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Menstrual Hygiene Management Practice and Associated factors Among Adolescent Schoolgirls in Schools That Have Menstrual Hygiene Management Chang Room in Debre Tabor Town, Amhara Region, Northwest Ethiopia

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BAHIR DAR UNIVERSITY
COLLEGE OF MEDICINE AND HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH, DEPARTMENT OF
ENVIRONMENTAL HEALTH.

MENSTRUAL HYGIENE MANAGEMENT PRACTICE AND
ASSOCIATED FACTORS AMONG ADOLESCENT SCHOOLGIRLS
IN SCHOOLS THAT HAVE MENSTRUAL HYGIENE
MANAGEMENT CHANG ROOM IN DEBRE TABOR TOWN,
AMHARA REGION, NORTHWEST ETHIOPIA.

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A THESIS PROPOSAL SUBMITTED TO THE DEPARTMENT OF
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OF MEDICINE AND HEALTH SCIENCES IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF MPH IN
WATER, SANITATION, AND HYGIENE.

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ABSTRACT

Background: Menstruation is biological change and associated with puberty girls. It can be easily affected by school environment such as water, latrine with private and dignity, sanitary pad and soap availability. It can be solve by good menstrual hygiene management but stile it is a challenge for schoolgirls due to different factors. However, to improve this school wash facilities were implemented but the result is unknown in Ethiopia especially in Debre Tabor town, Amhara region, Northwest Ethiopia.

Objective: Assess menstrual hygiene management practices and associated factors in adolescent girls in schools that have menstrual hygiene management room in Debre Tabor town.

Methods: A school-based cross-sectional study was conducted among 712 adolescent schoolgirls in Debre Tabor town. Proportional sample size allocation for each of schools was conducted by using simple random sampling method to select study participants in each class. Data was collected by trained data collectors by using a self-administered structured and pretested questionnaire. The collected data was checked for its completeness, recoded and entered to Epi-info version 7.2 and exported to SPSS version 20.0 for data analysis. Bi variable and multivariable logistic regression were employed with a 95% confidence level. From the bi variable analysis (crude odds ratio [COR]), variables with $p < 0.25$ was used for multivariable analysis (adjusted odds ratio [AOR]). In the multivariable analysis, variables with $p < 0.05$ was taken as statistically significant and independently associated with menstrual hygiene management practice.

Result: Near to two-thirds (73.2%) of participants practice good menstrual hygiene and 74.9% of participants had good knowledge. This study found that urban dweller [AOR=1.72, 95%, CI: (1.10, 2.70)], maternal education level secondary school [AOR=2.65,95%,CI:(1.23,5.71) college and above [AOR=1.72, 95%, CI :(1.09, 2.71)], learn in school about menstrual hygiene [AOR=3.14, 95%, CI :(2.11,4.70)] and sanitary material change in school [AOR=4.18,95%,CI:(2.76,6.32)] were practice good menstrual hygiene management than their counterparts.

Conclusion and recommendation: Around two-third of adolescent girls practice good menstrual hygiene, to improve and sustain the schools should take action based on the identified factors.

Keywords: Menstrual hygiene, schoolgirls, hygiene factor, menarche, adolescent girls.

ACRONYMS AND ABBREVIATIONS

MHM	Menstrual Hygiene Management
NGO	None Governmental Organization
SDG	Sustainable Development Goal
UNICEF	United Nation Children’s Fund
WaSH	Water, Sanitation and Hygiene
WInS	Water, Sanitation and Hygiene in school

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1. INTRODUCTION

1.1 Background

Among the global total population 26% and approximately 52% of the female population are in reproductive age and menstruate monthly (1). The duration of menstruation stay in each month between two and seven days and the whole cycle takes between 21 and 35 days(2). Menstruation is biological change and associated with puberty girls (normally between the ages of 9 and 14(1, 3). Puberty is one of the most challenging times for adolescents because it is simply a time of accelerated physical growth and sexual development experienced by every human (4). Around the world girls try to keep their menstruation secret while they are in school. Without adequate sanitation facilities, girls are unable to manage safely, hygienically with dignity and is unlikely to use the facility if there is no guarantee to privacy(5).

Menstrual hygiene in most parts of the world remains taboo and rarely talks. Due to this and other factors schools do not support adolescent girls and female teachers (2). Often the education sector avoids the issue by considering it a private matter or a problem to be addressed within the family (6). Because of this all over the world, girls and women are face for anxiety and stress with the management of menstrual hygiene (4). The information that adolescent girls receive is often selective and surrounded by taboos so yet many adolescent girls enter puberty unprepared. In addition to the cultural perception School environments have an effect on adolescent girls especially during menstruation a study shows that there were different challenges and these challenges affecting their physical and mental health, educational performance, safety, and dignity(7).

Menstruation needs Good menstrual hygiene practices means that women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials(8). Improving menstrual hygiene management directly contribute to the achievement of the Sustainable Development Goals, including the goals and targets addressing the need for clean water and sanitation (SDG 6), gender equality (SDG 5), quality education (SDG 4) and good health (SDG 3) (7).

Challenges girls face managing menstruation at school are determined by factors that are largely preventable. The availability of Water, sanitation and hygiene facilities and resources in schools greatly impacted girl's practices and their ability to manage menstruation(9). In Ethiopia, like in many

parts of developing world, the subject of menstruation and puberty hygiene is rarely discussed at home as well as at schools. This could be mainly due to cultural restrictions preventing the flow of correct and sufficient information given to youngsters (10).

If a school latrine is not secure or private, adolescent girls are less likely to use it when menstruating and may be forced to stay in their soiled pads for more than eight hours, or even choose to stay at home on those days. The lack of a secure, locking door can also make girls more susceptible to harassment and even violence(11).

1.2. Statement of the problem

Menstrual hygiene management is very much related to an adolescent girl's education, dignity, empowerment, social development and health as a whole (12). Lack of family support, lack of support from teachers, lack of access to sanitary products and lack of money to purchase sanitary products, inadequate water and sanitation facilities at school and lack of a clean and private space were major challenges for menstrual hygiene management in schools (13, 14).

There were clear relation between poor menstrual hygiene and health of girls. The study done in Hhohho Region of Swaziland revealed that reusing of cloths that have not been adequately clean and dried, not washing regularly and urinary tract infection had a relation with poor menstrual hygiene management(15). Poor menstrual hygiene practices, specifically unhygienic use of menstrual hygiene products in low and middle income countries increases the risk of reproductive tract infection and pelvic inflammatory diseases and other complications(16).

