Journal of Advances and Scholarly Researches in Allied Education
Vol. 18, Issue No. 7, December-2021, ISSN 2230-7540

Menstrual hygiene Management: A prominent cause of teenage girl school absenteeism in the state of Madhya Pradesh

Deepali Rai1*, Dr.Priti Dubey[2]

[1,2] LNCT University, Bhopal

Abstract - Poverty is common throughout the state, and a considerable portion of the country population is eligible for government assistance. Many kids never finish elementary education, and particular groups have poor enrollment rates in high schools. This is notably true for females, who are more likely to drop out of upper elementary school, as well as girls and boys from SC and ST. Social isolation, poverty, and child marriage are just a few of the important challenges that prevent female students from enrolling in and studying in school. The study's suggestions will help the Madhya Pradesh government build on the gains it has already made in increasing elementary and secondary school enrollment and retention rates.

Keywords - Health, Social isolation, Poverty, menstrual hygiene.

----------X----------

INTRODUCTION

In the Indian state of Madhya Pradesh, a multi-districtresearch was undertaken to better identify all major causes or obstructions to learning, especially for underprivileged girls. The project will not only look at the factors that prohibit females from enrolling in and finishing secondary school, but it will also determine the best combination of financial and non-financial incentives to increase girls' access to secondary school and preventing them from leaving. Several schemes to expand access to education have been developed by the Madhya Pradesh government over the last two decades. In 2011–2012, the state had almost 65,000 schools, the bulk of which were primary schools, with over 14 million students enrolled in grades 1–8 and over 2 million students in classes 9–11. Thanks to the government's efforts, Madhya Pradesh's gross enrolment ratio at the secondary level (the proportion of eligible students who actually attend secondary school) is currently 71, in comparison with national average of 60.

Despite this improvement, India's second most populous state still has enormous hurdles in providing comprehensive social and educational services to its inhabitants. Data is collected utilising both qualitative and quantitative approaches in the multi-district cross-sectional research study. The qualitative study's assessment of barriers will be used to inform a cross-sectional quantitative household survey of 750 homes from rural and urban disadvantaged subpopulations. The quantifiable household survey will validate the barriers while also assisting in establishing the perceived value of the optimum incentive package for enrolling and maintaining females in secondary school.

OBJECTIVE

The purpose of this study was to determine the existing state ofMHM at schools in Bhopal's urban slums areas. The goal of the study was to determine the link among school absence and poor health, as well as the effects on schoolgirls' daily life and the problems they face in managing menstrual hygiene. It will assist health policymakers in developing effective interventions to address these problems.

METHODS

Community-based cross-sectional research was conducted from January to June 2018 among menstruating teenage females (10-19 years) enrolled at Anganwadi in Raisen District, MP. Because this is the first study of its sort in this subject, a 50% prevalence of menstrual absenteeism was anticipated.

Using the formula:

$$\frac{s2pq}{d^2}$$

s = Standarddeviation (SD) at 95 percent confidence interval (CI);

(q=100p) and a margin of error of 10%, the projected minimum sample size was 393. The participants were chosen using a simple random sampling method and a line listing of the teenagers. A pre-designed, pre-tested, and a well-organized questionnaire was utilised to collect data from study participants during face-to-face interviews.

Absenteeism in School of female students due to menstruation,the reasons for not attending school, and effect of menstruation on student's performance in school, affecting academic performance, Number of days absent per month (n=180)

Independent variables

Each study participant was told of the study's goal, benefits, hazards, and opportunity to withdraw or decline participation. Every participant provided written informed consent, and consent received from parents/guardians for responders under the age of 18 assured confidentiality, privacy, and anonymity.

Statistical analysis

The statistics package for Social Sciences (SPSS)version 16.0 was used to examine the data (IBM, SPSS Inc., Chicago, USA). Calculation of descriptive statistics to investigate the factors related with school absence, researchers used univariable and multivariable logistic regression with a 94%, CI (p0.05).

RESULTS

The average age (Standard Deviation) of research participants was 15.42, with 60.3 percent of individuals aged 15 to 18 years old. Around a third of the participants were in intermediate school (9-12 classes). Other backward and scheduled castes made up about half and a fourth of the participants. Approximately 77.6 percent of the respondents were poor. About a 1/4thof the participants' mothers were uneducated(table 1).

