

# Menstrual Knowledge and Hygiene Management of Adolescent Girls

## ABSTRACT

The study measured the menstrual knowledge and hygiene practices of adolescent girls of low socio income group. Purposive sampling method was used for the selection of study participants. A self-developed Questionnaire was used to measure and analyze the knowledge and hygiene practice among the adolescent girls. The present research aimed to study the menstruation knowledge among adolescent girls and practices of hygiene that they followed during menstruation. Results showed that the levels of knowledge regarding the menstrual health is low among the adolescent girls. Menstruation surrounded by social taboos was never discussed in home and hence the adolescent girls are ignorant about it before they actually experience it. This study emphasized the prerequisite for adolescent girls to have accurate and adequate knowledge about menstruation and its appropriate hygiene practices to be maintained. Further, there exists a positive correlation between menstrual knowledge and hygiene management by adolescent girls which clearly indicates that if the menstrual knowledge of the adolescent girls increases then there can be improvement in the hygiene practices as well by the same group.

## KEYWORDS

*Adolescent, Knowledge, Hygiene, Menarche, Menstruation,*

## INTRODUCTION

Adolescence is a unique phase of human development that spreads between the age of 10 and 19 years. Accelerated growth in reproductive organs is the most significant change during adolescent period. The girls attain puberty and their menstrual cycle starts. Menstruation is a normal and unique phenomenon to the females. Studies have revealed that adolescent girls have incomplete and inaccurate knowledge about menstruation and hygiene. Menstruation knowledge and its hygiene practices are surrounded with socio cultural taboos and hence adolescent girls are ignorant of the scientific practices, facts and hygienic health practices, which sometimes result in adverse health outcomes. The knowledge and practices related to menstruation are dependent on socio economic conditions as well [1]. Hygienic practices of women during menstruation are of considerable importance, as they have a serious health complications and also reproductive tract infections. Good hygienic practices such as the use of sanitary pads, frequently changing pads and adequate washing of the genital area are essential during menstruation. The menstruation knowledge and hygiene practices are rarely discussed at home or in schools, because of the phenomenon being clouded by taboos and social restrictions. Lack of information given to adolescent girls about the menstruation knowledge and the hygienic practices to be followed, leads to adverse health outcomes like reproductive tract infection, UTIs etc. Unhygienic menstrual practices and management among adolescent girls increase susceptibility to infection. It was therefore considered as relevant to investigate the menstruation related knowledge and practices among the adolescent girls. The data about their level of knowledge and the practices which are followed by them with respect to menstruation are important to find any association between menstrual knowledge and hygiene management. Hence, the present study was carried out to find out menstrual knowledge and hygiene and their association.

## MATERIALS AND METHODS

The descriptive study was carried out in Hyderabad, district (India) mainly focusing the low socio economic households as these constitute the vulnerable group. A variety of factors are known to affect menstrual behaviors, the most influential ones being economic status. A total of 60 respondents were selected as the sample of the study following purposive sampling technique. A questionnaire, structured and closed ended questions were used to assess the menstruation knowledge levels and hygiene practices of the adolescent girls of low socio income groups. Informed

consents were obtained from the parents and assents for the participation. Participation was entirely voluntary and confidentiality was ensured. The knowledge questions consisted of questions such as process of menstruation, cause, source, duration of menstruation along with menarche. The hygiene practice question included use of absorbent material in menstruation, about personal hygiene during menstruation, and frequency of changing pads. The information collected was tabulated and statistically analyzed by using percentages, frequencies and correlation.

## RESULTS AND DISCUSSION

### Menstruation Process Knowledge

**Table 1 Knowledge levels on the process of menstruation amongst Adolescent Girls**

n=60

Menstruation process is a	Frequency	Percentage
Physiological process	14	23.33%
Pathological process	4	6.66%
Don't know	42	70.00%
<b>Cause of Menstruation</b>		
Hormones	32	53.33%
Caused by the disease	8	13.33%
Don't know	20	33.33%
<b>Source of Menstrual blood</b>		
Uterus	4	6.66%
Vagina	16	26.00%
Don't know	40	66.66%
<b>Duration of Normal Menstrual cycle</b>		
20-28 days	20	33.33%
28-40 days	4	6.66%
Don't know	36	60.00%
<b>Heard about Menstruation before attaining menarche</b>		
Yes	6	10.00%
No	54	90.00%

The above table indicates that about 3/4 of the adolescent girls in the study "Don't know" what menstruation process is, 23.33% of adolescent girls pointed out that menstruation is physiological process and 6.66% indicated that menstruation is pathological process. Physiological process refers to the process that occurs naturally in the human body, this process is the vital function for the human body. On the other hand, pathological process refers to the disease due to invasion of the body by pathogenic microorganisms and their multiplication which can lead to tissue damage and disease. The above figures give clear idea that adolescent girls are not aware of the menstruation process and why does it occur to them.

