

**MENSTRUAL HYGINE MANAGEMENT
AMONG ADOLOSCENT SCHOOL GIRLS IN
TAMIL NADU**

N.DHANABAGYAM

POPULATION RESEARCH CENTRE

**THE GANDHIGRAM INSTITUTE OF
RURAL HEALTH AND FAMILY WELFARE TRUST
DINDIGUL, TAMIL NADU**

Contributors

Field Team

- | | | |
|------------------------------|----------|------------------------------|
| Mrs.N.Kala | - | Research Investigator |
| Mrs. Y.Kowsalya julie | - | Field Investigator |

Technical Team

- | | | |
|-----------------------|----------|-----------------------|
| Mr.N.Rajakumar | - | Data Assistant |
| Mr.M.Murugesan | - | Data Assistant |
| Mr.B.Karthi | - | Data Assistant |

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MENSTRUAL HYGINE MANAGEMENT AMONG ADOLOSCENT SCHOOL GIRLS IN TAMIL NADU

I. INTRODUCTION

Adolescence is a period of transition from childhood to adulthood. This is the prime period in girls life in which, the physical, psychological and behavioural changes take place. This period is marked with onset of menarche. Menstruation is still regarded as something unclean or dirty in some societies. The reaction to menstruation depends on awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. Even today, the silence of menstruation does not allow an open discussion, which creates ignorance and misconception on this subject. Proper knowledge on menarche and menstruation and the scientific facts behind them is necessary for positive reproductive health. Even though, menstruation is a natural process, it is linked with several cultural and societal related misconceptions and practices, which sometimes result into adverse health outcomes. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude toward this phenomenon. Taboos and socio-cultural restrictions surrounded the menarche and menstrual practices makes the adult girls unaware about the scientific facts and hygienic health practices, necessary for maintaining positive reproductive health.

Adolescence is of particular concern as socio-cultural norms can create a barrier for adolescent girls to obtain accurate information about menstruation and menstrual hygiene at the onset of menarche. Menstruation can also contribute to school-drop out, absenteeism, and other sexual and reproductive health concerns that can have substantial and long-term health and socioeconomic ramifications for adolescent girls (UNICEF, 2013). Adolescents should have a better knowledge regarding menstruation, menstrual hygiene and safe practices for safe reproductive health and through staying away from the reproductive tract infections and its consequences. Increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating their suffering. The social stigma attached to menstruation causes many girls and women to carryout dangerous hygiene practices. Lacking a platform to share menstrual hygiene problems, girls often suffer from discomfort and

infection, avoiding urination during menstruation in schools, and using any kind of cloth available old (or) unwashed.

There is an increasing recognition of the impact that menstrual hygiene management (MHM) practices knocked the health, education and psychosocial outcomes of adolescent girls. Significant challenges exist for adolescence to manage their menstruation safely and effectively and without adverse consequences such as behavioural restrictions, reduced school-attendance, or loss of dignity. Addressing menstrual hygiene management directly contributes to Millennium Development Goal-5 (MDG) on improving maternal health. Due to its indirect effect on school absenteeism and gender discrepancy, poor menstrual hygiene and management may seriously hamper the realization of MDG-2 on universal education and MDG-3 on gender equality and women empowerment.

Menstrual hygiene management (MHM) is part of the overall efforts within the sexual and reproductive health right of women and adolescent girls, which is based on the right and ability of all individuals to decide over their own bodies, and to live a healthy reproductive life. . Menstrual hygiene is fundamental to the dignity and wellbeing of women and girls and an important part of basic hygiene, sanitation and reproductive health services for which every woman and girl has a right. Menstrual hygiene deals with the special health care needs and requirements of girl/women during monthly menstruation or menstrual cycle. Menstruation Hygiene Management (MHM) focuses on practical strategies for coping with monthly periods. MHM refers to ways women themselves keep clean and healthy during menstruation and how they acquire, use and dispose of blood-absorbing materials. Poor menstrual hygiene is a risk factor for reproductive tract infection and cervical neoplasia. Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls.

Menstrual hygiene management (MHM) is a problem for adolescent girls in low and middle income countries, particularly when attending school (Sommer and Shin, 2013). 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 (Sommer,2010 and McMahon.et.al., 2011) . Qualitative studies report girls' fear and humiliation from leaking of blood and body odour, and lead menstruating girls to absent themselves from school (Bodat.et.al., 2013). Cultural taboos add to girls' preventing them from seeking help (Chothe.et.al., 2014 and Narayan.et.al., 2001) and restrictions on

their diet and activities while menstruating makes them undernourished. Insufficient menstrual hygiene management may result symptoms of urinary and genital tract infections. The practice of good menstrual hygiene reduces the incidence of reproductive tract infection (RTI). Thus, the consequences of RTIs are severe and may result in significant negative impact to a woman's health including chronic pelvic pain, dysmenorrhoea (painful periods) and in severe cases infertility. Reproductive tract infections, which have become a silent epidemic that devastates women's lives is closely related to poor menstrual hygiene (Upashe.et.al., 2015). Every year approximately 10 percent of women worldwide are exposed to genital infections including urinary tract infections and bacterial vaginosis, and 75 percent of women have a history of a genital infection. Specifically, the common risk factors for vaginal infections include pregnancy and poor hygiene (Reid and Bruce, 2003). Insufficient MHM, spearhead through work to improve WASH in schools has focused on need for dignity and privacy, on raising awareness to break the silence and stigma, making safe and effective MHM absorbents accessible, and improving the school WASH environment. The latter includes separate toilets for girls, water and cleansing materials, and safe disposal of soiled materials (UNICEF, 2014 and Muralidharan. et.al., 2015).

Poor or inadequate knowledge about menstrual hygiene management (MHM) leads to (i).**Health related risk**--Unsafe and unhygienic materials to absorb menstrual blood can leads to vaginal infections, with possible long-term effects on reproductive health, (ii). **Psycho-social effects:** Socio-cultural restrictions on menstruation are often associated with shame and disgust, resulting in negative attitudes. (iii). **Educational thrashing:** Poor or inadequate **water**, sanitation and hygiene (WASH) facilities in schools makes the girls for not attend school for the duration of their menstrual periods. (iv). **Environment:** With lack of or limited waste management, non-reusable and commercial items are often disposed into the environment.

