

# EVALUATION OF FACTORS LEADING TO SCHOOL ABSENTEEISM DURING MENSTRUATION IN adolescent girls attending tertiary care hospital in ghaziabad 

Manisha Gupta., Neelima Agarwal and Alpana Agrawal<br>Department of Obstetrics \& Gynaecology, Santosh Deemed to be University, Ghaziabad

## ARTICLE INFO

## Article History:

Received $13^{\text {th }}$ January, 2021
Received in revised form $11^{\text {th }}$
February, 2021
Accepted $8^{\text {th }}$ March, 2021
Published online $28^{\text {th }}$ April, 2021

## Key words:

Menstrual hygiene, Adolescent school girls, School absenteeism


#### Abstract

Onset of menarche is a special period when adolescent girls undergo various social emotional and physiological changes. They often lack knowledge regarding reproductive health which can be due to socio-cultural barriers in which they grow up leading to various misconceptions among girls especially in developing countries. With focus on the school girls, this study aimed to examine the knowledge about menstruation, determinants of menstrual health management and its influence on school-attendance in Ghaziabad. Methods: It was cross sectional study conducted over a period of 3 months from September 2019 to December 2019. All adolescent school going girls (ranging from 10-19 years) who presented in the Gynaecology OPD in Santosh Medical College \& Hospital, Ghaziabad, were recruited in the study. They were interviewed after their informed consent using a pretested structured questionnaire which focused on socio-demographic factors, parental factors, knowledge, social restrictions, menstrual health practices and school attendance. Data was analyzed and p value of $<0.05$ was taken significant. Results: A total of 210 adolescent girls participated in the study with mean age of $13.17 \pm 1.67$ years (ranging from 10-19 years). About two thirds of girls 130 (61.9\%) had knowledge about menstruation and its management. Inadequate social support and presence of taboos can lead to psychosocial consequences like shame, fear, anxiety and distraction from studies which contribute to school absenteeism. About 128 ( $61 \%$ ) girls were reported to have been absent from school during their menstruation period. Conclusion: Increasing mothers' awareness and educating the girls regarding menstrual hygiene may help in improving school attendance


Copyright © 2021 Manisha Gupta et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## INTRODUCTION

Menstruation is an important milestone in an adolescent's life which marks the beginning of reproductive life. Most of the time they are unprepared in terms of knowledge, skills, and attitudes for managing the menstrual cycle[1]. Inadequate water and sanitation facilities is a major barrier in maintaining menstrual hygiene which has catastrophic effect on the health and development of adolescent girls [2]. More than half the schools in low-income countries either lack sufficient toilets for girls or they are unhygienic [3] Lack of access to effective absorbents, inadequate facilities to change and lack of access to soap and water are the major factors causing drop in school attendance[4-8]. With focus on the school girls, this study examined knowledge about menstruation, determinants of menstrual management and its influence on school-attendance among adolescents.

## MATERIAL AND METHODS

The study was an observational cross sectional study conducted over a period of 3 months from January 2019 to

March 2019. The sample size consisted of 210 adolescent girls who came to Gynaecology OPD in a Tertiary health care Hospital in Ghaziabad. Informed consent was taken and the purpose of the study was explained to them. A pretested structured questionnaire which was divided in four parts was administered to them. The first part focused on sociodemographic factors which included age, age at menarche, mothers' education, socioeconomic status, residence, type of family and employment status of mother. The second part discussed the knowledge, reaction, myths and restrictions during menstruation. The third section consisted of menstrual health management and attitude towards hygiene with special reference to toilet facilities, water supply and waste disposal, and the last section included problems associated with menstrual health management and their correlation with school absenteeism. Ethical clearance was obtained from Ethical committee of the Institution.

Statistical Analysis: The data was collected and tabulated .The observations were described in terms of percentages and proportions. Data was compiled and statistically analysed

[^0]using chi square test, students t test where applicable. $\mathrm{p}<0.05$ was considered statistically significant.

## RESULTS

A Total of 210 adolescent girls participated in the study with age ranging from 10 to 18 years with mean age of $13.17 \pm 1.67$ years. The Sociodemographic profile of the subjects is shown in Table 1.

