Research Article

A Descriptive Study to Assess the Knowledge, Attitude and Practices Regarding Menstrual Health among the High School Girls in Ashram Shaala of Tribal Area: In View to Develop Information Booklet

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ABSTRACT

Aim: The aim this study was to assess the knowledge, attitude and practices (KAP) of adolescent girls studying in ashram shalas (residential schools) in tribal area and prepare and distribute the information booklet on menstrual health.

Methodology: It was a cross-sectional study carried out between January and February 2019. Two hundred high school girls of selected Asharam Shaala were selected by simple random sampling technique. The data was collected using structured questionnaire, attitude scale and checklist. After the analysis of data for KAP with regards to menstrual health, information booklet on menstrual health was prepare in local language and distributed to the participants.

Results: The result of the study revealed that, majority (84%) of the high school girls are aware about menstruation health. Their knowledge was assessed using semi structured questionnaire, the findings suggested that 55.50% of high school girls had average knowledge, and 40.50% high school girls have poor knowledge of menstruation and menstrual health. The 66% of the high school girls describe their response to their first menses was scar. The study findings revealed that majority (86.50%) of the high school girls have negative attitude towards menstrual health may be the impact of social and cultural taboos in the tribal areas.

Conclusions: The study concluded that majority of girls having negative attitude towards menstrual health, and average knowledge regarding menstrual health. Efforts have to put into ensuring the school girls are well educated on menstruation and menstrual health.

Key words: Knowledge, attitude, practices, Menstrual health Ashramshala girls

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Introduction

Menstruation is a normal physiological process indicating beginning of reproductive life but sometimes it is considered as unclean phenomenon in the Indian society. Insufficient, incorrect information regarding menstruation is often a cause of unnecessary restrictions in the daily normal activities of the menstruating girls creating various psychological issues. Besides, the lack of knowledge and awareness also lead to some poor personal hygienic practices during menstruation leading to many reproductive tract infections (RTI). Poor menstrual hygiene causes great impact in increased vulnerability to RTI. Menstrual hygiene depends upon the educational, socioeconomic, and cultural statuses of family. School curriculums also have some role in menstrual health.

Menstruation is a milestone event in a girl’s life and the beginning of reproductive life. Hence, all aspects of menstruation need to be understood by adolescent girls. Large number of girls has scantly knowledge about menstruation until their first experience because
Menstruation is something that is not frequently talked off in homes. Better understanding of the good menstrual hygiene is crucial for the education, health, and dignity of girls and women. Being an important sanitation issue which has long been in the closet, still, there is a long-standing need to openly discuss it. Most of the time adolescent girls are unprepared – in terms of knowledge, skills, and attitudes for managing the menstrual cycle. This lack of knowledge and poor personal sanitary practices during menstruation has been associated with serious ill-health ranging from genital tract infections, urinary tract infections, and bad odor.

Unhealthy menstrual practices are not washing genitalia regularly, using unclean cloth, etc. Learning about menstrual hygiene forms a vital aspect of health education among menstruating women to avoid future long-term ill effects of poor menstrual hygiene practices leading to premature births, stillbirths, miscarriages, infertility problems, toxic shock syndrome, carcinoma cervix as a complication of recurrent RTI.[2]

Adolescence has been recognized as a special period that requires specific attention as it marks the onset of menarche, an important milestone, and hence good hygienic practices during menstruation are crucial to maintain a healthy life.[3]

Menstruation is a normal physiological process indicating beginning of reproductive life but sometimes it is considered as unclean phenomenon in the Indian society. Insufficient, incorrect information regarding menstruation is often a cause of unnecessary restrictions in the daily normal activities of the menstruating girls creating various psychological issues. Besides, the lack of knowledge and awareness also lead to some poor personal hygienic practices during menstruation leading to many RTI.

Menstrual hygiene depends upon the educational, socioeconomic, and cultural statuses of family. School curriculum also have some role in menstrual health. Poor menstrual hygiene causes great impact in increased vulnerability to RTI. Currently millions of women sufferers from RTI and infection is transmitted to the offspring. Women having knowledge regarding menstrual hygiene are less vulnerable to RTI and its consequences. Therefore, increased knowledge about menstruation from adolescent period help in decreased suffering of millions of women.[3] Various studies indicate that a huge information gap exists among rural and urban adolescent girls regarding menstrual hygiene.[3]

Menstrual health and hygiene encompasses both menstrual hygiene management and the broader systemic factors that link menstruation with health, well-being, gender equality, education, equity, empowerment, and rights. These systematic factors have been summarized by UNESCO as accurate and timely knowledge, available, safe, and affordable materials, informed and comfortable professionals, referral and access to health services, sanitation and washing facilities, positive social norms, safe and hygienic disposal and advocacy and policy.[4]

To improve the menstrual health among adolescent girls, Government of India is supporting the States/UTs through National Health Mission in their program implementation plans for decentralized procurement of Sanitary napkins packs.

