

## Knowledge, Sociocultural Beliefs & Practices about Menstruation among Medical & Paramedical Students of T.S.Misra Medical College & Hospital, Lucknow

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### Abstract:

**Introduction:** Menstruation hygiene is an issue that every girl and women has to deal with in her life but there is lack of awareness on the process of menstruation. 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. The taboos and socio-cultural practices related to menstruation, such as not being allowed to visit holy places and entering the kitchen among others restrictions makes them feel socially ostracised. **Method** : The present descriptive cross-sectional study was conducted at T.S. Misra Medical College & Hospital Lucknow under the guidance of Community Medicine department. The study population comprised of girls studying in MBBS & Paramedical courses. Total 147 MBBS students & 52 paramedical students were interviewed. The methodology comprised of face-to-face interview with students in the institute premises at a private place provided by the institute. **Result** : The average length of menstrual cycle is 28-32 days was established by 78(53.0%) MBBS students & 11(21.1%) paramedical students. "Uterus is the main source of bleeding" was the response given by 145(98.6%) MBBS & 22(42.3%) paramedical students. More than half 107 (72.8%) MBBS students & 35 (67.3%) thought that menstrual blood is impure blood. According to 49(33.3%) MBBS students & 21 (40.4%) paramedical girls holy places cannot be visited during menstruation. **Conclusion** : Overall, menstrual knowledge (bleeding days, source of blood, material used during periods) & practices (using sanitary pads & its dispose method) are better in the MBBS students as compared to paramedical students.. Still, there is need for sensitizing the girls and increasing their knowledge towards menstrual practices. An integrated menstrual education program should emphasize the physiological basis of menstruation.

**Key Words** : Believe, Menstruation, Sociocultural

### Introduction:

The term adolescence comes from Latin word meaning "to grow to maturity". W.H.O. has defined adolescence as a period between 10-19 years.<sup>[1]</sup> Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. Globally, adolescent girls constitute about 1/5th of total female population. While in India, adolescent girls account for a little more than one-fifth of the population (21.4%).<sup>[2]</sup> By year 2025, the population of adolescents in developed and developing countries would be around 19% and 27% respectively.<sup>[3]</sup>

Menstruation hygiene is an issue that every girl and women has to deal with in her life but there is

lack of awareness on the process of menstruation. The first menstruation also called as "MENARCHE". Menarche marks the beginning of a multitude of physical, physiological, and psychological changes in the lives of the adolescent girls.

Menarche is the most important event in the life of an adolescent girl. During puberty, hormonal, psychological, cognitive and physical changes occur simultaneously and interactively making physiological development a challenge adolescents have to face, with emotional, social and behavioural dimensions. More than just a physiological process, menstruation may be looked on as a restriction on women's religious and social traditions or as a taboo.<sup>[4]</sup>

Menstruation is still regarded something unclean or dirty in Indian society. 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. Although menstruation is a natural process it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes.

For most girls, menarche is a negative, frightening experience, or, at the best, a nuisance, or is something to fear or to be ashamed of. The taboos and socio-cultural practices related to menstruation, such as not being allowed to visit holy places and entering the kitchen among others restrictions makes them feel socially ostracised.

Adolescents find themselves sandwiched between a glamorous western influence and a stern conservatism at home, which strictly forbids discussion on sex and our traditional society discourages open discussion on these issues. This dichotomy aggravates the confusion among adolescents. This has led to increase in pre-marital sexual activity, pregnancy among unmarried girls apart from the increasing incidence of abortion and STDs. Sexually Transmitted Infections (STI's), including HIV (Human Immunodeficiency Virus) mainly affects sexually active young people.<sup>[6]</sup>

Several studies documented that menstruation related problems, had affected more than a third of student's class concentration, participation, socializing with friends, test taking skills and homework task performance. Dysmenorrhea was significantly associated with school absenteeism and decreased academic performance, sports participation, and socialization with peers.<sup>[6]</sup>

Majority of studies were conducted among the adolescent school girls of different population. Most of the time adolescent girls are unprepared in terms of knowledge, skill and attitude for managing the menstrual cycle. Therefore, increased knowledge about menstruation right from childhood may escalate practices and may help in mitigating the suffering of millions of women. Education has been described as a 'social vaccine', and it can serve as a

powerful preventive tool. With this in mind, the present study was carried out to gather information about menstruation, hygiene related practices and socio-cultural believes regarding menstruation among medical & paramedical students of T.S. Misra Medical College & Hospital, Lucknow.