At the age of 13, about half of the individuals had reached menarche. Menstruation was unknown to almost 63% of the subjects prior to menarche. Nearly a quarter of the participants (26%) are aware of the actual reason of menstruation.Even 3% of those polled believe it is a divine punishment. Only 3.6% of those polled correctly identified. Around eighty (80.2%) and seventy-five percent (75%) of the participants said their everyday activities were restricted at home because of health difficulties. Only 29.3% of the individuals used sanitary pads, and 11.5% did not keeps the absorbent. Approximately 39% of the participants toss it into a neighboring gutter (table 2 and table 3).

Table 1: Participants' socioeconomic anddemographic characteristics (n=393).

Characteristics	Number	Percentage (%)
11-14	131	33.3
15-18	237	60.3
>18	25	6.4
Mean age (SD) of girls, Median	15.42; 16	
Education		
Primary (1-4)	14.0	3.6
Middle (5-9)	72.0	18.3
Intermediate (10-12)	288.0	73.3
Graduate	19.0	4.8
Religion		
Hindu	252.0	64.1
Muslim	141.0	35.9
Caste		
General	72.0	18.3
OBC	198.0	50.4
Scheduled caste	75.0	19.1
Schedule tribe	13.0	3.3
Intermediate (9-12)	68.0	17.3
Graduate	17.0	4.3

During menstruation, about half of the respondents (51.1 percent) miss school. Around three-quarters of students skip two to three days of school. Fear of leakage was the primary reason for missing school. More than half of the respondents (58%) and half of the respondents (50.4%) said they couldn't concentrate in class and couldn't participate in sports, respectively. Menstruation had a negative impact on academic achievement for almost 10% of the respondents as shows in table 4.

Table 2: Menstruation information and features among participants (n=465).

Age at menarche	Number	Percentage (%)
≤11 Years	25	6.4
12 years	82	20.9
13 years	198	50.4
≥14 years	88	22.4
Awareness of menstruation before menarche		
Aware	142.0	36.1
Not Aware	251.0	63.9
Source of information before menarche		
Mother	182.0	46.3
Sister	47	12.0
Friend	52.0	13.2
Teacher	81.0	20.6
Television/print materials	31	7.9
Knowledge regarding menstruation		
Cause of menstruation		
Physiological process	102.0	26.0
Because of eating	4.0	1.0
Clean body	**6**	**1.5**
Curse of god	16.0	4.1
Don't Know	265.0	67.4
Organ from which the menstrual blood comes		
Vagina	31.0	7.9
Uterus	14.0	3.6
Urethra	75.0	19.1
Don't know	273.0	69.5
Current status of menstrual cycle		
Irregular	82	20.9
Regular	311.0	79.1
Pain		
Painful	225.0	57.3
Painless	168.0	42.7
Bleeding		
Normal	132	33.6
Excessive	188	47.8
Scanty	73	18.6
Menstruation-related health issue		
yes	315	80.2
No	78	19.8
Yes	288.0	73.3
No	105.0	26.7

Table 3: MHM of the participants in the study (n=393).

Characteristics	Number	Percentage (%)
Absorbents used for instant menstruation		
Sanitary Pads	115	29.3
Dry cloth	251	63.9
Cotton	27	6.9
Materials storage at home		
Cupboard	242	61.6
Disposal of absorbents		
Bathroom	55	14.0
Other hidden places	38	9.7
Don't store	**45**	**11.5**

Disposal method		
Throw it in the home trash.	173	44.0
Dump it in a nearby gutter.	155	39.4
Buried	42	10.7
Burn	16	4.1
Flush it in the toilet	7	1.8
Average no. of absorbents used per day		
2 or less	**228**	**58.0**
More then 2	165	42.0
External genitalia cleaning		
Satisfactory (more then times a day)	**252**	**64.1**
Unsatisfactory (2 or less a day)	141	35.9
Material for genital cleansing		
Water only	275	70.0
Water with soap	95	24.2
Water with antiseptic	23	5.9

Table 4: Menstruation-related school absences(n=393).

Characteristics	Number	Percentage (%)
Absent from school during menstruation in past years		
Absent	201	51.1
Not Absent	192	48.9
Absentee per month (n=180)		
1.0	**48**	**24.7**
44622	131	72.8
>3	18	10.0
Reasons for absenteeism*		
Fear of leakage and shame	288	73.3
Pain or feel uncomfortable	**163**	**41.5**
Excessive bleeding	111	28.2
No personal space (toilet) to replace the sanitary napkins	115	29.3
The school has inadequate water.	89	22.6
No proper place to dispose used pad	141	35.9
Family restrictions	14	3.6

Discrimination in the school	63	16.0
Effect of menstruation on student's performance in school*		
Menstruation affects academic performance	**286**	**72.8**
Concentration problems	228	58.0
Incapability to respond to questions in class	55	14.0
Missed class test/examination	**26**	**6.6**
Not able to participate in other activities	192	48.9
Poor school performance	41	10.4
No interference	102	26.0

*multipleresponse

Table 5: Factors linked to school absence in a regression analysis.