The scheme encompasses the following:
- Increasing awareness among adolescent girls on menstrual hygiene
- Improving access to and use of high quality sanitary napkins by adolescent girls residing in rural areas
- Scheme is also being implemented in the urban areas with roll out in selected cities of 15 States in the first phase
- Ensuring safe disposal of sanitary napkins in an environmentally friendly manner
- Provision of funds to Accredited Social Health Activists to hold monthly meetings with adolescents to discuss issues related to menstrual hygiene.[5]

**Objectives**

This study attempted to:

1. To assess the knowledge, attitude regarding menstrual health among the high school girls in Ashram Shaala of tribal area
2. To assess the practices of menstrual hygiene among the high school girls in Ashram Shaala of tribal area
3. To assess the association between knowledge, attitude and practices (KAP) with selected demographic variables regarding menstrual health among the high school girls in Ashram Shaala of tribal area
4. To develop and distribute the information booklet regarding menstrual health.

**Research Methodology**

The primary objective of this study was to assess the KAP of high school girls studying in ashramshala (residential schools) in tribal areas. The research design selected for this study was non-experimental descriptive cross-sectional design. The demographic variables in this study were age, religion, standard, education of mother, education of father, occupation of mother, religion, type of family, primary information on menstruation and its source, etc. and the research variables were KAP regarding menstrual health. Two hundred high school girls of selected Asharam Shaala were selected by simple random sampling technique. Structured questionnaire, attitude scale and checklist prepared to collect the data.

**Results**

Section-1: Demographic information of the Asharam Shaalagirls.

The findings indicated that, 20% were in the age group 12–13 years, 51% in the age group 14–15 years and 29% girls were in the age group 16–17. As far as their standard was concerned, 15% were from the seventh, 27.50% were from the eighth, 30.50% from the ninth, 26%
were from the eleventh standard and very few (1%) was from the tenth class [Figures 1 and 2].

Section-2: Source of the information on menstruation.

The findings showed that, 84% girls in Ashram Shaala of tribal area know about menstruation before they attain menarche. According to the source of information about the menstruation, 55.50% heard it from their mother, 16.50% from sister, 12.50% from their friend, 6% from their teacher, 8% from the school nurse and very few (1.50%) received primary information from the media [Figure 3].

Section-3: Analysis of knowledge of the Ashramshala girls regarding menstrual health.

The findings show that, majority (51.50%) were having average knowledge, poor knowledge (48.50%). The minimum knowledge score was 3 and maximum score was 17. The average knowledge score was 10.37 with standard deviation of 3.45 [Figure 4].

Section-4: Analysis and interpretation of attitude of the girls regarding menstrual health.

The findings showed that, surprisingly majority girls (86.50%) developed negative attitude towards menstrual health. The minimum attitude score was 20 and maximum score was 42. The average attitude score was 31.99 with standard deviation of 3.26. Which need to provide them the knowledge about menstruation as a normal physiological process among the women.

Section-5: Analysis and interpretation of practices regarding menstrual health among the girls in Ashram Shaala.

The findings revealed that, majority (99%) of the girls reported that they attain school and have all the facilities. However, in their native place 6.50% girls reported they were not allowed to attain the school during menses. Moreover, 13.505 reported they were restricted to participate in the games, 7% were reported they avoid the celebration of festivals. Majority (56.50) reported that they were restricted in the temple during menses. As far as menstrual hygienic practices are concerned majority (94%) use the sanitary napkin and dispose properly. They also change the pad as per need. However, 69% reported they takes bath daily but only 45.50% washed the genitalia with soap and water during bath. Which was addressed in the information booklet.

Section-6: Association between knowledge levels among the girls in Ashram Shaala of tribal area with their demographic variables.
The findings showed that, the calculated value (Chi-square) for age is 18.88, standard is 41.89 which is greater than the table value significant at 0.05 level \( (P < 0.05) \) hence, \( H_0 \) is accepted and \( H_1 \) is rejected. This indicates the association between age and education standard with the knowledge on menstrual health.