#### **Objectives :**

- To study the knowledge and socio cultural beliefs prevalent in the context of menstruation among medical & paramedical students
- To assess the menstrual hygiene practices among medical & para- medical students

#### **Method :**

The present descriptive cross-sectional study was conducted at T.S. Misra Medical College & Hospital Lucknow under the guidance of Community Medicine department. The study was conducted over a period of three months i.e. from 1st June 2018 to 30th August 2018. The study population comprised of girls studying in MBBS & Paramedical institute of T.S. Misra Medical College & Hospital Lucknow.

**Sample Size :** Total 147 MBBS students & 52 paramedical students were interviewed. Total 149 students interviewed.

#### **Inclusion Criteria :**

- Studying in MBBS & Paramedical institute only.
- Willing to participate

#### **Exclusion Criteria :**

- Not present in institute for maximum of three consecutive visits.

**Study Tool :** An instrument for the survey was developed after reviewing the available literature. A pilot study was conducted initially at five medical & five paramedical students of T.S Misra Medical College & Hospital, Lucknow to see the feasibility of the study and for validation of the study tool. Difficulties in data collection and ambiguities in the questionnaire were resolved and modifications were done in the study instrument as indicated by the pilot study.

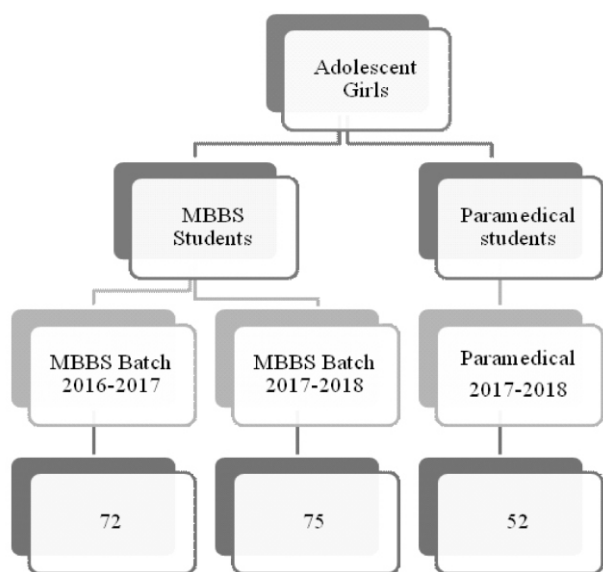
Selection of study subjects: First of all, permission was sought from the principal of the institute both Medical & Paramedical College. From

each institute, a complete roll number list of all students was obtained. After obtaining the roll-number, every student was explained the purpose of study and voluntary informed consent taken. Face to face interview conducted with the MBBS & Paramedical students.

**Methodology :** Interview was made to each student and information about the purpose of study was given to all study subjects. Rapport was developed and voluntary informed consent was taken before filling the pre-designed, pre-tested semi-structured questionnaire. The methodology comprised of face-to-face interview with adolescent girls in the institute premises at a private place provided by the institute. The girls were picked randomly, one at a time, from the roll

number list of respective classes using random number table. If any girl was found absent on the day of interview, maximum of two more attempts were made to contact the girl and interview her in subsequent visits and even if found absent on two consecutive visits, then that girl was excluded from the study. After completion of the interview or in case of non-availability or exclusion, next girl was chosen similarly from the roll number list using random number table. In the end, after the completion of all interviews, the girls were collected & given health education and counselled in areas where their knowledge was lacking and needed reinforcement by the author of the study.

