

Original Research Article

Impact of health education on knowledge, attitude and practices about menstrual hygiene among adolescent girls of a college in Vijayapura

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ABSTRACT

Background: Menstrual hygiene is an issue that is inadequately recognized. Lack of privacy and sanitation for the adolescent girls make them susceptible for physical and psychological problems especially during the days of menstruation. Education about menstrual hygiene is a vital aspect for the wellbeing of the adolescent girls.

Methods: Pre and post-test was done regarding the knowledge, attitude and practice of the Adolescent girls towards the menstrual hygiene.

Results: Total of 68 adolescent girls studying in Pre university were enrolled in the study which was conducted for the period of 5months from March to July 2019. Mean age of the participants was 16.5years. 89.7% were residents of Urban area. In our study, we found that they were not properly maintaining the menstrual hygiene. Only 88% of girls knew that menstruation is a physiologic process, 37% knew that menarche is caused by hormones. 85% of them used the pads during the menstruation but 15% disposed it unhygienically.

Conclusions: Embracing high quality menstrual hygiene will play an important role in prevention of reproductive Tract Infection, pelvic inflammatory diseases and Cancer of cervix among the women population. Therefore, endorsing positive approach towards management of menstruation and related problems among the adolescents is the need of the hour.

Keywords: Menstruation, Adolescents, Hygiene

INTRODUCTION

Menstruation is a physiological process wherein cyclical changes occur in the female in reproductive age group, onset of which i.e menarche marks the attainment of puberty. While the physical changes are manifested by bleeding at the end of cycle, the psychological and emotional changes remain unnoticed since it rarely occurs that the topic of menstruation and related aspects are discussed freely. Menstruation is still regarded as something unclean or dirty in Indian society.¹

Menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes.² The social factors associated with menstruation increase the morbidities associated with it mainly in adolescent age group (which is bridge between the childhood and adulthood) as they fail to properly communicate their problems.

During menstruation defences of the female genital tract are compromised and hygiene is least maintained may

either be due to lack of knowledge or social constraints, giving the perfect time for infections to set up leading to untold morbidities.

Repeated use of unclean napkins or the improperly dried cloth napkins before its reuse results in harboring of micro-organisms causing vaginal infections.³

Definition for menstrual hygiene management was given by WHO and UNICEF in 2012 as 'Women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials'.⁴

In this city of Vijayapura, due to social and cultural practices and hinderances, girls normally do not talk about menstruation to others and hence have limited knowledge and poor attitude resulting in unhealthy practices. This study hence attempts to assess their knowledge and in turn provide them education about good hygiene.

Objectives

To assess the knowledge, practice and attitudes regarding menstruation among adolescent girls. To recognize morbidities related to menstruation and methods adopted by them to overcome if any. To assess the receptivity and change in attitude/behaviour of the adolescent girls after discussing about healthy practices regarding menstruation.

METHODS

The study was conducted in the Pre University College of North Karnataka for a period of 5 months, all female students present on the day of data collection and gave consent were included in the study. It was a cross sectional study done between August 2019 to October 2019. Ethical clearance was obtained by Institutional ethical committee approval by BLDE University. Consent was also taken from the Principal of the college.

Data was collected in two phases. In first phase, a pre designed, pre tested questionnaire was given to adolescents to know their knowledge, attitude and practices about menstrual health and later health education was given to the study group regarding the same followed by a group discussion with them noting down the issues faced by them to follow healthy menstrual practices, following which data was again collected to analyse how the study group has perceived and interpreted the information given to them. In the second phase of the study, same data was again collected after 2-3 months to assess their change in attitudes or practices regarding menstruation. Data was compiled in Ms Excel Sheet and analysed using Statistical package for

social sciences (SPSS) Ver. 16, Continuous variables were expressed as mean and standard deviation and discrete variables were expressed as percentages and proportions. The quantitative variables were analysed by using student 't' test and qualitative variables were analysed by using Chi square test.