During menstruation adolescent girls in different countries of Africa practices different activates, 39% to 84% of adolescent girls were not wash during menstruation or did not use soap to take shower. In Ethiopia 11% of girls and 60% of girls in India only change their menstrual cloths once a day (17, 18). Adolescent girls in Africa face for different challenges during menstruation. As water Aid shows one in every ten schoolgirls was absent from school 4 -5 days or drop out entirely from schools. Among 130 million world's total male and female adolescents that were out of school 70% were girls and it affects academic performance of girls(19).

Poor menstrual hygiene management has an effect on schoolgirl's enrolment to school, even though they enrolled in to schools they lack concentration on education due to fear of soiling their cloth and a bad smell associated with not washing properly. A study done in Uganda revealed that 24% of adolescent girls were drop out from school due to menstruation(20).

Adolescent schoolgirls in Ethiopian different regions education performance, psychology and school attendance during menstruation were highly affected by poor menstrual hygiene management practice. Among adolescent girls even who have menstrual experience 50% were absent from school 1-3 days. (21). In Ethiopia more than half (52%) of adolescent girls never received information about menstrual hygiene. Only two women in every ten talked with their daughter about menstruation before she started menstruating (22).

Menstrual hygiene management practices can be improved by integrated interventions. Some non-governmental organizations build WaSH facility by considering menstrual hygiene management room to help girls manage their menstruation with dignity and safety. This intervention also improves knowledge around menstruation and struggle long held taboos (23). Adolescent girls may not go schools without access to good menstrual materials and private WaSH room for change sanitary materials. Managing menstruation in resource poor setting is challenging, especially away from home. Such challenges are increased by societal taboos, secrecy and embarrassment around menstruation(24).

Girl's friendly school WaSH facility has implemented in schools to access and make it girls friendly after different research identifies the gap. Now some schools have menstrual hygiene management room in schools to prevent school absenteeism due to menstruation, to make safe school environment for adolescent girls and to break the silence and intervene accordingly. To the best of my knowledge (I was try to search in Google scholar, PubMed and Google) the result is unknown. So this study was aimed to assess menstrual hygiene management practices and associated factors to identify the gap and strength the existing strategies for future design and intervention.

1.3 Significance of the study

The result of this study could guide menstrual hygiene management room planning and implementation in schools. Since this study includes cultural beliefs, age at menarche and menstrual hygiene management room in schools who start to intervention. As a result, the findings could inform evidence-based practice recommendations to plan and implement menstrual hygiene management practices in schools. The primary practical basis is to develop recommendations regarding the design of future interventions in these contexts.

Findings of this study is useful for government authorities specially, for Health facilities of the catchment, school leaders, Woreda health and education office, zonal Health and educational department, Regional Health Bureau and regional education Bureau and Non-governmental organization to design effective interventions against the problem & serve as a source of information for other researchers about menstrual hygiene management practices & associated factors.

2. LITERATURE REVIEW

2.1. Prevalence of menstrual hygiene management practices

According to cross sectional study conducted in west of Iran shows that majority (81%) of adolescent girls were had poor menstrual hygiene practice during menstruation (25).In other study that was conducted in Bangalore, India revealed that Almost all (98.7%) adolescent girls had practice poor menstrual hygiene during menstruation (26). A study conducted in Kenya shows that 71.2% of schoolgirls were practice good menstrual hygiene management(27).

A cross sectional study conducted in Ethiopia revealed that 57%, 39.9% and 52.5%, 70.2% of adolescent girls in Adama town, Western Ethiopia , Addis Ababa and Oromia region Boset district had good menstrual hygiene management practice respectively (28-31). According to the study done in Gedeo zone schoolgirls, southern Ethiopia shows that 60.3% of adolescent girls were practice poor menstrual hygiene management(32). A cross sectional study conducted in Amhara region different areas shows that 90.9%, 84.3%, 24.5% and 29.8% of adolescent girls in Mehalmeda, Bahir dar schoolgirls, Bahir Dar community girls and in Wegera schoolgirls had good menstrual hygiene management practice respectively (33-36).

2.2. Menstrual hygiene management practice associated factors

2.2.1. Socio economic and cultural beliefs related factors

According to a study conduct in west of Iran revealed that age of participant and adolescent girls maternal education level had significantly associated with good menstrual hygiene management practice (25). A cross sectional study done in Indonesia shows that adolescent girls who live in rural area practice poor menstrual hygiene management than who live in urban area and adolescent girls younger (grade 7 to grade 9) were practice poor menstrual hygiene than older adolescent girls (grade 10 to grade12) (37). According to the study done in Nigeria shows that adolescent girls live with parents had significant association with good menstrual hygiene management practice and it revealed that age of adolescent girls and school attendance during menses had no significant association with good menstrual hygiene management practice (38). According a cross sectional study done in Kenya revealed that teasing by boys were the strongest determinant of poor menstrual hygiene management practice (27).

A study conducted in Boset district Oromia region, Ethiopia revealed that grade level of students had significant association with menstrual hygiene management practice. This study also revealed that participants' father education level and pocket money were not associated with menstrual hygiene management practice (31). A cross sectional study conducted in Gedeo zone, southern Ethiopia, shows that adolescent girls whose age 15 and less were practice good menstrual hygiene management than whose age were equal to 15 and above. This study also revealed that age of menarche were not significantly associated with menstrual hygiene management practice (32). A study conducted in Nekemt town Western Ethiopia, shows that educational status of participants' mother and father, occupational status of father and have a radio had an association with good menstrual hygiene management practice(29). According to the study done in Adama town Oromia region, Ethiopia revealed that maternal education status, students whose mother attended secondary and above level of education were 39.2% less likely to had good menstrual hygiene practice than students whose mother attended below and primary level of education(28)

A study conducted in Amhara region , Mehalmeda high school and Bahir Dar city schoolgirls shows that place of residence was an association with menstrual hygiene management practice(33, 34). According to the community based cross sectional study conducted in Bahir Dar city Amhara region, revealed that age of participant and maternal education level was significantly associated with menstrual hygiene management practice(35).

2.2.2. School environment and sanitary material related factors

According to the study done in Indonesia shows that adolescent girls who change pads infrequently and not washing hands before and after changing menstrual material were practice poor menstrual hygiene management than their counter parts(37). Based on the cross sectional study done in Kenya revealed that lack of privacy of latrine was the strongest determinant of poor menstrual hygiene management practice(27).

According to a cross sectional study done in Adama town Oromia region, shows that adolescent girls who learn in uncomfortable school to keep hygiene were practice poor menstrual hygiene than who learn in comfortable school to keep hygiene (28). A cross sectional study done in Boset district Oromia region, shows that adolescent girls who learn in schools which had water, sanitation ,and hygiene (WaSH) facility had practice good menstrual hygiene than who had not had WaSH facility(31). According to the study done in Mekele town Tigray region, schoolgirls shows that

menstruation interfere with class or absenteeism was not associated with menstrual hygiene management practice(39).