Variables	Crude Ro	Adjusted Ro
Age (greater than 15 years)	1.3 (0.6-1.6)	
Education (<9th class)	2.3 (1.3-3.4)**	1.2 (0.6-2.2)
Religion (Muslim)	1.2 (0.5-2.1)	
Caste (OBC) and (SC/ST)	0.9 (0.6-1.4)	
SES (BPL)	1.6 (0.4-2.6)	
Education of Mother (upto primary)	1.7 (0.2-2.2)	
Education of Father (up to primary)	1.3 (0.6-2)	
Menarche age (>12)	1.6 (0.6-2.4)	
Premenarchal awareness (yes)	1.1 (0.5-2.1)	
menstruating cycle (irregular)	1.4 (0.6-2.2)	
Use of Absorbents	1.2 (0.5-2)	
External genitalia cleaning	1.3 (0.8-2)	
Materials storage at home	1.6 (0.7-2.5)	
Pain	3.1 (1.7-4.5)***	2.4 (1.5-4.1)***
School facilities are inadequate(yes)	10.2 (5.5-16.5)***	3.1 (1.5-6)***
Discrimination in schools (Yes)	1.7 (0.9-2.6)	
Health issues (yes)	1.4 (0.6-2.2)	
home Restriction (yes)	1.8 (0.8-2.4)	

DISCUSSION

Up until adolescence, females are on level with boys; but, once puberty sets in, girls experience increasing constraints to their activities and mobility, affecting female education, resulting in different

results for girls (8).So many women in country continue to confront major impediments to a safe and dignified period hygiene experience MHM. In India, menstrual health promotion is still a problem. This study contributes to the field by concentrating on slum residents. Few research look at school absenteeism as a result. As a result, the purpose of this study is to investigate how adolescents' inability to attend school affects their academic performance.

In this study, the age at menarche of adolescent schoolgirls varied from 10 to 18 years, with the majority of the girls reaching the age of 13. The present study found that 61.8% of women were unaware of menstruation before menarche, which is similar to prior findings and even higher (73.3%) in a rural Indore study (9-12). Which is comparable to previous study in the Bhopal urban area, where 71% of girls were made aware by their mothers (12). Teachers were the first informants for 82% of the girls in Bhopal and 51.3 percent of the girls in India, according to studies (9, 14). Sisters (54%) had a big role in delivering knowledge to children, according to a study in rural Indore(13).

Around a third of the respondents (29.3%) in this survey used sanitary pads, and comparable proportions were found in rural Indore and Raisen(13, 15). According to a study done in Bhopal, just 22% of women utilised sanitary napkins as absorbents, while 62% used ordinary fabrics (12).

Menstruation-related reasons for schoolabsences

Around half of the participants in this study (51.1%) had missed school during their periods in the previous year, which is greater than studies in Delhi (39 percent), rural Pune (42 percent), West Bengal (38 percent), and Bangladesh (42 percent). All of these studies took place in economically stable areas with access to sanitary facilities and menstruation awareness (9,16-18). Because to the differences in research areas, studies in Ghaziabad (62%) found higher prevalence than the current study (14,15). Another survey in three Indian states found lower absenteeism rates than the current study: Maharashtra (11.2%), Chhattisgarh (21.1%), and Madhya Pradesh(2.9%),(19). A survey of nursing students in Madhya Pradesh indicated that 66% of respondents were not interested in attending college during their period(20). Similar to a research in Bangladesh, 64 percent of women missed two to three days of school during their period, whereas during their most recent period, 20.1 percent of Ugandan women missed at least one day of school. Aresearch in Delhi indicated that the average number of days missed was 1.20 (7), significantly lower than the current study of slum females(9, 18, 21).

