9%) and this difference between them was found to be statistically significant. (Table 1)

**Table 2: Socio-Economic Status Vs Menstrual History**

		Class1 N=53 (%)	Class2 N=412 (%)	Class3 N=357 (%)	Class4 N=82 (%)	Total N=904 (%)	Chi-square	P-value
Menstrual Cycle	Regular	44 (83)	376 (91.3)	321 (89.9)	74 (90.2)	815 (90.2)		
	Irregular	9 (17)	36 (8.7)	36 (10.1)	8 (9.8)	89 (9.8)		
Common Problems	Back Pain	15 (28.3)	177 (43)	181 (50.7)	30 (36.6)	403 (44.6)	65.39	<0.05*
	Dysmenorrhoea	11 (20.8)	140 (34)	132 (37)	44 (53.7)	327 (36.2)		
	Multiple	9 (17)	33 (8)	17 (4.8)	6 (7.3)	65 (7.2)		
	None	18 (34)	62 (15)	27 (7.6)	2 (2.4)	109 (12.1)		

In the present study irregular menstrual cycles were presented most commonly in class I socioeconomic status (17%) participants. Back pain was most common in study participants who belonged to class III (50.7%) and dysmenorrhoea was most common in

the class IV socioeconomic status (53.7%). There was a statistical difference in proportions between menstrual problems and socioeconomic status. (Table 2)

**Table 3 Discharge And Itching Vs Education Profile**

WHITE DISCHARGE		6 <sup>th</sup> Class (%)	7 <sup>th</sup> Class (%)	8 <sup>th</sup> Class (%)	9 <sup>th</sup> Class (%)	10 <sup>th</sup> Class (%)	Total (%)	Chi-Square	P-Value
		YES	7 (6.7)	46 (26.1)	57 (21.2)	42 (23.1)	44 (25.4)		
NO	97 (93.3)	130 (73.9)	212 (78.8)	140 (76.9)	129 (74.6)	708 (78.3)			
ITCHING	NEVER	56 (53.8)	107 (60.8)	158 (58.7)	134 (73.6)	117 (67.6)	572 (63.3)	33.931	<0.05*
	OCCASIONAL	48 (46.2)	57 (32.4)	95 (35.3)	34 (18.7)	50 (28.9)	284 (31.4)		
	ALWAYS	0 (0.0)	12 (6.8)	16 (5.9)	14 (7.7)	6 (3.5)	48 (5.3)		

In the present study, 21.7% of study participants had a history of white discharge. The white discharge is most common in 7th-class students (26.1%) followed by 10<sup>th</sup>, 9<sup>th</sup>, 8<sup>th</sup> and 6<sup>th</sup> class. The difference among them was statistically significant. 31.4% of study participants had occasional itching and 5.3% had continuous itching. (Table 3)

**Table 4: Discharge And Itching Vs Socio-Economic Status**

		Class1 N=53 (%)	Class2 N=412 (%)	Class3 N=357 (%)	Class4 N=82 (%)	Total N=904 (%)	Chi-square	p-value
WHITE DISCHARGE	YES	23 (43.4)	101 (24.5)	64 (17.9)	8 (9.8)	196 (21.7)		
	NO	30 (56.6)	311 (75.5)	293 (82.1)	74 (90.2)	708 (78.3)		

<b>ITCHING</b>	<b>NEVER</b>	20 (37.7)	251 (60.9)	245 (68.6)	56 (68.3)	572 (63.3)	36.224	<0.05*
	<b>OCCASIONAL</b>	30 (56.6)	145 (35.2)	93 (26.1)	16 (19.5)	284 (31.4)		
	<b>ALWAYS</b>	3 (5.7)	16 (3.9)	19 (5.3)	10 (12.2)	48 (5.3)		

