



# Is menstrual hygiene and management an issue for the rural adolescent school girls?

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## ABSTRACT

Menstrual Hygiene and Management is an issue that is insufficiently acknowledged and has not received adequate attention in Reproductive Health and water sanitation and Hygiene in most of the developing countries including India. Its relationship with and impact on achieving many Millennium Development Goals is rarely acknowledged. It is clear that measure to adequately address menstrual hygiene and management will directly contribute to MDG-7 on Environment Sustainability and indirectly to MDG-2 on universal education and MDG-3 on gender equality and women empowerment(Water Aid Publication,2009).However the attention on this issue is far from sufficient. Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. In Tamilnadu the adolescents constitute nearly 19.5 percent of the total population of the state. Among the female population the adolescent girls constitute more than 19.3 percent. The rural adolescent girls constitute nearly 56.8 percent to the total adolescent girls to Tamilnadu. With the above background this study was undertaken with the objectives of assessing the knowledge of girls about menstruation and menstrual hygiene practices and health issues and challenges faced by adolescent school girls during menstruation. The present study was undertaken among the adolescent school girls in the rural settings of Cuddalore district in Tamilnadu. Five Government Higher Secondary Schools situated in villages of C.Mutlur, Keerapalayam, Kodipallam, Kavarapattu, and Thandavarayan Cholagan Pettai situated at Chidambaram Taluk, were selected for this study. The findings obtained through different methods and tools used in the study have been organized and presented under the four themes of Knowledge and beliefs, Experience during Menstruation, Restrictions and Absenteeism and Hygienic Practices.

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## Introduction

Menstrual Hygiene and Management is an issue that is insufficiently acknowledged and has not received adequate attention in Reproductive Health and water sanitation and Hygiene in most of the developing countries including India. Its relationship with and impact on achieving many Millennium Development Goals is rarely acknowledged. It is clear that measure to adequately address menstrual hygiene and management will directly contribute to MDG-7 on Environment Sustainability. Additionally due to its indirect effects on school absenteeism and gender discrepancy, poor menstrual hygiene and management may serious hamper the realization of MDG-2 on universal education and MDG-3 on gender equality and women empowerment(Water Aid Publication,2009).However the attention on this issue is far from sufficient. The objective of many environmental health programmes in most developing countries is to reduce morbidity and mortality caused by exposure to agents of diseases and exacerbated by environmental hazards. Priority areas include water supply and sanitation, solid waste management and hygiene education. Better excreta disposal facilities benefit men women girls and boys. They offer privacy; convenience and safety. But most sanitation programmes necessarily do not mention the special needs of women and adolescent girls who use latrines to manage

menstruation. Even reproductive and preventive health programmes often do not address the issue and moreover they focus mainly on the reproductive functions of married women.

Menstruation though a natural process has often been dealt with secrecy in most part of India. The knowledge and information about reproductive functioning and reproductive health problems amongst the adolescent is poor. A study of Indian women shows that young girls are generally told nothing about menstruation until their first experience. A presentation from the 2010 World Water Week in Stockholm by Maria Fernandez, Water Aid India, shows that only 7.0 percent of the women in India uses sanitary napkins during their menstruation.50 percent of the Indian women are not aware about sanitary napkin. Very few schools of India have access of sanitary napkins and menstrual waste disposal facility. At times discussions on cultural and religious taboos related to menstrual hygiene is started at various platform. Government of India and other civil societies have started to take initiatives for addressing the issue of menstrual hygiene and management. UNICEF developed the guidance booklet on menstrual hygiene management which will serve as a self reference and support to girls and women in providing basic factual information about menstruation.

Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. The adolescents (i.e. 10-19 ages) constitutes nearly (22 percent) of the total population of India. The adolescent girls constitute more than (21 percent) of total female in India. Among the adolescent girls in India rural adolescent girls constitute (72.1 percent). In Tamilnadu the adolescents constitute nearly 19.5 percent of the total population of the state. Among the female population the adolescent girls constitute more than 19.3 percent. The rural adolescent girls constitute nearly 56.8 percent to the total adolescent girls to Tamilnadu. The health of adolescent girls is indirectly related to the socio-economic status of the households to which they belong and their age and kinship status with in the households. Given the predominantly patriarchal setup, girls get a lesser share in the household distribution of health goods and services compared to men and boys. Adolescents circumstances and needs vary tremendously depending on individual characteristics such as age, sexual activity, schooling and employment status, as well as their position within the range of the adolescent years. Addressing reproductive health needs of adolescent is one of the most important challenges faced by health care providers. The adolescents are healthier more urbanized and better educated than earlier generations, they experienced puberty at younger age and marry and have children latter than in the past. At the same time, they face significant risks related to sexual and reproductive health, and many lack the power to make informed sexual and reproductive choices. These vulnerable remain poorly understood.

