

## Original Research Article

# Knowledge, attitude and practice about menstruation and menstrual hygiene among adolescent school girls of rural field practice area of tertiary care hospital, Nandyal, Andhra Pradesh: a cross-sectional study

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## ABSTRACT

**Background:** As the reproduction starts from the puberty and in which most of the girls will be not aware of menstruation and they will lack the knowledge as most of the girls will be in school age group. This study is done to understand their knowledge, attitude and practice on menstruation and menstrual hygiene in school going girls.

**Methods:** A school based cross sectional study was conducted after getting ethics committee clearance during August-September 2023 (2 months) in RHTC field area of Santhiram medical college, Nandyal among high school girls of 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> classes by simple random sampling method with sample size 230, study tool was pre-designed, pre-tested, semi structured questionnaire by interview method collected data and analysed by SPSS 25 version.

**Results:** In this study out of 230 participants about 43% were under the age group 13 years, 57.8% were have knowledge on menstruation and 60% were not aware of origin of blood and 76.1% are attending school during the menses, 31% of girls Still feels embarrassing buying pads, 40% don't attend to perform house activities and sitting at the corner. Only 51.7% are using dustbins for disposal.

**Conclusions:** This study results shows that girls have a poor knowledge, attitudes and practices regarding menstruation and menstrual hygiene. There is a gap between knowledge and menstrual hygiene and usage of proper sanitation, school administration and health facilities should conduct awareness programmes on menstrual hygiene.

**Keywords:** Menstruation, Menstrual hygiene, Adolescent

## INTRODUCTION

Menarche is the most important event take place in adolescent girl; generally, it starts age between 10-15 years and menstruation is the onset of puberty, it is a physiological process among females who experience shedding of blood for 1-7 days from uterus, in every month from the age of maturity until menopause.<sup>1</sup> Due to lack of knowledge on menstruation and due to shyness and embarrassment they won't gather the information regarding menstruation. Menstruation is a natural process

but it is still a taboo in Indian society as it is considered unclean and dirty.<sup>2</sup> Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased exposure to reproductive tract infection (RTI) and sexually transmitted infections and its complications.<sup>3</sup>

Adequate washing of the genital areas and use of sanitary pads are good hygienic practices, which are essential during menstruation period and as practices of menstrual hygiene may reduce the occurrence of RTI and its

complications.<sup>4</sup> women's perceptions of menstruation in India may vary among different religions. As an women have to face number of taboos in her lifetime during the menses, there is lack of knowledge and misunderstanding about menstruation among women in India before and after occurring the menarche.<sup>5</sup> menstrual hygiene is a great challenge for young girls residing in rural areas.<sup>6</sup>

Studying the knowledge and the practices of menstruation are beneficial for planning a program for improving the awareness to their life processes and promoting their quality of life.<sup>7</sup>

### Aim

Aim of the study was to estimate the knowledge, attitude and practice about menstruation and menstrual hygiene.

### Objectives

Objectives were to study their knowledge about menstruation and to know the attitude and practice of menstrual hygiene.

## METHODS

A school based cross sectional study was conducted among high school girls of 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> classes of population of RHTC field practice area of Santhiram medical college and general hospital, Nandyal during August-September 2023 (2 months) by using Simple random sampling method with sample size 230, study tool was pre-designed, pre-tested, semi structured questionnaire. Data was collected by interview method and analysed by SPSS 25 version. Ethics committee clearance was obtained before conducting the study.

### Inclusion criteria

Girls who are present at the time of data collection in the school in RHTC area, who are willing to participate voluntarily and give written informed assent were included in study.

### Exclusion criteria

Those who are not present at the time of data collection. Who are not willing to participate and not give written informed assent, were excluded.

Data was analysed by using SPSS 25 version.

## RESULTS

Figure 1 shows age distribution, out of 230, majority were under 13 years of age it's about 43%, 28% were under the age group of 15 years, about 27% under the age group of the 14 years and about 2% were under the age group of 16 years.

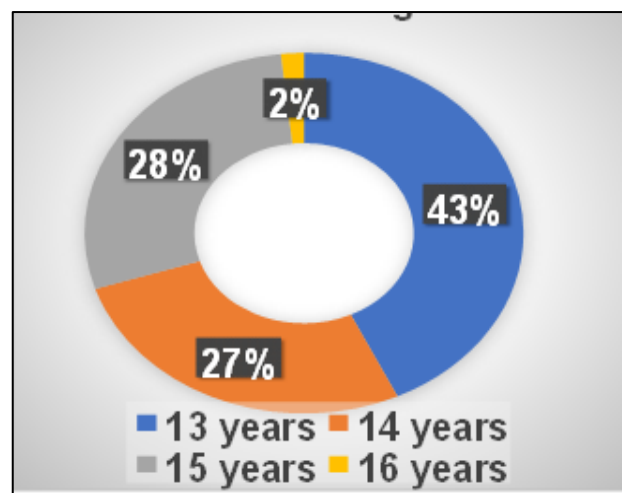


Figure 1: Age.

