

# A Study to Assess Knowledge and Practice of Menstrual Hygiene among the Teenage Students at Dnyanvilas College of Pharmacy, Dudulgaon

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## ABSTRACT

**Introduction:** Menstrual practices are still bounded by restriction due to taboos and social stigma. There is lack of knowledge among the adolescent girls regarding menstruation and menstrual hygiene which may lead to various reproductive tract infectious diseases. Awareness about menstruation right from childhood may help to eradicate this issue. **Aim and Objectives:** To assess the knowledge, practice of menstrual hygiene and restrictions faced by menstruating subjects during menstruation. **Materials and Methods:** A cross sectional observational study was conducted at Dnyanvilas College of Pharmacy, Dudulgaon, Pune. A Predesigned questionnaire was used to collect information regarding demographic details, type of absorbent used, storage of absorbent, frequency of changing sanitary pad, disposing method and personal hygiene. Also subject's knowledge at the time of menarche was captured. Collected data was analyzed with the help of Microsoft Excel Sheet. **Results:** Out of 76 subjects 74% residing at rural area and 39.47% were unaware about the menstruation at the time of menarche. 26.32% subjects unsatisfactorily cleaning their external genital area and 89.47% were disposing the used pad in daily routine waste. 64.47% subjects were facing restrictions while attending family religious functions. **Conclusion:** The study revealed that menstrual hygiene was satisfactory among adolescents. Lack of sufficient knowledge and awareness among girls regarding menstruation can be improved by educating girls and their mothers. Educational programs should be conducted about the awareness of personal hygiene in schools and colleges that may help in increasing knowledge about menstruation and maintaining hygiene.

**Key words:** Menstruation, Menstrual Hygiene, Sanitary Pad, Teenage girls, Awareness.

## INTRODUCTION

The word adolescent is derived from the Latin word "adolescere", it means to grow into maturity. The World Health Organization (WHO) defines adolescents as individual between 10-19 years of age group that is also called as 'teenage'.<sup>1</sup> Adolescence in girls signifies the transition from girlhood to womanhood.<sup>2</sup> The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. The first menstruation is referred as menarche

which occurs between 11 and 15 years with a mean of 13 years. The menstrual period is a physiological process that occurs throughout the reproductive years of every woman.<sup>3</sup>

In rural as well as urban region menstrual hygiene has become a very big problem mainly due to taboos and social stigma around it. Due to lack of knowledge and awareness about menstruation among the females in rural area many of them maintain poor hygienic conditions. Practicing poor

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hygienic condition during menstrual cycle can lead to various urinary tract infections. As a care taker of girl child parents should always discuss the factors about the menstrual cycle. Due to decrease in level of educational status in rural area parents often face the problem to discuss openly with their child about the menstruation.<sup>4,5</sup>

In several studies, it has been found that negative attitude towards menstruation, most of the parents felt hesitation while giving knowledge about the menstruation. Lack of knowledge leads to misconceptions such as menstruation is curse of God and not the physical phenomenon. Father, teachers, friends, family members, especially mother can play an important role to guide girls before menarche.<sup>3,6</sup>

Adolescence girls should be aware about hygienic practices during menstruation such as using sanitary pad instead of old clothes, maximum time for using single pad, cleaning of external genital area with an antiseptic and dispose the used pad properly in dustbin. Absorbent should be stored in dry and clean place to avoid contamination. Change of sanitary pad should be frequent to avoid severe infection at genital area among the girls and also washing of hands with Soap should be practiced.<sup>1,7</sup>

In rural area many of the girls were suffering from restrictions of their family members. Such as attending religious functions, touching stored food, playing outside, sleeping on routine bed etc. These types of restrictions affect the quality of life such as Mental, Social etc during every menstruation. This hesitation directly reflects in the lack of knowledge in adolescence girl at the time of menarche.<sup>8</sup>

Facilities provided by college may affect the attendance and performance of students due to shyness of changing sanitary pad also facing problem while disposing the used pad. Proper information about menstrual hygiene can prevent several infections in adolescent females, so that they can live healthy life.<sup>9,10</sup>

With this background the present Study was undertaken to Assess Knowledge and Practice of Menstrual Hygiene among the teenage Students.