In India, the scheme for promotion of menstrual hygiene was launched as a part of the Adolescent Reproductive and Sexual Health (ARSH) and the Adolescence Education Programme (AEP) under the RCH-II, which address adolescent health as the core components. Promotion of menstrual hygiene among adolescent girls (10-19 years) program was launched with the aims to increase awareness among adolescent girls on menstrual hygiene, build self-esteem, and empower girls for greater socialisation with easy access to and use of high quality sanitary napkins by adolescent girls and also to ensure safe disposal of sanitary napkins in an environment friendly manner.

To ensure safe menstrual hygiene of adolescent girls and better reproductive health of women, the Government of Tamil Nadu has also launched a “napkin revolution” all over the state. Free napkins were distributed to girls studying in Government schools and women in rural areas through PHCs, ICDS centers and through Anganwadi centers.

1.1.Rationale to the Study

Numerous MHM studies have been independently conducted across India, examining the prevalence of social, educational and health problems faced by girls. But the issue is inadequately acknowledged and the information they received may be partial, selective and may be surrounded by taboos and has not received proper attention. Every year, a new cohort of girls enters into adolescent stage and there is an urgent and recurring need for the preparedness to meet the challenges related to puberty. There is a view that, MHM is insufficiently acknowledged and constrained by social, cultural and economic factors such as lack of water and sanitation facilities in schools, lack of private rooms for changing sanitary napkins in schools and restriction of foods, constrains, taboos and embracement on taking about menstrual hygiene management with friends, family members and community makes a silence around menstrual hygiene. Lack of information and misconceptions and adverse attitudes towards menstruation leads to a negative self-image among girls who are experiencing menses for the first time and the culture of silence around menstrual hygiene further increases the perception of menstruation as something shameful that needs to be hidden. Thus, to break the silence of a taboo and successfully manage menstrual hygiene, adolescents need to understand the biologic change they are experiencing may be equipped with the skills to cope with it. Research-supported recommendations may help to propose how to address these challenges and how to proven program interventions. Key MHM stakeholders have come to consensus that a clearly defined package of evidence-based interventions is required.

1.2. Aims and Objectives of the Study

The aim of the study is to assess the status of menstrual hygiene management in terms of the level of knowledge and practice among adolescent school girls in Tamil Nadu and to identify the unmet and priority needs to develop a package of interventions for school girls and to assist policymakers in the development of MHM policies for adolescent girls. The study reviews the following issues also.

1.2.1. Objectives

- Knowledge about menarche and their sources of information before its onset and its sources
- Knowledge on menstrual hygiene management and its sources and the current practice of MHM.
- Access of hygienic menstrual management materials in schools and the community.
- Access to WASH facilities in the schools and community
- Knowledge on importance of MHM on reproductive health and health problems.
- Unmet need in the components of MHM
- Recommendations for better menstrual hygiene management.

II.METHODS AND MATERIALS

2.1. Study Design and Sampling

To address the above objectives, a school based cross sectional descriptive study in which self-administered interview schedules were employed to collect data, followed by an evaluation of WASH facilities in schools using a survey process.

The study was carried out in Perambalur and Thiruchirapalli districts in Tamil Nadu. Schools were selected by using the Multistage Random Sampling Technique. In each district eight schools were selected. Initially schools were divided into two groups as rural and urban schools based on the location. In each area they were classified in to two groups as government schools and private/aided schools. Schools were divided in to two types as co-education schools and girl's schools. Accordingly 16 schools were selected in two districts. In each school 26 students were selected randomly (proportionate to the number of girls attained menarche) from sixth standard to twelfth standard (four student in each class). Totally 416 adolescent girl students, who had attained menarche were randomly selected and interviewed from July to August 2018.

2.2. Data Collection Tools, Techniques /Methods

The tools that were used for data collection included a check list to assess the WASH facilities in schools and an interview schedule which was completed through direct interview with the adolescent girls by trained and experienced PRC interviewers. It consist of open-ended and closed ended questions with sections of socio-economic and demographic data of students, their parents and the questions on knowledge on menstrual hygiene before the onset of first menstrual cycle, and its source, practice of menstrual hygiene, knowledge on health problems due to poor menstrual hygiene management, interpersonal communication/discussion with their co-students/ classmates/friends and the community including family members and teachers on menstruation, menstrual hygiene management and practices and menstrual problems, and availability and utilisation of WASH facilities in schools and availability of menstrual hygiene management product (napkins) in schools . In addition to these adolescents' need on information related to MHM and menstruation problems were also assessed.

2.3. Pretesting Of Instrument

The interview schedule was pretested in two schools (one private and one government school) in Dindigul district. This was done by randomly administering draft copies of the questionnaire to fifty students of similar characteristics as the study population thus enabling the researcher to modify the questionnaire for an efficient research study. All necessary corrections were made on the interview schedule before collecting data for the study. The pretesting enabled the research team to ascertain adequacy of the research questions, time estimate for each questionnaire as well as make better preparations for the actual data collection in the study.

2.4. Ethical Consideration

The ethical clearance to conduct the study was sought from the respondents through written consent. In addition, permission and clearance to conduct the study was obtained from the concerned District Collectors (administrative officer), Chief educational officer and the District Educational Officers of the concerned educational block.

Permission to send written informed consent forms to parents/ guardians of students' was also obtained from authorities of the schools and thereafter issued to the students to be signed by their parents/ guardians while assent forms were signed by the participants before administering the questionnaire. All the respondents were assured confidentiality and anonymity. The researcher ensured privacy for the respondents during interviews.

2.5. Data Processing and Analysis

Each completed questionnaire was checked manually in the field to ensure the correctness of the data collected. The data were entered in CS pro, the program specially prepared for the questionnaire by the PRC staff. SPSS version 17 was used for analysis.

2.6. Limitations of the Study

The interview was conducted during school sessions, it was difficult to get good time for the proposed numbers of respondents to be sampled daily due to time constraints, conflict with school schedules and unwillingness of most participants to let go of their break time to complete the questionnaire. A longer period of time (several weeks) was used to administer questionnaires to obtain required sample size. An important limitation to this study is that the questions elicit information about their personal information and were based on their self-reported results. Some of the adolescents felt shy to answering the questions related to menstrual hygiene. Questions on WASH facilities in schools received same answers and they were differing from the actual situations.

III. RESULTS

3.1. Students' Characteristics

Man acquires knowledge about certain aspects from the surroundings in which he is living and that knowledge is personalised by his societal achievements and he acts accordingly. It is the environment which predisposes a persons' quality of life style and promote a healthy life style modification. This chapter presents the background information of the students sampled for this study. The purpose of this section is to assess the level of living environment of the students.

