

## Original Research Article

# A comparative study of menstrual hygiene management among rural and urban adolescent girls in Mangaluru, Karnataka

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### ABSTRACT

**Background:** Menstruation is a completely normal biological process. Yet women and girls, the world over, face numerous challenges and taboos which often portray them as inferior to men. Poor hygiene and sanitation facilities in schools cause girls to experience menstruation as shameful and uncomfortable. The objective of the study was to assess and compare the status of menstrual hygiene management among rural and urban adolescent school girls.

**Methods:** A community-based cross-sectional study was carried out from 01 September 2016 to 31 October 2016, among 244 adolescent school girls, in urban and rural field practice areas of A.J. Institute of Medical Sciences of Research, Mangaluru, Karnataka.

**Results:** A total of 244 adolescent school girls participated in this study. Out of these, 54.17% girls were from rural, while 45.83% were from the urban school. Mean age of menarche of all the respondents was  $12.61 \pm 0.81$  years. Overall, 69.67% girls were aware of menstruation prior to attainment of menarche. The awareness was found to be more among urban school girls (72.32%) as compared to rural girls (67.42%). The study brings out that 49.24% of the girls in the rural school and 65.17% of the girls in urban school were using sanitary pads. 'High cost' was cited as the main reason for not using the sanitary pads.

**Conclusions:** Menstrual hygiene management was found to be sub-optimal among both, urban as well as rural adolescent girls.

**Keywords:** Rural, Urban, Adolescent girls, Menarche, School, Sanitary pads, MHM

### INTRODUCTION

Menstruation is a natural, normal biological process experienced by all adolescent girls and women, yet in many societies it is steeped in silence, myths, taboos and even stigma.<sup>1</sup> The girls are considered impure during this period and many a times they are not even allowed to enter places of worship or touch any religious idols. Further, the misconceptions and misbeliefs related to menstruation often portray women and girls as inferior to men.<sup>2</sup> Menstrual hygiene management (MHM) is an important issue affecting the health, dignity, self-esteem

and privacy of millions of adolescent girls and women across the globe. Poor water, sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic MHM items (absorbents) cause girls to experience menstruation as shameful and uncomfortable. Studies indicate girl's fear and humiliation from leaking of blood and body odour, lead menstruating girls to absent themselves from schools.<sup>3-5</sup> According to World Health Organisation (WHO), globally, some 2.3 billion people lack safely managed sanitation.<sup>6</sup> Further, owing to high cost and ignorance, women and girls often use old rags, clothes or other

unhygienic materials as menstrual absorbents, which may lead to reproductive tract infections (RTIs) and many other health problems.

In India, there are some 113 million adolescent girls who are vulnerable at the onset of menarche and face significant barriers to a comfortable and dignified experience with menstrual hygiene management (MHM). Girls do not have access to education on puberty and menstrual health and when they turn to their mothers for information and support, majority of mothers consider menstruation as a 'dirty' topic to discuss, further perpetuating the taboos.<sup>7</sup> Besides, majority of the girls due to high cost, do not have access to quality menstrual absorbents and use homemade alternatives i.e. old clothes, rags etc. In our country, there are nearly 63 million adolescent girls who are living in homes without toilets, appropriate facilities and community support to manage their menstruation privately and in a safe and dignified manner.<sup>8</sup> A recent survey revealed that in 14,724 government schools only 53% had a separate and usable girl's toilet. According to a report by Water Aid, titled "Out Of Order; The State of the World's Toilets 2017", 355 million women and girls lack access to a toilet in India. If they were to stand in a line, the queue could circle the Earth more than four times. India's low ranking on the sanitation index is despite the changes brought by the government's Swachh Bharat (Clean India) Mission launched in October 2014, which has increased the country's sanitation coverage from 39% to 65% by November 2017, with Kerala topping the list with 98.1%.<sup>9</sup> As per existing published research across India, the usage of Sanitary Napkins among rural Indian women ranges between 35% to 57%. Regarding school absenteeism owing to menstruation in India, this number is around 24%.<sup>10</sup>