Majority (53.33%) of the adolescent girls were aware of the fact that menstruation process is caused by hormonal process in the female human body. Hormones are the chemical messenger of the body. It was depressing to note that 13.33% of the adolescent girls in the study believed that menstruation is caused by a disease. As much as 33.33% of the adolescent girls did not know the cause of menstruation. 66.66% of adolescent girls "Don't know" the source of menstruation blood. This figure indicates that menstrual knowledge is poor among the adolescent girls, probably because no proper information channels are available for them. Menstruation is still a social taboo in our society. This might be because nobody talks much about the menstruation. There is a gap in the educational system where reproductive health is not taught because either it is considered non-important or unsocial. It is assumed that knowledge regarding menstruation will come gradually by its own.

The duration of normal menstruation cycle of 20-28 days was indicated correctly by less than

50 % of the adolescent girls. Menstrual cycle is the normal 28 day cycle of the girls who have attained menarche. This normal cycle indicates the normal and healthy life of the girls. This cycle is the normal cycle of all females

Prior information about menarche before they actually experience it was not available to 90% of the adolescent girls.. 10% had heard about menarche and menstruation cycle before they actually experienced it. The prior information is not given to adolescent girls before they actually experience it because of the social taboos and belief that still prevail in the society. Menstruation is still not discussed in open. Thakre *et al* [8] found that only 36.95% of the girls were aware of menstruation before menarche. The major source of information about menstruation was their mothers. More than three fourth of the girls in the study were not aware of the cause and the source of the bleeding.

Mahajan and Kaushal [4] pointed out that that 29% had adequate knowledge about menstrual hygiene, and 71% had inadequate knowledge about menstrual hygiene. Composite practice scores showed that 19%, 69%, and 12% samples had poor, fair, and good score of practices regarding menstrual hygiene, respectively. It was further pointed that, significant positive association between good knowledge of menstruation and educational status of the mother only.

### Menstrual Hygiene Practices

**Table 2. Practices regarding menstrual hygiene among adolescent girls**

n=60

Statements	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Uses absorbent materials during menstruation	60	100	–	–
Uses commercially made sanitary pad as absorbent material during menstruation	24	40.00	44	73.33
Clean clothes with soap and water	30	68.00	14	31.81
Dry cloths in sunlight	28	63.36	16	36.36
Changing pads or cloths more than three times and above during menstruation	20	33.33	40	66.66
Do you change /reuse the cloth for every cycle	28	46.66	32	53.33
Disposes used sanitary pads in dustbin	34	56.66	26	43.33
Uses paper to dispose the pads by wrapping	18	30.00	42	70.00
Takes bath daily with soap during menstruation	36	60.00	24	40.00
Clean external genitalia during menstruation	32	53.33	28	46.66
During Menstrual cycle, I use undergarment separately	8	13.33	52	86.66

Table 2 reveals menstrual hygiene practices among adolescent girls. All the adolescent girls in the study used absorbent cloth during their periods. The commercially available pads were used by only 40 % of the adolescent girls and more than half (60%) adolescent girls used old clothes during their periods. Use of the old clothes by the majority of the adolescent girls was due to affordability and accessibility challenges. Sharma *et al* [7] found that majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. Apparently, poverty, high cost of disposable sanitary pads and to some extent ignorance discouraged the girls from using the menstrual absorbents available in the market. Thakur *et al* [9] Sanitary napkins (either alone or along with reusable cloth) are used by the majority (74.5%) of the young women. But it is surprising to see that in urban area almost 25% participants are still using cloths. Obviously due to the poor socio economic conditions of these families, they cannot afford to purchase costly sanitary napkins.