3.1.1. Socio-Cultural Characteristics of the Selected Adolescent Female Students

Majority of the students were Hindus (89.2 percent). The proportion of Schedules caste and backward community students was equal (35 percent each). One-fourth of the students belong to most backward community (25 percent). Other category was very meagre (6 percent). Seventy percent of the students were from nuclear family and from rural (85.1 percent)

Table 3.1 Socio-cultural characteristics of the selected adolescent female Students

Socio-Cultural Characteristics	Percentage of Respondents
Religion	
Hindu	89.2
Muslim	6.0
Christian	4.8
Caste	
Scheduled caste	34.9
Most backward caste	25.0
Backward caste	34.6
Others	5.5
Family Structure	
Nuclear	70.2
Joint	29.2
Place of Residence	
Rural	85.1
Urban	14.9

3.1.2. Housing Environment of the Selected Adolescent Female Students

Ninety-four percent of the students are day scholars coming from home. Most of them were staying in the either from *pucca* (51.9 percent) or semi *pucca* (43.3 percent) houses with separate toilet facilities (52 percent). Twenty-six percent had no toilet facility and they used only open space (Table 3.2)..

Table 3.2. Housing Environment of the selected adolescent female students

Place of Stay	Percentage of respondents
Home	94.2
Hostel	5.8
Type of House	
<i>Pucca</i>	51.9
<i>Semi-pucca</i>	43.3
<i>Kacha</i>	4.8

Toilet Facility	
Separate toilet in the house	63.9
Shared toilet /community toilet	6.7
No toilet facility/open field	25.5

3.1.3. Demographic Characteristics of the selected adolescent female students

Mean age of the respondents is 13.55 years. Thirty-six percent belongs to the age group of 14-15 years, thirty-five percent belongs to 12-13 years and 16 percent were in the age group of 16-17 years. Mean age at puberty of the respondents is 12.14 years. Eight percent attained their menarche at the age of 10 or less than 10 years. One- tenth of the girls attain their puberty at the age of 14 and above years. Thirty-four percent attained at the age of 12 years.

Table 3.3. Demographic Characteristics of the selected adolescent female students

Demographic Characteristics	Percentage of students
Age of the student(in completed years)	
10-11 years	13.9
12-13 years	34.7
14-15 years	35.6
16-17 years	15.9
Mean age	13.55
Age at puberty	
<=10 years	8.4
11	18.3
12	33.9
13	29.8
>=14	9.6
Mean age at puberty	12.14

3.1.4. Parents Socio-Economic Status/ Family Background of the Selected Respondents

Average family size of the selected adolescents is 4.9. Thirty-six percent of the respondent's family size is four and 32 percent had a family size of five. While assessing the number of siblings living with them, 58 percent had only one brother, 12 percent had two brothers and twenty-nine percent had no male brothers with them. Thirty-six percent of the girls were the only daughters in their family. Forty-one percent has only one sister and 18 percent had two sisters with them. Most of their fathers are either secondary school educators (20 percent) or high school educators (22.5 percent). Twelve percent of them had illiterate father. Only eight percent of the girls' fathers were higher educators. Similarly, thirty percent of the mothers

were high school educators, 24 percent were secondary school educators and 14 percent were illiterate.

Forty-one percent of the fathers were non-agricultural labourers, 18 percent were skilled workers and 13 percent were cultivators. Forty-six percent of the mothers were housewives and thirty-nine percent were non-agricultural labourers. Forty-nine percent of the girls' families had a monthly income of Rs. 50001 to Rs.10000. Twenty-five percent of the families had a family income of Rs.5000 and below per month.

Table 3.4. Parent's socio-economic status/ Family background of the selected respondents

Family background of the respondents	Percentage of respondents
Family size	
2	1.0
3	6.0
4	35.8
5	32.0
6	13.9
7+	11.2
Mean	4.9
Number of siblings	
Male	
0	29.3
1	57.5
2	12.0
3+	1.2
Female	
0	35.8
1	41.1
2	18.3
3+	4.8
Father's education	
Illiterate	11.6
Primary	17.9
Secondary	20.0
High School	22.5
Higher Secondary	9.4
Higher Education	8.2
Mother's Education	
Mothers Education	
Illiterate	14.2
Primary	12.3
Secondary	23.6

High School	30.0
Higher Secondary	12.0
Higher Education	5.0
Fathers Occupation	
Cultivator	12.9
Agricultural labourer	7.2
Non-agricultural labourer	41.0
Skilled worker	17.7
Salaried	5.4
Others	15.8
Mother's Occupation	
Housewife	45.9
Agricultural labourer	5.2
Non-agricultural labourer	38.5
Skilled worker	6.7
Salaried	3.7
Others	2.6
Monthly Family Income	
<=Rs.5000	25.5
Rs.5001 to 10000	49.0
Rs.10001 to 15000	12.3
Rs.15001 to 20000	5.5
>Rs.20000	7.7

3.2. Water, Sanitation and Hygiene Facilities at School

Availability of WASH facilities is the key component of menstrual hygiene management for students in schools. All the selected schools have separate toilet facilities for girls. Ninety percent of the students expressed that, toilets in the school had adequate water facilities. Ten percent of the girls expressed water is insufficient. Water taps within the toilet room makes the girls easy to use and fetching water out-side from the toilet makes them uneasy or feel it as shy/shame to fetch from out-side. In this situation they need another person's help to fetch adequate water. This may prevent to utilise the toilets during menstruation. Sixty percent of the girls expressed that toilets have water taps in the within the toilet room and 34 percent said water tank is available in the toilet complex and they may pour the water from the tank. Ten percent of the girls expressed they may get prior permission from the concerned staff to use the toilet. Some time toilet keys may be with the teacher. This prevents the girls to use toilets during menstruation. All most all the schools had facilities to change the sanitary napkins in the schools. Seventy-five percent of the students said they will dispose the used napkins in the tank specially allotted for napkin disposal. Twenty-two percent of the students

said they had incineration in the school. Fifteen percent of the students get napkins in the school premises under RBSK. Eighty-five percent of the students bring their sanitary napkins from their home. According to 10 percent of the students the MHM facilities in the school are very good and for 48 percent it was good. Twelve percent said MHM facilities in the schools are very poor for 30 percent it is poor.