## MATERIALS AND METHODS

The study was cross sectional questionnaire based observational study conducted for period of one month among the girls studying Diploma and Graduation at Dnyanvilas College of Pharmacy, Dudulgaon. Total 76

subjects were enrolled successfully as per the Inclusion Criteria: Female Students who gave their consent to participate in the study, Female Student who have started menstruation and Unmarried, non-pregnant, non-lactating females. Exclusion Criteria: Student who is not willing to participate in study, Male students, Students with significant physical or mental handicap, which could affect their ability to respond. And Female student who have not started menstruation, married, pregnant and lactating females.

After taking permission from college authorities to conduct the study, we explained the purpose of the study to subjects and staff members of college. After providing information, subjects raised queries regarding study which were resolved and consents were obtained. While providing information about the study all study related points were covered such as nature of study and objectives were explained.

After the counseling session, predesigned questionnaire was used to collect information of menstrual hygienic practices and restrictions on activities during menstruation. The questionnaire includes demographic information, family details, type of absorbent used, storage of absorbent, frequency of changing sanitary pad and disposing methods were collected. Along with that information regarding personal hygiene and knowledge at the time of menarche was also captured. Data were collected and analysed by using Microsoft Excel

## RESULTS AND DISCUSSION

In the above study total 76 subjects enrolled successfully. From that 26% respondent belongs to urban region and 74% from rural region (Figure 1).

Among 76 subjects 13.16% mother of subjects was illiterate, followed by 47.37% schooling, 26.32% higher school and 13.16% degree and above education completed. Father of subjects was 11.34% illiterate, followed by 18.42% schooling, 18.42% higher school and 51.32% degree and above education completed (Figure 2).

At the time of menarche 60.53% subjects were aware about the menstruation and 39.47% were unaware about it. Most important source of information in subjects before menarche was mother (36.84%), sister (10.53%), friend (5.26%), teachers (5.26%) and other (2.63%). Among 76 subjects, 60.53% were not known about the cause of menstruation. 36.84% subjects thought that it was physical process and 2.63% believed that it was curse

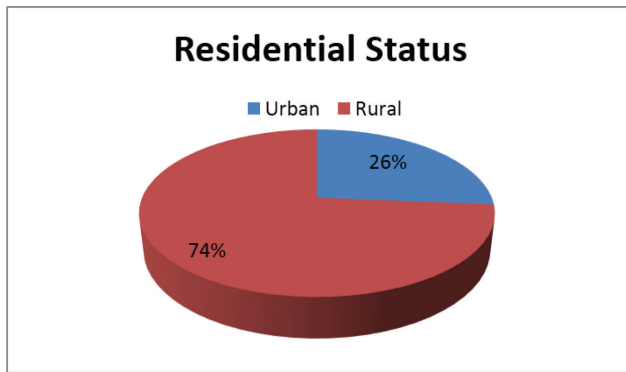


Figure 1: Residential status of subjects.

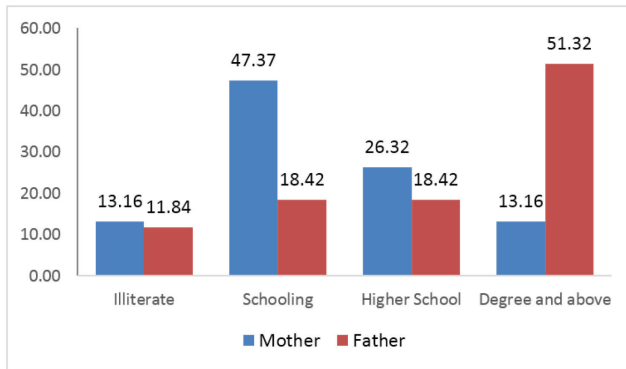


Figure 2: Educational status of parents.

of God. 69.47% subjects were not aware from which organ does the menstrual blood comes. 17.89% subjects thought that blood comes from urethra or vagina and 12.63% known that it comes from uterus (Table 1).

In 76 subjects, 82.89% were taking regular bath and 17.11% were not go for regular bath. 55.26% of subjects were using only water followed by 36.8% using soap and water for hand washing after changing a sanitary pad and 7.89% irregularly washing their hands. 27.63% subjects were cleaning external genital area with water. Remaining 14.47% and 10.53% were cleaning external genital area with soap-water and Antiseptic- water respectively. 47.37% subjects were practicing irregularly of cleaning the external genital area. (Figure 3) Subhash Thakre et al. author revealed that soap and water was the commonest cleaning agent in 57.23% girls.<sup>4</sup>

Jagruti Prajapati et al. found that 5% and 3% subjects were not taking a bath and irregularly washing the hands. Compare to that in our study found that 17.11% and 7.89% respectively.<sup>10</sup> 27.63% girls were cleaning external genital area with water.

