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Menstrual Hygiene Management Facilities at home affect the Academic Performance of Adolescent Girls

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ABSTRACT: Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. The purpose of this study was to better understand the challenges that girls face due to lack of menstrual hygiene facilities in home and its impact on their academic performance.

The study was conducted on 240 adolescent girls who's belongs from rural and urban areas of Hisar district. Self-developed schedules were used to delineate personal, socio-personal variables and facilities at home in terms of menstrual hygiene management and academic performance.

The study found majority of respondents from rural area reported lack of proper disposal facility for MHM materials and unavailability of adequate sanitary material. Majority of respondents of rural background were unsatisfied with the family communication and guidance on MHM they received at homes.

The findings indicated that major challenges that girls face in their homes like lack of proper infrastructural facilities like proper toilet, proper health care facilities during menstruation, proper disposal system act as a hindrance in implementing proper menstrual hygiene management. Rural respondent's academic performance had more effected as comparison to urban respondents. We recommend that menstrual hygiene management awareness programs and some intervention programmes which helps in providing positive support for adolescent girls.

Keywords: Adolescents, academic performance, menstrual hygiene management, home environment, school environment, rural adolescent, urban adolescent.

INTRODUCTION

Adolescence is the turning point where the hormonal and metabolic changes take place, menstruation begins and fertility is achieved (Mughal *et al.,* 2021). Onset of menstruation is one of the vital changes happening in all females during their period of adolescence. Menarche is not just a physiological process but it is a psychological, social, and behavioral transition from adolescence to womanhood. Menstrual hygiene has been an issue of concern worldwide especially in developing nations. Insufficient opportunities to practice healthy menstrual hygiene recently received attention as a barrier to education for girls in low- and middle-income countries. Although adolescence is a healthy period of life, many are often less informed, less experienced, and less comfortable in accessing reproductive health information and services (Yusuf *et al.,* 2010). This leads to culmination in repression of feelings which can cause intense mental stress and seek health advice from quacks and persons having inadequate knowledge (Singh *et al.,* 1999). The menstrual cycle is a hormonally controlled process, although several factors may influence its length and regularity (Patki, 2017).

Most girls experience some degree of pain and discomfort in their menstruation period, which could have important impacts on their daily activities, and disturb their productivity at home or at their work place (Wong and Khoo 2010). The most common physical symptoms are headaches, breast tenderness, swelling, abdominal bloating, heaviness, low energy, tired and weak, back and muscle pain, sleep more, stay in bed increased/decreased appetite, and crave food), and emotional symptoms are depressed mood, sad, lonely, anxious, nervous, mood swings, trouble with relationships, irritable, angry, impatient, difficulty concentrating, feel out of control, cannot cope, less productive in job or home and avoid social activity.

These symptoms sufficient to impair daily activities, a woman's experience of premenstrual symptoms has been found to reduce work efficiency, increase absenteeism, and negatively impact on family (Mona *et al.,* 2013).

Though women are vital parts of operative cultures, with conventional roles and rules yet they are vulnerable. The susceptibility of women trunks from socio-political, and economic conditions prevailing (Sharma *et al.,* 2018).

Globally, at least 500 million women and girls lack adequate facilities for menstrual hygiene management. Lack of WASH (water, sanitation, and hygiene) facilities, particularly in public places, such as in schools and workplaces, can pose a major obstacle to women's and girl's menstrual hygiene (Sahiledengle *et al*., 2022). In school settings, lack of clean, functional, private and gender-specific WASH facilities, fear of blood leaking, poor access to sanitary materials and inappropriate responses by male students and teachers are commonly reported to be associated with poor MHM and absenteeism due to menstruation (Sommer, 2010).

Menstruation and poor MHM can also lead to school dropout, absenteeism and other psychological concerns that have substantial long term health and socio-economic ramifications for adolescent girls. In school settings, lack of clean, functional, private and gender-specific WASH facilities, fear of blood leaking, poor access to sanitary materials and inappropriate responses by male students and teachers are commonly reported to be associated with poor MHM and absenteeism due to menstruation (Sommer, 2010). The Government of India has recognized the importance of menstrual hygiene to the health, well-being and educational achievements of girls and women, and has developed several programs to improve menstrual hygiene management (MHM) in schools, targeted at improving knowledge, access and disposal of menstrual waste, and improving sanitation in schools, with support from a number of organizations (Muralidharan *et al.,* 2015).