Table 3. 5. Access to Menstrual Hygiene Management facilities at School

Access to Menstrual Hygiene Management Facilities	Percentage of students
Separate toilet for girls	100
Adequate water	
Yes	90.1
No	9.9
Access to water	
Water tap with in the toilet room	65.9
Water tank in the toilet	33.9
Water tank out side the toilet	0.3
Prior permission from the teacher to use toilet	
Yes	10.3
No	99.7
Facility to change Sanitary napkin	
Yes	96.9
No	3.1
Facility to dispose sanitary napkin	
Yes	94.2
No	5.8
Type of facility to dispose sanitary napkin	
Flush in the toilet	1.5
Separate tank/cistern/ container in the toilet	75.3
Dust bin in the school	1.5
Incineration	21.7
Availability of sanitary napkin vending machine/facility for napkin distribution	
Yes	15.1
No	84.9
Problems faced to change sanitary napkin in the school	
Number of toilets are not sufficient	9.9
Inadequate water facility	17.8
Lack of privacy/secretcy	11.3
Long queue in the toilet	18.5
Hesitate/feel shy to take the napkin to the toilet	18.5
Toilet not clean	10.3
Unable to use the toilet within the given time	13.7

The biggest challenge faced by girls during menstruation in schools is related to the utilisation of MHM facilities is the long queue, long waiting time in the toilet and shyness

due to lack of privacy get hold of the napkins to the toilets (18.5 percent each). In addition to these, inadequate water facilities in the toilets (17.8 percent), poor cleanliness of the toilets (10.3 percent), lack of privacy/secrecy to change the napkins in the toilets (11.3 percent) and insufficient number of toilets (10 percent) are the challenges faced by the adolescent girl students to maintain a good MHM in schools.

3.2.1. Adolescent Students Opinion towards Status of MHM Facilities at School

Table shows that, forty-eight percent of the students viewed that, MHM facilities provided in schools are good. Private /aided school have better MHM facilities compare to government school. In 45 percent of the government schools MHM facilities are poor compare to 27 percent in private/aided schools. Forty-nine percent of the girl's school students and 47 percent of the co-education students opined that MHM facilities in their schools are good, but 33 percent of the girl's school students and 42 percent of the co-education school students spelled out that MHM facilities provided in their schools are poor. Fifty-two percent of the students in the schools located in town and fifty percent of the students in rural schools viewed that MHM facilities were good in their schools. Sixty-one percent of the students in the city viewed that MHM facilities were poor in their schools.

Table: 3.6.Opinion towards status of MHM facilities at school according to adolescent female students.

Type of school	Opinion towards MHM facilities in schools			
	Very poor	poor	good	Very good
Type of School				
Government	5.7%	45.4%	44.3%	4.6%
Private	1.3%	26.9%	54.5%	17.3%
Nature of school				
Girls school	6.4%	32.7%	49.4%	11.5%
Co-education	2.7%	41.9%	47.3%	8.1%
Location of school				
Village	2.2%	44.5%	49.6%	3.8%
Town	7.7%	19.1%	51.9%	21.4%
City	3.9%	60.8%	31.4%	3.9%
Total	4.1%	38.5%	48.1%	9.3%

3.2.2. Access to Menstrual Hygiene knowledge/education in schools

Access to Menstrual Hygiene knowledge/education in schools was also assessed. Fifty-seven percent of the Government schools and fifty-two percent of the private schools provide MHM education to their students. Similarly, education on menstrual hygiene management was provided to sixty-one percent of the students in girls school compare to 52 percent in co-education schools. Sixty-nine percent of the students in the city schools and 54 percent of the students in rural schools received MHM education at school.

Table- 3.7.Menstrual Hygiene Management education at schools

MHM Education	Yes	No
Type of School		
Government school	56.9%	43.1%
Private school	51.9%	48.1%
Nature of school		
Girls school	60.9%	39.1%
Co-education school	51.5%	48.5%
Location of the school		
Village	53.8%	46.2%
Town	51.9%	48.1%
City	68.6%	31.4%

IV. KNOWLEDGE ON MENSTRUATION AND MENSTRUAL HYGIENE MANAGEMENT

4.1. Menstrual Hygiene Knowledge and Source

Twenty –four percent of the adolescent students had knowledge about menstruation before the onset of their puberty. Family members are the main knowledge providers particularly mothers (86 percent) and sisters (32 percent). For 25 percent of the adolescents friends are the source providers and 26 percent acquired knowledge from teachers. Relatives (12 percent) books (13 percent) and Television /Radio provide knowledge for five percent of the respondents. Sanitary napkin usage/ blood absorbent (92 percent) and puberty symptoms/ body changes before the onset of puberty and menstrual problems (90 percent) are the prime knowledge received by adolescent girls followed by sanitary napkin disposal (83 percent), food intake i.e., foods to be avoided and to be taken (78 percent) and reproductive health (43 percent) at home/society.

Education on menstruation, menstrual hygiene and management is also a part of teaching in schools under RBSK. Fifty-five percent of the adolescent girls said, they received information /education related to menstruation, menstrual cycle and menstrual hygiene management at school. Teachers (58 percent), school health program/ RBSK (26 percent), Non-Governmental Organisations (7 percent) are the knowledge providers at school. Napkin usage and disposal (72 percent), nutritious food (20 percent) and personal hygiene (7.3 percent) were discussed at school.

Table-4.1. Knowledge on menstruation, knowledge provider and knowledge accrued

Knowledge on Menstruation	Percentage of Respondents
Knowledge on menstruation before puberty	
Yes	24.0
No	76.0
Source of knowledge	
Mother	86.0
Sisters	32.0
Friends	25.0
Relatives	12.0
Teachers	26.0
TV/Radio	5.0
Books	13.0
Knowledge Accrued on	
Menstrual Hygiene	19.0
Food habits/intake	77.8
Puberty symptoms/ body changes/ problems	90.0
Sanitary napkin usage	91.9
Sanitary napkin disposal	82.8
Reproductive health	43.0
Knowledge on Menstrual cycle and Menstrual Hygiene Management at school	
Ever received	55.0
Not received	45.0
Source of knowledge provider	
Teacher	58.1
NGOs	7.4
School health program/RBSK	26.2
School curriculum	1.3
Others	7.3
Received knowledge on	
Napkin usage and dispose	72.5
Nutrition	20.2
Personal hygiene	7.3

4.2. Menstrual Hygiene and Management Practices

Disposable sanitary napkins are the main material used by the respondents to manage the menstrual bleeding at school as well as at home. Mother (82 percent) is the main knowledge provider about the usage of sanitary napkins to their daughters followed by other family members (16 percent). One-half (50 percent) of the adolescent girls changed their sanitary napkins three times per day. Twenty-eight percent changed their napkins four times per day. Six percent expressed they will changed their napkins whenever it is soiled. Disposing of sanitary napkins is one of the important components of menstrual hygiene management. Thirty-five percent said they through the used sanitary napkins into the open garbage and 31 percent said they will wrap it and put it in dust bin. Twenty-one percent burned the used napkins 2.7 percent flush it in the toilet.