RESULTS

Total of 68 girl students participated in the study between the age group of 15-19 years of class 11 and 12, majority of them living in urban areas.

Table 1: Age and residence of the participants.

| Parameters | N | % |
|--------------------|----|------|
| Age (yrs) | | |
| 15 | 5 | 7.4 |
| 16 | 29 | 42.6 |
| 17 | 30 | 44.1 |
| 18 | 3 | 4.4 |
| 19 | 1 | 1.5 |
| Total | 68 | 100 |
| Rural/Urban | | |
| Rural | 7 | 10.3 |
| Urban | 61 | 89.7 |
| Total | 68 | 100 |

Table 2 shows that the education status and occupation of the parents is represented in following table. 76.5% (n=52) mothers were housewives, only 19.1% (n=13) being graduates, while 35.3% (n=24) fathers were professionals and 33.8% (n=23) being graduates. Most of them attained menarche at the age of 13 years (n=26, 38.2%) and 14 years (n=21, 30.9%) as shown in table 4. Table 5 depicts distribution of participants according to knowledge of menstruation is shown in following table which was recorded before and after giving health education and after 3 months of giving health education. Regarding cause of menstruation majority (88.2%, n=60) believed it was normal for a girl. 67.6% (n=46) were not aware before menarche about menstruation. 83.8% (n=57) of the participants had appropriate knowledge about the duration of menstruation and 67.6% (n=46) of them had appropriate knowledge about frequency of menstruation. Knowledge on normal age of menarche is represented in following table. 57.4% (n=39) of participants did not receive any advice on menstrual management. The source of knowledge about menstruation in majority of cases was their mother. Table 6 depicts 4.4% (n=3) of the participants had celebration at menarche. The reactions of the participants to menarche are shown in the following table. 73.5% (n=50) of the participants were restricted from religious places during their menses. Only 19.1% (n=13) of them had no restrictions at all. In majority of the cases the restrictions were by choice and in 19.1% (n=13) they were forced upon by family members. There wasn't much change in

the responses after giving health education on the subject or on follow up after 3 months.

Table 2: Occupational and educational status of parents of the participants.

| Occupation Father | N | % |
|--|----|------|
| Professionals | 24 | 35.3 |
| Shop and market | 18 | 26.5 |
| Machine | 8 | 11.8 |
| Clerks | 7 | 10.3 |
| Skilled agriculture and fishery | 5 | 7.4 |
| Manegers | 3 | 4.4 |
| Technicians | 2 | 2.9 |
| Elementory occupation | 1 | 1.5 |
| Total | 68 | 100 |
| Occupation Mother | | |
| HW | 52 | 76.5 |
| Teacher | 10 | 14.7 |
| Designer | 1 | 1.5 |
| Librarian | 1 | 1.5 |
| Not answered | 4 | 5.9 |
| Total | 68 | 100 |
| Education father | | |
| Illiterate | 6 | 8.8 |
| Primary | 2 | 2.9 |
| High school | 3 | 4.4 |
| PU | 10 | 14.7 |
| Graduate | 23 | 33.8 |
| Post graduate | 3 | 4.4 |
| Not answered | 21 | 30.9 |
| Total | 68 | 100 |
| Education mother | | |
| Illiterate | 6 | 8.8 |
| Primary | 4 | 5.9 |
| High school | 9 | 13.2 |
| PU | 12 | 17.6 |
| Graduate | 13 | 19.1 |
| Post graduate | 1 | 1.5 |
| Not answered | 23 | 33.8 |
| Total | 68 | 100 |

Table 3: Distribution of participants based on monthly income.

| Income | N | % |
|---------------------|----|-------|
| <10000 | 1 | 1.5 |
| 10000-20000 | 21 | 30.9 |
| 20000-40000 | 3 | 4.4 |
| >40000 | 3 | 4.4 |
| Not answered | 40 | 58.8 |
| Total | 68 | 100.0 |

Table 7 depicts 85.3% (n=58) of the participants used sanitary pads while 11.8% (n=8) of them used both sanitary pads and cloth during their menses, the frequency

of changing them is shown in the following table. 89.7% (n=61) of them disposed the used pads inn dustbin. 16.2% (n=11) of them remained absent to school during their menses.