Whereas, for the other demographic variables viz education of parents, occupation of mother, types of family, firsthand information about menses and source of information and for menstrual preparedness are not significant as \( P > 0.05 \) indicating no association with knowledge on menstrual health.

Section-7: Association of Attitude of girls regarding menstrual health with their demographic variable.

**Table 1:** Distribution of the attitude score regarding menstrual health

| Research variable | Groups | Score | Frequency | Percentage |
|-------------------|--------|-------|-----------|------------|
| Attitude          | Positive | 14–28 | 27 | 13.50 |
|                   | Negative | 29–42 | 173 | 86.50 |
|                   | Min     | Max   | Mean      | S.D.       |
|                   | 20      | 42    | 31.99     | 3.26       |

The average age of monarchy is 12–14 years

Section-8: Association of practices of girls regarding menstrual health with demographic variable.

**Table 2a:** Analysis and interpretation of practices of girls regarding menstrual health

| Question                                      | Groups          | Frequency | Percentage |
|-----------------------------------------------|-----------------|-----------|------------|
| At what age you attained your first period    | 10–12           | 38        | 19.00      |
|                                               | 12–14           | 136       | 68.00      |
|                                               | 14–16           | 26        | 13.00      |
|                                               | above 16        | 0         | 0.00       |
| What was your reaction to first menses        | Happy           | 22        | 11.00      |
|                                               | Scared          | 132       | 66.00      |
|                                               | Discomfort      | 44        | 22.00      |
|                                               | Emotional disturbance | 4 | 2.00   |
| For how many days is your menstrual cycle lasting? | 2–3 days  | 36        | 18.00      |
|                                               | 4–5 days        | 155       | 77.50      |
|                                               | 6 days and above | 10        | 5.00       |
| Do you keep the record of dates of menstrual period | Yes    | 187       | 93.50      |
|                                               | No              | 13        | 6.50       |
| What do you normally use as absorbent material during menstruation | Clean cloth pieces | 11 | 5.50 |
|                                               | Cotton homemade pad | 5 | 2.50 |
|                                               | Commercially made sanitary pad | 189 | 94.50 |
|                                               | Menstrual cup   | 0         | 0.00       |
| How many times do you change pads?            | Ones in a day   | 17        | 8.50       |
|                                               | 2–3 times       | 107       | 53.50      |
|                                               | As and when needed | 79 | 39.50   |
| Do you have supply of sanitary napkins from school | Yes    | 200       | 100.00     |
|                                               | No              | 0         | 0.00       |

The findings showed the attitude of Ashramshala girls regarding menstrual health is not associated with the demographic variables as \( P > 0.05 \) indicating no association.

Section-9: Association of knowledge with attitude regarding menstrual health of Ashram Shala girls.

Section-10: Association of knowledge with practices regarding menstrual health among the girls.

Section–11: This section deals with association of attitude with practice regarding menstrual health.

**Discussion**

“Stigma around menstruation and menstrual hygiene is a violation of several human rights, most importantly...”
of the right to human dignity, but also the right to non-discrimination, equality, bodily integrity, health, privacy and the right to freedom from inhumane and degrading treatment from abuse and violence.\[9\]

As we know that poor menstrual cycle caused by a lack of education, persisting taboos and stigma, limited access to hygiene menstrual products and poor sanitation infrastructure, health, overall status of women and girls.