In the present study, 21.7% of study participants had a history of white discharge. The white discharge was most commonly present in study participants of class I socioeconomic status (43.4%) followed by class II, class III and class IV. The difference among them was statistically significant. 56.6% of study participants

had occasional itching belonging to class I socioeconomic status and 12.2% had itching always belonging to class IV socioeconomic status. There was a statistical association between itching and socioeconomic status. (Table 4)

**Table 5: Hygiene Practices During Mc Vs Age Group**

		<b>10-12</b> N=233 (%)	<b>13-15</b> N=543 (%)	<b>16-18</b> N=128 (%)	<b>TOTAL</b> N=904 (%)	<b>Chi-square</b>	<b>P-value</b>
<b>Visit To Relatives</b>	<b>Yes</b>	147 (63.1)	290 (53.4)	68 (53.1)	505 (55.9)	6.653	0.036*
	<b>No</b>	86 (36.9)	253 (46.6)	60 (46.9)	399 (44.1)		
<b>House Hold Activities</b>	<b>Yes</b>	138 (59.2)	312 (57.5)	80 (62.5)	530 (58.6)	1.132	0.568
	<b>No</b>	95 (40.8)	231 (42.5)	48 (37.5)	374 (41.4)		
<b>Frequency Of Bath</b>	<b>Daily</b>	46 (19.7)	120 (22.1)	36 (28.1)	202 (22.3)	27.219	<0.05*
	<b>Alternate Day</b>	125 (53.6)	356 (65.6)	72 (56.2)	553 (61.2)		
	<b>After Periods</b>	62 (26.6)	67 (12.3)	20 (15.6)	149 (16.5)		
<b>Consult To Doctor</b>	<b>Yes</b>	38 (16.3)	45 (8.3)	13 (10.2)	96 (10.6)	11.087	0.004*
	<b>No</b>	195 (83.7)	498 (91.7)	115 (89.8)	808 (89.4)		
<b>Medication</b>	<b>Yes</b>	29 (12.4)	58 (10.7)	11 (8.6)	98 (10.8)	1.304	0.521
	<b>no</b>	204 (87.6)	485 (89.3)	117 (91.4)	806 (89.2)		

In the present study, 58.6% of study participants did household activities during the Menstrual cycle of which the major age group was 16 to 18 years (62.5%). About 61.2% of study participants did baths on alternate days during menstruation of which the majority fall under the age group 13 to 16years (65.6%) while only 22.3% of study participants did baths daily of which the majority of the age group was

16 to 18 years (28.1%) and this difference between them was found to be statistically significant. About 10.6% of study participants consulted doctors during menstruation of which the majority of them belonged to 10 to 12 years (16.3%). 10.8% of study participants took medication during the menstrual cycle of which the majority belonged to the age group 10 to 12 years (12.4%). (Table 5)

**Table 6: Frequency Of Changing Pads.**

<b>Change Of Pads</b>	<b>SANITARY PADS</b>		<b>UNSANITARY PADS</b>	
	<b>Frequency</b>	<b>Percentage</b>	<b>Frequency</b>	<b>Percentage</b>
	1 TIME	103	11.4%	4
2 TIME	418	46.2%	19	2.1%
3 TIME	275	30.4%	7	0.8%
4 TIME	78	8.6%	0	0
<b>TOTAL</b>	<b>874</b>	<b>96.7%</b>	<b>30</b>	<b>3.3%</b>

The majority of study participants changed the sanitary pads 2 times per day i.e. 46.2% while only 2.1% of study participants changed the insaniary pads 2 times per day. 8.6% of study participants were changing sanitary pads. (Table 6)

## DISCUSSION

In the present study, 45.7% of study participants were scared at their first menstrual cycle of which the majority belongs to the age group between 10 to 12 years. The major age group with discomfort towards and who felt irritation in their first menstrual cycle was 13 to 16 years and the difference between them was found to be statistically significant. Different restrictions were practised by most of the girls in the present study, possibly due to the different rituals in their communities; the same was practised by their mothers or other elderly females in the family, due to their ignorance and false perceptions about menstruation. Our finding correlates with the study done by Sundarier al (5) nearly in which half of the study participants (45%) felt shocked during their first menstrual cycle.