Objectives:

1. Comparison the menstrual hygiene practice among adolescent girls across residential area.
2. To study the effect of menstrual hygiene practice on academic performance.

REVIEWS OF LITERATURE

Behera *et al.* (2022) found that more than two thirds (68.4%) of rural households use improved sanitation facilities. Around 30% of families have inadequate sanitation infrastructure, which means at least one household member defecates in the open space. Nearly 64.6% disposed of their menstrual absorbents in the bush or field, while 29.1% disposed in the river and 24.1% in the waste bin. Still, 40.6% of women were using clothes as menstrual absorbents, and 54.9% of the respondents reported washing their menstrual materials for re-use. About 91% of the respondents reported that the place where they changed their menstrual absorbents was safe, clean, and private. Only 22.5% of women responded to having water and soap at their menstruation management area.

Garg *et al*. (2021) stated that prevalence of school absenteeism during menstruation among adolescent girls of resettlement colony was 43.1% Out of 307 girls who had school absenteeism, 285 (92.8%) had missed for 1-3 days. The most prevalent self-reported reasons for school absenteeism during menstruation were pain during menstruation 75.6% followed by staining of cloths 43.6% and uncomfortable feeling 39.4%. School absenteeism was significantly associated with studying in government school, suffering from menstruation related problems, and pads being provided from schools.

Bulto (2021) found that 72.5 percent of school adolescents had adequate MHM practice and just 34.7 percent had acceptable overall knowledge about menstruation. Urban adolescents were getting information about menstruation from mothers and teachers. School toilets with inside lock, not missing school during menstruation, any whitish or grey discharge per-vagina and having good general awareness of menstruation were all significantly linked with adequate MHM practice.

Yaliwal *et al.* (2020) stated that 70.5 per cent of the girls reached between the ages of 12 and 14.9 years, 37.2 per cent of the girls had 28-34 day cycles, and 12.2 per cent of the girls had heavy periods. Dysmenorrhea affected 61.95 per cent of the girls, and 9.7 percent of the girls indicated they needed pain medication.70.7 percent of the girls used disposable sanitary napkins, 12.7 percent used cloth, and 15.3 percent used both 55.5 percent of the girls who used cloth as an absorbent did not allow the material to dry in the sun. More than two times a day, 57.1 percent of the girls washed their genitals.

METHODOLOGY

The study was conducted purposively in Hisar district of Haryana state as the study required frequent visits to each selected school for data collection. One district was selected randomly. From selected district, to draw rural sample two villages was selected randomly and from selected villages two schools was randomly selected. For urban sample similar procedure was adopted to draw the sample from schools located in city area. From the selected schools of rural locations, total of 120 adolescent girls which comprise 60 early adolescents and 60 late adolescents were selected randomly. Similar procedure was adopted for selection of urban sample. Hence, a total of 240 adolescent girls (120 rural and 120 urban) constituted the sample for the study. Self- developed questionnaire was used to obtain information on personal and socio-economic variables. Information on facilities at school and home in terms of MHM was collected with the help of self -developed

interview schedule. And academic performance measured by self –developed interview schedule.

Statistical analysis. To draw the inferences as per different objectives data analyzed using appropriate statistical tests–frequency and percentage, mean, Standard Deviation. Chi-square test, z test and Anova.

