

Awareness and Practices on Menstrual Hygiene among Adolescent Girls in Rural School of Dakshin Kannada, Karnataka

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Abstract

Introduction: Menstruation is the physiological process. However, its physiology and nature have been poorly understood by adolescent girls and women especially in rural areas due to lack of education and multiple socio-cultural factors, leading to poor menstrual Hygiene practices. This study was undertaken with the objectives of exploring the menstrual practices being followed among rural female adolescent girls. *Methodology:* This study was a cross sectional study and carried out in a rural private school among 8th, 9th and 10th standard students in rural field practice area of AJIMS & RC Mangalore, (Dakshin Kannada) Karnataka. *Results:* The study comprised of 186 adolescent girls from a rural school in Dakshin Kannada district (Karnataka), studying in 8th, 9th and 10th standards belonging to the age group of 11-19 years, with mean age of 15.4 years. The girls primarily belonged to poor families (69.4% BPL). Although, 44.1% of the mothers and 44.8% of fathers of the respondents were educated up to high school, but only 2.1% mothers and 4.8% of the father were graduate. Mother was the prime source of information for 71% of the respondents. Majority of the respondents were aware that a sanitary pad is the ideal menstrual absorbent, but only 57.2% of them practiced it. The main reasons for not using sanitary pads were its high cost (19%) and lack of family support (20%). Figure 2. Out of remaining girls 30.1% used old clothes while 12.3% used new clothes. The sanitary pads were mostly disposed with routine waste in dust bins, flushed or burnt. Majority (55.4%) of the girls changed their absorbents within 8 hours while a small percentage (14.5%) changed their absorbents after more than 10 Hours. *Conclusion:* Present study reveals that menstrual hygiene Management (MHM) is often sub optimal among adolescent girls in rural areas. Ignorance, various myths and taboos, lack of affordability of good quality menstrual absorbent material i.e. sanitary pads, unsafe menstrual practices and reluctance on part of the mothers to educate their children about menarche and menstruation, are some of the grey areas which require to be addressed.

Keywords: Menstruation; Sanitary Pads; Taboos; MHM.

Introduction

Almost every woman and girl (from menarche to menopause) will menstruate on average every 28 days for about 5 days—a completely normal biological process. Just as normal as the fact that many men will grow a beard. Yet menstruation is steeped in silence,

myths, taboos and even stigma. Women and girls, the world over face numerous challenges in managing their menstruation. They may not have the means to do so, or face discriminatory cultural norms or practices that make it difficult to maintain good hygiene [1]. Taboos and myths related to menstruation often portray women and girls as inferior to men and boys. Women is considered to be impure during this phase. They are not allowed to enter temple or to touch any sort of religious things [2].

Globally there are 2.3 billion people, who have no access to improved sanitation facilities. Lack of access to facilities, or inadequate facilities that do not ensure privacy and hygiene, particularly affect women and

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girls [3]. If women and girls lack access to affordable, hygienic menstrual products, they often use old rags, cloths or other unhygienic materials. This can lead to reproductive tract infections (RTIs) and many other health problems [4].

Adolescent girls in developing countries miss up to 5 days of school per month when they menstruate. In a study from Nepal, 41% of girls reported missing school during their menstruation. Workers in Bangladesh use birth control pills to stop their menstruation, so that they can avoid having to stop work or having to manage their menstruation in inadequate facilities [5].

In India, there are 113 million adolescent girls who are particularly vulnerable at the onset of menarche. At this time they need a safe environment that offers protection and guidance to ensure their basic health and well-being. However, a recent survey revealed that in 14,724 government schools only 53% had a separate and usable girl's toilet [6]. At home also the situation needs to improve as 132 million households do not have a toilet (2015), leaving adolescent girls and women to face the indignity of open defecation. Further, a survey in Uttar Pradesh found that 90% of the adolescent girls knew too little about menstruation and menstrual hygiene management (MHM) while 86% were completely unprepared for it [7].

The latest National Family Health Survey (NFHS-4) 2015-16 report shows that the use of Sanitary Napkins among Indian women is 48.5% in rural, 77.5% in urban and 57.6% in total. As per existing published research across India, the usage of Sanitary Napkins among rural Indian women ranges from 35% to 57%. Regarding school absenteeism owing to menstruation - 17% teenagers in Canada, 21% in Washington D.C, 24% in Singapore, 26% in Australia and 38% in Texas miss school owing to menstruation. In India, this number is around 24% [8].