Table 4.2. Menstrual Hygiene Management Practice

Menstrual Hygiene Management	Percentage of students
Materials used to manage menstrual bleeding –At home	
Disposable Sanitary napkin	98.8
Cloth	1.2
Materials used to manage menstrual bleeding --At school	
Disposable Sanitary napkin	99.8
Cloth	0.2
Knowledge provider of Sanitary Napkin	
Mother	81.7
Family members	15.6
Others	2.6
Frequency of changing sanitary napkins	
Two times per day	15.1
Three times per day	50.2
Four times per day	28.4
Five and above times or whenever soiled	6.2
Method of disposing used sanitary napkin	
Through in open garbage	35.3
Wrap in a dustbin	30.9
Burnt	21.2
Flush down latrine	2.7

4.3. Personal Hygiene Knowledge and Practices during Menstruation

Ninety percent of the respondents had knowledge regarding genital cleaning at the time of changing the sanitary napkins during menstruation. Mother (85 percent) is the education provider regarding genital hygiene during menstruation followed by sister (10 percent). To

avoid uterus problems/ diseases like RTI (45 percent), to avoid infection/germs (16 percent), body odour/smell (17.7 percent), to avoid itching/irritation (11 percent) and to avoid cervical cancer (1.9 percent) are the reasons spelled out by the respondents for genital cleaning.

Ninety-six percent of the respondents cleaned/maintained/washed their genitals each time while changing the sanitary napkins during menstruation. Even though they had knowledge, only four percent not followed genital hygiene due to abhorrence. Six percent expressed as no water and toilet facility and 25 percent not known about the importance of the genital hygiene during menstruation. .

Sixty three percent of the respondents took bath twice a day at the time of menstruation. Fifty percent of the respondents changing the napkins thrice a day and 28 percent changed it four times per day. Six percent said they will change the napkins five and above times.

Seventy-eight percent of the respondents faced problems at school to change the sanitary napkins. No privacy/no private place at school to change sanitary napkins (27 percent), lack of water facility (19 percent) and toilet facility (16 percent) are the challenges faced by the students to maintain menstrual hygiene at school.

While assessing the perception of menstrual hygiene at school 58 percent felt safe and secured. Fourteen percent expressed clean and hygienic and five percent felt comfort at school. Nineteen percent expressed unhygienic at school and four percent felt insecure at school during menstrual periods.

Table : 4.3. Knowledge on Personal Hygiene and Management during menstruation

Knowledge on personal hygiene	Percentage of students
Knowledge on genital hygiene during menstruation	
Yes	89.9
No	10.1
Knowledge provider of genital cleaning during menstruation	
Mother	85.2
Sister	10.2
Friends	2.2
Teacher	2.2
Knowledge about reasons for genital hygiene during menstruation	
To avoid infection/germs	15.8
To avoid body odour/smell	17.7
To avoid cervical cancer	1.9
To avoid itching/irritation	11.3
To avoid uterus problems/diseases	45.0
To avoid abdominal pain	8.3

Number of times bath taken daily	
Once	37.3
Twice	62.7
Number of times sanitary products changed daily	
Once	0.7
Twice	14.4
Thrice	50.2
Four times	28.4
Five and above times	6.2
Wash genitals while changing the napkins every time	
Yes	96.2
No	3.8
Reasons for not cleaning the genitals every time changing the napkin	
Not aware about importance of genital cleaning during menstruation	25.0
No water facility	6.2
No toilet facility	6.2
Abhorrence	62.5
Challenges faced while changing sanitary napkins	
Problem faced at -School	78.2
Problem faced at -Home	21.8
Problems experienced for changing Napkins	
No water facility at school	18.7
No toilet facility at school	15.8
No privacy at school/No private place at school	26.9
Perception on menstrual hygiene at school	
Felt safe/secured	58.2
Felt clean /hygiene	13.7
Felt comfortable	4.8
Felt unhygienic	19.0
Felt insecure	4.3

4.4. Interpersonal Communication on Menstrual Hygiene Management

Fifty-eight percent of the students discussed with their friends about menstruation. Menstrual duration (15 percent), sanitary napkin usage and disposal (26 percent), menstrual health problems (43 percent), personal hygiene (10 percent) and nutritious food intake/ foods to be avoided (6 percent) are the matters discussed among students.

Forty-four percent of the students not like to talk about menstruation at school with their friends. Thirty-four percent felt shy about talking on issues related to menstruation and 13 percent not discussed due to their mothers advice in terms of cultural taboo.

Table.4.4. Inter Personal Communication on Menstruation and Menstrual Hygiene Management among Adolescents at School

Interpersonal communication on MHM	Percentage of students
Discussion with friends/class mates about MHM	
Yes	57.7
No	42.3
Matters discussed	
Menstruation duration	15.4
Sanitary napkin use and disposal	25.8
Menstrual health problems	43.3
Personal hygiene	9.6
Nutritious food	5.8
Reasons for not discussing with friends	
Not like to talk about menstrual issues	43.8
No time to discuss	9.1
Felt shy/hesitate to talk	34.1
Mother's advice about not to talk about menstruation to friends	13.1

4.5. Menstrual Health Problems and Wish for New Knowledge on Menstruation and Menstrual Hygiene Management.

Thirty-eight percent of the students experienced health problems due to menstruation. Abdominal pain (92 percent) and irregular periods (8 percent) are the health problems experienced by adolescent girls. Fourteen percent of the respondents wanted to know about more information about menstruation and hygiene management from the research team. They want to know about reasons for irregular periods (36 percent), stomach pain (27 percent), white discharge (22 percent), constraints about intake of certain food items like non vegetarian, brinjal etc, reasons for itching around the genitals during menstruation and heaviness in the body and body pain (16 percent).