RESULTS

Personal Profile of rural and urban adolescent girls. Data on personal profile of the respondents is presented to bring out their characteristic features in Table 1. Results for the personal profile are revealed that sampling was done on the basis of area of residence as well as for the total sample. Results tabulated on presented in Table 1 illustrated that for the total sample overall mean age of 10-14 year age group was 13.0±0.80 years and for 15-19 age group was 16.6±0.67 years. Regarding the class wise distribution of respondents, 31.7 percent were studying in 6^{th} - 8^{th} classes and 33.3 percent were in the 9^{th} - 10^{th} standard and rest of 35 percent were in the 11^{th} - 12^{th} classes. Further, regarding the birth order, maximum respondents (57.1%) were 2^{nd} and 3^{rd} born followed by 35.4 percent were 1^{st} born and rest 7.5 percent respondents were only child in their families. Mean age of menarche observed in overall sample was 12.76±0.96 years. In case of menstrual profile more than half of the respondent (54.2%) had medium menarche (13-14) while 35.4 percent had early menarche (10-12) and rest 10.4 percent had delayed menarche. With regards to duration of menarche of respondents, results depicted that 15 percent respondents duration of menstrual cycle was <21 days followed by 62.9 percent had cycle of 28-35 days and rest 22.1 percent experienced cycle duration of >35 days. In case of menstrual bleeding more than half (62.9%) of the respondent had menstrual bleeding from 2-6 days followed by 32.9 percent had bleeding <2 days and rest 5.4 percent had menstrual bleeding >6 days. With regards to menstrual cycle pattern, 66.7 percent respondents had regular and only 33.3 percent had irregular cycle pattern. Out of total sample 59.2 percent respondents had moderate amount of menstrual bleeding followed by 26.6% respondent who reported heavy bleeding and rest 14.2 percent had minimal amount of bleeding during periods. Table data highlights that maximum (55.8%) respondents experienced moderate pain followed by 27.5 percent had severe pain and rest 16.7 percent respondents had minimal pain during menses.

Table 1: Personal Profile of rural and urban adolescent girls.

Sr. No.	Area / Personal variables	Rural (n=120) f (%)	Urban (n=120) f (%)	Total (n=240) f (%)
1.	**Mean Age**			
	10-14 years (Early adolescence)	13.2±0.68	12.8±0.92	13.0±0.80
	15-19 years (Late adolescence)	16.7±0.58	16.4±0.75	16.6±0.67
2.	**Class**			
	6-8	37 (30.8)	39 (32.5)	76(31.7)
	9-10	40 (33.4)	40 (33.3)	80 (33.3)
	11-12	43 (35.8)	41 (34.2)	84 (35.0)
3.	**Birth order**			
	Ist born	41 (34.2)	44 (36.7)	85 (35.4)
	2^{nd} and 3^{rd} born	70 (58.3)	67 (55.8)	137 (57.1)
	Only child	9 (7.5)	9 (7.5)	18 (7.5)
4.	**Mean age at menarche**	13.18± 1.01	12.39 ± 0.91	12.76 ±0.96
5.	**Menstrual profile**			
	(10-12) Early menarche	35 (29.2)	50 (41.7)	85 (35.4)
	(13-14) Medium menarche	74 (61.7)	56 (46.7)	130 (54.2)
	(15-17) Delayed menarche	11 (9.1)	14 (11.6)	25 (10.4)
6.	**Duration of menarche**			
	<21 days	29 (24.2)	7 (5.8)	36 (15.0)
	28-35 days	62 (51.6)	89 (74.2)	151 (62.9)
	>35 days	29 (24.2)	24 (20.0)	53 (22.1)
8.	**Menstrual bleeding**			
	<2 days	66 (55.0)	13 (10.8)	79 (32.9)
	2-6 days	46 (38.3)	102 (85.0)	148 (61.7)
	>6 days	8 (6.7)	5 (4.2)	13 (5.4)
9.	**Menstrual cycle pattern**			
	Regular	76 (63.3)	84 (70.0)	160 (66.7)
	Irregular	44 (36.7)	36 (30.0)	80 (33.3)
10.	**Amount of Menstrual bleeding**			
	Minimal	20 (16.6)	14 (11.7)	34 (14.2)
	Moderate	56 (46.7)	86 (71.7)	142 (59.2)
	Heavy	44 (36.7)	20 (16.6)	64 (26.6)
11.	**Pain during menses**			
	Minimal	16 (13.3)	24 (20.0)	40 (16.7)
	Moderate	60 (50.0)	74 (61.7)	134 (55.8)
	Severe	44 (36.7)	22 (18.3)	66 (27.5)

Table 2: Facilities at home in term of menstrual hygiene management (MHM).