Menstruation is a phenomenon unique to the female. The onset of menstruation is one of the most important changes occurring among the girls during adolescent years. The first menstruation (puberty) naturally occurs between 11 and 15 years with a mean of 13 years. Adolescent girls constitute a vulnerable group, particularly in India where female child is neglected one. Menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictors resulting in adolescent girls remaining ignorant of the scientific factors and hygienic health practices, which sometimes result in to adverse health outcomes. Hygienic-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTIs). The interplay of socio-economic status, menstrual hygiene practices and RTI are noticeable. Today millions of women are sufferers of RTI and its complication and often the infection is transmitted to the offspring of the pregnant mother women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences. Hence, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the sufferings of millions of women.

With the above background this study was undertaken with the following objectives.

#### **Objectives**

- To assess the prevailing knowledge of girls about menstruation and menstrual hygiene practices.
- To elaborate the factors determining prevailing practices of adolescent rural school girls.
- To identify the health issues and challenges faced by adolescent rural school girls during menstruation.

This study, exploratory in nature aims an elaborate analysis of data relevant to the objectives and findings may lead to some

policy suggestions relating to improving the health status of adolescents in rural areas in Tamilnadu.

#### **Place of study**

The present study was undertaken among the adolescent school girls in the rural settings of Cuddalore district in Tamilnadu. Five Government Hr.Sec Schools situated in villages of C.Mutlur, Keerapalayam, Kodipallam, Kavarapattu, and Thandavarayan Cholagan Pettai situated at Chidambaram Taluk were selected for this study.

#### **Study Population**

Three hundred and thirty (330) girls from the above mentioned schools (120-C.Mutlur, 64-Keerapalayam, 27-Kodipallam, 59-Kavarapattu, and 60-T.S.Pettai Thandavarayan Solagan Pettai) were selected using proportionate random sampling method.

#### **Study Tool**

A detailed schedule for adoption of interview method to elicit information on socio-economic characteristics of the girl students and menstruation related information was prepared, pre-tested and finalized with appropriate modifications.

#### **Methodology**

After getting permission from the school authorities, the class teachers were explained the purpose of the study and rapport was built-up with girl students and verbal consent was obtained from them. The interviews were taken at the schools during lunch time and free hours. Each interview took 15 to 20 minutes.

#### **Socio Demographic Characteristics of the girls**

This study was carried out with adolescent girls studying in Government Higher Secondary Schools in the rural settings of Chidambaram. A total of 330 girls were selected and contacted for this survey, and out of them, 36.4 percent are from C.Mutlur, 19.4 percent are from Keerapalayam, 18.2 percent from T.S.Pettai, 17.9 percent from Kavarapattu, and 8.2 percent of the respondents from Kodipallam Villages.

This study shows that the age of menstruating girls ranged from 11-19 years, maximum (87.9 percent) number of girls being between 13 and 15 years of age group.

Among 330 respondents in the present study, 317(96.1 percent) were Hindus, were as 6 and 7 girls were Muslims and Christians respectively. Majority of the respondents` (82.5 percent) monthly household income was below Rs.2000/-. The average monthly household income was Rs.940/-. 67.3 percent of the respondents were residing in Huts thatched roof house.

The findings obtained through different methods and tools used in the study have been organized and presented in this section under four themes.

- Knowledge and beliefs
- Experience during Menstruation
- Restrictions and Absenteeism
- Hygienic Practices.

#### **Age at Menarche**

The following table shows the distribution of respondents by their age of puberty. 43.6 percent of the respondent attained puberty at the age of 13. More than 70 percent of the respondents attained puberty before the age 13. In the study area the mean age of menarche of the respondents has been calculated as 13.2 years.

#### **Knowledge and belief**

The survey indicates that 237 (71.8 percent) girls were aware about menstruation prior to attainment of menarche among 330 respondents.

The survey identified that Mother (56.1 percent), Friends (31.8 percent) and TV/Radio (26.4 percent) are the main sources of information about menstruation before menarche.