**Figure 1: Study Protocol**



**Statistical Analysis:** Data were entered using Microsoft Excel 2010 and statistical analysis was done using IBM SPSS v 20.0.0. Categorical variables were analysed using proportions and percentages.

**Results :**

Predominantly the girls belonged to age group of 18-22 years 92 (62.5%) in MBBS & 30(57.6%) in paramedical, more than half girls are Hindu by religion in both group. 120 (81.6%) MBBS & 32 (61.5%) paramedical girls are residing in hostel. Around 100(68.0%) MBBS girls belong to upper class I & 26 (50.0%) paramedical girls belong to middle class III according to B.G. Prasad socio-economic status. (Table 1)

All participated girls had attained menarche. Mostly girls 68(46.2%) MBBS girls & 28(53.8%) paramedical girls had their menarche at the age group of 13 years. Very few subjects 12(8.1%) MBBS girls & 7(13.5%) paramedical girls had the onset of menstruation before  $\leq$  11 years. Mean age of Menarche was  $13.0 \pm 1.03$  years in MBBS students &  $12.8 \pm 1.07$  years in Paramedical students. (Table 2)

While collecting the information regarding knowledge about menstruation, 128(87.0%) MBBS & 18(34.6%) paramedical students replied that bleeding occurs 4-5 days during period. The average length of menstrual cycle is 28-32 days was established by 78(53.0%) MBBS students & 11(21.1%) paramedical students. Uterus is the main source of bleeding by 145(98.6%) MBBS & 22(42.3%) paramedical students. Obtaining the information about sanitary pad 88(59.8%) MBBS girls & 11(21.1%) paramedical students replied that one should change the pad three times a day. Regarding material used during menstruation, more than half 120(81.6%) MBBS students & 38(73.0%) paramedical students replied sanitary pad only. (Table 3)

Sociocultural believes towards menses : Around 122 (83.0%) MBBS students & 40(76.9%) paramedical girls were believed that girl should take bath during periods. More than half 107 (72.8%) MBBS & 35 (67.3%) paramedical students thought that menstrual blood is impure blood. According to 49(33.3%) MBBS students & 21 (40.4%) paramedical girls holy places cannot be visited during

Table 1: Demographic characteristics of Medical &amp; Paramedical students

| Biosocial Characteristics   | Medical Students(n=147) | Para-medical Students(n=52) |
|-----------------------------|-------------------------|-----------------------------|
| <b>Age (years)</b>          |                         |                             |
| 18-22                       | 92(62.5%)               | 30(57.6%)                   |
| 21-23                       | 50(34.0%)               | 13(25.0%)                   |
| 24-26                       | 05(3.4%)                | 09(17.3%)                   |
| <b>Religion</b>             |                         |                             |
| Hindu                       | 106(72.1%)              | 40(76.9%)                   |
| Muslim                      | 22(15.0%)               | 08(15.4%)                   |
| Sikh                        | 12(8.2%)                | 03(5.8%)                    |
| Others                      | 07(4.8%)                | 01(1.9%)                    |
| <b>Caste</b>                |                         |                             |
| General                     | 111(75.5%)              | 19(36.5%)                   |
| OBC                         | 25(17.0%)               | 28(53.8%)                   |
| Others                      | 11(7.5%)                | 05(9.6%)                    |
| <b>Residence</b>            |                         |                             |
| Hostel                      | 120(81.6%)              | 32(61.5%)                   |
| Home with Family            | 25(17.0%)               | 13(25.0%)                   |
| With Relatives              | 2(1.4%)                 | 7(13.5%)                    |
| <b>Type of Family</b>       |                         |                             |
| Nuclear                     | 115(78.2%)              | 25(48.1%)                   |
| Joint                       | 29(19.7%)               | 27(51.9%)                   |
| Extended                    | 3(2.0%)                 | 0                           |
| <b>Education of Mother</b>  |                         |                             |
| Illiterate                  | 1(0.7%)                 | 1(1.9%)                     |
| Can Read only               | 0                       | 3(5.8%)                     |
| Primary                     | 01(0.7%)                | 01(1.9%)                    |
| Middle                      | 0                       | 9(17.3%)                    |
| High-school                 | 17(11.6%)               | 18(34.6%)                   |
| Graduate and Above          | 128(87.1%)              | 20(38.5%)                   |
| <b>Education of Father</b>  |                         |                             |
| High-school                 | 06(4.1%)                | 14(26.9%)                   |
| Graduate and Above          | 141(95.9%)              | 38(73.1%)                   |
| <b>Socioeconomic Status</b> |                         |                             |
| I (Upper class)             | 100(68.0%)              | 04(7.7%)                    |
| II (Upper Middle)           | 39(26.5%)               | 08(15.4%)                   |
| III (Middle class)          | 8(5.4%)                 | 26(50.0%)                   |
| IV(Lower Middle)            | 0                       | 14(26.9%)                   |