Table 4.5. Menstrual health problems and wish for new knowledge about menstrual hygiene management

Menstrual health problems experienced	Percentage of students
Health problems experienced ever	
Yes	38.0
No	62.0
What are the Health Problems experienced	
Irregular periods	8.2
Abdominal pain/stomach pain	91.8

Want to knowing about menstruation more	
Yes	14.2
No	85.8
Want to know more about	
Reasons for irregular periods	35.6
Reasons for stomach pain	27.1
Reasons for itching in genitals	5.1
Reasons for white discharge	22.0
Reasons for avoiding certain foods	10.2
Reasons for heaviness in the body and body pain	15.7

V. SOCIO-ECONOMIC AND DEMOGRAPHIC DETERMINANTS OF MENSTRUAL HYGIENE MANAGEMENT.

5.1. Knowledge on Menstruation before the Onset of Menarche

Even though, menarche is physiological concern, socio-cultural and economic facet of an individual influence to acquire knowledge regarding menarche, menstrual management, food intake, physical and social movement of girls and menstrual hygiene practices in all the societies. Talking about menstruation before the onset of puberty is considered as a taboo, this prevents girls to acquire proper knowledge regarding menstruation and menstrual hygiene management. Even, after attaining the menarche, taking of menstrual problems and hygiene management with others is considered as a misdemeanour. Socio-cultural norms play a significant role in this aspect.

Table-5.1. shows, age of the student ($X^2=14.53$, $p= 0.002$), place of stay ($X^2=4.334$, $p=0.038$), father's occupation ($X^2=10.828$, $p=0.055$), mother's occupation ($X^2=12.87$, $p=0.025$) and age at puberty of the student ($X^2=39.824$, $p=0.000$) makes significant impact on the knowledge about puberty before attaining menarche. Girls in the age group of 16-17 years (45.8 percent) had more knowledge about menarche before the attainment of puberty than those in the age groups on 10-11 years (6.9 percent). Higher proportion of girls staying in the hostel (41.7 percent) had known about menarche before their puberty then those who are coming as day's scholars from their school (23 percent). Higher proportion of daughters of cultivators (31.2 percent) and agricultural coolies (44.4 percent) had received knowledge on menarche before their puberty than daughters on skilled workers (18.2 percent) and non agricultural coolies (21.2 percent). Similarly, higher percentage of students of salaried (40 percent) and agricultural coolie (47.8) mothers had knowledge on menarche before puberty. Higher age at puberty increases the knowledge on menarche before the onset of puberty.

Fifty percent of the girls who attained their menarche at the age of 14 and above years received knowledge on puberty before its onset compare to nine of the girls who attained their menarche at the age of 11 years and 10 and less than 10 years.

Table 5.1. Adolescent student's knowledge on menstruation before the onset of puberty and their socio-economic and demographic status

Socio-economic characteristics	Knowledge on puberty		X2	Level of significance
	Yes	No		
ALL (N)	24.0	76.0		
Type of school				
Government school	22.3%	77.7%	1.137	0.171
Private/Aided school	26.9%	73.1%		
Nature of school				
Girls school	26.9%	73.1%	1.137	0.171
Co-education	22.3%	77.7%		
Residence				
Rural	24.3%	75.7%	0.771	0.456
Urban	22.6%	77.4%		
Religion				
Hindu	24.3%	75.7%	0.243	0.885
Muslim	20.0%	80.0%		
Christian	25.0%	75.0%		
Caste				
Scheduled caste	20.7%	79.3%	1.792	0.617
Most backward community	27.9%	72.1%		
Backward community	24.3%	75.7%		
Others	26.1%	73.9%		
Family type				
Joint family	21.0%	79.0%	0.912	0.204
Nuclear family	25.3%	74.7%		
Age of the respondents				
10-11 years	6.9%	93.1%	14.529	0.002**
12-13 years	22.2%	77.8%		
14-15 years	31.8%	68.2%		
16-17 years	45.8%	54.2%		
Place of stay				
Home	23.0%	77.0%	4.334	0.038*
Hostel	41.7%	58.3%		
Family size				
<=3 members	24.1%	75.9%	0.927	0.819
4 members	24.2%	75.8%		
5 members	26.3%	73.7%		
>=6 members	21.0%	79.0%		

Family Income				
<=Rs.5000	20.8%	79.2%	5.139	0.273
Rs.5001 to 10000	26.0%	74.0%		
Rs.10001 to Rs.15000	17.6%	82.4%		
Rs.15001 to Rs.20000	39.1%	60.9%		
>=Rs.20001	21.9%	78.1%		
Father's occupation				
Cultivation	31.2%	68.8%	10.828	0.055*
Agricultural coolie	44.4%	55.6%		
Non agricultural coolie	19.6%	80.4%		
Skilled worker	18.2%	81.8%		
Salaried	20.0%	80.0%		
Business	22.0%	78.0%		
Mother's Occupation				
Housewife	23.6%	76.3%	12.87	0.025*
Agricultural coolie	47.6%	52.4%		
Non agricultural coolie	21.2%	78.8%		
Skilled worker	22.2%	77.8%		
Salaried	40.0%	60.0%		
Age at puberty				
<=10 years	8.6%	91.4%	39.817	0.000***
11 years	9.2%	90.8%		
12 years	18.4%	81.6%		
13 years	35.5%	64.5%		
>=14 years	50.0%	50.0%		

5.2. Knowledge on Personal Hygiene during Menstruation

Table 5.2. explains the knowledge on personal hygiene during menstruation among adolescent girls and their socio-economic status. Caste ($X^2=8.851$, $P=0.031$), mothers' occupation ($X^2=17.31$, $P=0.004$), age at puberty of the student ($X^2=11.15$, $P=0.025$) shows significant difference in the knowledge on personal hygiene during menstruation. Higher proportion of students of housewife (93 percent) and skilled worker (90.5 percent) mother's had knowledge on personal hygiene compare to daughters of agricultural coolie (81.2 percent) and non agricultural coolie (83.3 percent) mothers. Late age at menarche increases the knowledge on menstrual hygiene. Ninety-five percent of the students attained their menarche at the age of 14 above years had knowledge on menstrual hygiene/personal hygiene compare to 77 percent among students those who attain their puberty at age of 10 or less years. Higher proportion of students belonging to other community (95.7 percent) had

knowledge on personal hygiene compare to students of SC (85 percent) and backward communities (86 percent).