Reasons for absenteeism

Pain was shown to be the greatest predictor of school absence during menstruation in this study (Ro=2.2), similar to study conducted in Uganda (Ro=1.8) and rural Pune (Ro=12) (14, 22). Furthermore, the current study revealed that girls who were taunted and humiliated by peers were more likely to miss school, a finding that was not significant in the current study or comparable findings in Jabalpur (15). The current study found no link between parents' socioeconomic position and their schooling; socioeconomic was an important parameter (17). According to the poll, roughly 45% of girls said there weren't enough facilitiesand just 36% said they were only for girls, despite government recommendations. (19).

Menstruation is perceived as unhealthy, embarrassing, or obstructive to learning by females who lack awareness about it before to menarche. Other primary factors in school absenteeism included family restrictions, which contradicts the findings of the current study (20,28-30).

Academic performance

Menstruation is perceived to interfere with school performance and activities by 72.8% of girls in our survey, indicating that menstruation affects not just attendance but also the quality of time spent in school. Fear of humiliation made it difficult for the girls to stay in school and also prevented them from participating in outside activities, according to studies in Bhopal, where 69 % of girls said menstruation had an impact on their academic life(9).According to the current study, over 60% of participants claimed to have lost focus during study hours, which is similar to a survey in three states (50%) and a study in Madhya Pradesh, where a greater proportion (71%) claimed to have lost concentration during study hours (20). These issues were influenced by the type of menstruation item used, cloth users having greater problems than disposable sanitary pad (18).A finding in Iraqi schools found that caused them to miss exams, while 57 percent said it interfered with their participation in academic activities and class presentations. The current study found that around 11% of students observed weak performance (32).

This study uses a large sample size to gain a better understanding of menstruation management, which is especially important in the most underserved group. Because kids may not want to disclose school absence or identify menstruation as a reason, quantitative surveys used to monitor school attendance may result in under-reporting.Qualitative research will provide a deeper understanding of many level elements, challenges associated with MHM, and practical solutions to this problem.

CONCLUSION

According to the findings, about half of adolescent girls (50.6 percent) miss school during their period. Around 75% believe that menstruation affects their academic performance. It means that if MHM facilities are accessible at school, school absence can be reduced.As a result, it is necessary to

strengthen the mechanisms for spreading menstrual hygiene awareness among girls, parents, and the entire society. Simultaneously, for the benefit of millions of women, subsidized sanitary napkins and improved sanitation facilities for school students should be made available through different programmes such as the “Menstrual Hygiene Schem (MHS)” and “Swacch Bharat Mission”.

REFERENCES

1. Bobhate PS, Shrivastava SR. A cross sectional study of knowledge and practices about reproductive health among female adolescents in an urban slum of Mumbai. J Fam Reprod Health. 2011;5(4):119-26.

2. Mason L, Nyothach E, Alexander K, Odhiambo FO, Eleveld A, Vulule J, et al. ‘We keep it secret so no one should know’- a qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural western Kenya. PLoS One. 2013;8(11):e79132.

3. Phillips-Howard PA, Caruso BA, Torondel B, Zulaika G, Sahin M, Sommer M. MHM among adolescent schoolgirls in low- and middle-income countries: research priorities. Glob Health Action. 2016;9:33032.

4. McMahon SA, Winch PJ, Caruso BA, Obure AF, Ogutu EA, Ochari IA, Rheingans RD. ‘The girl with her period is the one to hang her head’ reflections on menstrual management among schoolgirls in rural Kenya. BMC Int Health Hum Rights. 2011;11:7.

5. Sommer M. Where the education system and women’s bodies collide: the social and health impact of girls' experiences of menstruation and schooling in Tanzania. J Adolesc. 2010; 33(4):521-9.

6. Sindu T. Psychosocial impact related to physiological changes preceding, at and following menarche among adolescent girls. Int J Clin Surg Adv. 2014;2(1):42-53.

7. Vashisht A, Pathak R, Agarwalla R, Patavegar BN, Panda M. School absenteeism during menstruation amongst adolescent girls in Delhi, India. J Fam Community Med. 2018;25:163-8.

8. Kumar D, Goel NK, Puri S, Pathak R, Sarpal SS, Gupta S, et al. Menstrual pattern among unmarried women from Northern India. J Clin Diagn Res. 2013;7:1926-9.

9. Thakre SB, Thakre SS, Reddy M, Rathi N, Pathak K, Ughade S. Menstrual hygiene: Knowledge and practice among adolescent school girls of Saoner, Nagpur district. J Clin Diagn Res. 2011;5:1027-33.