Menstrual hygiene management is a multifaceted issue and evidence indicates that there is an urgent need to address the issue in a holistic manner not only engaging the women and girls, but also the environment and the society as a whole. A safe and effective MHM is a trigger for better and stronger development for adolescent girls. Equipping adolescent girls with knowledge and skills on menstrual hygiene management will enhance their self-esteem and positively impacts their academic performance.<sup>11</sup> Studies indicate that a huge gap exists among rural and urban adolescent girls regarding awareness on menstrual hygiene and its management. In the backdrop of above, present study was undertaken with an objective to assess their knowledge regarding menstruation and menstrual hygiene practices prevalent among rural and urban adolescent school girls.

### Objective

- To assess and compare the status of menstrual hygiene management among rural and urban adolescent school girls.

## METHODS

A community based cross-sectional study was carried out during a period of two months i.e. from 01 September 2016 to 31 October 2016, in urban and rural field practice areas of A.J. Institute of Medical Sciences of Research Centre, Mangaluru, Karnataka. A total 244 adolescent girls, in the age group of 13–18 years, studying in 9<sup>th</sup> and 10<sup>th</sup> standard were included in the study by convenient sampling method, of which 132 were from a rural school while 112 were from an urban school.

Ethical Clearance was obtained from the Institution and written informed consent was taken from the parents of the students before the conduct of study. The purpose of the study was explained to the class teachers in detail and the data were collected by interview method using a pre-designed, semi-structured and validated questionnaire. The questionnaire included questions related to their socio-demographic characters, awareness and the source of information about menstruation, age at menarche, method of disposal of menstrual absorbent material and practices related to Menstrual Hygiene Management (MHM). Further, enquiries were also made into various restrictions during menstruation at home, society and school. Modified B.G Prasad Socio-Economic Classification (SES) was used to classify Socio-Economic status of the students. Health education sessions were organised for these students after each interview session, to educate and empower them with correct MHM practices.

### Statistical analysis

Statistical analysis was done by percentages and chi-square test. Statistical significance of differences between groups was tested.  $P < 0.05$  was considered as statistically significant

## RESULTS

Table 1 presents the demographic characteristics of the study population. A total of 244 adolescent school girls participated in this study. Out of these, 132 (54.17%) girls were from rural school while 112 (45.83%) girls were from the urban school. In the rural school out of 132 girls, 69 (52.27%) belonged to 9<sup>th</sup> standard and 63 (47.72%) belonged to 10<sup>th</sup> standard, while in urban school, out of 112 girls, 59 (52.67%) belonged to 9<sup>th</sup> standard and 53 (47.33%) belonged to 10<sup>th</sup> standard. Among the respondents, in rural school 76.51% were Hindus, 19.69% Muslims while 3.78% were Christians. In urban school, 63.39% of the respondents were Hindus, 28.57% Muslims while 8.03% were Christians. Majority of the respondents (68.93%) from rural school lived in joint families while 31.06% lived in nuclear families. However in urban school, 80.03% girls belonged to nuclear families while only 19.97% were from joint families. The percentage of respondents from BPL (below poverty line) families was much higher among

rural adolescent girls i.e. 64.39% while it was 25.90% among urban respondents. Only 1.51% of the mothers and 4.54% of fathers of the participants from rural school

were graduates, while in urban school 8.03% mothers and 15.17% fathers of respondents were graduates.