A safe and effective menstrual hygiene management, or 'MHM' is a trigger for better and stronger development for adolescent girls and women. Equipping adolescent girls with adequate information and skills on menstrual hygiene and its management helps in empowering them with knowledge which enhances their self-esteem and positively impacts academic performance [9]. In the backdrop of above, present study was undertaken with the objectives to assess knowledge regarding menstruation and menstrual hygiene practices prevalent among these adolescent rural school girls.

Methods and Material

A cross-sectional study was conducted among adolescent schoolgirls studying in a private rural school at Panemangalore, Dakshin Kannada, which is also the rural field practice area of AJ Institute of Medical Sciences & Research Centre, Mangalore. The duration of study was three months i.e. from 01 October 2016 to 31 Dec 2016. Purposive method of sampling was used where all the girls aged between 11 and 19 years and studying in 8th, 9th and 10th standard (and had attained menarche and willing to participate in the study) were included in the study leading to a sample size of 186.

Data were collected by interview method using a pre-designed, semi-structured and validated questionnaire. The purpose of study was explained to the participants before collecting the information. The questionnaire included questions related to the awareness about menstruation, source of information, age at menarche, practices related to Menstrual Hygiene Management (MHM) including method of disposal of sanitary pads, social and religious restrictions including restrictions at home or society, restrictions to attend school, and the common complaints during menstruation. Modified B.G Prasad Socio-Economic Classification (SES) was used to classify Socio-Economic status of parents / students in our study.

The study was conducted after obtaining required permission from the institution as well as school authorities. Written informed consent was obtained from the parents of the students participating in the study after informing the nature and the objective of the study. At the end of the study, a health education program was organised for the students to dispel the myths and empower them with correct menstrual hygiene management practices.

Statistical analysis Data were cleaned and entered in Microsoft Excel 2007 spreadsheet, and frequencies are presented in along with the percentages wherever appropriate. Data obtained was analysed using SPSS statistical software package, version 16, and findings were reported in the form of descriptive statistics, quantitative variables.

Results

A total of 186 adolescent girls participated in this study. The age of the participants ranged from 11 to 19 years, with a mean age of 15.4 years. (Figure 1). Out of these, 36.6% of the students belonged to 8th standard, 39.2% to 9th standard while 24.2%

belonged to 10th standard. Majority of them (74.8%) belonged to early adolescent age group (14-16 years), while 19.8 % belonged to late adolescent group. Among the respondents, 72% were Hindus, 21% Muslims while 7% of them were Christians. Majority of students (66.7%) lived in a joint families and 69.4% of them belonged to below poverty line (BPL) families. Nearly 44.1% of the mothers and 44.8% of fathers of the participants were educated up to high school, while only 2.1 % mothers and 4.8% of the father were graduate (Table 1).

Table 2 depicts that majority (31.7%) of the participants had attained menarche at the age of 13 years while the mean age of menarche was 13.7(±1.6) years. The study revealed that 73.7% of the girls had regular menstrual cycles. The main source of information about menstruation to these adolescent were the mothers (71%), followed by sisters (14.5%), friends (7%), teachers (4.3%), while only a small fraction (2.7%) learnt from the media.

Table 1: Distribution of adolescent girls based on their demographic profile (n=186)

Variables	Frequency	Percentage
Religion		
Hindu	134	72.0
Muslim	39	21.0
Christian	13	7.0
Class distribution		
8 th standard	68	36.6
9 th standard	73	39.2
10 th standard	45	24.2
Father's education		
Illiterate	5	2.7
Primary	74	39.7
High school	83	44.8
P.U.C/Diploma	15	8.0
Graduate	9	4.8
Mother's education		
Illiterate	4	2.1
Primary	74	39.8
High school	82	44.1
P.U.C/Diploma	22	11.9
Graduate	4	2.1
Economic status (in rupees)		
APL	57	30.6
BPL	129	69.4
Type of family		
Nuclear	62	33.3
Joint	124	66.7