10. Sultan S, Sahu DS. Knowledge, attitude and practices about menstruation and related problems in adolescent girls. Int J Reprod Contracept Obstet Gynecol. 2017;6:5235-40.

11. Kansal S, Singh S, Kumar A. Menstrual hygiene practices in context of schooling: a community study among rural adolescent girls in Varanasi. Indian J Community Med. 2016;41(1):39.

12. 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.

13. Gupta M, Agarwal N, Agarwal A. Knowledge and practices related to menstruation and their relation to school absenteeism among adolescent girls attending tertiary care hospital in Ghaziabad: A cross sectional study. Panacea J Med Sci. 2019;9(2):43-7.

14. Bodat S, Ghate MM, Majumdar JR. School absenteeism during menstruation among rural adolescent girls in Pune. Nat J Community Med. 2013;4(2):212-6.

15. Sudeshna R, Aparajita D. Determinants of menstrual hygiene among adolescent girls: a multivariate analysis. Nat J Community Med. 2012;3(2):294-301.

16. Alam MU, Luby SP, Halder AK, Islam K, Opel A, Shoab AK, et al. MHM among Bangladeshi adolescent schoolgirls and risk factors affecting school absence: results from a cross-sectional survey. BMJOpen. 2017;7(7):e015508.

17. Sivakami M, van Eijk AM, Thakur H, Kakade N, Patil C, Shinde S, et al. Effect of menstruation on girls and their schooling, and facilitators of MHM in schools: surveys in government schools in three states in India, 2015. J Glob Health. 2019;9(1).

18. Raju J, Suguna M. A study to assess the effect of menstrual symptoms on academic performance among nursing students at selected colleges in Tamil Nadu, India. IJAR. 2017;3(3):78-80

19. Miiro G, Rutakumwa R, Nakiyingi-Miiro J, Nakuya K. Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. BMC Women's Health. 2018;18:4.

20. Tegegne TK, Sisay MM. MHM and school absenteeism among female adolescent students in Northeast Ethiopia. BMC Public Health. 2014:14:1118.

21. Grant M, Lloyd C, Mensch B. Menstruation and school absenteeism: evidence from rural Malawi. Comp Educ Rev. 2013:57:260-84.

22. Davis J, Macintyre A, Odagiri M, Suriastini W, Cordova A, Huggett C, et al. MHM and school absenteeism among adolescent students in Indonesia: evidence from a cross-sectional school-based survey. Trop Med Int Health. 2018;23(12).

23. Lawan UM, Yusuf NW, Musa AB. Menstruation and menstrual hygiene amongst adolescent school girls in Kano, Northwestern Nigeria. Afr J Reprod Health. 2010;14:201-7.

24. Kumar A, Taunk A. A study of sanitation of toilets in elementary and senior Secondary schools located in rural areas of Uttarakhand state in India. Int J Sociol Anthropol. 2010;2(8):178.

25. Majra JP, Gur A. School environment and sanitation in rural India. J Glob Infect Dis. 2010;2(2):109-11.

26. Joshi D, Buit G, González-Botero D. MHM: education and empowerment for girls? Waterlines. 2015;34:51-67.

27. Tamiru S, Mamo K, Acidria P, Mushi R, Ali CS, Ndebele L. Towards a sustainable solution for school MHM: cases of Ethiopia

28. Uganda, South-Sudan, Tanzania, and Zimbabwe. Waterlines. 2015:92-102.

29. Trinies V, Caruso BA, Sogoré A, Toubkiss J, Freeman MC. Uncovering the challenges to MHM in schools in Mali. Waterlines. 2015;34:31-40.

30. Haque SE, Rahman M, Itsuko K, Mutahara M, Sakisaka K. The effect of a school-based educational intervention on menstrual health: an intervention study among adolescent girls in Bangladesh. BMJ Open. 2014;4:e004607.

31. Montgomery P, Ryus CR, Dolan CS, Dopson S, Scott LM. Sanitary pad interventionsbfor girls' education in Ghana: a pilot study. PLoS One. 2012;7:48274.

32. Freeman MC, Greene LE, Dreibelbis R, Saboori S, Muga R, Brumback B, et al. Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya: a cluster-randomized trial. Trop Med Int Health. 2012;17(3):380-91.

33. Ahmed HM, Piro SS. Impact of menstruation on school performance in Sarwaran and Shahid Khajabawa high school in Erbil city. Kufa J Nurs Sci. 2012;2:166-71

Corresponding Author

Deepali Rai*

LNCT University, Bhopal