Table 1 Sociodemographic Factors of the Adolescent Girls ( $\mathrm{n}=210$ )

| Variable |  | $\mathbf{N = 2 1 0}$ | \% |
| :---: | :---: | :---: | :---: |
|  | $10-13$ | 54 | 25.7 |
| Age (years) | $14-16$ | 126 | 60 |
|  | $\geq 17$ | 30 | 14.2 |
| Socioeconomic Status | LSES | 112 | 53.3 |
|  | MSES | 84 | 40 |
|  | USES | 14 | 6.66 |
| Age at | $<10$ | 24 | 11.4 |
| menarche(years) | $11-15$ | 109 | 51.9 |
|  | $\geq 16$ | 77 | 36.6 |
| Religion | Hindu | 90 | 42.8 |
|  | Muslim | 78 | 37.1 |
|  | Others | 42 | 20 |
| Class | $\leq 6$ | 9 | 4.2 |
|  | $7-9$ | 114 | 54.2 |
| Education of mother | $\geq 10$ | 87 | 41.4 |
|  | Educated | 61 | 29.1 |
| Residence | Uneducated | 149 | 70.9 |
|  | Rural | 99 | 47.1 |
|  | Urban | 111 | 52.8 |

Majority of the girls $122(58 \%)$ had heard about menses before menarche. Friends were the leading source of information 53 ( $25.2 \%$ ), Not more than third 70 ( $33.3 \%$ ) were aware that menstruation is a physiological process. About two thirds had no knowledge regarding menstrual hygiene and its management 134 (63.8\%). (Table 2)

Table 2 Knowledge about Menses ( $\mathrm{N}=210$ )

| Variable | Response | $\mathbf{n}$ | $\mathbf{\%}$ |
| :---: | :---: | :---: | :---: |
| Heard about menses | Yes | 122 | 58 |
| before menarche | No | 88 | 42 |
|  | Mother | 36 | 17.1 |
|  | Friends | 53 | 25.2 |
| Source of | School | 5 | 2.3 |
| information | Media | 38 | 18.1 |
|  | No Idea | 78 | 37.1 |
| Comfortable to talk | Yes | 32 | 15.2 |
| about menses | No | 178 | 84.7 |
| Aware that menses is | Yes | 70 | 33.3 |
| a physiological | No | 140 | 66.6 |
| process | Mother | 42 | 20 |
|  | Friends | 12 | 5.7 |
| Knowledge about | School | 14 | 6.6 |
| Menstrual hygeine | Media | 8 | 3.8 |
|  | No idea | 134 | 63.8 |
| Knowledge about | Yes | 139 | 66.1 |
| absorbents | No | 71 | 33.9 |

In this study most girls felt embarrassed (41\%), scared ( $36.08 \%$ ), upset ( $23.7 \%$ ) and disgusted ( $2.8 \%$ ).(Chart 1). Such responses result in lack of communication which leads to various misconceptions and myths regarding the condition. (Chart 2)


Chart 2 Myths Regarding Menses Prevailing In the Families of the Girls
In our society menses is seen as throwing out of dirty blood. Hence the girls who are having menses face many social restrictions as shown in Chart 3


Chart 3 Social Restrictions Faced By The Adolescent Girls During Menses
Only $61(29 \%)$ of girls used sanitary pads as absorbents. Rest of them either used old cloth or discarded clothes as absorbents. The main reason for not using sanitary pad was lack of affordability86 (67.4\%). (Table 3). In our study we observed that girls who came from urban area, middle socioeconomic status and educated mothers were more likely to use sanitary pads .

Table 3 Reasons for Not Using Sanitary PAD (N=149)
*more than one response

| REASON | n* | $\mathbf{\%}$ |
| :--- | :--- | :--- |
| Lack of Knowledge | 16 | 10.3 |
| Cost factor | 86 | 67.4 |
| Non availability | 34 | 26.5 |
| Disposal issues | 85 | 66.2 |
| Tradition of using cloth | 32 | 25.4 |