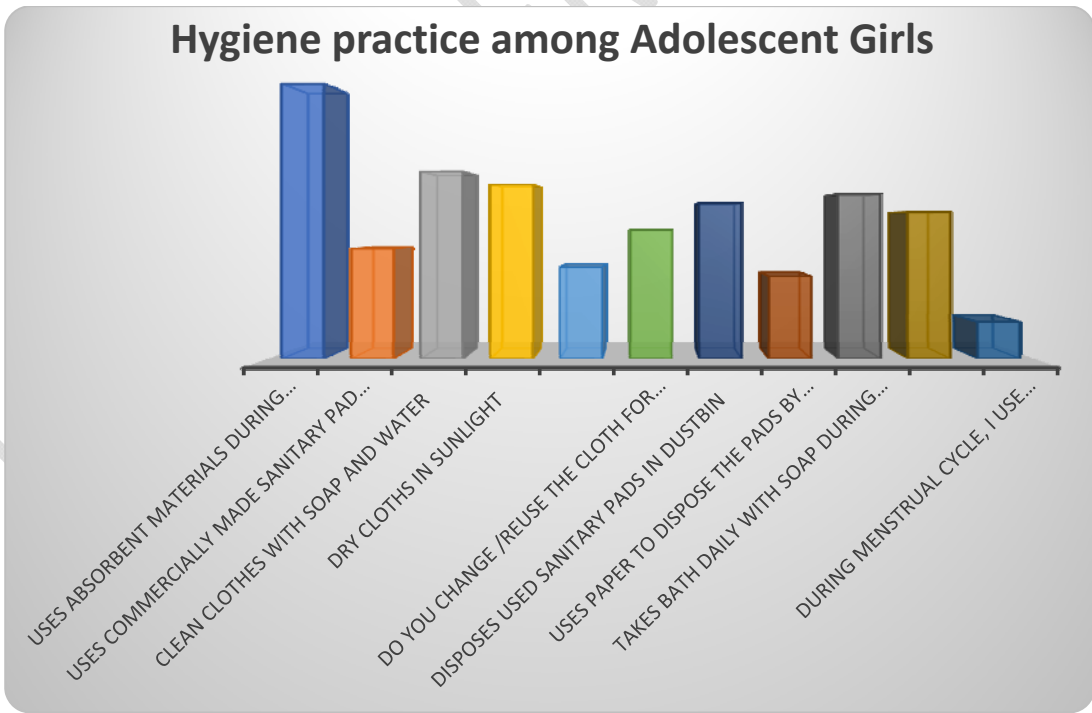
As much as 70.00% of the adolescent girls used soap and water to clean their used sanitary

pads. This figure is noteworthy and indicates some good practice among the adolescent girls. A majority of the adolescent (63.36%) dried the clothes in sunlight. 40% of adolescent dry their used sanitary clothes in shade because they feel shy and believe that if they dry in sunlight other members will come to know about their periods. But still as much as 40.00% of adolescent girls dried their used periods clothes in hidden place because they did not want other member to know about their periods. The limited, inadequate knowledge about menstruation might be the cause for the girls in the present study to feel embarrassed, anxious and hence they did not dry their used clothes in sun.

The percentages clearly indicated low hygiene practices in the adolescent girls which could be due to limited menstruation knowledge in adolescent girls. Majority of the adolescent girls did not change their pads or cloths more than three times or more during menstruation and, hence indicated low hygiene practice during menstruation. The majority of the adolescent girls (56.66%) did not dispose used sanitary pads in dustbins. Moreover, 70.00% of the respondents did not wrap the pads with papers to dispose them. The majority of the adolescent girls (86.66%), did not use undergarment separately for period during menstruation. This finding is in line with the finding of Fehintola *et al* [2] where majority of respondents ( 49.58%) disposed the absorbent material without wrapping it and disposed it in the toilet indicating a poor hygiene practice in menstruation.

Ramchandra *et al* [6] revealed that around 34% participants were aware about menstruation prior to menarche, and mothers were the main source of information among both groups. Overall, 69% of adolescent girls were using sanitary napkins as menstrual absorbent, while 6% used both cloth and sanitary napkins. Almost half of the rural participants dried the absorbent cloth inside their rooms.

Varghese *et al* [10] pointed out the average level of menstrual hygiene practices was 75 %, meaning proper menstrual hygiene was high. Factor analysis on menstrual hygiene showed highest scores on frequency of changing the pad, bath during menstruation, absorbent cloth used and access to water. Average level of hygiene practices was comparatively more among girls who belonged to higher socio-economic groups (Pvalue = 0.003) and those who had access to a covered toilet (P value = 0.000).



**Table 3. Testing of Hypothesis Null Hypothesis**

There will be no association between menstrual health knowledge and hygiene practices of adolescent girls.

#### Alternate Hypothesis

There will be a significant association between menstrual health knowledge and hygiene practice of adolescent girls.

		Knowledge	Hygiene Practices
Knowledge	Pearson Correlation	.626	
	Sig. (2-tailed)		
	N		
Hygiene practice	Pearson Correlation		
	Sig. (2-tailed)		
	N		

\*significant at 0.05% level of probability

**Fig 1: Association between menstruation knowledge and hygiene practice in adolescent girls**

An inference could be drawn from the above table that knowledge about menstruation and menstrual hygiene practice have a positive correlation with each other, This correlation clearly indicates that if the menstrual knowledge of the adolescent girls increases that there can be improvement in the hygiene practices of the adolescent girls.