Table -3 shows the different beliefs and conception about menstruation among the respondents. It was observed that 282 (85.4 percent) girls believed it as a physiological process. 27(8.2 percent) girls believed it was a curse of God, 13(4.0 percent) girls believed that it was a disease and 8 (2.4 percent) girls believed it be result of some sin. Majority of the respondents (56.7 percent) answered that the cause for menstrual bleeding is dispose of waste blood. 116(35.1 percent) girls answered that the menstrual bleeding is because of hormonal process. 7 girls (2.1percent) state that weight gain in the body is also a reason for menstrual bleeding. 20 (6.1 percent) girls did not know about the source of menstrual bleeding. More than two third of the girls (68.5 percent) were ignorant about the use of sanitary pads during menstruation.

#### **Experience during last menstruation**

About 99.4 percent (328) of the respondents mentioned experiencing some kind of abnormal physical conditions during last menstruation.

Abdominal pain is the commonest problem experienced by the respondents. 78.8 percent reported abdominal pain followed by excessive bleeding (16.1 percent) and Breast pain (8.2 percent).

#### **Restrictions and Absenteeism**

The survey clearly indicates that there is still large number of traditional beliefs and restrictions surrounding menstruation. Only 6.8 percent of the respondents mentioned not practiced any form of restrictions or exclusions. Among them, 246(74.5 percent) girls did not attend any religions ceremonies, 212(64.2 percent) were forbidden from playing 182 (55.2 percent) girls were not allowed to attend social functions like marriage. 199 (60.3 percent) girls were not allowed even to move freely in the house. 109(33. percent) girls did not perform any household work. 164 (49.7 percent) girls stated that they did not eat certain foods such as sour foods, papaya, radish and non-vegetarian dishes, during the menstrual period.

#### **Absenteeism**

More than half of the survey respondents (58.0 percent) mentioned being ever absent due to menstruation. However, many girls shared while interact with them that though physically present in the school they performed poorly in terms of concentration and attention. This was particularly due to constant worry that boys might figure out about their status by their movements and facial expressions. Many also expressed feeling exhausted and weak during menstruation. Another major worry expressed by the girls was having their menstruation coinciding with exams as they would not get adequate time and opportunity to clean and change timely.

Among reasons highlighted by survey respondents for being absent in school during menstruation, Lack of water supply for cleaning(89.0 percent) ranks high followed by Pain /discomfort (73.3 percent), Shame(53.4 percent) and Lack of privacy for cleaning/washing (49.7 percent). Socio cultural beliefs and Fear of menstrual accident/leakage are also the reasons for absenteeism in schools expressed by 31.4 and 25.6 percent of the respondents.

With regard to the Privacy for cleaning and water supply facilities in the toilets, girls expressed while interacting with them that most of the toilets in schools are in an unusable

conditions i.e. without water supply and missing of basic lock system and surrounded by bushes.

Table-7, depicting the practices during menstruation shows that 104 (31.5 percent) girls used sanitary pads during menstruation, 115(34.8 percent) girls used old cloth pieces and 81 (24.5 percent) girls used new cloths pieces. 30(9.1percent) girls used cotton as absorbent during menstruation. The frequency of cleaning of external genitalia is 0-1/day in the case of 80 (24.2 percent) girls. 272 (82.4 percent) girls used soap and water for cleaning purpose. More than two third of the girls (68.2 percent) were not able to maintain privacy as they did not possess a covered toilet.

Regarding the method of disposal of the used material, 149(45.2 percent) girls reused the cloth pieces and only 75 (22.7 percent) girls properly disposed the cloth pieces or sanitary pad in a paper bag and disposed in a place used for solid waste disposal. 82 (24.8 percent) girls reported that for disposal they bury absorbent material, 69(20.9 percent) girls burnt the material, and 128 (38.8 percent) girls throw with other waste. It can be revealed that in rural areas where there is no garbage collection system, girls even dumped it in the stream. Disposal of used cloths and napkins was a challenge in rural schools.

Hygienic practices were found to be not so satisfactory. Only 175 (53.0 percent) girls mentioned having taken bath every day and 126 (38.2 percent) girls on alternate days during their last menstruation.

124 (54.9 percent) girls perceived that many may not know about that availability of the disposable sanitary napkins resulting into its non-use. Many also reported high cost (47.3 percent), no easy availability (33.6 percent) and difficulty of disposal (25.7 percent) as the other reasons for not using such pads.