Table 5.2 Knowledge on personal hygiene during menstruation according to socio-economic and demographic characteristics of the students

Socio-economic characteristics	Knowledge on Personal hygiene		X2	Level of significance
	Yes	No		
ALL (N)	89.9	10.1		
Type of school				
Government school	90.0%	10.0%	0.933	1.000
Private/Aided school	89.7%	10.3%		
Nature of school				
Girls school	91.7%	8.3%	0.855	0.355
Co-education	88.8%	11.2%		
Residence				
Rural	89.0%	11.0%	2.219	0.172
Urban	95.2%	4.8%		
Religion				
Hindu	89.5%	10.5%	1.094	0.579
Muslim	96.0%	4.0%		
Christian	90.0%	10.0%		
Caste				
Scheduled caste	85.2%	14.8%	8.851	0.031*
Most backward community	86.5%	13.5%		
Backward community	86.1%	13.9%		
Others	95.7%	4.3%		
Family type				
Joint family	91.1%	8.9%	0.292	0.365
Nuclear family	89.4%	10.6%		
Age of the respondents				
10-11 years	86.2%	13.8%	6.003	0.111
12-13 years	86.8%	13.2%		
14-15 years	94.6%	5.4%		
16-17 years	89.4%	10.6%		
Place of stay				
Home	89.8%	10.2%	0.087	1.000
Hostel	91.7%	8.3%		
Family size				
<=3 members	93.1%	6.9%	3.869	0.276
4 members	93.3%	6.7%		
5 members	87.2%	12.8%		
>=6 members	87.6%	12.4%		

Family Income				
<=Rs.5000	85.8%	14.2%	6.925	0.140
Rs.5001 to 10000	88.7%	11.3%		
Rs.10001 to Rs.15000	96.1%	3.9%		
Rs.15001 to Rs.20000	95.7%	4.3%		
>=Rs.20001	96.9%	3.1%		
Father's occupation				
Cultivation	91.7%	8.3%	7.593	0.180
Agricultural coolie	82.3%	16.7%		
Non agricultural coolie	86.3%	13.7%		
Skilled worker	89.4%	10.6%		
Salaried	91.2%	9.8		
Business	88.1%	11.9%		
Mother's Occupation				
Housewife	93.0%	7.0%	17.322	0.004**
Agricultural coolie	81.2%	18.8%		
Non agricultural coolie	83.3%	16.7%		
Skilled worker	90.5%	9.5%		
Salaried	86.7%	13.3%		
Age at puberty				
<=10 years	77.1%	22.9%	11.157	0.025*
11 years	87.2 %	12.8 %		
12 years	90.0 %	10.0%		
13 years	93.5%	6.5%		
>=14 years	94.7%	5.3%		

5.3. Menstrual Hygiene Management Practices

Table 5.3 shows that, sixty-two percent of the respondents practice menstrual hygiene at higher level. There is no significant difference exist between students of government school and private/ aided schools, and girls school and co-education school students in menstrual hygiene management practices. Among the socio-economic and demographic status of the students, family size ($X^2 = 10.57$, $p = 0.014$), family type of the student ($X^2 = 10.380$, $p = 0.002$), and age at puberty ($X^2 = 10.730$, $p = 0.30$) of the students makes significant difference in the menstrual hygiene management practice of the students. Menstrual hygiene management is high among students who attained their puberty at the age of 10 and below 10 years (71 percent) compared to students attained their menarche at the age of 14 and above years (45.7 percent). Menstrual hygiene management is high among students whose family size is four (71.1 percent) and five (60.2 percent) compare to students living in families with six and more members (51 percent). Menstrual hygiene management is high among students living in

nuclear families (75.6 percent) compare to those who are living in joint families (50.0 percent).

Table 5.3. Menstrual hygiene management of the adolescent student's according to their socio-economic and demographic characteristics.

Socio-economic characteristics	MHM PRACTICE		X2	Level of significance
	LOW	HIGH		
ALL (N)	38.2	61.8		
Type of school				
Government school	37.8%	62.2%	0.896	0.917
Private/Aided school	38.5%	61.5%		
Nature of school				
Girls school	37.8%	62.2%	0.017	0.917
Co-education	38.5%	61.5%		
Residence				
Rural	39.0%	61.0%	0.445	0.481
Urban	33.9%	66.1%		
Religion				
Hindu	39.1%	60.9%	2.967	0.227
Muslim	40.0%	60.0%		
Christian	20.0%	80.0%		
Caste				
Scheduled caste	33.1%	66.9%	4.057	0.255
Most backward community	36.5%	63.5%		
Backward community	43.1%	56.9%		
Others	47.8%	52.2%		
Family type				
Joint family	50.0	50.0	10.380	0.002**
Nuclear family	61.0	75.9		
Age of the respondents				
10-11 years	48.3%	51.7%	3.241	0.356
12-13 years	36.8%	63.2%		
14-15 years	35.1%	64.9%		
16-17 years	39.4%	60.6%		
Place of stay				
Home	38.3%	61.7%	0.006	0.562
Hostel	37.5%	62.5%		
Family size				
<=3 members	41.4%	58.6%	10.566	0.014*
4 members	28.9%	71.1%		
5 members	39.8%	60.2%		
>=6 members	48.6%	51.4%		

Family Income				
<=Rs.5000	29.2%	70.8%	6.986	0.137
Rs.5001 to 10000	41.2%	58.8%		
Rs.10001 to Rs.15000	47.1%	52.9%		
Rs.15001 to Rs.20000	43.5%	56.5%		
>=Rs.20001	31.2%	68.8%		
Father's occupation				
Cultivation	43.8%	56.2%	1.954	0.855
Agricultural coolie	40.7%	59.3%		
Non agricultural coolie	38.6%	61.4%		
Skilled worker	39.4%	60.6%		
Salaried	45.0%	55.0%		
Business	32.2%	67.8%		
Mother's Occupation				
Housewife	45.1%	54.9%	9.193	0.102
Agricultural coolie	38.1%	61.9%		
Non agricultural coolie	32.1%	67.9%		
Skilled worker	40.7%	59.3%		
Salaried	20.0%	80.0%		
Age at puberty				
<=10 years	29.1%	70.9%	10.730	0.030**
11 years	36.8%	63.2%		
12 years	42.7%	57.3%		
13 years	45.0%	55.0%		
>=14 years	54.3%	45.7%		

5.4. Challenges Faced to Maintain Personal Hygiene Management

While assessing the challenges faced by the adolescent students for maintaining their menstrual hygiene management, type of school they studied ($X^2=6.325$, $P=0.014$), their family income ($X^2=8.344$, $P=0.80$), mother's occupation ($X^2=15.016$, $P=0.010$) and their residence ($X^2=9.541$, $P=0.002$) makes significant differences. Students in government school (46.5 percent), low income families (50.9 percent), mothers engaged in agricultural coolies work (46.8 percent) and house wife (42.5 percent), students living in urban (59.7 percent) face higher challenges in maintaining menstrual hygiene management than students in private school (34.0 percent), high income families (21.7 percent), mothers engaged in skilled or salaried work (33.3 percent each) and students living rural (38.7 percent).