**Table 2: Distribution of students according to Menarche**

| Attained Menarche                  |      | MBBS students | Paramedical Students |
|------------------------------------|------|---------------|----------------------|
| Have you started your menstruation | Yes  | 147(100.0%)   | 52(100.0%)           |
| <b>At What Age (Years)</b>         |      |               |                      |
|                                    | ≤ 11 | 12(8.1%)      | 7(13.5%)             |
|                                    | 12   | 26(17.7%)     | 8(15.4%)             |
|                                    | 13   | 68(46.2%)     | 28(53.8%)            |
|                                    | 14   | 27(18.4%)     | 4(7.6%)              |
|                                    | 15   | 14(9.5%)      | 5(9.6%)              |

**Table 3: Knowledge about Menstruation among MBBS & Paramedical students**

| Knowledge about menstruation                             | MBBS Student<br>n=147 | Paramedical Student<br>n=52 | Chi-square Test                        |
|--|-----------------------|-----------------------------|--|
| <b>For how many days bleeding occurs during a period</b> |                       |                             |  |
| Correct (4-5 days)                                       | 128(87.0%)            | 18(34.6%)                   | $\chi^2=54.0$<br>df=1<br>p value=0.00  |
| Incorrect  | 19 (12.9%)            | 34 (65.4%)                  |  |
| <b>Average Length of cycle</b>                           |                       |                             |  |
| Correct (28-32 days)                                     | 78(53.0%)             | 11(21.1%)                   | $\chi^2=15.81$<br>df=1<br>p value=0.00 |
| Incorrect  | 69 (46.9%)            | 41(78.8%)                   |  |
| <b>Source of blood in the body during periods</b>        |                       |                             |  |
| Correct (Uterus)   | 145(98.6%)            | 22(42.3%)                   | $\chi^2=90.32$<br>df=1<br>p value=0.00 |
| Incorrect  | 2(1.3%)               | 30(57.6%)                   |  |
| <b>How many times in a day one should change a pad</b>   |                       |                             |  |
| Correct (Three times)                                    | 88(59.8%)             | 11(21.1%)                   | $\chi^2=23.02$<br>df=1<br>p value=0.00 |
| Incorrect  | 59(40.1%)             | 41(78.8%)                   |  |
| <b>Material can be used during periods</b>               |                       |                             |  |
| Sanitary pad alone                                       | 120(81.6%)            | 38(73.0%)                   | $\chi^2=1.71$<br>df=1<br>p value=0.18  |
| Cloth  | 27(18.3%)             | 14(26.9%)                   |  |