Here, Figure 2 shows the distribution according to the religion out of 230, majority of 49% were following the Hindu religion, about 31% were Muslim religion and about 20% were following Christianity.

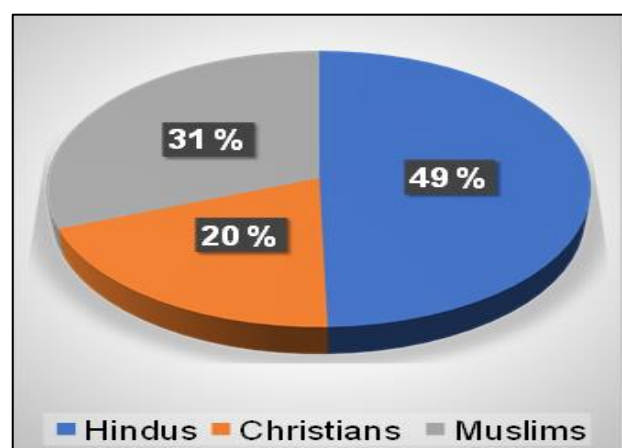


Figure 2: Religion.

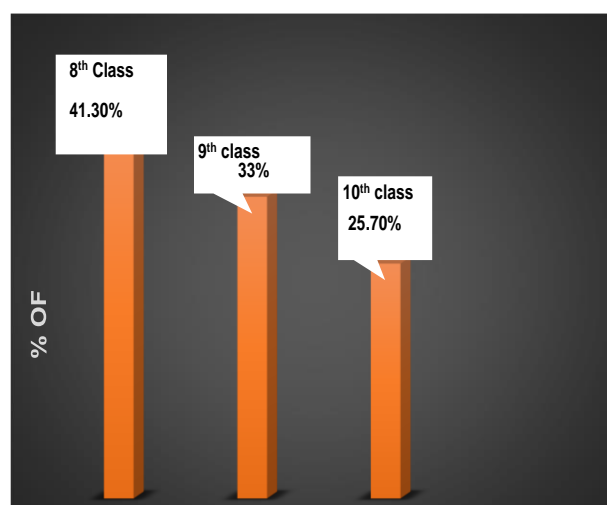
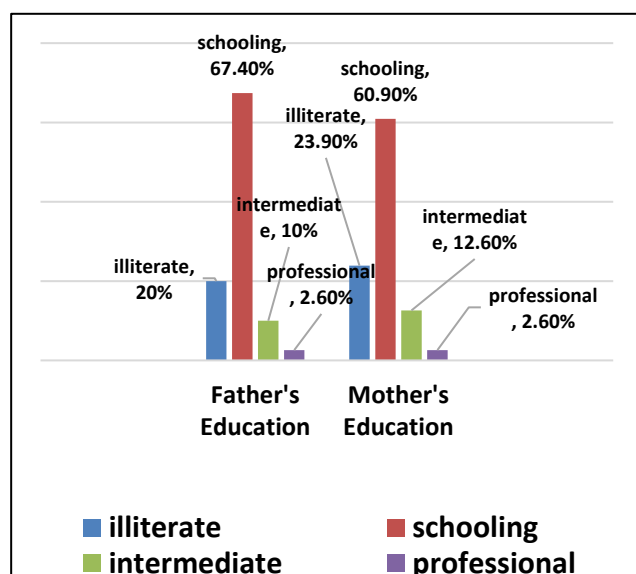


Figure 3: Distribution according to the education.

Here, the Figure 3 shows the distribution according to the education, majority with 41.3% were studying 8<sup>th</sup> class, about 33% were in 9<sup>th</sup> class and about 25.7% were in 10<sup>th</sup> class.



**Figure 4: Father's and mothers' education.**

Figure 4 shows the educational status of girl's father's and mothers' education, regarding father's education majority of 67.40% are underwent schooling, 20% were illiterate, 10% were studied intermediate and 2.60% were with professional degree.

Regarding mother's education majority of 60.90% are underwent schooling, 23.90% were illiterate, 12.60% were studied intermediate and 2.60% were with professional degree (Figure 4).