#### CONCLUSION and Recommendations

The main problem areas identified in this study were poor knowledge of menstruation, and hygiene practices. This study emphasized the prerequisite for adolescent girls to have accurate and adequate knowledge about menstruation and its appropriate hygiene practices to be maintained . Formal as well as informal channels of communication such as mothers, sisters and friends need to be empowered for the delivery of such knowledge. [5]

Inadequate menstrual knowledge, results in poor menstrual hygiene by the adolescent girls. Menstrual education should be included in School curriculum to raise awareness for healthy hygiene practices in menstruation . Menstrual health is an important part of the life cycle approach to women's health, so loud and clear messages and services on this issue must reach adolescent girls.

There is a need to provide skills among the adolescent girls for safe and healthy hygienic practices and to make appropriate choices enabling them to lead a healthy reproductive lives and prevent the risk for reproductive tract infections. Mothers and teachers to function as primary sources of information on menstruation including reproductive health. Education has been the key stone in propagating menstrual hygiene practices. Menstrual education can be conducted by non-governmental organizations, health workers and government organization. As the mothers are the primary informant for the adolescent girls menstrual health education should also be imparted to them.

Strategies such as supply of cheap and affordable sanitary napkins, access to water, sanitation, hygiene of external genitalia and access to covered toilets are still deficient and it plays a major role in promoting the adoption of safe menstrual hygiene practices. Subsidies should be given on sanitary napkins to make it more affordable.

Kotian et al [3] pointed that It is very important that lower socio-economic group should be educated about the importance of maintaining hygiene during menstruation by proper health education and equip them with skills regarding safe and hygienic practices to prevent the risk for reproductive tract infections.

## REFERENCES

1. Drakshayani Devi K, Venkata Ramaiah P. A study on menstrual hygiene among rural adolescent girls. *Indian J Med Sci* (1994) 48(6):139–43 [[PubMed](#)]
2. Fehintola , O. F., Fehintola, O.A., Aremu, O. A., Idowu, A., Ogunlaja, A .O., Ogunlaja, P.I. Assessment of knowledge, attitude and practice about menstruation and menstrual hygiene among secondary high school girls in Ogbomoso, Oyo state, Nigeria . *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2017 May;6(5):1726-1732.
3. Kotian,M.S., Chaudhary,K.V.,Mutya, S.V.,Sekhon,S.A., Sriraman,S.,Prasad,P. Assessment of knowledge, practice and perception of menstruation among adult women in the reproductive age group, in Mangalore, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* Kotian SM et al. *Int J Reprod Contracept Obstet Gynecol*. 2017.6(10):4595-4601
4. Mahajan A, Kaushal K. A descriptive study to assess the knowledge and practice regarding menstrual hygiene among adolescent girls of Government School of Shimla, Himachal Pradesh. *CHRISMED J Health Res* 2017. 4. 99-103.
5. Prajapati D, Shah J, Kedia G. Menstrual Hygiene: Knowledge and Practice among Adolescent Girls of Rural Kheda District. *Ntl J of Community Med* 2015; 6(3):349-353.
6. Ramchandra,K. Gilyaru,S.Eregowda,A.Yathiraja,S. A study on knowledge and practices regarding menstrual hygiene among urban adolescent girls. *International Journal of Contemporary Pediatrics*.2016 Feb;3(1):142-145
7. Sharma R, Negi S, Kunj D, Sharma V, Vardha. Menstrual hygiene among adolescent girls. *Indian J Comm Health*. 2015; 27, 3: 376-380.
8. Thakre, B. S.,Thakre ,S. S., Reddy, M.,Rathi , N., Pathak, K., Ughade, S., Menstrual Hygiene: Knowledge and Practice among Adolescent School Girls of Saoner, Nagpur District . 2011.*Journal of Clinical and Diagnostic Research* · Vol-5(5): 1027-1033.
9. Thakur H, Aronsson A, Bansode S, Stalsby Lundborg C, Dalvie S, Faxelid E. Knowledge, Practices, and Restrictions Related to Menstruation among Young Women from Low Socioeconomic Community in Mumbai, India. *Frontiers in Public Health*. 2014;2:72. doi:10.3389/fpubh.2014.00072.
10. Varghese,M. Ravichandran, L. Anandhan,K.A. Knowledge and Practice of Menstrual Hygiene among Adolescent Girls. *Ind. J. Youth Adolescent Health* 2015; 2(3)