Table 4: Sociocultural Believes of Adolescent girls regarding Menstruation

| Sociocultural Believes  | Response       | MBBS Student<br>n=147 | Paramedical Student<br>n=52 | Chi-square test                         |
|---|----------------|-----------------------|-----------------------------|---|
| Do you think a girl should take bath during period ?                                    | Yes            | 122(83.0%)            | 40(76.9%)                   | $\chi^2=1.329$<br>df=2<br>p value=0.514 |
|   | No             | 13(8.8%)              | 05(9.6%)                    |   |
|   | Don't Know     | 12(8.2%)              | 07(13.5%)                   |   |
| Do you think menstrual blood is impure blood ?  | Yes            | 107(72.8%)            | 35(67.3%)                   | $\chi^2=1.215$<br>df=2<br>p value=0.544 |
|   | No             | 34(23.1%)             | 13(25.0%)                   |   |
|   | Don't Know     | 06(4.1%)              | 04(7.7%)                    |   |
| Do you think holy places can be visited by girls during menstruation ?                  | Yes            | 82(55.8%)             | 27(51.9%)                   | $\chi^2=1.037$<br>df=2<br>p value=0.595 |
|   | No             | 49(33.3%)             | 21(40.4%)                   |   |
|   | Don't Know     | 16(10.9%)             | 04(7.7%)                    |   |
| Do you think females should not be allowed to enter kitchen during menstruation ?       | Yes            | 63(42.9%)             | 15(28.8%)                   | $\chi^2=3.264$<br>df=2<br>p value=0.195 |
|   | No             | 70(47.6%)             | 30(57.7%)                   |   |
|   | Don't Know     | 14(9.5%)              | 07(13.5%)                   |   |
| Do you think girl should not carry out physical activities like cycling during menses ? | Yes            | 40(27.2%)             | 19(36.5%)                   | $\chi^2=1.692$<br>df=2<br>pvalue=0.429  |
|   | No             | 90(61.2%)             | 27(51.9%)                   |   |
|   | Don't Know     | 17(11.6%)             | 06(11.5%)                   |   |
| Do you think that poor menstrual hygiene predisposes to foul smelling ?                 | Yes            | 110(74.8%)            | 30(57.7%)                   | $\chi^2=6.341$<br>df=2<br>p value=0.04  |
|   | No             | 26(17.7%)             | 13(25.0%)                   |   |
|   | Don't Know     | 11(7.5%)              | 09(17.3%)                   |   |
| A girl should not carry out daily activities during menses                              | Yes            | 101(68.7%)            | 31(59.6%)                   | $\chi^2=1.87$<br>df=2<br>p value=0.392  |
|   | No             | 30(20.4%)             | 12(23.1%)                   |   |
|   | Don't Know     | 16(10.9%)             | 09(17.3%)                   |   |
| Do you think girl should avoid certain food during menses ?                             | Yes            | 45(30.6%)             | 42(80.7%)                   | $\chi^2=39.28$<br>df=2<br>p value=0.00  |
|   | No             | 84(57.1%)             | 08(15.4%)                   |   |
|   | Don't Know     | 18(12.2%)             | 02(3.8%)                    |   |
| What food should be avoided during menstruation   | Cold beverages | 10(22.2%)             | 07(16.6%)                   | $\chi^2=0.426$<br>df=2<br>p value=0.808 |
|   | Salty food     | 12(26.6%)             | 12(28.5%)                   |   |
|   | Sour food      | 23(51.1%)             | 23(54.8%)                   |   |
| Do you think it is necessary to give knowledge about menstruation to the girls ?        | Yes            | 147(100.0%)           | 52(100.0%)                  | Not applicable                          |