Chart 4 Reasons for School Absenteeism ( $\mathrm{n}=128$ )
The Chart 4 depicts the reasons for absence from school. In the present study, 128(60.9\%) girls refrained from going to school mainly due to fear of leakage and staining of clothes leading to shame and embarrassment they would have to face. The mean days of absenteeism were $2.87 \pm 1.07$ days. Rather than facing teasing and humiliation by classmates, they preferred staying back at home.
Table 4 Multivariate Analysis of School Absenteeism with Menstrual Health Practices

| $\begin{aligned} & \text { Serial } \\ & \text { no. } \end{aligned}$ | Factors | School Absenteeism |  | $\underset{\text { value }}{\mathbf{p}}$ | $\begin{gathered} \text { OR } \\ (95 \% \mathrm{CI}) \end{gathered}$ | $\begin{gathered} \text { AOR } \\ (95 \% \mathrm{CI}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | YES | NO |  |  |  |
| 1 | Mother's Education |  |  | 0.0006 | $\begin{gathered} 6.49 \\ (2.25- \\ 18.8) \end{gathered}$ | $\begin{gathered} \hline 6.79 \\ (2.55- \\ 19.0) \end{gathered}$ |
|  | Uneducated | 84 | 65 |  |  |  |
|  | educated | 44 | 17 |  |  |  |
| 2 | Low Socioeconomic |  |  | <0.0001 | $\begin{gathered} 32.5 \\ (13.8- \\ 76.8) \end{gathered}$ | $\begin{gathered} 32.6 \\ (13.9- \\ 77.8) \end{gathered}$ |
|  | Status |  |  |  |  |  |
|  | Yes | 104 | 12 |  |  |  |
|  | No | 24 | 70 |  |  |  |
| 3 | Sanitary pad use |  |  | $<0.0001$ | $\begin{gathered} 0.1 \\ (0.04- \\ 0.20) \end{gathered}$ | $\begin{gathered} 0.2 \\ (0.05- \\ 0.40) \end{gathered}$ |
|  | Yes | 13 | 48 |  |  |  |
|  | no | 115 | 34 |  |  |  |
| 4 | Facilities |  |  | 0.004 | 0.36 | 0.39 |
|  | Yes | 21 | 25 |  | $\begin{gathered} (0.19- \\ 0.72) \end{gathered}$ | $\begin{gathered} (0.22- \\ 0.76) \end{gathered}$ |
|  | no | 107 | 47 |  |  |  |
| 5 | Restrictions on playing |  |  | $<0.0001$ | $\begin{gathered} 7.48 \\ (3.90- \\ 14.31) \end{gathered}$ | $\begin{gathered} 7.50 \\ (4.02- \\ 14.55) \end{gathered}$ |
|  | Yes | 95 | 20 |  |  |  |
|  | no | 33 | 52 |  |  |  |

Girls who belonged to low socioeconomic status, with uneducated mothers, who did not use sanitary napkins, who were restricted from playing and who did not have proper toilet facilities were more prone for school absenteeism

## DISCUSSION

Management of menstruation is challenging among school going girls in low income countries, and involves psychosocial and physical challenges. The age of menarche in this study was $13.67 \pm 1.17$ years which was comparable with many studies $[6,8,9]$.

In the present study the main informants about menses and menstrual hygiene were friends and media. This was in contrast to various studies where in around $85 \%$, the major source of information about menstruation were the school teachers [9,10]. Large number of girls are mostly ignorant and unprepared.

The present study showed that the majority of the girls had experienced different negative reactions to menstruation like embarrassment and disgust which showcases different prejudices in society about menstruation.[9.10]. Social
restrictions like going to temple or working in kitchen is completely prohibited. [2].

Only $29 \%$ of girls used sanitary pads as absorbents. The main reasons for not using sanitary pad was non affordability (67.4\%) followed by lack of disposal facilities (66.2\%) amongst other causes. This was comparable to other studies which showed that financial constraint was the Girls who belonged to low socioeconomic status, with uneducated mothers, who did not use sanitary napkins, who were restricted from playing and who did not have proper toilet facilities were more prone for school absenteeism

## DISCUSSION

Management of menstruation is challenging among school going girls in low income countries, and involves psychosocial and physical challenges. The age of menarche in this study was $13.67 \pm 1.17$ years which was comparable with many studies $[6,8,9]$.
In the present study the main informants about menses and menstrual hygiene were friends and media. This was in contrast to various studies where in around $85 \%$, the major source of information about menstruation were the school teachers [9,10]. Large number of girls are mostly ignorant and unprepared.