Table 2b: Analysis and interpretation of practice regarding menstrual health

| Question                                                                 | Groups                                                                 | Frequency | Percentage |
|--------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|------------|
| How you maintain the menstrual hygiene                                   | Changing pads or cloths more than three times                          | 148       | 74.00      |
|                                                                          | Takes bath daily with soap during menstruation                         | 139       | 69.50      |
|                                                                          | Cleans external genitalia with water and soap                           | 91        | 45.50      |
| How do you dispose of the sanitary napkins?                              | Disposes used sanitary pads in dustbin                                 | 35        | 17.50      |
|                                                                          | Wrap in paper and dispose in the dustbin                                | 174       | 87.00      |
|                                                                          | Flush in toilet                                                        | 17        | 8.50       |
|                                                                          | Throw as it on open place                                               | 1         | 0.50       |
| How do you take care of used cotton cloth napkins?                       | Clean clothes with soap and water                                      | 105       | 52.50      |
|                                                                          | Dry cloths in sunlight                                                 | 177       | 88.50      |
|                                                                          | Dry Inside the home                                                    | 11        | 5.50       |
|                                                                          | Keep it covered and store it in dry place                              | 41        | 20.50      |
| Do you have any of the restriction during menstruation in your native village | Do not attend school during menstruation                                | 13        | 6.50       |
|                                                                          | Do not participate in game/housework                                    | 27        | 13.50      |
|                                                                          | Avoid celebration and festivities                                       | 14        | 7.00       |
|                                                                          | Use and keep utensils separate                                          | 4         | 2.00       |
|                                                                          | Do not to go to church/temple                                           | 113       | 56.50      |
|                                                                          | Make you stay at home                                                  | 12        | 6.00       |
| Do you attend school during menses now in Ashram Shala                   | Yes                                                                    | 198       | 99.00      |
|                                                                          | No                                                                    | 2         | 1.00       |
| Do you attend school during menses (if no why)                           | Lack of toilet facilities in school                                     | 0         | 0.00       |
|                                                                          | Fear of unexpected bleeding                                            | 1         | 0.50       |
|                                                                          | Lack of material or pad                                                | 1         | 0.50       |
|                                                                          | Presence of menstrual symptoms                                          | 1         | 0.50       |
|                                                                          | Lack of water                                                          | 0         | 0.00       |
|                                                                          | Lack of disposal facilities                                            | 0         | 0.00       |
| Is there health education regarding menstruation in school              | Yes                                                                    | 200       | 100.00     |
|                                                                          | No                                                                    | 0         | 0.00       |

Table 3: Association of knowledge with demographic variables

| Variable | Groups | Knowledge | Chi-square | d.f. | P value | Significance |
|----------|--------|-----------|------------|------|---------|--------------|
|          |        | Poor      | Average    |      |         |              |
| Age      | 12–13  | 27        | 13         | 18.88| 2       | 0.00         | Significant |
|          | 14–15  | 55        | 47         |      |         |              |
|          | 16–17  | 15        | 43         |      |         |              |
| Standard | Seventh| 27        | 3          | 41.89| 4       | 0.00         | Significant |
|          | Eighth | 22        | 33         |      |         |              |
|          | Ninth  | 35        | 26         |      |         |              |
|          | Tenth  | 2         | 0          |      |         |              |
|          | Eleventh| 11       | 41         |      |         |              |
around the world. Due to which millions of girls and women are not able to reach to their potential.

Knowledge about menstruation and menstrual hygiene depend on the information and the useful content of information she received before menarche. In this study, majority of the girls had information about menstruation before menarche and the major source of information were their mothers. Nowadays menstruation is included in school curriculum, therefore girls are taught about menstruation in schools. Hygiene related practices of girls during menstruation are very important because of both social and health implications. The study revealed that majority of the girls use sanitary pads alone or in conjunction with other materials as menstrual absorbents. Government of India have taken important initiative with regards to menstrual health also the multimedia plays an important role in promoting the menstrual health.

Table 4: Association of practices with demographic variables

| Variable | Groups | Frequency of changing sanitary pads | Chi-square | d.f. | P value | Significance |
|----------|--------|-------------------------------------|------------|------|---------|--------------|
|          |        | When need                           |            |      |         |              |
| Age      | 12–13  | 8                                   | 22         | 10   | 16.06   | 4            | 0.00         | Significant  |
|          | 14–15  | 5                                   | 56         | 41   |          |              |              |              |
|          | 16–17  | 1                                   | 29         | 28   |          |              |              |              |
| Standard | Seventh| 10                                  | 17         | 3    | 54.69   | 8            | 0.00         | Significant  |
|          | Eighth  | 2                                   | 37         | 16   |          |              |              |              |
|          | Ninth   | 1                                   | 25         | 35   |          |              |              |              |
|          | Tenth   | 0                                   | 2          | 0    |          |              |              |              |
|          | Eleventh| 1                                   | 26         | 25   |          |              |              |              |
| Primary  | Yes     | 14                                  | 84         | 70   | 6.31    | 2            | 0.04         | Significant  |
| information on menstruation | No     | 0                                   | 23         | 9    |          |              |              |              |
| Education of mother | Illiteracy | 1                                  | 62         | 52   | 25.68   | 6            | 0.00         | Significant  |
|          | Primary | 12                                  | 29         | 18   |          |              |              |              |
|          | Secondary| 1                                 | 14         | 9    |          |              |              |              |
|          | Graduate| 0                                   | 2          | 0    |          |              |              |              |