In the present study, 9.8% of study participants had irregular menstrual cycles, of which the majority (15.9%) belonged to the age group 10-12 years. The most common menstrual problem was back pain (44.6%) followed by dysmenorrhea (36.2%). Back pain was more common in the age group 13-18 years (56.2%) while dysmenorrhea was most common in the age group 10-12 years (45.9%) and this difference between them was found to be statistically significant. Our study findings correlate with studies done by Gedam JK (6) in his study out of 382 adolescent girls 216 (57.5%) had regular and 166 (42.5%) had irregular menstrual cycles and the common menstrual problems reported were dysmenorrhea, premenstrual syndrome, heavy menstrual bleeding, intermenstrual bleeding, in 113 (29.58%), 101 (26.39%), 63 (16.49%) and 93 (24.34%) respectively. Anil K Agarwal and Anju Agarwal (7) in their Study the prevalence of dysmenorrhea in adolescent girls was 79.67%. Meenal V. Kulkarni et al (8) has done a study on Reproductive Health Morbidities among Adolescents in Nagpur and found that dysmenorrhea was present in 53.6%. A study done by Sowmya H et al (9) reported that 45% complained of stomachache followed by 6.67% vomiting, 3.33% had a headache, and 8.3% had back pain.

In the present study, 21.7% of study participants had white discharge, of which the majority (25.8%) belonged to the age group 16-18 years. Our study findings correlate with a study done by Gedam JK (6) on adolescents in Maharashtra reported that 26.7% had white discharge and 8.11% had itching. Similarly, a study done by Gothankar JS et al (10) reported that out of 35 girls, 8 girls had unusual vaginal discharge and 21 girls had itching.

In the present study, 58.6% of study participants did household activities during the Menstrual cycle of which the major age group was 16 to 18 years (62.5%). About 61.2% of study participants did baths on alternate days during menstruation of which the majority belong to the age group 13 to 16 years (65.6%) while only 22.3% of study participants did baths daily of which the majority of the age group was

16 to 18 years (28.1%) and this difference between them was found to be statistically significant. It could be because of the lack of knowledge about healthy practices in young girls. This might be due to the reason that issues associated with reproductive health are not taught in schools in detail and whatever information, these adolescents get, passes from one generation to another in a non-methodical and unbiased manner with related societal taboos.

Our study findings correlate with a study done by Parvathy Nair et al [11] where 70% of the study were restricted from participating in household activities and only 1.6% avoided bathing during menstruation. Similarly, in a study done by Kapoor G et al [12] on menstrual hygiene, 93.18% of girls took daily baths during menstruation. A study done by Gothankar JS et al (10) reported that 47.5% of study participants were restricted to do household activities during menstruation. A study done by Sowmya H et al (9) in Mangalore reported that 86.67% of adolescents were restricted activities during menstruation.

The majority of study participants changed the sanitary pads 2 times per day (46.2%) while only 2.1% of study participants changed the insaniary pads 2 times per day. 8.6% of study participants were changing sanitary pads 4 times per day. Very few girls used sanitary pads possibly due to their low socioeconomic status, lesser availability of the pads in rural areas and lack of awareness. The probable reason for the girls not changing their pads could be ignorance and lack of facilities.

Our study findings correlate with a study done by Kapoor G et al [12] on menstrual hygiene 78 (59.09%) girls used sanitary pads, 36 (27.27%) used new cloth and 18 (13.64%) used old washed cloth. Similarly, a study done by Kamath R et al [13] found that Overall, 70.4% of adolescent girls were using sanitary napkins as menstrual absorbent, while 25.6% were using both cloth and sanitary napkins. Almost half of the rural participants dried the absorbent inside their homes.