Sr. No.	Area / Facilities		Rural (n=120) f (%)	Urban (n=120) f (%)	Total (n=240) f (%)
1.	Clean and hygienic toilet and bathroom facilities	Yes	107 (89.2)	118 (98.3)	225 (93.8)
		No	13 (10.8)	02 (1.7)	15 (6.2)
2.	Proper privacy in toilet and bathroom	Yes	101 (84.2)	118 (98.3)	219 (91.3)
		No	19 (15.8)	02 (1.7)	21 (8.7)
3.	Adequate supply of clean water facilities	Yes	110(91.7)	117 (97.5)	227 (94.6)
		No	10 (8.3)	03 (2.5)	13 (5.4)
4.	Availability of soap and hand wash materials	Yes	103(85.8)	118 (98.3)	221 (92.1)
		No	17 (14.2)	02 (1.7)	19 (7.9)
5.	Proper disposal facility for MHM material	Yes	74 (61.7)	87 (72.5)	161 (67.1)
		No	46 (38.3)	33 (27.5)	79 (32.9)
6.	Availability of adequate and hygiene sanitary material for periods	Yes	74 (61.7)	98 (81.7)	172 (71.7)
		No	46 (38.3)	22 (18.3)	68 (28.3)
7.	Proper health care during menstruation	Yes	63 (52.5)	75 (62.5)	138 (57.5)
		No	57 (47.5)	45 (37.5)	102 (42.5)
8.	Proper dietary care during menstruation	Yes	59 (49.2)	68 (56.7)	127 (52.9)
		No	61 (50.8)	52 (43.3)	113 (47.1)
9.	Normal behavioral practices by family member	Yes	83 (69.2)	95 (78.2)	178 (74.2)
		No	37 (30.8)	25(20.8)	62(25.8)
10.	Open discussion and guidance from family on menstrual issues	Yes	40 (33.3)	89 (74.2)	129 (53.7)
		No	80 (66.7)	31 (25.8)	111 (46.3)

Facilities at home in term of menstrual hygiene management (MHM). This study showed data on assessment area wise facilities at home in term of menstrual hygiene management (Table 2). Majority of the respondents (93.8 %) had clean and hygiene toilet and bathroom facilities at home followed by 91.3% respondents reported proper privacy in toilet and bathroom. Majority of rural (91.7%) and urban (97.5%) homes had adequate supply of clean water facilities. Similar trend was observed for availability of soap and hand wash materials. More than half of the respondents (67.1%) had proper disposal facility for MHM material, approximately three fourth (71.7%) had availability of adequate and hygiene sanitary material for periods, 57.5% respondents received proper health care facilities during menstruation, and 52.9% had proper dietary care during menstruation. Regarding behavioral practices by family member's nearly one third (30.8%) rural respondents and 20.8 % urban girls reported various social and cultural restrictions used by their families. Regarding family communication and guidance on MHM issues more than half of the rural adolescents (66.7%) reported lack of such activities, whereas, their counter parts were at better position as 74.2% respondents agreed on the fact that their families were providing guidance and healthy communication on MHM issues.

Table 3: Level of facilities at home in term of menstrual hygiene management (MHM) (N=240).

Sr. No.	Area / Home facilities	Rural (n=120) f (%)	Urban (n=120) f (%)	Total (n=240) f (%)
1.	Unsatisfactory (Below mean)	51 (42.5)	28 (23.3)	79 (32.9)
2.	Satisfactory (Above mean)	69 (57.5)	92 (76.7)	161(67.1)

Note: Figures in parentheses indicate percentage

Level of facilities at home in term of menstrual hygiene management (MHM). Presents data on level of facilities at home in term of menstrual hygiene management as reported by rural and urban adolescent girls (Table 3). Results highlighted that 42.5% respondents from rural area and 23.3% respondents from urban area were unsatisfied with home facilities, whereas, 57.5% respondents from rural area and 76.7% respondents from urban area were satisfied with home facilities.

Distribution of adolescents on different aspects of academic performance

Table 4 presents data on distribution of adolescents on different aspects of academic performance.

(i) Classroom performance: Data presented in the table revealed that out of total sample 60.8 per cent respondents had no interest to go to the school, 70 per cent lack concentration during study hours, 51.3% reported difficulty in remembering all that is studied and 70.4% were hesitant to go for practical during periods due to menstrual distress.

(ii) Examination performance: Regarding this aspect, table showed that 67.5% respondents had no interest to write examination during this time, 55.4% respondents were unable to prepare for examination, 49.2% were

getting slow in writing examination and more than half of the respondents (53.3%) lack concentration during examination due to feeling of distressed during periods.

(iii) Assignment performance: With regard to assignment performance results highlight that 55.8% respondents were unable to complete the assignment in time, 59.6% were not able to think critically, 69.2% made excuses from teachers for assignment and 67.5% respondents were not able to do presentation.