Table 4: Age of attainment of menarche of the participants.

| Menarche age (yrs) | N | % |
|--------------------|----|------|
| 10 | 1 | 1.5 |
| 11 | 3 | 4.4 |
| 12 | 12 | 17.6 |
| 13 | 26 | 38.2 |
| 14 | 21 | 30.9 |
| 15 | 4 | 5.9 |
| 16 | 1 | 1.5 |
| Total | 68 | 100 |

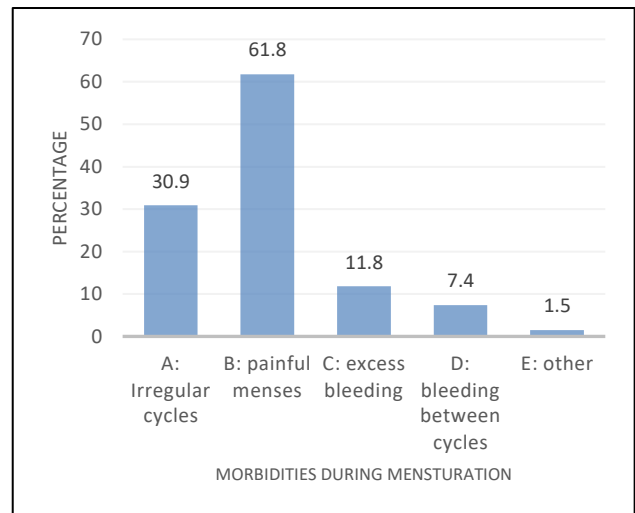


Figure 1: Menstrual morbidities among the participants.

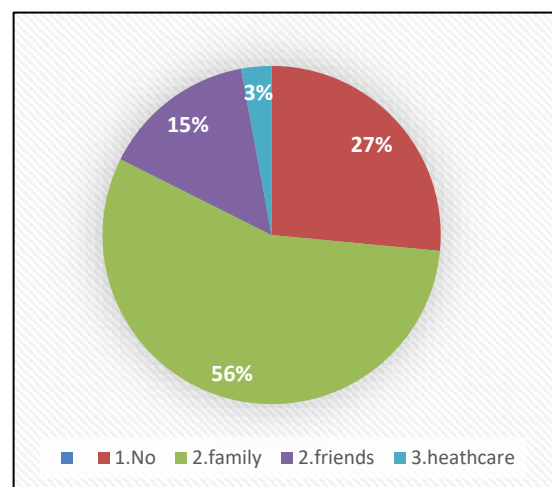


Figure 2: Health seeking attitude among the participants.

Table 5: Knowledge of the participants on menstruation and related aspects.

| Knowledge | | Pre | | Post | | After 3 month | |
|---------------------------|------------------|-----|------|------|------|---------------|------|
| | | N | % | N | % | N | % |
| Cause | Normal | 60 | 88.2 | 63 | 92.6 | 64 | 94.1 |
| | Curse of god | 8 | 11.8 | 5 | 7.4 | 0 | 0 |
| | NA: Not answered | 0 | 0 | 0 | 0 | 4 | 5.9 |
| Awareness before menarche | Yes | 22 | 32.4 | | | | |
| | No | 46 | 67.6 | | | | |
| Duration | Appropriate | 57 | 83.8 | 57 | 83.8 | 60 | 88.2 |
| | Not appropriate | 7 | 10.3 | 7 | 10.3 | 4 | 5.9 |
| | NA: Not answered | 4 | 5.9 | 4 | 5.9 | 4 | 5.9 |
| Frequency | Appropriate | 46 | 67.6 | 47 | 69.1 | 44 | 64.7 |
| | Not appropriate | 6 | 8.8 | 7 | 10.3 | 3 | 4.4 |
| | NA | 16 | 23.5 | 14 | 20.6 | 21 | 30.9 |
| Age (years) | <10 | 1 | 1.5 | 1 | 1.5 | 1 | 1.5 |
| | 10-15 | 58 | 85.3 | 60 | 88.2 | 61 | 89.7 |
| | 15-20 | 6 | 8.8 | 7 | 10.3 | 6 | 8.8 |
| | >20 | 3 | 4.4 | | | | |
| Advice | Yes | 29 | 42.6 | | | | |
| | No | 39 | 57.4 | | | | |
| Source | Mother | 60 | 88.2 | | | 60 | 88.2 |
| | Sister | 5 | 7.4 | | | 6 | 8.8 |
| | Media | 0 | 0 | | | 0 | 0 |
| | Friend | 1 | 1.5 | | | 1 | 1.5 |
| | Others | 2 | 2.9 | | | 1 | 1.5 |