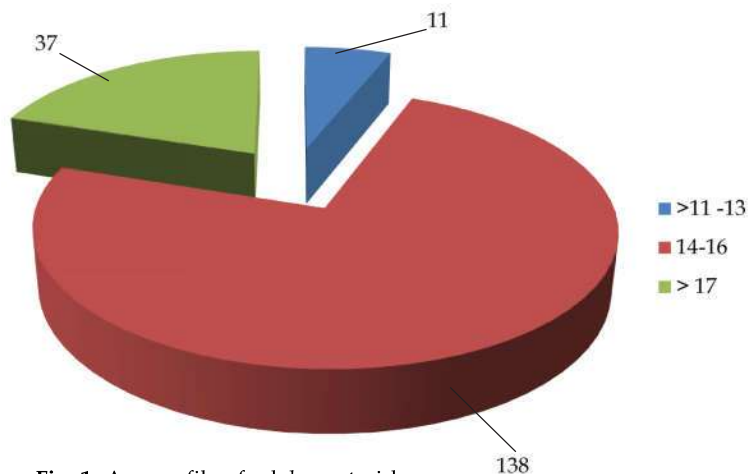


Fig. 1: Age profile of adolescent girls.

Table 3 brings out that majority (73.1%) of the girl participants perceived menstruation as a normal body process, 17.2% felt it a disease while 4.3% said it was curse of God. Further, 69.3% of the girls felt that the cause of menstruation was a hormones, 4.3% said it was due to curse of god while 20.4% were not aware of any cause.

Table 4 shows that majority of the girls i.e. 57.6% used sanitary pads, 12.3% used new clothes while remaining 30.1% used some old clothes. Further, 24.2% of the girls changed their absorbent every 3-5

hours, 31.2% changed every 6-8 Hours, while remaining 44.6% of them changed after more than 9 hours. Most of the participants (71%) cleaned their genitalia with water, 18.8% used soap while 10.2% of them even used some antiseptic lotion. Majority of the girls (48%) disposed off their absorbents in dust bin, 14.5% flushed in toilet while 9.1% preferred to burn.

Table 5 reveals that, almost all the participants (90.3%) were restricted from attending religious functions during their menstrual periods. Further,

Table 2: Distribution of adolescent girls based on the information about menarche (n=186)

Variables	Frequency	Percentage (%)
Age at menarche (in years)		
<11	25	13.4
12	47	25.3
13	59	31.7
14	29	15.6
15	18	9.7
>15	8	4.3
Regular periods		
Yes	137	73.7
No	49	26.3
Source of information about menstruation		
Mother	132	71
Sister	27	14.5
Friends	13	7
Teacher	8	4.3
Media	5	2.7
Others	1	0.5

Table 3: Distribution of adolescent girls based on their knowledge on menstrual hygiene.

Variables	Frequency(n=186)	Percentage (%)
Menstruation		
Physiological process	136	73.1
Pathological /Disease process	32	17.2
Curse from god	8	4.3
Don't know	10	5.4
Cause of menstruation		
Hormones	129	69.3
Curse of god	8	4.3
Caused by disease	11	6
Don't know	38	20.4
Source of menstrual blood		
Uterus	38	20.5
Vagina	35	18.9
Bladder	15	8
Abdomen	14	7.5
Don't know	84	45.1
Age at menarche		
Yes	134	72
No	52	28
Heard about menstruation before attaining menarche		
Yes	146	78.5
No	40	21.5

40.3% of them admitted of restrictions from routine house hold works, 31.1% from playing outdoors, 21% from mingling with friends, 19.8% from sleeping over routine bed, 12.3% from having routine food, 10.7% from sleeping in common room, 8% from attending schools while 6% of them were restricted from even touching their own family members during menstruation.

Though, most of the participant girls believed that sanitary pad is an ideal absorbent material to be used during menstruation, but only 107 (57.6%) of them actually used them .The reasons given for not using sanitary pads were, high cost (19%), disposal problems (18%) non-availability (17%), discomfort (15%), lack of knowledge (11%) and lack of family support (20%). Figure 2.