#### **Discussion**

In this study, the age of menstruating girls ranged from 11 to 19 years with maximum number of girls between 13 and 15 year of age. The mean age of menarche of the respondents was 13.2 years. In this study, 28.2 percent girls were ignorant about menstruation before menarche. As menstruation is an important event at the threshold of adolescence each and every girls should be aware about menstruation. Fortunately, mothers were the first informant about menstruation in the case of (56.1 percent) of the girls. This gap might be due to poor literacy and socio-economic status of the family, which has fuelled the inhibitions a mother has to talk to her daughter regarding the significance, hygiene practices and a healthy attitude towards menstruation.

It was observed from the table-3, that 85.4 percent of the girls believed it to be a physiological process. It is alarming that only about one in eight of the participating girls knew correctly that the menstrual blood came from uterus and 187(56.7 percent) girls stated that menstrual bleeding is nothing but dispose of waste blood in the body, (35.1 percent) of the girls believed it to be a hormonal process. More than two third of the girls in the study area were ignorant about the use of sanitary pads during menstruation. This might be due to poor literacy level of mothers and absence of proper health education programme in school, which should forms on menstrual hygiene among girls.

About 99.4 percent of the respondents mentioned experiencing some kind of abnormal physical condition during last menstruation. Abdominal pain is the commonest problem experienced by 78.8 percent of the respondents. The finding indicates that there is still large number of traditional beliefs and restriction surrounding menstruation. Only 6.8 percent of the

respondents mentioned not practiced any form of restrictions or exclusions. Forbidden from religious activities, playing, attending social ceremonies, more around freely and taking certain food items are the restrictions practiced by more than 90.0 percent respondents.

More than half of the survey respondents 58.0 percent mentioned being ever absent from school due to a cause related to menstruation. More than physical absence during menstruation, the interaction with the girls during the survey pointed out an important aspect that can affect school performance equally the quality of presence at school particularly the attention and conception in the studies. Lack of infrastructural facility in schools required for maintaining the menstrual hygiene like lack of privacy, water supply and disposal of wastes have been found as major reasons for absenteeism.

It can be observed from the table-7, that majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. Only 31.5 percent of the girls used sanitary pads during menstruation. High cost of disposable sanitary pads and to greater extent ignorance dissuaded the girls from using the menstrual absorbents available in the market. Nearly one fourth of the girls in the study area stated that they cleaned their external genitalia only 0-1 times per day. 58 girls (17.6 percent) used only water for cleaning purpose. Privacy for washing, changing or cleaning purpose is something important for proper menstrual hygiene, but in the study area lack of privacy was an important problem since more than two thirds of the respondents did not possess a covered toilet. 149 (49.2 percent) girls reused the cloth pieces, and 22.7 percent girls properly disposed the used material.

With regard to the practice of bath taken during menstruation, only 53.0 percent girls mentioned having taken bath every day. The study clearly pointed out that the lack of information about sanitary pads; its high cost and limited availability are the main reasons for rural school girls not using them.

### Conclusion and Recommendations

This study has highlighted the needs of the adolescents to have accurate and adequate information about menstruation and its appropriate management.

As mothers were the first informant about menstruation in the case of 56.1 percent of the girls in the study area, it is utmost important that the mothers be armed with correct and appropriate information on reproductive health, it give their growing child on a continuous basis.

It was clear from the study and the oral discussions with the teachers in the schools that teachers do not sufficiently impart the knowledge and seemingly girls themselves also make a self effort to learn, even though such basic anatomical issues are part of their school curriculum. As only one in eight of the participating girls in the study area knew correctly that the menstrual blood came from uterus, it is essential for the teachers, who may not have necessary skills to impart important reproductive health education including maternal hygiene to

their students, to be given requisite skills- usually through workshops or training.

Lack of privacy and water supply are the important reasons stated by the respondents for their absenteeism to school during menstruation. Hence conscious efforts need to be made to address these issues, in order to improve proper practice of menstrual hygiene and also school attendance.

Only, less than one third of the respondents in the study area stated that the material should ideally be used as absorbent during menstruation was sanitary napkin. Realizing the needs and importance of using sanitary napkins, innovative ways have to be identified for making the pads available and affordable to school girls belonging to all segments of society. Manufacturing and retailing low cost sanitary pads through Self Help Groups may stimulate local economy also.

Menstrual Hygiene Management (MHM) clubs may be formed to create awareness about menstrual hygiene practices among rural girls in every school on the usage of sanitary napkins and proper disposal techniques as in some colleges of Bharathidasan University, Tamilnadu.