**Table 5: Menstrual Hygiene practices among MBBS & Paramedical students**

| Menstrual Hygiene practices   |   | MBBS Student<br>n=147 | Paramedical Student<br>n=52 | Chi-square Test                                 |
|---|---|-----------------------|-----------------------------|---|
| Type of material do you use during menstruation                               | <b>Sanitary pad</b>                                     | 120(81.6%)            | 38(73.1%)                   | $\chi^2=1.719$<br>df=1<br>p value=0.189         |
|   | <b>Home made with cloth piece</b>                       | 27(18.4%)             | 14(26.9%)                   |   |
| If you are using cloth do you reuse it  | <b>Yes</b>  | 17(62.9%)             | 8(57.1%)                    | $\chi^2=0.131$<br>df=1<br>p value=0.717         |
|   | <b>No</b>   | 10(37.0%)             | 6(42.8%)                    |   |
| What you do before reusing the same cloth ?                                   | <b>Wash with Soap and water and dry them under sun</b>  | 7(41.1%)              | 2(25.0%)                    | $\chi^2=0.618$<br>df=1<br>p value=0.431         |
|   | <b>Wash with Soap+ water+ antiseptic + Sun dried</b>    | 10(58.8%)             | 6(75.0%)                    |   |
| How many times do you change your pads/cloth per day ?                        | <b>One time</b>   | 35(23.8%)             | 11(21.2%)                   | $\chi^2=1.926$<br>df=3<br>p value=0.587         |
|   | <b>Two times</b>  | 67(45.5%)             | 21(40.4%)                   |   |
|   | <b>Three times</b>                                      | 34(23.1%)             | 13(25.0%)                   |   |
|   | <b>More than three times</b>                            | 11(7.5%)              | 7(13.4%)                    |   |
| How do you dispose your pads during menstruation ?                            | <b>Bury the pads</b>                                    | 0                     | 1(2.6%)                     | Yates chi-square=0.371<br>df=1<br>p value=0.542 |
|   | <b>Wrap the pad in paper and discard in emptied bin</b> | 120 (100.0%)          | 37(97.4%)                   |   |
| Do you bath during menstruation ?   | <b>Everyday</b>   | 97(66.0%)             | 30(57.7%)                   | $\chi^2=1.144$<br>df=1<br>p value=0.284         |
|   | <b>Alternate day</b>                                    | 50(34.0%)             | 22(42.3%)                   |   |
| Do you wash your genitals during menstruation after changing pad every time ? | <b>With water only</b>                                  | 73(49.7%)             | 28(53.8%)                   | $\chi^2=0.269$<br>df=1<br>p value=0.604         |
|   | <b>Water with soap</b>                                  | 74(50.3%)             | 24(46.2%)                   |   |
| Do you wash your hands during changing pads every time ?                      | <b>Yes</b>  | 147 (100.0%)          | 52 (100.0%)                 | Not applicable                                  |
| If yes then with  | <b>With water only</b>                                  | 39(26.5%)             | 13(25.0%)                   | $\chi^2=0.047$<br>df=1<br>p value=0.828         |
|   | <b>Water with soap</b>                                  | 108(73.5%)            | 39(75.0%)                   |   |
| Do you face any problem in attending the institute during menstruation ?      | <b>Yes</b>  | 59(40.1%)             | 27(51.9%)                   | $\chi^2=2.175$<br>df=1<br>p value=0.140         |
|   | <b>No</b>   | 88(59.8%)             | 25(48.1%)                   |   |
| Do you change pads/cloth during institute hours ?                             | <b>Yes</b>  | 88(59.9%)             | 34(65.4%)                   | $\chi^2=0.494$<br>df=1<br>p value=0.482         |
|   | <b>No</b>   | 59(40.1%)             | 18(34.6%)                   |   |

menstruation. In modern era even 63 (42.9%) MBBS girls & 15 (28.8%) paramedical girls believed that females should not be allowed to enter kitchen during menses. 40 (27.2%) MBBS & 19 (36.5%) paramedical girls believed that girls should not carry out physical activities like cycling during menses. Belong to medical professions even 26(17.7%) MBBS girls & 13 (25.0%) paramedical girls did not believe that poor menstrual hygiene predisposes to foul smelling. Approximately 101 (68.7%) MBBS & 31 (59.6%) paramedical students believed that a girl should not carry out daily activities during menses. 45(30.6%) MBBS & 42(80.7%) paramedical girls thought that certain food should be avoided during menses. Mostly 23(51.1%) MBBS girls & 23(54.8%) paramedical girls avoiding sour food during menses. All MBBS & paramedical students agree that it is necessary to give knowledge about menstruation to the girls. (Table 4)