**Table 1: Demographic characteristics of study population (n=244).**

Variables	Rural (n=132)		Urban (n=112)	
	Frequency	%	Frequency	%
<b>Religion</b>				
Hindu	101	76.51	71	63.39
Muslim	26	19.69	32	28.57
Christian	05	03.78	09	08.03
<b>Class distribution</b>				
9 <sup>th</sup> standard	69	52.27	59	52.67
10 <sup>th</sup> standard	63	47.72	53	47.33
<b>Father's education</b>				
Illiterate	04	03.03	-	-
Primary school	53	40.15	31	27.67
High school	58	43.93	52	46.42
P.U.C/Diploma	11	08.33	12	10.71
Graduate	06	04.54	17	15.17
<b>Mother's education</b>				
Illiterate	03	02.27	03	02.67
Primary school	52	39.39	64	59.82
High school	60	45.45	21	18.75
P.U.C/Diploma	15	11.36	15	13.39
Graduate	02	01.51	09	08.03
<b>Economic status</b>				
APL	47	35.60	83	74.10
BPL	85	64.39	29	25.90
<b>Type of family</b>				
Nuclear	41	31.06	93	80.03
Joint	91	68.93	19	19.97

**Table 2. Distribution of rural and urban adolescent girls based on the information about menarche and menstruation (n=244).**

Variables	Rural (n=132)		Urban (n=112)	
	Frequency	%	Frequency	%
<b>Age at menarche ( in years )</b>				
12 years and below	21	15.90	13	11.60
13	64	40.90	61	40.17
14	23	25.00	23	38.39
15	17	12.87	11	09.82
16 years and above	07	05.30	04	03.57
Mean age of menarche	12.71 ± 0.67 Years		12.57 ± 0.73 Years	
<b>Regularity of periods</b>				
Yes	92	69.69	77	68.75
No	40	30.31	35	31.25
<b>Source of information about menarche and menstruation</b>				
Mother	89	67.42	66	58.92
Sister	27	20.45	31	27.67
Friends	08	06.06	15	13.39
Teacher	05	03.78	-	-
Media	02	01.50	-	-
Others	01	0.75	-	-

**Table 3: Distribution of rural and urban adolescent girls based on the knowledge of menstrual hygiene (n=244).**

Variables	Rural (n=132)		Urban (n=112)	
	Frequency	%	Frequency	%
<b>Awareness of menstrual process</b>				
Normal Physiological process	89	67.42	81	72.32
Disease process	24	18.18	16	14.28
Curse of God	03	02.27	-	-
Don't know	16	12.12	15	13.39
<b>Experience of menarche</b>				
Normal	62	46.96	79	70.53
Depressive/shocking	31	23.48	21	18.75
Others	39	29.54	12	10.71

**Table 4: Distribution of adolescents based on their hygiene practices during menstruation (n=244).**

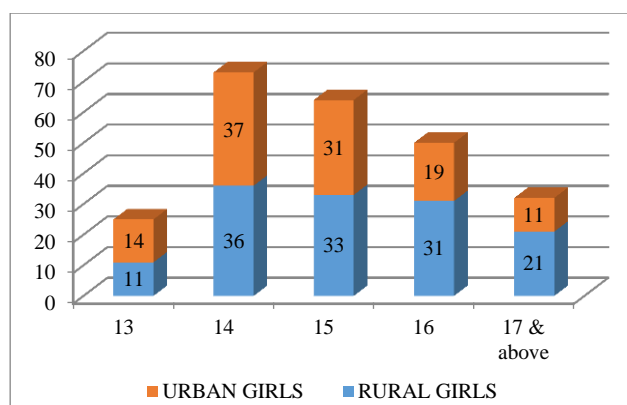
Practices during menstruation	Rural (n=132)		Urban (n=112)	
	Frequency	%	Frequency	%
<b>Type of absorbent used</b>				
Sanitary pad	65	49.24	73	65.17
New cloth	13	09.84	22	19.64
Old cloth	54	40.90	17	15.17
<b>Frequency of change of absorbent</b>				
Every 4-6 hrs	25	18.93	51	45.53
6-8 hrs	21	15.90	39	34.82
8-10 hrs	74	56.06	09	08.03
>10 hrs	12	09.09	13	11.60
<b>Cleansing of external genitalia</b>				
Twice daily	89	67.42	55	49.10
Once a day	35	26.05	51	45.53
Irregular	08	06.06	06	05.35
<b>Method of disposal of sanitary pad/cloth</b>				
Dustbin	72	54.54	79	70.53
Flush in toilet	07	05.30	11	09.82
Hide/others	53	40.14	22	19.64
<b>Toilet facility at Home</b>				
Yes	53	40.15	98	87.50
No	79	59.85	14	12.50