Table 4: Distribution of adolescent girls based on their management of menstrual hygiene

Practices	Frequency(n=186)	Percentage (%)
Type of absorbent used		
Sanitary pad	107	57.6
New cloth	23	12.3
Old cloth	56	30.1
Frequency of change of absorbent		
3 -5 hrs	45	24.2
6-8 hrs	58	31.2
9-10 hrs	56	30.1
>10 hrs	27	14.5
Cleansing of external genitalia		
Only water	132	71
Soap and water	35	18.8
Water and antiseptic	19	10.2
Method of disposal of sanitary pad/cloth		
Dustbin	89	48
Flush in toilet	27	14.5
Burned	17	9.1
Others	53	28.4

Table 5: Distribution of adolescent girls based on the restrictions from routine during menstruation

Restrictions	Frequency (n=186)	Percentage (%)
Attend religious function	168	90.3
House hold chores	75	40.3
Outdoor play	58	31.1
Mingling with friends	39	20.9
Not allowed to sleep in routine bed	37	19.8
Food	23	12.3
Separate room	20	10.7
Attending school	15	8
Touching family members	11	5.9

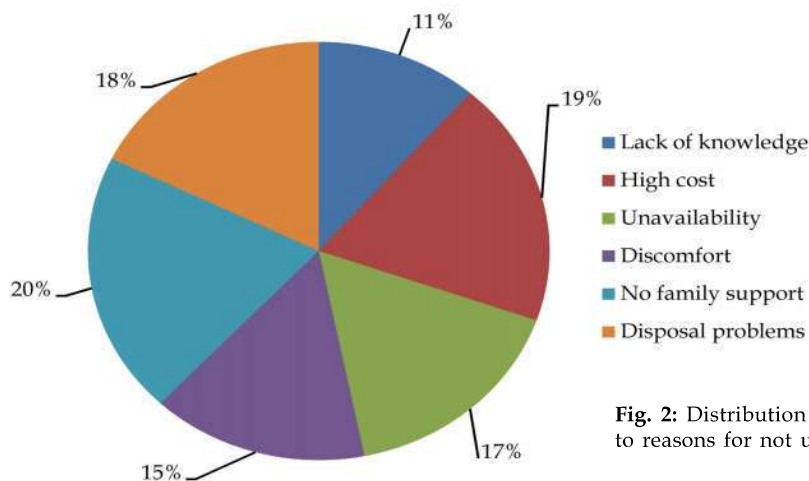


Fig. 2: Distribution of adolescent girls according to reasons for not using sanitary pads

Discussion

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 [7]. Poor menstrual hygiene not only affects physical health, but also social mental wellbeing, thus is a violation of the human right to health [10].

Present study comprised of 186 adolescent girls from a rural school in Dakshin Kannada district (Karnataka), studying in 8th, 9th and 10th standards belonging to the age group of 11-19 years, with mean age of 15.4 years (Figure 1). The mean age of menarche among the study participants was 13.54 (± 1.7). Majority of girls (72%) were Hindu, and (66.7%) of them lived in joint families. The girls primarily belonged to poor families (69.4% BPL) which had poor literacy status i.e. only 2.1% mothers and 4.8% of the father of these respondents were graduate (Table 1). These findings are similar to studies carried out by Javalkar SR and Akshaya KM (2017) [11] in rural areas of Mangalore (Karnataka) and Vidya V. Patil and Rekha Ud giri (2016) [12] in North Karnataka.

In our study, mother was the prime source of information for 71% of the respondents. (Table 2). In a study at Bangalore, Navya Sri Sreenivasa et al (2017) [13] reported mother and sister as the main sources of information on menarche and menstruation i.e. 46.25% and 9% respectively. Similar findings were also reported by Pandit D et al. (2011) [14] Dasgupta A, Sarkar M. (2011) [15] and Bodat S, Ghate MM, Majundhar JR (2013) [16] in their studies. Needless to say that educational status of mother plays a very significant role in training and teaching of girls about menstrual hygiene management.