(iv) Extracurricular performance: Data depicted that majority (81.7%) respondents were not interested in stage performance, 78.7% had difficulty in participating in extracurricular activities, more than half of the respondents 65% faced difficulty in public speaking and 84.2% were not interested in extra classes during periods.

(v) Relationship performance: Results revealed that 59.2% respondents were getting mood swings, 52.9% had feeling of inferiority, 60% lack of self-confidence and 70.4% were not interested to meet the teachers due to effects of menstrual distress.

Table 4: Distribution of adolescents on different aspects of academic performance.

Sr. No.	Area / Academic performance		Rural (n=120) f (%)	Urban (n=120) f (%)	Total (n=240) f (%)
1.	**Classroom performance**				
i)	No interest to go to the school.	Yes	79 (65.8)	67 (55.8)	146 (60.8)
		No	41 (34.2)	53 (44.2)	94 (39.2)
ii)	Lack of concentration during study hours.	Yes	87 (72.5)	81 (67.5)	168 (70)
		No	33 (27.5)	39 (32.5)	72 (30)
iii)	Difficulty in remembering all that is studied.	Yes	64 (53.3)	59 (49.2)	123 (51.3)
		No	56 (46.7)	61 (50.8)	117 (48.7)
iv)	Feeling hesitation to go for practical.	Yes	89 (74.2)	80 (66.7)	169 (70.4)
		No	31 (25.8)	40 (33.3)	71 (29.6)
2.	**Examination performance**				
i)	No interest to write examination during this time.	Yes	85 (70.8)	77 (64.2)	162 (67.5)
		No	35 (29.2)	43 (35.8)	78 (32.5)
ii)	Not able to prepare for examination.	Yes	71 (59.2)	62 (51.7)	133 (55.4)
		No	49 (40.8)	58 (48.3)	107 (44.6)
iii)	Getting slow in writing examination.	Yes	63 (52.5)	55 (45.8)	118 (49.2)
		No	57 (47.5)	65 (54.2)	122 (50.8)
iv)	Lack of concentration.	Yes	69 (57.5)	59 (49.2)	128 (53.3)
		No	51 (42.5)	61 (50.8)	112 (46.7)
3.	**Assignment performance**				
i)	Unable to complete the assignment in time.	Yes	71 (59.2)	63 (52.5)	134 (55.8)
		No	49 (40.8)	57 (47.5)	106 (44.2)
ii)	Not able to do critical thinking.	Yes	78 (65)	65 (54.2)	143 (59.6)
		No	42 (35)	55 (45.8)	97 (40.4)
iii)	Feel to get excuse from teachers.	Yes	91 (75.8)	75 (62.5)	166 (69.2)
		No	29 (24.2)	45 (37.5)	74 (30.8)
iv)	Not able to do presentation.	Yes	89 (74.2)	73 (60.8)	162 (67.5)
		No	31 (25.8)	47 (39.2)	78 (32.5)
4.	**Extracurricular performance**				
i)	No interest in stage performance.	Yes	103 (85.8)	93 (77.5)	196 (81.7)
		No	17 (14.2)	27 (22.5)	44 (18.3)
ii)	Difficulty in participating extracurricular activities.	Yes	98 (81.7)	91 (75.8)	189 (78.7)
		No	22 (18.3)	29 (24.2)	51 (21.3)
iii)	Difficulty in public speaking	Yes	81 (67.5)	75 (62.5)	156 (65)
		No	39 (32.5)	45 (37.5)	84 (35)
iv)	Lack of interest in extra classes.	Yes	104 (86.7)	98 (81.7)	202 (84.2)
		No	16 (13.3)	22 (18.3)	38 (15.8)
5.	**Relationship performance.**				
i)	Getting mood swing.	Yes	74 (61.7)	68 (56.7)	142 (59.2)
		No	46 (38.3)	52 (43.3)	98 (40.8)
ii)	Feeling of inferiority.	Yes	69 (57.5)	58 (48.3)	127 (52.9)
		No	51 (42.5)	62 (51.7)	113 (47.1)
iii)	Lack of self- confidence.	Yes	79 (65.8)	65 (54.2)	144 (60)
		No	41 (34.2)	55 (45.8)	96 (40)
iv)	Lack of interest to meet the teacher.	Yes	92 (76.7)	77 (64.2)	169 (70.4)
		No	28(23.3)	43(35.8)	71(29.6)