**Table 5: Distribution of rural and urban adolescent girls based on the restrictions on their routine activities during menstruation (n=244).**

Restrictions	Rural (n=132)		Urban (n=112)	
	Frequency	%	Frequency	%
Attend religious function	127	96.21	94	83.92
House hold chores	65	49.24	67	59.82
Outdoor games	113	85.60	47	41.96
Mingling with friends	67	50.75	09	08.03
Not allowed to sleep on routine bed	17	12.87	-	-
Helping mother in kitchen	86	65.15	26	23.21
Sleeping in separate room	79	59.84	17	15.17
Attending school	20	15.15	6	05.35
Touching family members	11	08.33	8	07.14

Figure 1, presents the age profile of study population. It is evident from the figure that the age of study population

ranged from 13 to 18 years, with mean age 15.11 (±1.71) years in rural and 14.78 (±1.94) years in the urban area.

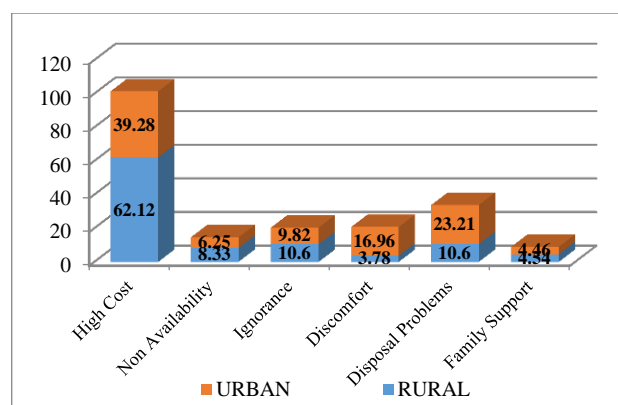


**Figure 1: Age profile of rural and urban adolescent girls (n=244).**

Table 2 brings out that in rural area the mean age of menarche was 12.57 ( $\pm 0.67$ ) years, while in urban area it was 12.71 ( $\pm 0.73$ ) years. The overall mean age of menarche of all the respondents was 12.61 ( $\pm 0.81$ ) years. Further, the main source of information about menarche and menstruation to the respondents in present study, were their mothers (63.17%) followed by sisters (24.08%) while friends, teachers and media accounted for remaining cases.

Table 3 depicts that 170 (69.67%) respondents were aware about menstruation before attaining their menarche and considered it as normal physiological process. The awareness was also found to be more among urban school girls (72.32%) as compared to rural girls (67.42%). However, there were differences in the reactions to first menses among these girls i.e. in rural area 46.96% of the respondents felt it to be normal, while in urban schools 70.53% felt it as normal. Further, this difference in reaction to first menstruation between urban and rural girls was found to be statistically highly significant ( $p < 0.01$ ).

Table 4 brings out that 49.24% of the girls in the rural area and 65.17% of the girls in urban area were using sanitary pads and this difference was also found to be statistically significant ( $p = 0.022$ ). Thirty three (25.00%) girls in rural and 90 (80.35%) girls in urban school changed their pads every 8 hrs and this difference in frequency of change of pads, was also found to be statistically highly significant ( $p < 0.01$ ). It was also observed that 67.42% of the girls in rural area cleaned their external genitalia twice a day while in urban area only 49.10% of the girls did it. This difference in frequency of cleaning their external genitalia by urban and rural girls was also found to be statistically significant ( $p = 0.009$ ). Majority of urban school girls (87.50%) had toilet facility in their homes whereas only 40.15% of rural school girls had this facility in their homes. This difference of availability of toilets in the houses of urban and rural girls was also found to be statistically significant ( $p < 0.01$ ).