A cross sectional study done in Wegera district Amhara region ,schoolgirls shows that source of water either it is private or public had no significant association with good menstrual hygiene management practice(36). A study conducted in Amhara region, Mehalmeda schoolgirls shows that Adolescent girls who had water access had good menstrual hygiene management practice than who had not had water access(33). Another study conducted in Amhara region, Bahir Dar city Schoolgirls shows that water access had an association with good menstrual hygiene management practice(34).

2.2.3. Knowledge and source of information related factors

According to the study conducted in Gedeo zone, Southern Ethiopia ,shows that adolescent girls who had good knowledge about menstruation were practice good menstrual hygiene than who had poor knowledge and adolescent girls menstrual duration more than 5 days practice good menstrual hygiene than the duration was less than 3 days (32). In other study that was done on adolescent schoolgirls in Mekele town Tigray region , shows that average duration of menstrual flow and information before menarche were not associated with menstrual hygiene management (39).

A study conducted in Adiss Ababa Ethiopia, shows that learn about menstrual hygiene in school, discuss about menstrual hygiene with their parents were significantly associated with good menstrual hygiene management practice. This study also revealed that hear about menstruation before menarche had no significant association with menstrual hygiene management practice(30).

A study conducted in Wegera district Amhara region ,schoolgirls shows that exposure to sanitary napkin advertisement and knowledge on menstrual hygiene were significant association with good menstrual hygiene management practice but prior information about menstruation were not significantly associated with good menstrual hygiene management practice(36). A study conducted in Mehalmeda Amhara region, schoolgirls shows that source of information and knowledge about menstruation had significant association with good menstrual hygiene management practice (33). A study conducted in Bahir Dar city administration, Schoolgirls shows that hear about sanitary material had a significant association with good menstrual hygiene management practice. In this study discuss with parents about menstruation, school education about menstruation and awareness before menarche were not significantly associated menstrual hygiene management practice (34).

3. CONCEPTUAL FRAMEWORKS

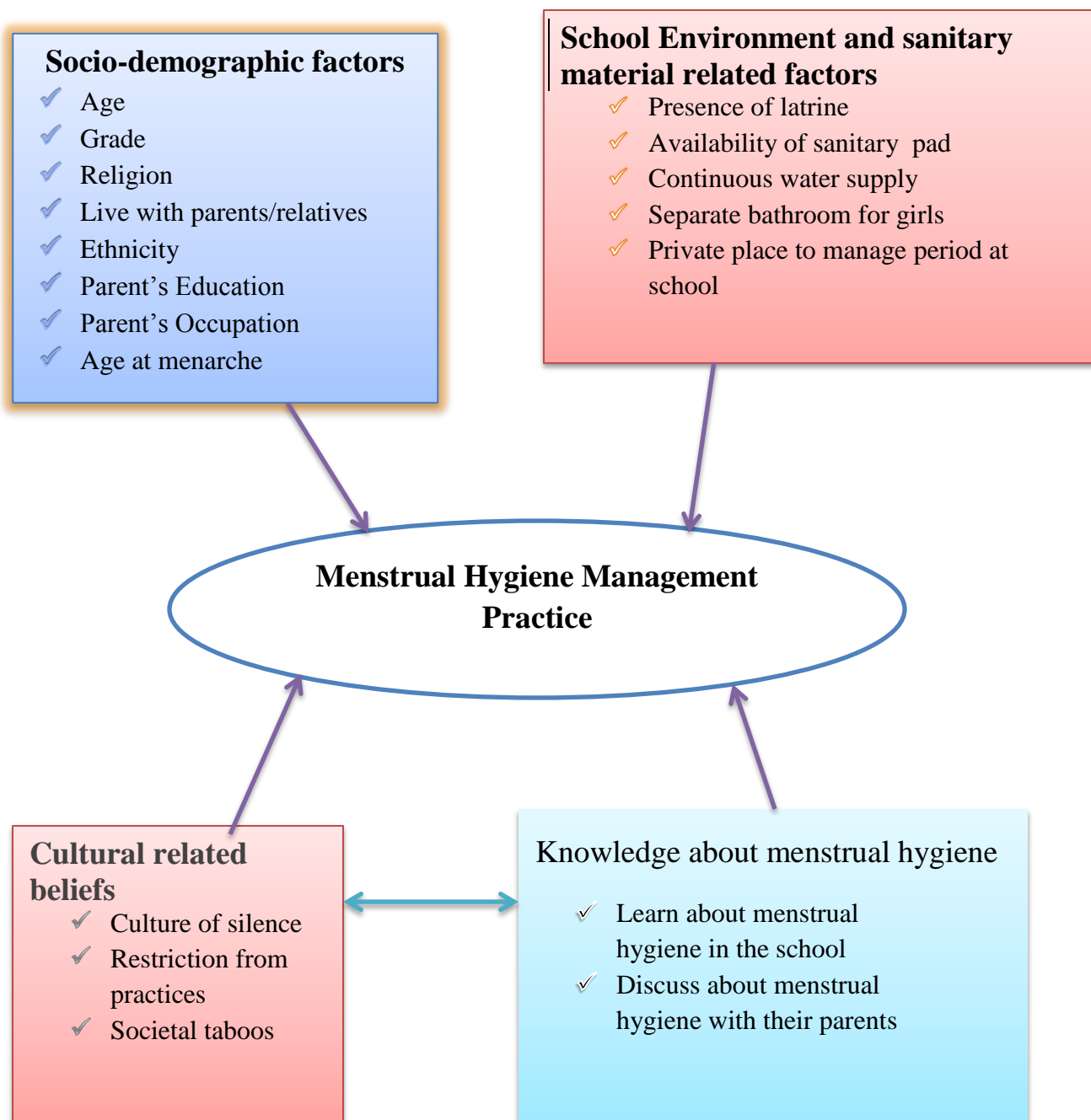


Figure 1: Conceptual framework for the study of menstrual hygiene management practices and associated factors among adolescent schoolgirls in Debre Tabor town in 2019. Adopted from different literature(30, 33, 34).

4. OBJECTIVE

4.1. General objective

Assess menstrual hygiene management practices and associated factors among adolescent schoolgirls in schools that have menstrual hygiene change room in Debre Tabor town, northwest Ethiopia, 2019.

4.2. Specific objectives

1. To determine menstrual hygiene management practice among adolescent schoolgirls in Debre Tabor town, Northwest Ethiopia.
2. To identify factors associated with menstrual hygiene management practice among adolescent schoolgirls in Debre Tabor town, Northwest Ethiopia.