Table 6: Attitude of the participants regarding menstruation and related aspects.

| Attitude | | Pre | | Post | | After 3months | |
|--------------|---------------------|-----|------|------|------|---------------|------|
| | | N | % | N | % | N | % |
| Celebration | Yes | 3 | 4.4 | | | | |
| | No | 65 | 95.6 | | | | |
| Reaction | Cried | 15 | 22.1 | | | | |
| | Scared | 24 | 35.3 | | | | |
| | Casual | 11 | 16.2 | | | | |
| | Worried | 21 | 30.9 | | | | |
| | NA: not answered | 2 | 2.9 | | | | |
| | | | | | | | |
| Restrictions | Religious Places | 50 | 73.5 | 51 | 75.0 | 53 | 77.9 |
| | School/College | 4 | 5.9 | 4 | 5.9 | 3 | 4.4 |
| | Segregation | 5 | 7.4 | 4 | 5.9 | 4 | 5.9 |
| | Kitchen | 1 | 1.5 | 0 | 0.0 | 7 | 10.3 |
| | Food | 11 | 16.2 | 13 | 19.1 | 1 | 1.5 |
| | Nil | 13 | 19.1 | 12 | 17.6 | 12 | 17.6 |
| | Others | 0 | 0 | 0 | 0 | 0 | 0 |
| Nature | Choice | 47 | 69.1 | 46 | 67.6 | 47 | 69.1 |
| | Forced | 13 | 19.1 | 13 | 19.1 | 14 | 20.6 |
| | Not: not applicable | 8 | 11.8 | 9 | 13.2 | 7 | 10.3 |

Table 7: Practices of the participants regarding menstrual hygiene.

| Practice | | Pre | | After 3 months | |
|-------------------|------------------------|-----|------|----------------|------|
| | | N | % | N | % |
| Material | Cloth | 2 | 2.9 | 3 | 4.4 |
| | Pads | 58 | 85.3 | 59 | 86.8 |
| | Both | 8 | 11.8 | 6 | 8.8 |
| | Others | 0 | 0 | 0 | 0 |
| Number of changes | 1-2 | 33 | 48.5 | 33 | 48.5 |
| | 3-4 | 21 | 30.9 | 29 | 42.6 |
| | >4 | 4 | 5.9 | 2 | 2.9 |
| | NA: not answered | 10 | 14.7 | 4 | 5.9 |
| Absent to school | Yes | 11 | 16.2 | 13 | 19.1 |
| | No | 57 | 83.8 | 56 | 82.4 |
| Clean vagina | 0 | 8 | 11.8 | 7 | 10.3 |
| | 1 | 5 | 7.4 | 5 | 7.4 |
| | 2 | 4 | 5.9 | 2 | 2.9 |
| | 3 | 3 | 4.4 | 1 | 1.5 |
| | >3 | 3 | 4.4 | 6 | 8.8 |
| | Not answered | 45 | 66.2 | 47 | 69.1 |
| Disposal | Reused | 7 | 10.3 | 7 | 10.3 |
| | Dustbin | 61 | 89.7 | 65 | 95.6 |
| | Throw Indiscriminately | 0 | 0 | 0 | 0 |
| | NA: Not Answered | 5 | 7.4 | 0 | 0 |

There wasn't much change in the responses after giving health education on the subject or on follow up after 3 months.