A common policy is needed to implement and ensure the menstrual hygiene education is to be imparted along with personal hygiene in all school health education and promotion activities especially in High Schools and Higher Secondary Schools of rural Tamilnadu.

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**Table-1, Distribution of Respondents by Age at menarche (n=330)**

Age of menarche	Respondent	Percentage
10	1	0.3
11	16	4.9
12	71	21.5
13	144	43.6
14	81	24.5
15	16	4.9
15+	1	0.3
Total	330	100.0

The mean age of menarche of the respondents was 13.2 years.

**Table-2, Source of knowledge about menstruation (n=330)**

Source	Respondent	Percentage
Mothers	185	56.1
Friends	105	31.8
TV/Radio	87	26.4
Relatives	17	5.2
Others	5	1.5

\*Total may add to more than 100% due to multiple responses for methods of disposal.

**Table-3, Perception about menstruation (n=330)**

Beliefs/ Conception	No	Percentage
<b>What is the cause of menstruation?</b>		
It is a physiological process	282	85.4
It is a curse of God	27	8.2
It is caused by a sin	8	2.4
It is caused by a disease	13	4.0
<b>From which organ does the menstrual blood come?</b>		
Uterus	42	12.7
Abdomen	195	59.1
Intestines	6	1.9
Kidney	15	4.5
Don't know	72	21.8
<b>What causes or triggers menstruation to happen?</b>		
Hormonal process	116	35.1
Weight gain in the body	7	2.1
Dispose of waste blood	187	56.7
Don't know	20	6.1
<b>What absorbent should be ideally used during menstruation?</b>		
Cotton	18	5.5
Cloth pieces	208	63.0
Sanitary napkins	104	31.5

**Table-4, Types of menstrual problem**

Types of Problem	Respondent	Percentage
Abdominal pain/discomfort	260	78.8
Excessive bleeding	53	16.1
Giddiness	21	6.4
Breast pain/discomfort	27	8.2
Others	14	4.2

\*Total may add to more than 100% due to multiple responses

**Table-5, Restrictions practiced during menstruation (n=330)**

Restrictions	No	Percentage
Forbidden from religions activities (pooja, temple, etc.)	246	74.5
Playing	212	64.2
Social ceremonies (marriage )	182	55.2
Household work	109	33.0
Move around freely in the house	199	60.3
Certain foods	164	49.7
Sleep separately	289	87.6
Don't touch males	202	61.2
Do not go to school	191	58.0
None	22	6.7

\*Total may add to more than 100% due to multiple responses.

**Table-6, Reasons for absenteeism during menstruation (n=191)**

Reasons	Respondent	Percentage
Lack of Privacy for Cleaning/washing	95	49.7
Lack of water supply for cleaning	170	89.0
Fear of menstrual accident/leakage	49	25.6
Shame	102	53.4
Pain/discomfort	140	73.3
Socio cultural beliefs	60	31.4

\*Total may add to more than 100% due to multiple responses.

**Table-7, Practice of menstrual hygiene (n=330)**

Menstrual hygiene	No	Percentage
Use of material during menstruation		
Sanitary pads	104	31.5
New cloth pieces	81	24.5
Old cloth pieces	115	34.8
Cotton	30	9.1
Cleaning the external genitalia		
Cleaning more than 2 times/ day	250	75.8
Cleaning one or less time/day	80	24.2
Use for cleaning purpose		
Water without soap	58	17.6
Water with soap	272	82.4
Maintenance of privacy		
Yes	105	31.8
No	225	68.2
*Method of disposal		
Cloth pieces reused	149	45.2
Burying	82	24.8
Throwing in the drainage/dust bin	128	38.8
Sanitary pads/ cloth pieces disposed properly	75	22.7
Burnt	69	20.9

\*Total may add to more than 100% due to multiple responses for methods of disposal

**Table-8, Distribution by practice of bath taken in last menstruation (n=330)**

Frequency of bath taken	No	Percentage
Bath every day	175	53.0
Bath alternate day	126	38.2
Bath on third or fourth day	14	4.2
Don't know	15	4.6

**Table-9, Distribution of perceived reasons for girls not using sanitary pads (n=226)**

Reasons	No	Percentage
Don't know	23	10.2
Not easily available	76	33.6
Difficulty of disposal	58	25.7
High cost	107	47.3
Not knowing about it	124	54.9

\*Total may add to more than 100% due to multiple responses.