5. METHODS

5.1. Study design and period

A school based cross sectional study was conducted from September 1 to October 15, 2019.

5.2. Study area

The study was conducted in Debre Tabor town administration in Amhara Regional State, North west Ethiopia. Debre Tabor town is the capital city of south Gonder zone and which is located 665 Kms away from Addis Ababa, capital city of Ethiopia and 103 kms from Bahir Dare, capital city of Amhara region. It has 6 kebeles (small administration parts) and in this administration there is a total of 11 schools (grade 1 up to grade 12).It also has 3 health centers and 1 General hospital. Among 11 schools 3 schools (Dagmawi Tewodros, Gafat and Etage tsehaytu) have menstrual hygiene management room and there are 4426 total students among those 2257 are female students.

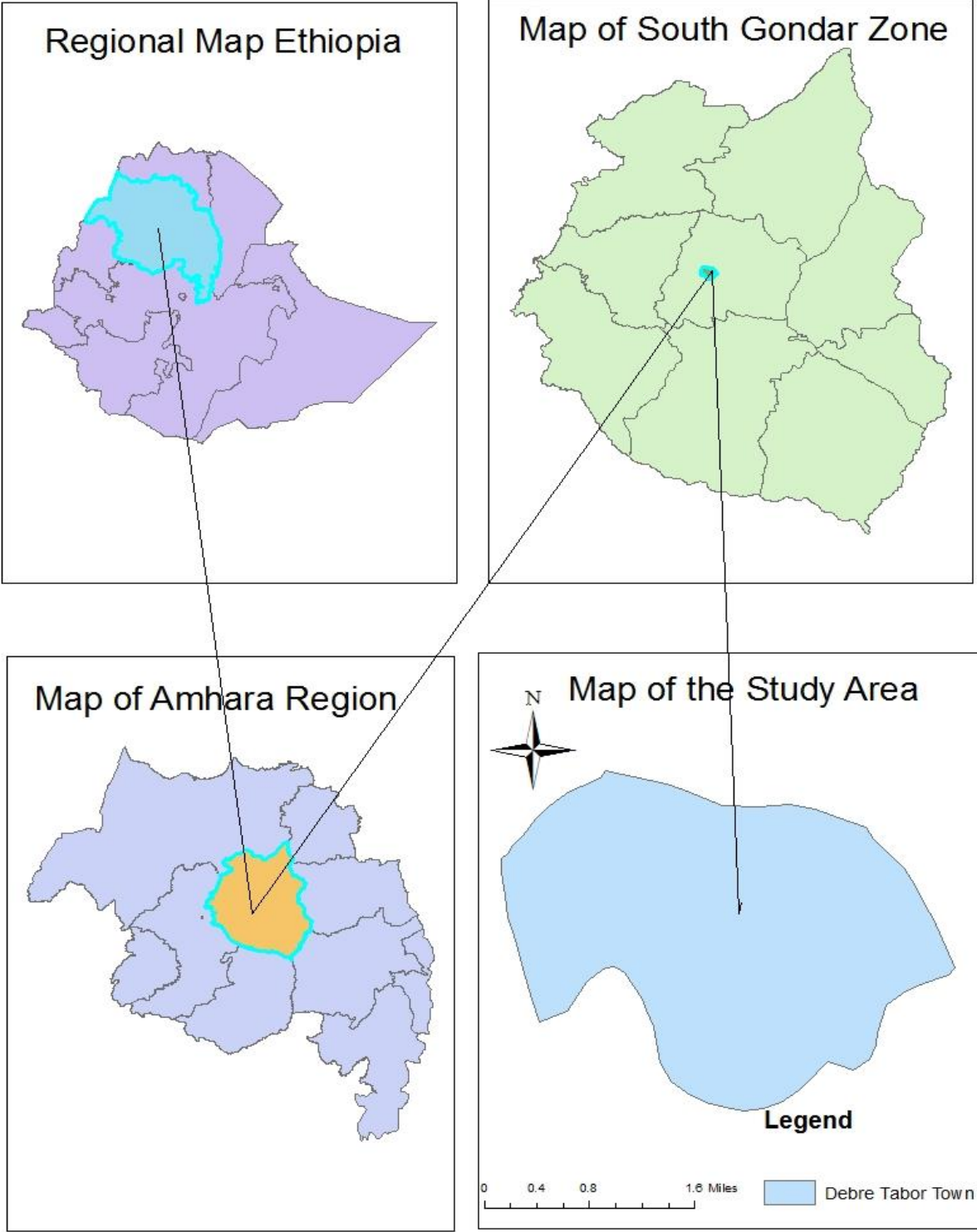


Figure 2 Map of Debre Tabor Town South Gondar Zone, Amhara region, northwest Ethiopia, 2019

5.3. Populations

5.3.1. Source population

All adolescent schoolgirls grade 7th to 12th that were start menstruation and learn in schools that have menstrual hygiene change rooms in Debre Tabor tow administration.

5.3.2. Study population

All adolescent schoolgirls in selected sections of grade 7th to grade 12th and that were start menstruation in schools that have menstrual hygiene change rooms in Debre Tabor tow administration.

5.4. Inclusion and exclusion criteria

5.4.1. Inclusion criteria

All adolescent schoolgirls who start menstruation were included.

5.4.2. Exclusion criteria

Students who were evening class and visually impaired students were excluded.

5.5. Study variables

5.5.1. Dependent variable

- ✓ Menstrual hygiene management practice(Good/poor)

5.5.2. Independent variable

I. Socio demographic variables

- ✓ Age
- ✓ Age at menarche
- ✓ Residence,
- ✓ Religion,
- ✓ Live with parents/relatives
- ✓ Ethnicity
- ✓ Parent's education status
- ✓ Parent's Occupation
- ✓ Grade level

II. Knowledge& Source of information related variables

- ✓ School learning on menstrual hygiene
- ✓ discussion with parents on menstrual hygiene
- ✓ information before menarche on menstrual hygiene

III. Environmental and sanitary material related variables

- ✓ sanitary pad to manage period
- ✓ continuous water supply
- ✓ separate bathrooms for girls
- ✓ safety of private place to manage period at school

IV. Cultural beliefs associated factors

- ✓ Culture of silence
- ✓ Restriction from practices
- ✓ Societal taboos

5.6. Operational definition

The students' knowledge and practices was scored using a scoring system that was adapted from a past study. The measurement of practice of menstrual hygiene focus on use of material during menstruation (assign 1 point for use of commercial sanitary pad, 0 other sanitary materials), methods of disposal of materials (0 for open field, 1 for other proper disposal), cleaning of external genitalia (1 for cleaning 2 or more times/day, 0 for <2 times/day), frequency of sanitary pad change (1 for changing pad 2 or more times/day, 0 for <2 times/day) and materials used for cleaning purpose (1 for washing with soap and water or with plain water, and 0 for not washing). Correct responses for the other questions under practice was attract one and in correct responses was attract zero. This was given a total score of nine (9) points for practice (table4). The mean score of practice were 7.1 ± 1.022 points and it use as cutoff point to decide good and poor practice(29, 40).