75% subjects were using sanitary pad regularly. 15.79% and 9.21% subjects were using new clothes and old

Table 1: Knowledge about Menstruation before menarche.

Sr. No.	Questions	Responses	Percentage
1.	Awareness about menstruation before menarche	Yes	60.53
		No	39.47
2.	Source of information before menarche	Mother	36.84
		Sisters	10.53
		Friends	5.26
		Teachers	5.26
		Others	2.63
3.	Cause of menstruation	Don't know	60.53
		Physical process	36.84
		Curse of God	2.63
4.	From which organ does the menstrual blood come	Don't know	69.47
		Urethra/vagina	17.89
		Uterus	12.63

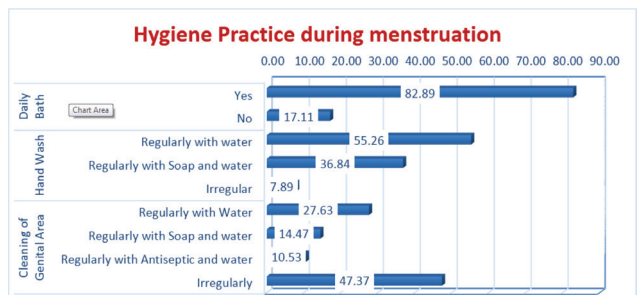


Figure 3: Cleanliness during menstruation.

clothes. Jagruti Prajapati et al. and P. Verma et al. found that 26.1 % and 45.8% girls practiced sanitary pad which is contrary to Funmito Omolola Fehintola et al.<sup>5,10,12</sup> (Table 2).

93.42% girls were not changing pad in college due to various reasons such as lack of facility for separate bathroom, shyness. Subhash Thakre et al. found that 11.37% girls were changing the pad at school hours due to ignorance and lack of facilities which is similar to current study.<sup>4</sup>

During menstruation out of 76 subjects 92% had one or multiple restrictions such as attending religious function (64.47%), house hold work (15.79%), separated (13.16%), touch stored food (10.53%), sleep on routine bed (17.11%), play outside (2.63%) and some other restrictions (10.53%). which is as similar to P. Verma et al. study. (12) Only 8% did not have any restrictions during menstruation (Table 3).

**Table 2: Hygienic Practices during Menstruation**

Sr. No.	Parameters	Response	Percentage
1.	Use of material during menstruation	Sanitary pad	75.00
		Old clothes	9.21
		New clothes	15.79
2.	Cleaning of external genital area	Satisfactory	73.68
		Unsatisfactory	26.32
3.	Storage of absorbent	Bathroom	6.58
		Don't store	10.53
		Store with routine cloth	2.63
		Other	80.26
4.	Method of Disposal	Burn it	3.95
		Throw it in routine waste	89.47
		Other	6.58
5.	Number of absorbent used during last menses	1 to 6	59.21
		7 and more	40.79

**Table 3: Limitations during Menstruation.**

Sr. No.	Parameters	Response	Percentage
1.	Reasons of not using sanitary pad	Lack of knowledge	16.58
		High cost	33.16
		Difficulty in discard	3.95
		Shyness	1.32
		No reason	15.00
2.	Restrictions (Multiple choices selected individually)	Attend religious function	64.47
		Household work	15.79
		Touch stored food	10.53
		Sleep on routine bed	17.11
		Play outside	2.63
		Other	10.53
		No restrictions	7.89
3.	Impact on college attendance and performance	Yes	86.84
		No	13.16
4.	Change of pad in college	Yes	6.58
		No	93.42

86.84% subjects felt that menstruation affect the college attendance and performance due to some reasons such as heavy bleeding, abdominal cramps and difficulty in changing sanitary pad but 13.16% were not affected daily routine. 93.42% subjects not changing pad in college due to various reasons such as lack of facility for separate bathroom and shyness.

## DISCUSSION

In the current study majority of participants are from rural area. Subhash Thakre author observed that majority of respondents were from urban area which is controversial to the study.<sup>4</sup>

Funmito Omolola Fehintola *et al.* found the positive association between parent's level of education and good knowledge of menstruation and menstrual hygiene and the study considered that Mothers who are educated are likely to talk to their children about menstruation compared to mothers who were illiterate.<sup>5</sup> Same result was observed in current study.