**Figure 2: Reasons for not using sanitary pads among rural and urban adolescent girls (n=106).**

Figure 2 brings out that, 'high cost' of sanitary pads was the main reason for not using sanitary pads by 28.68% of the respondents; followed by disposal problems (19.67%), ignorance, discomfort (16.39%) and lack of family support (13.52%).

Table 5 brings out that 96.21% of rural and 83.92% of urban school girls were not allowed to attend any religious function or even touch an idol of god/goddess. Other significant restrictions among urban school girls included playing outdoors, attending school and helping mothers in kitchen i.e. 41.96%, 5.35% and 23.21% respectively; while these restrictions were higher among rural school girls i.e. 85.60%, 15.15% and 65.15% respectively. The differences on restrictions between rural and urban school girls on attending schools (15.15% and 5.35%), playing outdoors (85.60% and 41.96%) and helping mothers in kitchen (65.15% and 23.21%) were also found to be statistically highly significant ( $p < 0.01$ ,  $p < 0.01$  and  $p < 0.01$  respectively).

## DISCUSSION

Good menstrual hygiene is crucial for health, education and dignity of women. The United Nations Children's Fund (UNICEF) and the World Health Organisation (WHO) define Menstrual Hygiene Management (MHM) as the "Articulation, awareness, information and confidence to manage menstruation with safety and dignity using safe hygienic materials together with adequate water and agents and spaces for washing and bathing with soap and disposal of used menstrual absorbents with privacy and dignity".<sup>7</sup> Poor menstrual hygiene not only affects the physical health, but also the social and mental well-being of the girls and women, thus is a violation of the human right to health.

### Demographic characters

In present study mean age of respondents was found to be 15.11 ( $\pm 1.71$ ) years among rural and 14.78 ( $\pm 1.94$ ) years among urban girls and majority of respondents belonged to Hindu religion in both, rural as well as urban areas.

Similar results were reported by Paria et al, in their study in West Bengal where the mean age of adolescent girls was found to be 15.38 ( $\pm 1.732$ ) years in urban and 15.49 ( $\pm 1.638$ ) years in the rural area while majority of the study subjects were found to be belonging to Hindu religion i.e. 77.4% and 74.0% in urban and rural areas respectively.<sup>12</sup> In our study, educational status of majority of the parents of rural as well as urban subjects was found to be high school. Mokhasi et al, in their study in Karnataka among adolescent girls reported a literacy rate of 47.3% and 83.6% among mothers in rural and urban areas respectively, while Paria et al, in their study found 31.63% and 5.26% mothers with secondary school qualification in urban and rural areas respectively.<sup>12,13</sup>

Our study also revealed that majority of the rural subjects belonged to families which were below poverty line (BPL), while majority of the urban subjects belonged to families which were above poverty line (APL). Thakre et al, in a similar study in Nagpur (Maharashtra) also found 40.3% of the girls belonging to families which were below poverty line.<sup>14</sup>

In our study the mean age of their menarche was found to be 12.71 ( $\pm 0.67$ ) years and 12.57 ( $\pm 0.73$ ) years in rural and urban areas respectively. However, the difference in age of menarche between rural and urban area was insignificant ( $p > 0.83$ ). In a study conducted by Kajal et al, among adolescent girls in rural parts of Varanasi and in another study by Mohit et al, among slum adolescent girls in western Maharashtra, mean age of menarche was found to be 13.16 years and 12.8 years respectively, which was similar to our study.<sup>15,16</sup> In similar studies conducted by Kamath et al, in Manipal, Bachloo et al, in Haryana and Gupta et al, in Rajasthan, mean age of menarche was found to be 13.98 years, 12.21 ( $\pm 1.70$ ) years and 12.99 years respectively.<sup>17-19</sup> Further, Ghattargi et al, in their study at Ambajogi reported the age of the menstruating girls between 12-17 years, with the maximum number of girls being between 13-15 years of age, whereas Dasgupta et al, found the mean age for menarche to be 12.8 years in their study in West Bengal.<sup>20,21</sup>