Table 5: Association of knowledge with attitude regarding menstrual health

| Variable | Groups | Attitude | Chi-square | d.f. | P value | Significance |
|----------|--------|----------|------------|------|---------|--------------|
|          |        | Positive |            |      |         |              |
| Knowledge | Poor   | 15       | 82         | 0.62 | 1       | 0.43         | Not significant |
|          | Average | 12       | 91         |      |         |              |
|          | Good    | 0        | 0          |      |         |              |

The findings showed that there is no association of knowledge with attitude as $P>0.05$

Table 6: Association of knowledge with practice (frequency of changing sanitary pads)

| Variable | Groups | Practice | Chi-square | d.f. | P value | Significance |
|----------|--------|----------|------------|------|---------|--------------|
| Knowledge | Poor   | 12       | 54         | 31   | 10.64   | 2            | 0.01         | Significant  |
|          | Average | 2        | 53         | 48   |          |              |              |              |
|          | Good    | 0        | 0          | 0    |          |              |              |              |

There was significant association between knowledge and practice of changing sanitary pads ($P<0.05$)

Table 7: Association of attitude with practices

| Variable | Groups | Practice | Chi-square | d.f. | P value | Significance |
|----------|--------|----------|------------|------|---------|--------------|
| Attitude | Poor   | 0        | 12         | 15   | 4.7     | 2            | 0.095        | Not significant |
|          | Average | 14       | 95         | 64   |          |              |              |              |

The findings showed that there is no association of attitude with practices as $P>0.05$
The result of the study revealed that there was 55.50% of high school girls having average knowledge, and 40.50% high school girls were having poor knowledge. However, majority (86.50%) of the high school girls have a negative attitude towards menstrual health and 13.50% of high school girls have positive attitude towards menstrual health. The study also revealed the social and cultural taboos regarding menstrual health, as there were differences in the village and in ashram shala settings.

The findings revealed that, majority (99%) of the girls reported that they attain school and have all the facilities. However, in their native place 6.50% girls reported they were not allowed to attain the school during menses. Moreover, 13.50% reported they were restricted to participate in the games, 7% were reported they avoid the celebration of festivals. Majority (56.50) reported that they were restricted in the temple during menses. As far as menstrual hygiene practices are concerned majority (94%) use the sanitary napkin and dispose properly. They also change the pad as per need. However, 69% reported they takes bath daily but only 45.50% washed the genitalia with soap and water during bath. Which was addressed in the information booklet. The findings are supported by the study conducted by Paria et al. (2014) stated that only 37.52% girls were aware of menstruation prior to attainment of menarche.

Further, hygienic practices during menstruation were unsatisfactory in the rural area as compared to the urban area. Present study found that hygienic practices were unsatisfactory in the ashram shala girls. Patle and Kubde found that, majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. Only 54.71% girls used sanitary pads during menstruation. Poverty and to some extent ignorance might be an obstacle from using the menstrual absorbents available in the market. He also observed that in 75 (27.27%) girls in urban and 81 (30.45%) girls in rural area the frequency of changing the pads was only once per day. Cleaning of external genitalia was 2 times/day in 131 (47.63%) of the urban and 101 (37.96%) of the rural girls, which was satisfactory according to the criteria set in this study. One hundred and forty-four (52.36%) of the urban and 165 (62.03%) of the rural girls cleaned genitalia only once, during bathing, which was satisfactory according to the criteria set in this study.[7] In present study majority (94%) girls use the sanitary napkin and dispose properly. They also change the pad as per need [Tables 1-7].

Mathiyalagen et al. stated, the research indicates that, a vast information gap exists among adolescent girls regarding prior awareness about menstruation and menstrual hygiene which do have an impact on the practices during menstruation and the associated gynaecological morbidities. Hence, the present study was done to estimate the KAP regarding menstrual health as well as to find out the relation between the KAP with their demographic variables.[2]

Conclusions

Girls should be educate about the facts of menstruation, physiological implications, significance of menstruation, and proper hygienic practices during menstruation. It is also required to bring them out of traditional beliefs, taboos, misconceptions, and restrictions. This can be achieved with the help of media, sex education in school curriculum, and focused group discussions. All mothers should be encouraged to break their inhibitions about discussing with their daughters regarding menstruation and menstrual hygiene.

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