In the same way to measure the respondent's knowledge of menstrual hygiene it was 12 questions with each correct answer attracting 1 point and 0 for incorrect or don't know answers(table3). The mean score of knowledge were 7.37 ± 1.86 points and it also used as a cutoff point for deciding good and poor knowledge(29).

- **Good MHM practice:** - Respondents who scored mean and above point from 9 practices related questions was stated as having good practices.
- **Poor MHM practice:** - Respondents who scored below mean points from 9 practices related questions was stated as having poor practices.

- **Good MHM knowledge:** - Respondents who scored mean and above point from 12 knowledge related questions was stated as having good knowledge.
- **Poor MHM knowledge:**- Respondents who scored below mean point under 12 knowledge related questions was stated as having poor knowledge.
- **Menstrual Hygienic management practice in school:**– adolescent school girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to disposed of used menstrual management material(8).
- **Adolescent:**- definition of adolescents as individual between 10 and 19 years (41).
- **A homemade(non-commercial):**- absorbent (new and old clothes) for this study refers to non-commercially made sanitary materials prepared by family members or girls themselves for the purpose of menstrual hygiene practice(32).
- **Appropriate designs:** - The detailed design of the facilities provided must also be girls friendly. Steps must be easy to climb. Door handles must be easy to reach. The toilet interior cannot be too dark. Squatting plates must be designed to accommodate adults (42).
- **Improved sanitation:**- are those more likely to ensure privacy and hygienic use /easily cleanable which is not full, do not have fecal matter in the squat (43).

5.7. Sample size determination and sampling methods

5.7.1. Sample size determination

The sample size was determined using single population proportion formula with the following assumptions:-A 95 % confidence interval and **84.3%** good menstrual hygiene practice from previous study (34), marginal error 5% and 10% non-response rate was added to the total sample.

$$n = \left(\frac{z_{\alpha/2}}{d} \right)^2 \frac{p(1-p)}{(d)^2} = \frac{(1.96)^2 0.843(1-0.843)}{(0.05)^2} = 204$$

Where • $Z_{\alpha/2}$ = critical value at 95% confidence level (1.96), $P = \mathbf{84.3\%}$ prevalence of good menstrual hygiene practice from previous study, n = sample size. Using the above formula the calculated sample size was 204. However, multi-stage sampling method was used, so as to achieve the same precision as simple random sampling the calculated sample size was multiplied by design effects of 2 and considering non response rate of 10%, the total sample size was, $204 * 2 = 408$, the total sample size is $408 + \text{non response } 10\% (41) = 449$.

Sample size determination by associated factors

Table 1: Sample size determination on menstrual hygiene management practices and associated factors among adolescent schoolgirls in Debre Tabor town administration, Amhara region, North West Ethiopia, 2019.

Variable	Prevalence	Calculated sample	Sample with De(2)	Reference
Discus with parents	49%	329	658	(44)
Water access	77.3%	241	482	(34)
Heard about menstruation	14%	171	342	(36)

Sample size of 658 was the highest sample size when we compare with others. Therefore 658 was taken as sample by adding 10% non-response rates, the final sample size was 724.

5.7.2. Sampling methods

All schools found in the study area that have been menstrual hygiene management room were included in the study and multi stage sampling method was used to select adolescent schoolgirls. The sample size was distributed proportionally to each school based on the amount of eligible students (grade seven and above) to determine the required sample size from each selected schools. From each selected schools classes were selected by simple random sampling method and 712 adolescent girls were selected using simple random sampling technique by using Excel randomization by collaboration of female teachers in schools. The reason for the choice of schoolgirls starting from grade seven is because they start their menarche (age at menarche between 13 and 15 years) (45).