Our study revealed that 73.7% of the girls had regular menstrual cycles, their main source of information about menstruation were their mothers (71%), and most of them (73.1%) perceived menstruation as a normal body process. However, 17.2% felt it to be a disease while, 4.3% said it was curse of God. (Table 3). Similar observations were also made by Dasgupta and Sarkar M (2008) [15] in their study in rural schools in West Bengal entitled "Menstrual Hygiene: How Hygienic is the Adolescent Girl?" who reported that 86.25% of the girls believed menstruation to be a normal physiological process

while Balaji Arumugam et al (2014) [17] in their study in Chennai found that 93.2% girls in urban slums and 90.6% girls in rural areas also felt it to be a normal process.

Majority of the respondents were aware that a sanitary pad is the ideal menstrual absorbent, but only 57.2% of them practiced it. The main reasons for not using sanitary pads were its high cost (19%) and lack of family support (20%) (Figure 2). Out of remaining girls 30.1% used old clothes while 12.3% used new clothes. The sanitary pads were mostly disposed with routine waste in dust bins, flushed or burnt. Majority (55.4%) of the girls changed their absorbents within 8 hours while a small percentage (14.5%) changed their absorbents after more than 10 Hours. Further, a large percentage of the girls i.e. 71% cleaned their external genitalia using only water, while 18.8% used soap and 10.2% of them even used some anti-septic. (Table 4).

The place of storage of pads/clothes is equally important. In this study, most of the respondents stored their pads/clothes with routine clothes and only 19.6% of them stored in bathroom. It was observed in a study that girls usually keep their menstrual absorbents in secret places which are generally unhygienic. Dasgupta A, Sarkar M (2011) [15] in their study found only 11.25% of the girls used sanitary pads while 42.5% girls used old cloth pieces and 6.25% girls used new cloth pieces. Cleanliness of external genitalia was unsatisfactory (frequency of cleaning of external genitalia is 0-1/day) in case of 15% girls. However for cleaning purpose, 97.5% girls used both soap and water. Similar results were also reported by Khanna A et al (2005) [18] and Quazi S Z et al (2006) [19] in their studies in Rajasthan and Maharashtra respectively.

In our study, it was observed that majority (90.3%) of the girls had religious restrictions during menstruation while 8% of them were restricted from attending the schools. Besides, the respondents also reported of restrictions on playing outside, sharing food sleeping in the same room etc. (Table 5).

These restrictions are practiced mainly due to ignorance and myths regarding menstruation in the communities. Javalkar SR, Akshaya KM (2017) [11] in their study also brought out that 55.2% of girls faced restrictions during menstruation including restrictions to attend school, enter religious place, playing outside, and dietary restrictions due to the different rituals in their communities. Similar observations were also made by Jogdand K, Yerpude P. (2011) [20], Dasgupta A, Sarkar M. (2013) [15] and Thakare SB (2011) [21] in their studies.

Conclusion

Present study reveals that menstrual hygiene Management (MHM) is often sub optimal among adolescent girls in rural areas. Ignorance, various myths and taboos, lack of affordability of good quality menstrual absorbent material i.e. sanitary pads, unsafe menstrual practices and reluctance on part of the mothers to educate their children about menarche and menstruation, are some of the grey areas which require to be addressed. The need of the hour is that our adolescent girls especially in rural areas have adequate information about menstruation before menarche.

Recommendations

Good menstrual hygiene management (MHM) requires a holistic and integrated approach which require the following:-

- a. Availability of an acceptable, affordable and good quality menstrual absorbent material (i.e. sanitary pads), wherever and whenever needed including medicines for dysmenorrhoea).
- b. Education to equip the adolescent girls with skills on safe MHM so as to enable them to lead a healthy reproductive life.
- c. Availability of adequate soap, water, sanitary infrastructure and privacy so as to enable girls to use and change menstrual absorbent materials in privacy, with dignity and in safety, as often as necessary.
- d. Mothers, family members and teachers are required to be empowered with adequate information on MHM, so that they can function as primary source of information to these adolescent girls before the onset of menarche which will ensure that menarche and menstruation are no more nightmares to our daughters.

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Limitations

There is a probability of information bias, as this study was conducted in a rural school among adolescent girls, where some of them due to hesitation or shyness may not have answered some of the questions on MHM practices in its complete form. Since this study was conducted in a rural area in south India; there are some locally prevalent cultural and social restrictions on menstruating girls, which are being traditionally followed since generations, hence the findings of this study cannot be generalized.

Conflict of Interest

None

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