Table.5.4.Challenges faced by adolescent students to maintain menstrual hygiene management according to their socio-economic and demographic characteristics.

Socio-economic characteristics	Challenges to maintain menstrual hygiene		X2	Level of significance
	Yes	No		
ALL (N)	41.8	58.2		
Type of school				
Government school	46.5%	53.5%	6.325	0.014*
Private/Aided school	34.0%	66.0%		
Nature of school				
Girls school	45.5%	54.5%	1.394	0.259
Co-education	39.6%	60.4%		
Residence				
Rural	38.7%	61.3%	9.541	0.002
Urban	59.7%	40.3%		
Religion				
Hindu	42.6%	57.4%	0.820	0.664
Muslim	36.0%	64.0%		
Christian	35.0%	65.0%		
Caste				
Scheduled caste	40.7%	59.3%	2.209	0.530
Most backward community	40.4%	59.6%		
Backward community	41.7%	58.3%		
Others	56.5%	43.5%		
Family type				
Joint family	36.3%	63.7%	2.226	0.136
Nuclear family	44.2%	55.8%		
Age of the respondents				
10-11 years	37.9%	62.1%	0.979	0.806
12-13 years	40.3%	59.7%		
14-15 years	44.6%	55.4%		
16-17 years	16.1%	15.7%		
Place of stay				
Home	41.8%	58.2%	0.000	1.000
Hostel	41.7%	58.3%		
Family size				
<=3 members	27.6%	72.4%	2.5999	0.458
4 members	43.0%	57.0%		
5 members	42.9%	57.1%		
>=6 members	42.9%	57.1%		

Family Income				
<=Rs.5000	50.9%	49.1%	8.344	0.080
Rs.5001 to 10000	41.2%	58.8%		
Rs.10001 to Rs.15000	39.2%	60.8%		
Rs.15001 to Rs.20000	21.7%	78.3%		
>=Rs.20001	34.4%	65.6%		
Father's occupation				
Cultivation	33.3%	66.7%	8.686	0.122
Agricultural coolie	29.6%	70.4%		
Non agricultural coolie	50.3%	49.7%		
Skilled worker	43.9%	56.1%		
Salaried	30.0%	70.0%		
Business	40.7%	59.3%		
Mother's Occupation				
Housewife	42.5%	57.5%	15.016	0.010
Agricultural coolie	14.3%	85.7%		
Non agricultural coolie	46.8%	53.2%		
Skilled worker	33.3%	66.7%		
Salaried	33.3%	66.7%		
Age at puberty				
<=10 years	42.9%	57.1%	1.629	0.804
11 years	40.8%	59.2%		
12 years	44.0%	56.0%		
13 years	37.9%	62.1%		
>=14 years	47.5%	52.5%		

VI.CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The study found that one-fourth of students known about menstruation and related body changes before they attain their first menstrual period. Family is main source of knowledge provider, particularly mother and elder sisters. Knowledge on usage of sanitary napkin/blood absorbent and disposal, puberty symptoms and body changes and foods to be taken and avoided were given to the adolescent by family members.

School also provides menstrual hygiene management education through RBSK. But it was not adequate. Providing knowledge on personal hygiene and intake of nutritious food is inadequate. Sanitary napkin disposal took main part school education.

Disposable sanitary napkins were the only absorbent used to manage menstrual bleeding. Knowledge on personal hygiene during menstruation is good. Sanitary napkins were changed frequently, at least three to four times per day. Genitals were cleaned every time of changing napkins. Knowledge of genital hygiene at the time of menstruation and maintenance is also good. Students know the importance of genital hygiene and the problems exist due to poor genital hygiene such as infections, cervical cancer, uterus problem and itching over vulva.

Sanitation facilities are available in schools. All the selected schools had separate toilets for females with water facilities and facility for sanitary napkin disposal. But the number of toilet rooms and privacy are questionable. Majority of the students face problems for changing sanitary napkins at schools because of water scarcity, inadequate number of toilets, and lack of privacy.

Students discussion about menstruation and hygiene is less due to some cultural constraints and beliefs about not to talk about menstruation with others and shyness. Discussion on menstrual duration, disposal and usage of napkins and health problems were mostly took place at the time their menstruation period. Abdominal pain and irregular periods are mostly experienced by adolescent girls.

Adolescent girls are eager to know about more issues related to menstruation and menstrual hygiene. They want know about the reasons for abdominal pain, body pain and heaviness of body at the time of menstruation, reasons for irregular periods, white discharge, itching in the genitals and around vulva and reasons for heavy and scanty bleeding. Apart from the physiological problems, they are in need of answers for cultural constraints on restriction of certain foods, restriction to mobility and separation.

Regarding the association between socio-economic status and knowledge on menstruation and menstrual hygiene management among the adolescent girls, this study found that there was no significant difference among the rural and urban students and students in government and private schools as well as students from co-education schools and girls schools regarding the knowledge on menstruation before the onset of puberty, knowledge on personal hygiene/genital hygiene and practice as well as challenges faced during menstruation at school. Even societal and cultural factors like religion and caste also not makes significant difference.

Age of the student, place of stay, father occupation and mother's occupation and age at puberty makes significant difference in adolescent student's knowledge on menstruation before they attain puberty.

Caste, mother's occupation and age at puberty make significant difference in knowledge on personal hygiene during menstruation.

Family size and family type of the student and age at puberty of the students makes significant difference in the menstrual hygiene management practice.

While assessing the challenges faced by the adolescent students for maintaining their menstrual hygiene management, type of school they studied, their family income, mother's occupation and their place of residence makes significant differences.

In addition there is no difference between students in acquiring new knowledge regarding menstruation, menstrual problems and reasons for taboos on food intake and social mobility.

6.2. Recommendations

1. Improve access and quality of education about menstruation and menstrual hygiene. Menstrual hygiene management materials, body changes and health problems during menstrual periods, reasons for health problems and how to overcome these problems has to be documented in schools. Information, Education and Communication modules can be displayed in schools. This may lead to clear the doubts of the students on these issues and may prevent unnecessary misconceptions.

2. Enhance the WASH facilities at schools

Even though WASH facilities are available and utilised by students, it has to be improved as user friendly. Adequate water and privacy is needed to maintain menstrual hygiene in schools. This is because unless water and privacy, it is difficult to maintain genital hygiene and changing of sanitary napkins. Inadequate water and privacy prevents some students not to use the toilets in school. This makes them not to change the sanitary napkins in school time.

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