DISCUSSION

Mean age of the participants is 16.5 years, studying in grade 11 and 12 comparable to the studies conducted by Fehintola et al and Purva et al⁶ 76.5% (n=52) mothers were housewives, only 19.1% (n=13) being graduates which may be the reason for their poor hygienic practices during menstruation.⁵ Most of them attained menarche between the age of 12-14 years comparable to the study conducted at Purva et al, Seenivasan et al and Bhatt et al.⁶⁻⁸

Knowledge

Regarding cause of menstruation majority (88.2%) believed it was normal for a girl, similar findings were reported by Ram et al study where 83% of the

respondents agreed that menstruation is a physiological process and 83.72% according to study by Bhatt et al.^{8,9}

In our study 67.6% were not aware before menarche about menstruation source of knowledge was their mother (88.2%) which was variable to the results in study at Fehintola et al where 96.42% of respondents were aware, main source of information was the respondents' mothers (41.83%). and in study at Seenivasan et al only 40% of the girls knew about menstruation before menarche with mother being the informant in 47.7 % of the subjects.⁷

In our study 83.8% (n=57) of the participants had appropriate knowledge about the duration of menstruation and 67.6% (n=46) of them had appropriate knowledge about frequency of menstruation which was variable to study at Purva et al where 42.48% were aware about duration of normal menstrual period and 53.32% were aware about normal frequency of menstruation. In study at Seenivasan et al 52 % were aware about frequency of menstruation.^{6,7}

Attitude

Only 4.4% of the participants had celebration at menarche compared to 49.36% by study by Purva et al.⁶

In our study majority of the participants (35.3%) were scared similar to that found at study by Purva et al and Seenivasan et al (59%), in many studies the reaction was unpleasant for majority of the participants, while at study by at Fehintola et al 35.79% responded with happy as reaction to menarche.^{6,7}

73.5% of the participants were restricted from religious places during their menses findings comparable to the study at Purva et al (53.98%), while by study by Seenivasan et al 92.4% were restricted from visiting religious places.^{6,7} Study by Seenivasan et al reported other restrictions attending school among 9.2% comparable to our findings of 5.9%. Study by Fehintola et al reported restrictions certain food among 17.92% participants which was similar to our findings of 19.1%.⁵

Only 19.1% (n=13) of them had no restrictions at all in our study while in study by Bhatt MD et al and Fehintola FO et al 68.60% and 52.57% had no restrictions at all respectively.^{5,8}

In our study majority of the cases the restrictions were by choice and in 19.1%(n=13) they were forced upon by family member unlike findings by Seenivasan et al only 17.6% of them were self-imposed and in study by Purva et al in 28.76% of the cases restrictions were self-imposed.^{6,7}

Practice

In our study 85.3% of the participants used sanitary pads similar to study by Purva et al (84.12%), Seenivasan et al

(92.8%) and Bhatt et al (91.86%) while 11.8% (n=8) of them used both sanitary pads and cloth during their menses comparable to findings by Purva et al (5.58%).⁶⁻⁸

In our study 89.7% of the participants disposed the used pads in dustbin similar findings in study by Seenivasan et al (72.6%) contrary to findings in study by Bhatt et al where 59.30% used burning as method of disposal.^{7,8}

In our study 66.2% of the participants did not answer to the question of frequency of cleaning vagina, possible reasons could be hesitancy, no proper bathroom or water facility in the college.

Limitations

It was a single intervention study so we could not assess the behaviour changes occurred in the adolescent girls regarding menstrual hygiene.

CONCLUSION

Although knowledge was better than practice, both were not satisfactory. So, the girls should be educated about the process and significance of menstruation, use of proper pads or absorbents and its proper disposal. This can be achieved by giving them proper training and health education (by teachers, family members, health educators, and media) so that there won't be any misconception to the adolescent girls regarding menstrual hygiene.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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