60.53% girls knew about menstruation before menarche this may be due to high level of education among parents. Keerti Jogdand *et al.* and Jagruti Prajapati *et al.* found that few girls were aware about menstruation before menarche that is 36.19% and 39.8% respectively.<sup>9,10</sup> Ester Kandjimi *et al.* found that all girls received information on menstruation before menarche which is contrary to current study.<sup>11</sup>

In our study 60.53% subjects were aware about the menstruation before menarche which is very less in study done by Jagruti Prajapati *et al.*<sup>10</sup> In this study 36.84% girls have reported mother as a first source of information. Other source of information was sister, friend, teacher and other. Keerti Jogdand *et al.* also found 61.29% girl's mother was the first source of information which was nearly similar.<sup>9</sup> Jagruti Prajapati *et al.* found that 48.9 % girl's mother was the first source of information.<sup>10</sup>

In this study 36.84% girls believed that menstruation is a physiological process approximately similar finding that is 33.1 % was observed in study conducted by Jagruti Prajapati *et al.* and Subhash Thakre *et al.* found that 18.35% girls believed that menstruation is a physiological process.<sup>4,10</sup> One more study which is conducted by P. Verma *et al.* observed that 85.83% girls were believed that menstruation is a physiological process.<sup>12</sup>

It was observed in this study that 12.63% girls believed that during menstruation bleeding occur from uterus while study conducted by Jagruti Prajapati *et al.* reported 17%.<sup>10</sup>

73.68% subjects were satisfactory cleaning external genital area and 26.32% subjects were unsatisfactorily that is cleaning of external genital area more than two times a day and less than or equal to two times a day during menstruation. A study which is conducted by Subhash Thakre *et al.* revealed that 66.15% girls were

clean external genitalia unsatisfactory (the frequency of cleaning the external genitalia was nil or less than 2 times per day).<sup>4</sup>

6.58% and 2.63% subjects were stored absorbent in bathroom and store with routine cloth. 10.53% subjects were not store absorbent. 80.26% subjects were stored absorbent other places. Subhash Thakre *et al.* was observed that 49.8% girls were using bathroom for storage of absorbent which is contrary to the current study.<sup>4</sup>

Among the subjects who were not using sanitary pad had different reasons such as lack of knowledge in 16.58%, high cost in 33.16%, and difficulty in discarding 3.95%, shyness in 1.32%, other reasons such as feel uncomfortable with sanitary pad in 15% was found. Other 30% subjects were using sanitary pad. P. Verma *et al.* observed that poverty, high cost is most common reasons.<sup>12</sup>

Maximum numbers of subjects were throwing absorbent in routine waste which is 89.47%. Followed by 6.58% subjects were used other method of disposal and 3.95% subjects burnt the absorbents. Maximum numbers of subjects were throwing absorbent in routine waste which is 89.47%. Funmito Omolola Fehintola *et al.* found that majority of subject disposed the absorbent material with or without wrapping it and disposed it in the toilet.<sup>5</sup> 59.21% had used 1 to 6 number of absorbent and only 40.79% subjects used more than or equal to 7 absorbent during last menses. According to Funmito Omolola Fehintola *et al.* was found that frequency of changing absorbent material during last menses 44.75% and it was found similar.<sup>5</sup>

Majority of subjects were not changing pad in college due to various reasons such as lack of facility for separate bathroom and shyness. Only 6.58% subjects changing pad in college which is very less. Ester Kandjimi *et al.* observed the same results that are 90%.<sup>11</sup>

## CONCLUSION

This study was conducted to assess the knowledge and practices among the teenage girls. The study revealed that the levels of menstrual hygiene were acceptable. Lack of sufficient knowledge and awareness among girls regarding menstruation can be improved by educating girls and their parents and they should be discussing with their daughters regarding menstruation before age of menarche. Better hygienic practices can be adopted by making sanitary pads available at affordable

prices for everyone. Educational programs should be conducted in the schools and colleges which will help to increase in awareness about maintaining hygienic practices in menstruation. Along with this counseling about further complications like infections, urinary tract diseases should be done to these teenaged girls. This study concluded that girls were not changing sanitary pads in regular interval is due to unavailability of facilities like separate bathrooms, pad disposal area etc. in school and colleges. Therefore these facilities should be provided by school colleges and offices. There is need to remove restrictions, myths and beliefs associated with menstruation by the help of teachers and healthcare practitioners. Discussing problems related menstruation, counseling about maintaining hygiene practice, removing the restrictions and availability of facilities for this will lead to better and healthy life for these menstruating teenaged girls.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## ABBREVIATIONS

**WHO:** The World Health Organization.

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