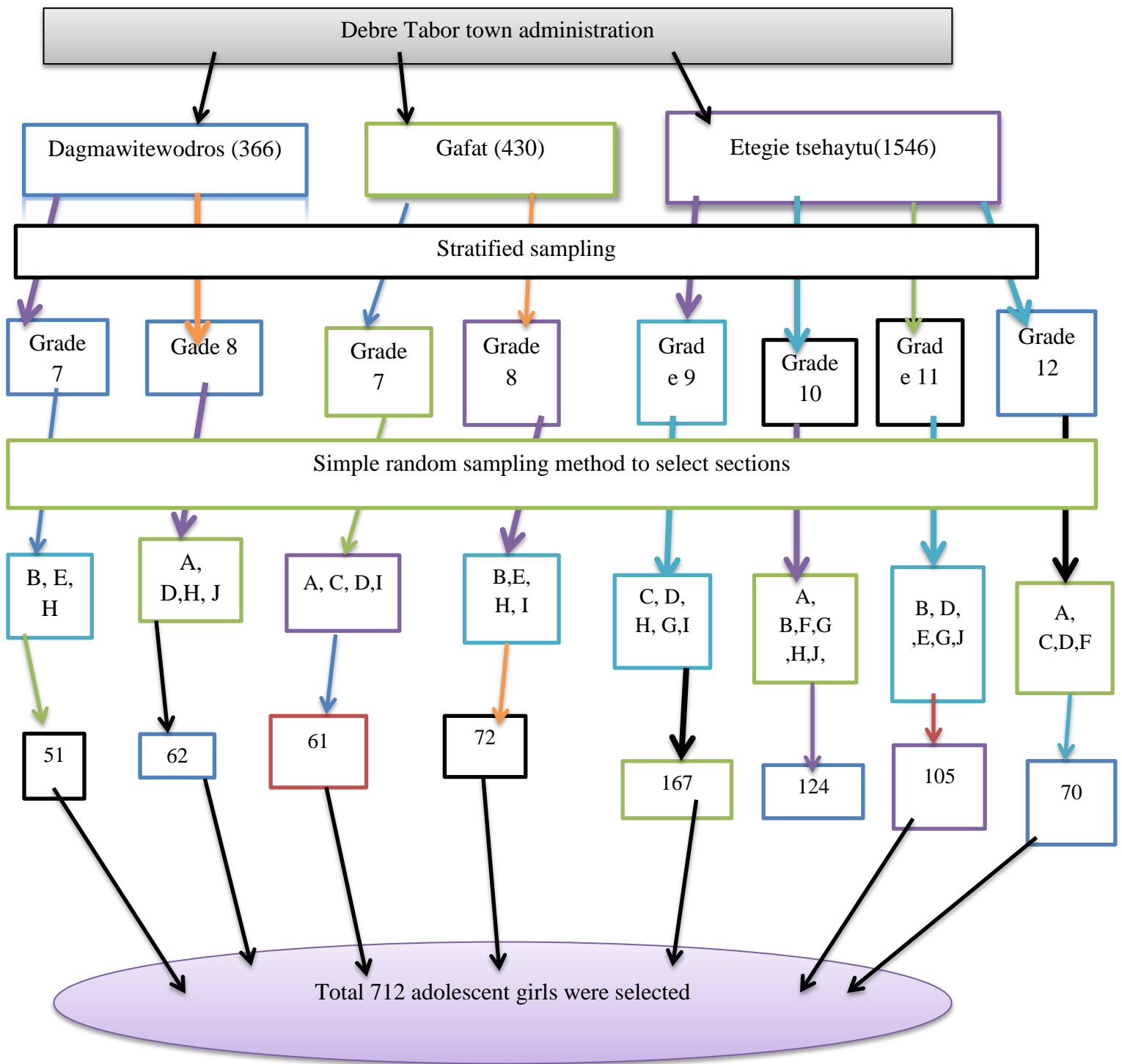


Figure 3 .Diagram shows sampling procedure on menstrual hygiene management practice and associated factor among adolescent schoolgirls in Debre Tabor town, Northwest, Ethiopia, 2019. The letters like A, B, C, etc. indicated the number of sampled sections in schools.

5.8. Survey instruments

After reviewing relevant literatures, self-administered data collection tools were developed. The questioner was contained variables related to socio-demography characteristics, knowledge about menstruation, menstrual hygiene management practices and cultural believes. The questionnaire first developed in English then translated in to Amharic (local language) and then back translated to English. Data was collected by three female Clinical nurses and one Health officer supervisor. Study subjects were invited to take part voluntarily by explaining the purpose of the study and data were collected after obtaining written consent. Students were instructed on how to fill the questionnaire. The questioners were distributed and collected in the same day to avoid information leakage. Adolescent girls were filled the questioners under supervision of data collectors. School wash facilities were assessed by observational checklist.

5.9. Data quality assurance

Data collectors and supervisor were received a two day training on the purpose and procedure of data collection related to this research. During the training, attention was given about the overall study objectives, terms, concepts and handling of respondents. After the training questionnaire was pretested in Woreta town administration that was not actually included in the main study on 37 adolescent schoolgirls before the actual data was collected. Data collectors were exposed to practical situation before the start of actual data collection in the presence of principal investigator both the interviewers and supervisor were assessed clarity, understandability, flow and completeness of questions and the time needed to fill them. Finally necessary amendments were done after discussion with the data collectors based on the findings of the pre-test. Close supervision was undertaken during data collection. Every completed questionnaire was cross-checked daily by the supervisors and principal investigator.

5.10. Data management and analysis

The collected data was checked and entered using Epi info version 7.2 and was exported into SPSS (Statistical Package for Social Science) version 20 for analysis. Accordingly the data was edited, coded and cleaned. Consistency of data was checked by running frequencies and crosstab. The Bi variable (Crude Odds Ratio [COR]) and multivariable (Adjusted odds ratio [AOR]) logistic regression analysis was calculated to assess the association between factors and menstrual hygiene management practices. All variables with p value of <0.25 in the bi variable analyses were entered into multivariable logistic regression model to control confounders. At this time backward likelihood ratio method was used. The goodness of fit of these models was assessed by the Hosmer Lemeshow test it was 0.325. Odds ratio at 95% CI was used to measure strength of association between outcome and predictor variables and those variables having p value of <0.05 were considered to declare statistically significant association with menstrual hygiene practices.

5.11. Ethical considerations

Ethical clearance was obtained from Bahir Dar University College of Medicine and Health Science Institutional Ethical review board. After this Amhara region public health institute (APHI) was given a written supportive letter and it was submitted to all concerned bodies based on their hierarchy. After this permission letter was taken from Debre Tabor town administration education offices. The selected school directors and directresses were informed about the objective of the study through a support letter from education office. Each study participant was adequately informed about the purpose, expected benefit and risk of the study and their right to discontinue participating in the study. Confidentiality and privacy were maintained during data collection by excluding personal identifiers.

5.12. Dissemination and utilization of the result

The results will be disseminated to the respective schools that were included in this study, Debre Tabor administrations education and health offices, Amhara Regional state education and health Bureau and Bahir Dar University.

6. RESULT

6.1. Socio-Demographic characteristics of respondents

A total of 712 study participants from three primary and secondary schools have participated in the study and the response rate was 98%. Among the study participants 246(34.6%) were from primary and 466(65.4%) were from secondary schools. The mean age of the study participant was 15.96 (with $SD\pm 1.624$) years. Among the study participants more than two-third (70.6%) of participants were in the age group of 14 to 17 years. The mean age of menarche was 13.34 (with $SD\pm 1.522$) and five hundred twenty seven (74.1%) of participants were started menstruation between age group of 13 to 15 years.

All study participants were Amhara ethnic group and the majority 669(94%) were orthodox Christians. From the total participants 586(83.7%) were urban dwellers. Regarding to marital status majority (98.6%) of participants was single. Regarding to their maternal education level 265(37.2%) were unable to read and write and only 176(24.7%) were college and above. Four hundred twenty two (59%) of participant mothers were house wife and only 87(12.2%) were government employed. More than half 409(57.4%) were living in houses that have TV. Among the study participant 499(70%) were not earn pocket money (Table2).

Table 2: Socio-demographic characteristics of adolescent schoolgirls in Debre Tabor town, Amhara region, Northwest, Ethiopia, 2019 (n=712)

Variable	frequency	Percentage
Age of adolescent girls		
16 and less	477	67
Above 16	235	33
Grade level of adolescent girls		
Grade 7 and 8	246	34.6
Grade 9 and 10	291	40.9
Grade 11 and 12	175	24.6
Religion of adolescent girls		
Orthodox	669	94
Muslim	34	4.8
Other*	9	1.3

Residence		
Urban	596	83.7
Rural	116	16.3
Mothers education		
Unable to read and write	265	37.2
Read and write	142	20
Primary	62	8.7
Secondary	67	9.4
College and above	176	24.7
Mothers occupation		
Housewives	422	59.3
Merchant	110	15.5
Government employed	87	12.2
Private employed	16	2.2
Daily laborer	23	3.2
Farmer	54	7.6
Fathers education(643)		
Unable to read and write	103	16
Read and write	205	31.9
Primary	100	15.6
Secondary	96	14.9
College and above	139	21.6
Fathers occupation(643)		
Merchant	242	37.6
Government employed	170	26.4
Private employed	44	6.8
Daily laborer	75	11.7
Farmer	54	8.4
Other**	58	9

Pocket money		
Yes	213	29.9
No	499	70.1

*protestant, catholic **daily laborer, driver

6.2. Knowledge of adolescent schoolgirls about menstruation

Among the total participant 294(41.3%) knew the normal menstrual cycle is between 21and 35 days and 561(78.8%) knew the normal duration of menstruation is between 2 and 7 days. In this study 413(58%) knew the cause of menstruation is hormone. Out of the total participants 451(63.3%) were knew the source of menstruation is uterus and among all participants 501(70.4%) were knew menstruation is not lifelong (table 3).