Hygienic practices during menstruation are of utmost importance as poor hygiene has direct implications on the health of the reproductive tract and makes them more prone to infections of not only the reproductive but also urinary tract infections (UTI).

Literacy plays an important role in an individual's awareness of various illnesses, the need for keeping fit and healthy and their impact on individuals discharging their functions and roles. There seems to be some relationship between the level of education among adolescents and their morbidity situation.

## CONCLUSION

The present study has revealed unhealthy menstrual practices, low levels of knowledge and various misconceptions among adolescent school girls regarding menstruation.

The study also clearly brings out the impact of health education in improving their knowledge and practices.

All adolescent girls should be educated at home and schools regarding the onset of the menstrual cycle so as to decrease anxiety and irritation during the commencement of menstrual life.

### RECOMMENDATIONS

School health programmes should include menstrual hygiene as a routine programme.

Health care-seeking behaviour in adolescent girls should be improvised.

The girls should be educated about the process and significance of menstruation, the use of proper pads or absorbents, and proper disposal.

Proper health education should be given so that there will not be any misconceptions among adolescent girls regarding menstrual hygiene.

### ACKNOWLEDGEMENTS

#### FUNDING

No funding sources

### CONFLICT OF INTEREST

None

### ETHICS APPROVAL

Approved by the Institutional Ethics Committee.

### REFERENCES

1. UNICEF 2023. UNICEF data: Monitoring the situation of children & women. Adolescent health dashboards. Available from <https://data.unicef.org/resources/adolescent-health-dashboards-country-profiles/>. [last accessed on 25-07-2023.]
2. Reddy AK, Varanasi S, Ameer SR, Paul KK, Reddy AA. Knowledge, attitude, and practices related to reproductive and sexual health among adolescent girls in a rural community of Telangana. *MRIMS J Health Sci* 2022;10:35-40.
3. Nagar S, Aimol KR. Knowledge of adolescent girls regarding menstruation in tribal areas of Meghalaya. *Stud Tribes Tribals* 2010;8:27-30.
4. Dubey S, Sharma K. Knowledge attitude and practice regarding reproductive health among urban and rural girls a comparative study. *Stud Ethno Med* 2012;6:85-94.
5. Sundari, T., George, A. J., & Sinu, E. (2022). Psychosocial Problems of Adolescent Girls during Menstruation. *Journal of mental health education*, 3(2), 47–63.
6. Gedam JK. Study of reproductive health problems in adolescent girls at ESIC PGIMS, MGM Hospital, Parel, Mumbai: a retrospective study. *Int J Reprod Contracept Obstet Gynecol* 2017;6:4285-90.
7. Anil K A, Anju A, A study of Dysmenorrhea During Menstruation in Adolescent Girls *IJCM/Vol1 35/ Issue 1 / January 2010* 159-163.
8. Meenal V. Kulkarni P. M. Reproductive Health Morbidities among Adolescent Girls: Breaking the Silence. *Ethno Med* 2011;5(3):165-168.
9. Sowmya H, Mohan S Singhe. Knowledge and practices of reproductive health among school-going rural adolescent girls of Sullia taluk. *Elixir Soc. Sci.* 2012;50:10493-10497.
10. Gothankar JS, Patil RS, Plkar SH. Knowledge and practices related to reproductive health amongst adolescent girls. *Med J DY Patil Univ* 2015;8:719-23.
11. Parvathy N, Vijay L G. Awareness and Practices of Menstruation and Pubertal Changes amongst Unmarried Female Adolescents in a Rural Area of East Delhi. *Indian Journal of Community Medicine*.2007 April;32(2):156-157.
12. Kapoor G, Kumar D. Menstrual hygiene: knowledge and practice among adolescent school girls in rural settings. *Int J Reprod Contracept Obstet Gynecol* 2017;6:959-62.
13. Kamath, R., Ghosh, D., Lena, A, Chandrasekaran A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk, Manipal, India. *Global journal of medicine and public health.* 2013;2(4):1-4.