The present study showed that the majority of the girls had experienced different negative reactions to menstruation like embarrassment and disgust which showcases different prejudices in society about menstruation.[9.10]. Social restrictions like going to temple or working in kitchen is completely prohibited. [2].
Only $29 \%$ of girls used sanitary pads as absorbents. The main reasons for not using sanitary pad was non affordability (67.4\%) followed by lack of disposal facilities(66.2\%) amongst other causes. .This was comparable to other studies which showed that financial constraint was the most important factor which led to less use of sanitary pad as absorbents.[9,10].Such poor personal sanitary practices during menstruation have been associated with serious ill-health ranging from genital tract infections, urinary tract infections, and bad odour.
Incidence of school absenteeism in our study was $61 \%$. The mean days of absenteeism were $2.87 \pm 1.07$ days. This was similar to various studies $[8,9,10]$. Our study showed that 115 ( $58 \%$ ) avoided participation in sports activities at school during menses, out of which $95(74 \%)$ girls were absent from school. [9]

Providing education in the school to the girls prior to menarche will have a positive impact on improving school attendance. So the school teachers should be especially trained for puberty education.

The limitation of the study was the authentication of the information which was iprovided by the adolescent subjects.It was mainly self-reported and their perception of the barriers in menstrual hygiene management in school and reasons quoted for absenteeism could be biased.

## CONCLUSION

The study shows that more than half of adolescent girls remain absent from school during menses. The main cause for this is lack of awareness and practices which are often not optimal for
menstrual health management .Lack of affordable sanitary pads and proper toilet facilities are the main culprits behind the high incidence of school absenteeism. Increasing mothers' awareness and educating the girls regarding menstrual hygiene may help in improving school attendance and improving their academic performance.

## Acknowledgement

Authors would like to thank all the women who participated in the study and acknowledge their invaluable contribution in completing the study.
Funding: No funding sources
Conflict of interest: None declared

## References

1. Juyal R, Kandpal SD, Semwal J. Menstrual hygiene and reproductive morbidity in adolescent girls in Dehradun, India. Banglad J Med Sci. 2014; 13:170-4: http://www.dx.doi.org/10.3329/bjms.v13i2.14257
2. Emily O, Rebecca T. Menstruation, sanitary products, and school attendance: Evidence from a randomized evaluation. Am Econ J Appl Econ. 2011;3:91-100
3. Sommer M, Sahin M. Overcoming the taboo: advancing the global agenda for menstrual hygiene management for schoolgirls. Am J Public Health. 2013;103(9):15569.
4. Patavegar BN, Kapilashrami MC, Rasheed N, Pathak R. Menstrual hygiene among adolescent school girls: An in-depth cross-sectional study in an urban community. Int J Health Sci Res. 2014;4:15-21.
5. Aditi Vashisht, Rambha Pathak, Rashmi Agarwalla, Bilkish N. Patavegar, and Meely Panda: School absenteeism during menstruation amongst adolescent girls in Delhi, India.(J Family Community Med. 2018 Sep-Dec; 25(3): 163-168. doi: $10.4103 / \mathrm{jfcm} . J F C M_{-}$ 161_17
6. Upashe SP, Tekelab T, Mekonnen J. Assessment of knowledge and practice of menstrual hygiene among high school girls in Western Ethiopia. BMC Womens Health. 2015;15:84. [PMC free article][PubMed].
7. Tegegne TK, Sisay MM. Menstrual hygiene management and school absenteeism among female adolescent students in Northeast Ethiopia. BMC Public Health. 2014;14:1118.]
8. Bodat S, Ghate MM, Majumdar JR. School absenteeism during menstruation among rural adolescent girls in Pune. Natl J Community Med. 2013;4:212-6.
9. Avril M. Houston, Anisha Abraham, Zhihuan Huang, and Lawrence J. D'Angelo. Knowledge, Attitudes, and Consequences of Menstrual Health in Urban Adolescent Females. J Pediatr Adolesc Gynecol. 2006; 19:271-275.
10. Oster E, Thornton R. Menstruation, sanitary products, and school attendance: evidence from a randomized evaluation. Am Econ J. 2011;3(1):91-100.
11. Grant MJ, Lloyd CB, Mensch BS. Menstruation and school absenteeism: evidence from rural Malawi. Comp Educ Rev. 2013;57(2):260-84.

## How to cite this article:

Manisha Gupta (2021) 'Evaluation Of Factors Leading to School Absenteeism During Menstruation In Adolescent Girls Attending Tertiary Care Hospital In Ghaziabad', International Journal of Current Medical and Pharmaceutical Research, 07(04), pp 5737-5740.


[^0]:    *Corresponding author: Manisha Gupta
    Department of Obstetrics \& Gynaecology, Santosh Deemed to be University, Ghaziabad