Table 3: Adolescent schoolgirls knowledge on Menstrual hygiene in DebreTabor town, Amhara region, Northwest Ethiopia, 2019(N=712)

Variable	Frequency	Percentage
Normal menstruation cycle		
Less than 21 days	60	8.4
21 to 35 days	294	41.3
25 to 28 days	330	46.3
More than 35 days	28	3.9
Normal regular menstrual bleeding duration		
Less than 2 days	59	8.3
2 to 7 days	561	78.8
More than 7 days	92	12.9
Knowledge on menstruation		
Physiological process	552	77.5
Pathological process	20	2.8
Curse from God	107	15
Do not know	33	4.6
Source of menstruation		
Uterus	452	63.5

Vagina	67	9.4
Bladder	30	4.2
Abdomen	17	2.4
Do not know	146	20.5
Cause of menstruation		
Hormone	414	58.1
Course of God	146	20.5
Caused by disease	24	3.4
Do not know	128	18
foul smelling during menstruation		
Yes	579	81.3
No	133	18.7
Menstrual blood is unhygienic		
Yes	560	78.7
No	152	21.3
Perceive menstrual hygiene information is important		
Yes	620	87.1
No	92	12.6
Pain during menstruation means that someone is sick		
Yes	291	40.7
No	421	59.3
A girl should take more nutritious diet during menstruation		
Yes	553	77.7
No	159	22.3
Menstruation is not harmful for a woman's body if she runs or dances during her period		
Yes	374	52.5
No	338	47.5
Menstruation is life long		

Yes	211	29.6
No	501	70.4
Summary of knowledge		
Good knowledge	533	74.9
Poor knowledge	179	25.1

Based on the summary of knowledge questions the mean score of schoolgirls' knowledge on menstruation was 7.67 ± 1.864 on a range of 1 to 12 questions. Near to three-fourth (74.9%), participants had good knowledge about menstrual hygiene (table3).

This study revealed that the main source of information about menstruation was 229(32.2%) teachers and 93(13.1%) were elder sisters (figure4).

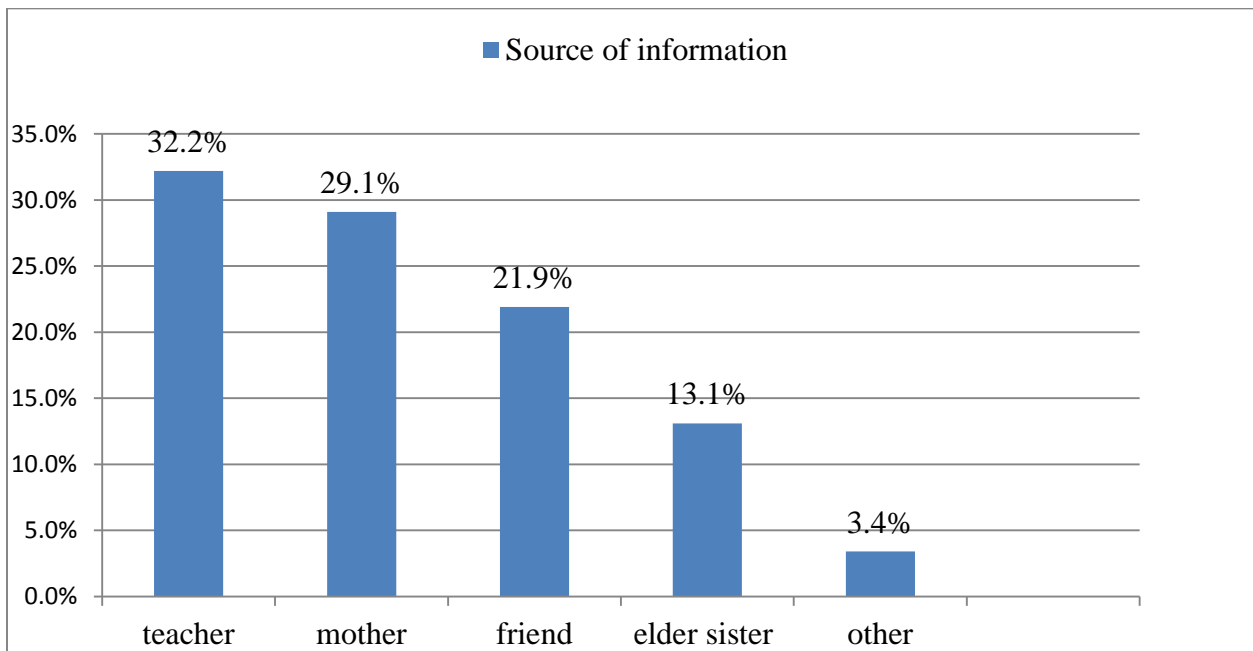


Figure 4: Major source of information for adolescent girls about menstruation in Debre Tabor town Northwest, Ethiopia, 2019.

Out of the total participants, more than two-thirds (77.1%) of adolescent girls were learning about menstruation in school (figure 5).