#### **Awareness regarding menarche and menstruation**

In present study 170 (69.67%) respondents were aware that menstruation is a normal physiological process before attaining menarche. Awareness regarding menstruation was found to be higher (72.32%) among urban girls as compared to rural girls (67.42%). However, this difference in awareness between urban and rural girls was not found to be statistically significant ( $p < 0.442$ ). Similar results were also reported by Dasgupta et al, who in their study reported that 67.5% of the girls were aware about menstruation prior to attainment of menarche and 86.25% of the girls believed it be a normal physiological process.<sup>21</sup> In a similar study conducted by Paria et al, it was reported that only 37.52% girls were aware of menstruation prior to attainment of menarche, of which

44.72% were urban and 30.07% were rural.<sup>12</sup> Deo et al in their study at Ambajogi also found that 42.5% rural and 55.4% urban girls were aware about menstruation prior to attainment of menarche.<sup>22</sup> Similar observations were also made by Patle et al, in their study in Maharashtra who found that only 21.3% girls in urban and 16.3% in rural area were aware of menstruation before menarche.<sup>23</sup> However, Gupta, et al, in their study in Maharashtra, observed that 68% of adolescent girls were not aware about menses before menarche while Gupta et al, in their hospital based study at Indore also observed that only 36.9% of the study participants were aware about menstruation before the attainment of menarche.<sup>24,25</sup>

#### **Source of information about menarche and menstruation**

Expectedly, the study brought out, that majority of the girls (58.92%) in urban area as well as in rural area (67.42%), received the information about menarche and menstruation from their mothers. Paria et al, in a similar study in West Bengal also reported that before menarche mother was the first informant in 76.84% of the cases.<sup>12</sup> Similar findings were also observed by Gupta et al, that majority (71.3%) of the study participants in urban as well as in rural area (57.7%), received first information about menarche from their mothers only.<sup>25</sup> Studies done by Patle et al, in Nagpur also supported the present study's findings where mothers were the first informants for 71.33% of the girls.<sup>23</sup> However, in a foreign study in Egypt by El-Gilany et al, mass media was brought out as the main source of information about menstrual hygiene, followed by mothers.<sup>26</sup>

#### **Knowledge of cause of menstruation**

In present study 67.42% of the study participants from rural and 72.32% from urban areas felt that cause of menstruation was physiological. However, 2.27% of the rural school girls also believed that menstruation was due to curse of god. Similar findings were observed by Gupta et al, in his study, who observed that majority of the girls from urban (78.1%) as well as from rural (61.9%) area also felt that cause of menstruation was physiological.<sup>25</sup> Khanna et al, in their study from Rajasthan and Dasgupta et al, from Singur, West Bengal, also observed similar findings where 86.25% and 86.25% girls respectively believed menstruation to be a physiological process.<sup>21,27</sup>

#### **Menstrual absorbent material used during menstruation**

In present study majority of the participants believed that sanitary pad was the ideal absorbent material to be used during menstruation, but only 56.55% of them i.e. 49.24% in rural and 65.17% in urban area actually used them and this difference was also found to be statistically significant ( $p < 0.022$ ). Similar findings were also reported by Thakre et al in their study at Nagpur, where they found that 60.5% adolescent girls from urban area and



30.8% from rural area used sanitary napkin during menstruation and this difference was also found to be statistically significant ( $p < 0.01$ ).<sup>14</sup> In a study carried out by Paria et al, in West Bengal, 64% girls in urban area and 45.11% girls in rural area used sanitary pads while 36% girls in the urban and 54.89% girls in the rural area used homemade sanitary pads and this difference was also found to be highly statistically significant ( $p = 0.0000$ ).<sup>12</sup> Gupta et al, in their study at Indore, also revealed that 65.5% participants from urban area and 54.9% from rural area used sanitary pads during menstruation and this difference too was found to be statistically significant ( $p < 0.01$ ).<sup>25</sup> However, a study by Dasgupta et al, in a rural community in West Bengal brought out that majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent and only 11.25% girls used sanitary pads during menstruation.<sup>21</sup> Further, in a study conducted in Rajasthan by Khanna et al, three-fourths of the girls used old clothes during their menstrual periods and only one-fifth reported using readymade sanitary pads.<sup>27</sup>