Note: Figures in parentheses indicate percentage

DISCUSSION

In the present study the age of the study participants ranged from 10 to 19 years with the mean age being 13.0 years for early adolescents and 16.6 years for late adolescents. Majority of the rural and urban respondents were studying in the 11th - 12th class with 2nd or 3rd birth order. The mean age of menarche of

study participants was 12.76 years which was comparable with studies conducted by (Ghongdemath *et al.,* 2016). It further supports the statement that age at menarche has largely decreased in most developed countries and seems stabilized at 13 ± 0.5 years with variations between countries (Gaudineau *et al.,* 2010). Data related to menstrual profile revealed that more than half of the respondents had attained menarche at medium age (13-14 years) with 28-35 days of menstrual cycle. Maximum respondents had regular cycle pattern and menstrual bleeding lasted for 2-6 days every month. More than half of the respondents had moderate amount of menstrual bleeding and pain occurred during their menstruation. Appropriate facilities at home in term of MHM help to reduce the menstrual distress among the adolescent girls. Results revealed that more than half of the respondents irrespective with the area were satisfied with home facilities. The results revealed that rural adolescents reported lack of school and home facilities in terms of MHM in comparison to urban adolescent girls. Ha and Alam (2022) study observed significant urban–rural differences in terms of menstrual hygiene management practices. Like the residents of urban areas have better menstrual hygiene management practices than rural areas. As a result, the percentage of respondents who did not participate in social activities, school, or work due to their last menstruation was significantly higher in rural areas than urban. Kapoor and Khari, (2016) finding that 85% girls had toilet facility at home; still many had poor menstrual hygienic practices, thus emphasizing the need of health education to them. Majority of the respondents had reported that their academic performance in terms of classroom, examination, assignment, extracurricular and relationship was affected during their menstruation. The results are in line with Raju and Suguna (2017) study which showed that 134 students (67%) were not having interest to go to the college during menstruation, and 142 (71%) were reported lack of concentration during study hours. The menstrual symptoms were affecting the remembrances ability of the students also, while 116 (58%) said that they had difficulty in remembering the studied contents and 152 (76%) were said that they had a feeling of hesitation to go for practical classes. Another study (Tolossa and Bekele 2014) reported that academic performance impairment due to premenstrual syndrome, 28.3% reported frequent class missing, 9.8% exam missing, 8.1% low grade scoring associated with their premenstrual syndrome and 1.7% of them reported withdrawal from their learning in study done in Mekelle University, Northern Ethiopia. Also another study done in Saudi Arabia (Balaha *et al*., 2010) about phenomenology of premenstrual syndrome in female medical students, reported that performance impairment like poor concentration in class 48.3%, low college attendance 46%, going out of the home 43.8%, daily home chores 41.6% and homework tasks 36% was due to premenstrual syndrome. Ahmed and Piro (2014) study about impact of menstruation on school performance revealed that menstruation affected school exams, participation in class activities and school attendance among 62.7%, 57.1%, 23.2% respectively of the students.

CONCLUSION

The study found that facilities at home in terms of menstrual hygiene management, girls reported lack of proper disposal system for sanitary materials and lack of availability of changing rooms. Study revealed that academic performance of rural adolescent girls was more affected as comparisons to urban adolescent girls.

FUTURE SCOPE

This issue of menstrual hygiene is inadequate acknowledged and has not received proper attention. To data there is limited research about MHM in India, particularly among adolescent girls. Consequently, the determinants and impact of MHM among girls are not well understood and evidence- base for programming and interventions to improve MHM is lacking. Mothers should also be educated to communicate with their daughters regarding menstruation before menarche. Parents should be encouraged to provide basic facilities such as water, bathrooms, and safe private spaces where girls can follow hygienic practices. Schools and parents can play an important role in shaping healthy menstrual attitudes. Community-based adolescent-friendly health services will help begin open discussions on reproductive health, menstrual abnormalities, and psychosocial problems. Further research should be conducted on menstrual health and hygiene management in adolescents in low- and middle-income countries to meet the cultural, emotional, and social needs of girls. The adolescent girls of today are the mothers of tomorrow and the forebears of the future of their family, community, and nation.

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Conflicts of interest. None.

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