More than half 120(81.6%) MBBS and 38(73.1%) paramedical girls used sanitary pad during menses. 17(62.9%) MBBS and 8(57.1%) paramedical students were reusing the cloth during menses. Before, reused cloth was washed with soap, water, antiseptic and dried in Sun by 10 (58.8%) MBBS and 6 (75.0%) paramedical students only. Around 67(45.5%) MBBS students and 21(40.4%) paramedical students changed the pads two times a day. Almost 97(66.0%) MBBS and 30(57.7%) paramedical girls bath every-day. Around 74(50.3%) MBBS students wash the genitals during menses after changing the pad with water and soap while 28(53.8%) paramedical girls washing with water only. Every MBBS and paramedical students washed their hands during changing the pad/cloth every-time. 108(73.5%) MBBS girls and 39(75.0%) paramedical girls washed their hands with soap and water. Every student wrapping the pad in paper and discarded in emptied bin except one paramedical student bury the pad i.e. 1(2.6%). Around 59(40.1%) MBBS girls and 27(51.9%) paramedical girls faced problems in attending the class during menstruation and 88(59.9%) MBBS and 34(65.4%) paramedical students were changing the pad during institute hours. (Table 5)

### Discussion :

In the present study, 92 (62.5%) MBBS students & 30 (57.6%) paramedical students were in age group of 18-22 years. Similar findings were reported by Neelima Sharma et al<sup>[7]</sup> study. Study done by Hinaben R. Patel, Ravikant R. Patel<sup>[8]</sup> where all students were in age range between 16-22 years of age and majority of girls were in 18-20 years of age (86.71%) in medical students.

Majority of girls were Hindu by religion, both parents educated up to graduate & above, 115(78.2%) MBBS students belong to nuclear family whereas 27(51.9%) paramedical students belong to joint family in the present study. The findings of present study are comparable to the study of Aruna Marati Savanthe, Vrushabhendra Halevoor Nanjundappa<sup>[9]</sup> where study population were Hindus (91.47%) and from nuclear family (66.8%). Most of their mothers were illiterates (35.3%), followed by those who have completed secondary schooling (27.8%), and most of the student's fathers completed secondary schooling (33.5%), followed by 23.5% of them being illiterate.

All participated adolescent girls had attained menarche at the age group of 13 years. Very few subjects 12(8.1%) MBBS girls & 7(13.5%) paramedical girls had the onset of menstruation before  $\leq$  11 years in the present study. The study findings are similar to the findings of Dasgupta A, Sarkar M<sup>[10]</sup> where majority of study subjects had menarche in age group of 12-13 years. The findings is also comparable to study by Thakre S.M. et al<sup>[11]</sup> where majority of the girls 283 (73.1%) attained menarche in the age group of 12-13 years. On the contrary, Patil M.S. et al<sup>[12]</sup> in their study reported that most of the study subjects (58.1%) had attained menarche at 14-16 years while 41.9% adolescent girls had attained menarche at 11-13 years. The difference observed in the age onset of menstruation could be due to environmental, geographical and nutritional variations of study population.

While obtaining the information regarding knowledge about menstruation, MBBS students have better knowledge as compare to paramedical students in the present study. The higher percentage of knowledge among MBBS students is due to



majority of girls were belong to upper socio-economic class and may be due to increase socialization and increase usage of internet. In study conducted by Patel R, Kubde S<sup>[13]</sup> in Nagpur and Kalpana Katiyar et al<sup>[14]</sup> at urban area of Meerut only 55.57% and 38.0% girls had knowledge regarding menstruation. The findings of study is similar to the findings of Kamath K et al<sup>[15]</sup> where majority of the respondents in both urban (91.9%, n=248) and rural (92.1%, n=258) were aware about the normal duration of menstrual cycle i.e. 3-5 days.