The place of storage of menstrual absorbent material is equally important. Studies indicate that girls usually keep their menstrual absorbents in secret places which are generally unhygienic. In this study, most of the respondents stored their pads/clothes with routine clothes while 19.6% of them stored in bathroom. Javalkar et al, in their study at Mangalore also reported that most of their respondents stored their pads/clothes with routine clothes while only 27.6% of them stored in bathroom.<sup>28</sup>

### ***Cleaning of external genitalia***

In present study 89 (67.42%) girls from rural school and 55 (49.10%) girls from urban school cleaned their external genitalia twice a day. This difference was also found to be statistically significant ( $p = 0.0099$ ). Similar findings were observed in study by Gupta et al, where majority of the girls from urban (90.3%) as well as from rural (83.1%) areas cleaned their external genitalia daily.<sup>25</sup> Paria et al, in their study reported that 52.36% of the urban and 62.03% of the rural girls cleaned their genitalia only once, during bathing, which was considered to be satisfactory according to the criteria set in their study.<sup>12</sup>

### ***Toilet facilities***

In present study majority of urban girls (87.50%) had toilet facility at their homes whereas only 40.15% of rural school girls had this facility. This difference was also found to be statistically significant ( $p = 0.00$ ). Paria et al, in their study in West Bengal also reported that 83.63% of urban and 56.39% of rural adolescent girls had separate toilet facilities and this difference was also found to be statistically significant ( $p = 0.000$ ).<sup>12</sup> Needless to say that lack of toilet facilities at home or school, have direct

impact on personal hygiene, washing of external genitalia and changing of pads safely and regularly.

### ***Restriction practices during menstrual periods***

Present study brought out different types of restrictions imposed on school girls during menstruation. Not surprisingly, 96.21% rural and 83.92% of urban school girls were prohibited from attending any religious functions. Urban girls also revealed that they were not allowed to play outdoors, attend school or help their mothers in kitchen (41.96%, 5.35% and 23.21% respectively) while these restrictions were higher over the rural girls i.e. 85.60% and 15.15% and 65.15% respectively. The differences on restrictions between rural and urban school girls were also found to be statistically highly significant ( $p < 0.01$ ,  $p < 0.01$  and  $p < 0.01$  respectively).

Paria et al, in their study also reported different types of restrictions practiced during menstruation. Among them 76.96%, 33.14%, 10.67% of urban girls did not attend any religious function, played outside and did not attend school respectively, whereas among rural girls the restrictions were little higher as 78.57%, 28.22%, and 17.70%, respectively.<sup>12</sup> Thakre et al, in their study at Saoner, Nagpur also reported that 73.64% of the participants faced restrictions while Dasgupta et al, in their study in West Bengal found 85% of the respondents had different types of restrictions during menstruation.<sup>14,21</sup>

## **CONCLUSION**

Present study brings out that overall menstrual hygiene management (MHM) among the respondents school girls was sub optimal in rural as well as urban areas. However, awareness regarding menarche and menstruation was more among urban girls as compared to rural girls. Needless to say that, there is an urgent need for a complete paradigm shift towards a systematic and focussed intervention involving various service providers (public as well as private) to consider a convergent and coherent plan to deal with this much evaded issue.

### ***Limitations***

Present study has been conducted in South India, hence likely hood of some locally prevalent socio-cultural restrictions being traditionally followed since generations on menstruating girls may not be ruled out. Hence the findings of this study cannot be generalized. Further, the sample size in this study was also small; hence more research is needed with larger sample sizes. There would probably be some information bias, as this study was also conducted in a rural school among adolescent girls, where some of them due to shyness may not have answered some of the questions on MHM practices in its complete form.

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