**Table 1: Knowledge about menstruation and menstrual hygiene.**

Variables	Answer	Percentages (%)
How many days of menstruation per cycle	5- >5 days	52.2
Normal duration of menstrual cycle	20-30 days	54.8
Menstruation is a normal process	Yes	57.8
Causes of menstruation	Do not know	54.3
Origin of blood during menstruation	Do not know	60
First source of information	Mother	74.8
Menstrual education received in school	Yes	94.8

Table 1 shows the knowledge about menstruation and menstrual hygiene, about 57.8% having the knowledge that 5->5 days are the normal physiological bleeding days

of menstruation per cycle, 54.8% having the knowledge of normal duration of menstrual cycle that is 20-30 days, about 57.8% having the knowledge that menstruation is a normal process, about 74.8% their mother is the first source of information.

About 54.3% and 60% don't having the knowledge regarding the cause of menstruation and origin of blood during menstruation respectively.

About 94.8 are aware of seeking knowledge regarding the menstrual education in school.

**Table 2: Attitude about menstruation and menstrual hygiene.**

Variables	Answer	Percentages (%)
Attending school during the menses	Yes	76.1
Buying pad is embarrassing	No	68.7
Attending social actives during menses	No	63
Bathing daily during menses	Yes	79.6
Visiting holy places during menses	No	78.7
Perform household activities during menses	Yes	60

Table 2 shows the attitude about menstruation and menstrual hygiene, about 76.1% are Attending school during the menses, about 79.6% bathing daily during menses and about 60% Performing household activities during menses

About 78.7% and 60% following the cultural activities like not visiting the holy places and not attending social activities during menstruation.

About 68.7% are not embarrassed to buy pads, but about 31.3% still feel shy and embarrassed to buy pads openly.

**Table 3: Practice about menstruation and menstrual hygiene.**

Variables	Answers	Percentages (%)
Materials used during menses	Sanitary pads	76.5
Cleaning the external genitalia after changing pad	Yes	73
No of times pads changed per day	Thrice	41.3
Changing pad in school	Yes	67
Method of disposing menstrual use materials	Dust bin	51.7

Table 3 shows the practice about menstruation and menstrual hygiene, about 76.5% were using sanitary pads during menses, about 73% are practicing the hygienic process by cleaning the external genitalia after changing the pad, about 41.3% were changing the pads thrice a day and about 67% using the school washroom for changing the pads.

About 51.7% were practicing the disposal of used materials in dust bin.

**Table 4: Association with education.**

Association with education	P value
Origin of blood	0.341
Buying pad is embarrassing	0.001 (Significant)

$P < 0.05$  is considered significant.

Table 4 shows there is significant association between education and buying pad is embarrassing with  $p=0.001$ .

## DISCUSSION

In this study about 43% were under the age 13 years, 27% are in 14 years and 28% in 15 years and 2% in 16 years whereas 47% in the age of 13 years, 16% in 14 years and 3% are more than 15 years of age in Thakre et al study.<sup>7</sup>

Regarding knowledge majority of girls in the present study shows that their first source of information regarding menstruation if from their mother's constituting about 74.8% which is less when compared to the study conducted by Murthy et al is 77.2%, where as in Syed et al it is about 48.6%.<sup>2,8</sup> where regarding the religion distribution in this study shows the majority with Hindus with 49%, Christians with 20% and Muslims with 31% whereas in Murthy et al is 80.8% were Hindus, 14% were Christians and 1.2% were Muslims.<sup>2</sup> in this study about 60% do not know the origin of blood during the menstruation whereas in Syed et al a majority of 91.2% don't know the origin of blood.<sup>8</sup>

Regarding the attitude majority of girls in the present study shows the material used while menstruation is sanitary pads with 76.5%, whereas in Kotian et al its about 58%.<sup>5</sup>

Regarding practice majority of girls in the present study shows the number of times pad changes/day were trice is about 41.3% which is 42.3% in a study conducted by Parle et al the disposal of used sanitary pads were majority in dustbins with 51.7% in this study which is less when compared to the study conducted by Parle et al is 77%, and in this study regarding the cultural activities with majority of girls are not visiting holy places during the menstruation is 78.7% whereas in Parle et al is 88.9%, in this study about 67% changing the pad in school whereas 12.45% in urban and 9.59% in rural area in Thakre et al study.<sup>1,7</sup>

In this present study majority of girls have aware that menstruation is a natural process about 57.8% whereas in Murthy et al is 90%, whereas in 96.50% in Shah et al.<sup>6,9-17</sup>

## Limitations

Follow up of each student was difficult as time period and sample size were less.

## CONCLUSION

This study concludes that the information about menstruation and menstrual hygiene is a challenging factor in young age girls in rural areas. This study results shows that girls have a poor knowledge, attitudes and practices regarding menstruation and menstrual hygiene. The school administration and health facilities should conduct various awareness programmes regarding menstruation and menstrual hygiene.

## Recommendations

This study suggests that knowledge, attitude and practice towards the menstruation are need to be improved by health education, frequent training activities and IEC activities can improve their practice hygiene and avoid the occurrence of any disease.

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