Sociocultural believes towards menses, mostly girls were following some restrictions during menses in both the group (MBBS students & Paramedical students) in the present study. In Neelima Sharma et al<sup>[7]</sup> study among medical students found that 51(86.4%) of girls had to practice restrictions during menses like cannot go to religious places, 50(84.74%) students were not allowed to attend religious ceremonies, 55(93.22%) cannot enter kitchen and not allowed to make food was restricted. Similar finding were reported in study Thakre SB et al<sup>[11]</sup> & S B Salve et al.<sup>[16]</sup> While some are restricted to eat certain food items like tamarind, pickle and even curd which according to some myth is supposed to disturb ovarian functions. Similar type of restrictions was reported by other studies also.<sup>[10,11,17,18]</sup>

In the present study more than half 120(81.6%) MBBS girls & 38(73.1%) paramedical girls used sanitary pad during menses. 17(62.9%) MBBS students & 8(57.1%) paramedical students were reusing the cloth during menses. Similar findings were reported by Neelima Sharma et al<sup>[7]</sup> where 86.36% medical students were using sanitary napkins as absorbent material, while 10.79% were practicing cloth during their menstrual cycle which is in accordance with Adhikari P et al<sup>[19]</sup> and Juyal et al.<sup>[20]</sup> While 70.2% and 81.73% girls were using sanitary napkin as an absorbent in study conducted by Subhangi Nayak et al<sup>[21]</sup> and Madhumita B et al<sup>[22]</sup> respectively.

Every student wrapping the pad in paper & discarded in emptied bin except one paramedical student bury the pad i.e. 1(2.6%) in the present study where-as study done by Hinaben R. Patel, Ravikant R.

Patel[8] reported that 71.94 % girls were disposing the used absorbent in Public dustbin followed by dispose with domestic refuse (14.29%). In Subhangi Nayak et al<sup>[21]</sup> study noted that 71.94 % girls were disposing the used absorbent in Public dustbin followed by dispose with domestic refuse (14.29%). 70.2% of girls wrapped the used absorbent in paper and threw it off.

In the present study almost 97(66.0%) MBBS & 30(57.7%) paramedical girls bath every-day. 74(50.3%) MBBS students wash the genitals during menses after changing the pad with water & soap while 28(53.8%) paramedical girls washing with water only. Study done by Hinaben R. Patel, Ravikant R. Patel<sup>[8]</sup> reported that majority of girls had habit of cleaning genital in a day either during bathing or every time with toilet (97.5%) & 68.18% of girls were using soap and water and 31.18% only water as a cleaning agent for genital which is in contrast with the study conducted by Neelima Sharma et al<sup>[7]</sup> among medical students were only 42% doing vaginal wash daily.

In study conducted by Dasgupta et al<sup>[10]</sup> and Madhumita B et al<sup>[22]</sup> found that 97.5% and 64.74% of girls cleaned their external genitalia with soap and water regularly during the days of menstruation respectively. Different studies from India and abroad have reported that 34-42.2% adolescent cleaned their external genitalia with soap and water during menstruation.<sup>[11,23,24,25]</sup> Surprisingly 94% of girls used to wash their genitalia as seen in a study in Uttarakhand.<sup>[20]</sup>

### Conclusion :

Overall, menstrual knowledge (bleeding days, source of blood, material used during periods) & practices (using sanitary pads & its dispose method) are better in the MBBS students as compared to paramedical students. The gap in the knowledge & practices may be due to external environment like exposure to media, family status & atmosphere of schools & institute. But regarding sociocultural believes, both group were believing & following some traditional practices. Still, there is need for sensitizing the adolescent girls and increasing their knowledge towards menstruation. An integrated menstrual education program should emphasize the

physiological basis of menstruation. A scientific understanding of menarche is vital to prepare teenage girls to be physically, emotionally, socially, psychologically and spiritually healthy, leading to a flamboyant, proactive and a well-knit society and nation.

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