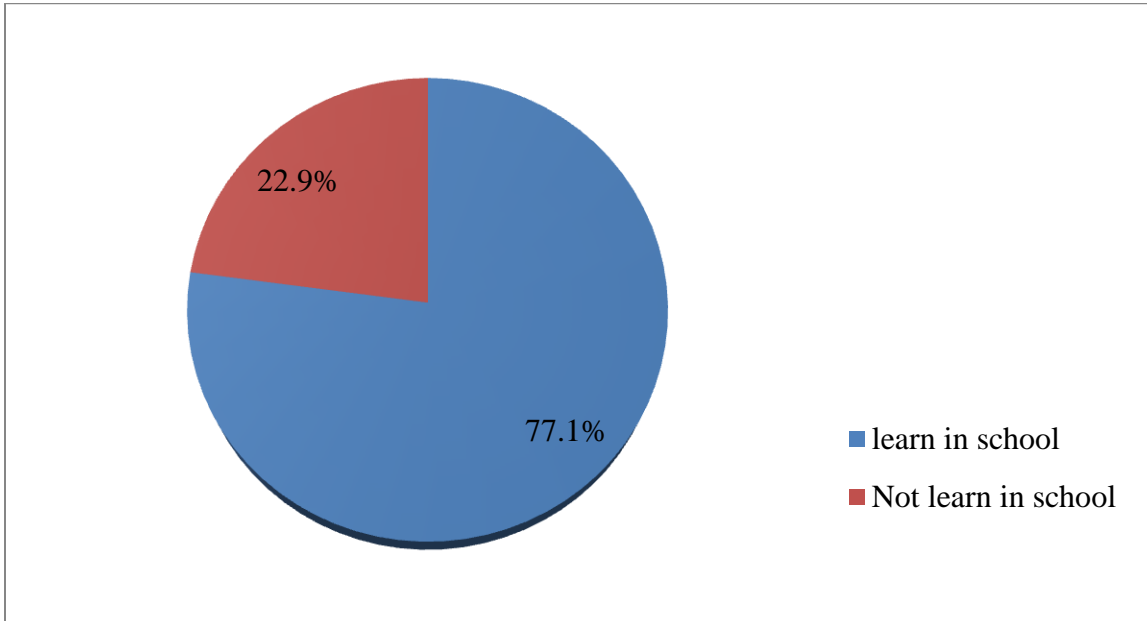


Figure 5: Adolescent girls learning in school about menstruation in Debre Tabor town Northwest, Ethiopia, 2019.

6.3. Menstrual hygiene management practices

All participants were used sanitary material during menstruation. Out of all participants, 563 (79%) changed their sanitary material two and more times per day. Regarding taking a shower near to two-third of participants (72.1%) was taken shower two and less times per day. More than two-thirds (79.6%) of participants practiced good menstrual hygiene management (table 4).

Table 4: Menstrual hygiene management practice among adolescent schoolgirls in Debre Tabor town, Northwest, Ethiopia, 2019 (N=712)

Variable	Frequency	Percentage
Use of sanitary material to absorb menstrual blood		
Yes	712	100
No		
Types of sanitary material use during menstruation		
Commercial sanitary pad	509	71.5
New clothes	135	19
Old clothes	68	9.5
Frequency of change sanitary material		
One times	149	20.9
Two times	272	38.2
Three times	267	37.5
More than three times	24	3.4
Disposal method of sanitary material (n=558)		
Open field	16	2.9
In to latrine	373	66.8
In to west bin	169	30.3
External genitalia cleaning		
Yes	700	98.3
No	12	1.5
Materials use for genitalia cleaning(700)		
Soap and water	438	62.6

Water only	262	37.4
External genitalia cleaning per day		
One times	76	10.9
Two times	249	35.6
Three times	260	37.1
More than three times	115	16.4
Taking shower		
Yes	536	75.3
No	176	24.7
Frequency of taking shower(536)		
Two times and less	487	72
More than two times	189	28
Summary of menstrual hygiene management practice		
Good practice	521	73.2
Poor practice	191	26.8

Among 712 adolescent schoolgirls 558(78%) were dispose sanitary material after utilization (figure 6).

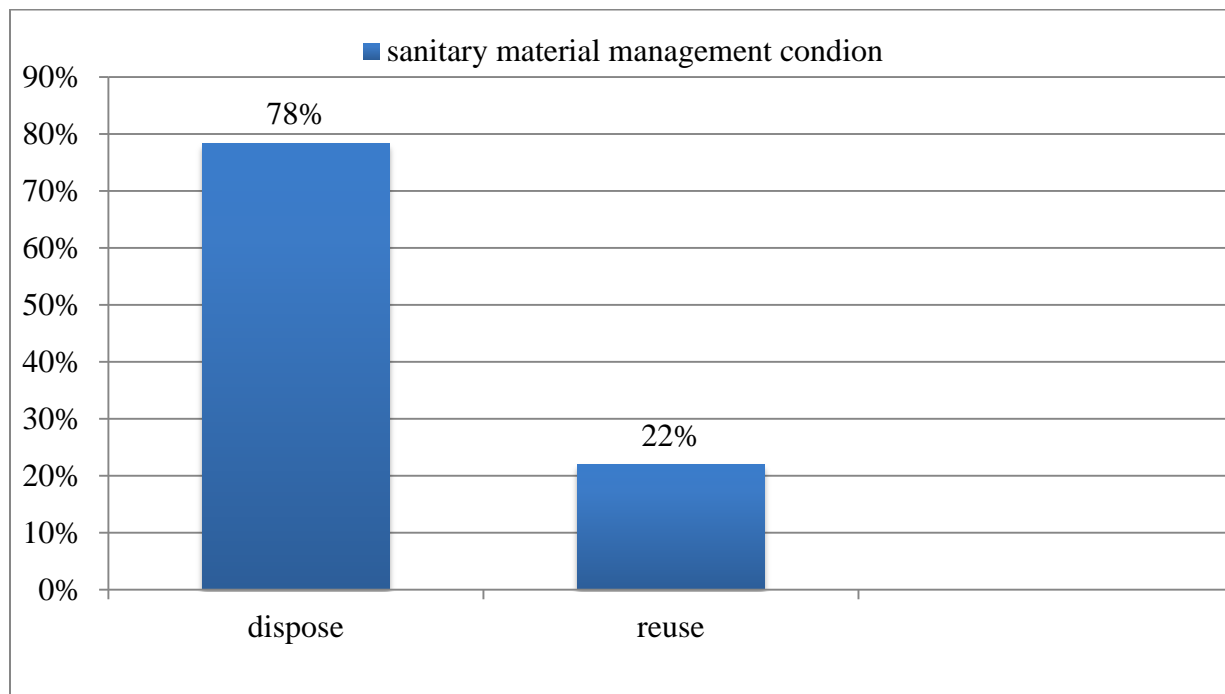


Figure 6 : Sanitary material management among adolescent schoolgirls in Debre Tabor town Northwest, Ethiopia, 2019.

This study also revealed that among 154 participants who reused sanitary materials 85% washed their cloth with soap and water and 15% of participants washed their cloth with only water. Among all participants who use reusable material 31% were dried in hidden under other cloth, 33.7% were dried in hidden elsewhere (figure 7). Regarding to storage area of reusable material 101 (65.6%) stored in plastic bag separately, 40(26%) stored with other cloths and 13(8.4%) stored in bath room. Fifteen percent of students did not change their menstrual materials in school hours which approximately spanned 8 hours for primary school and 4 hours for secondary school.

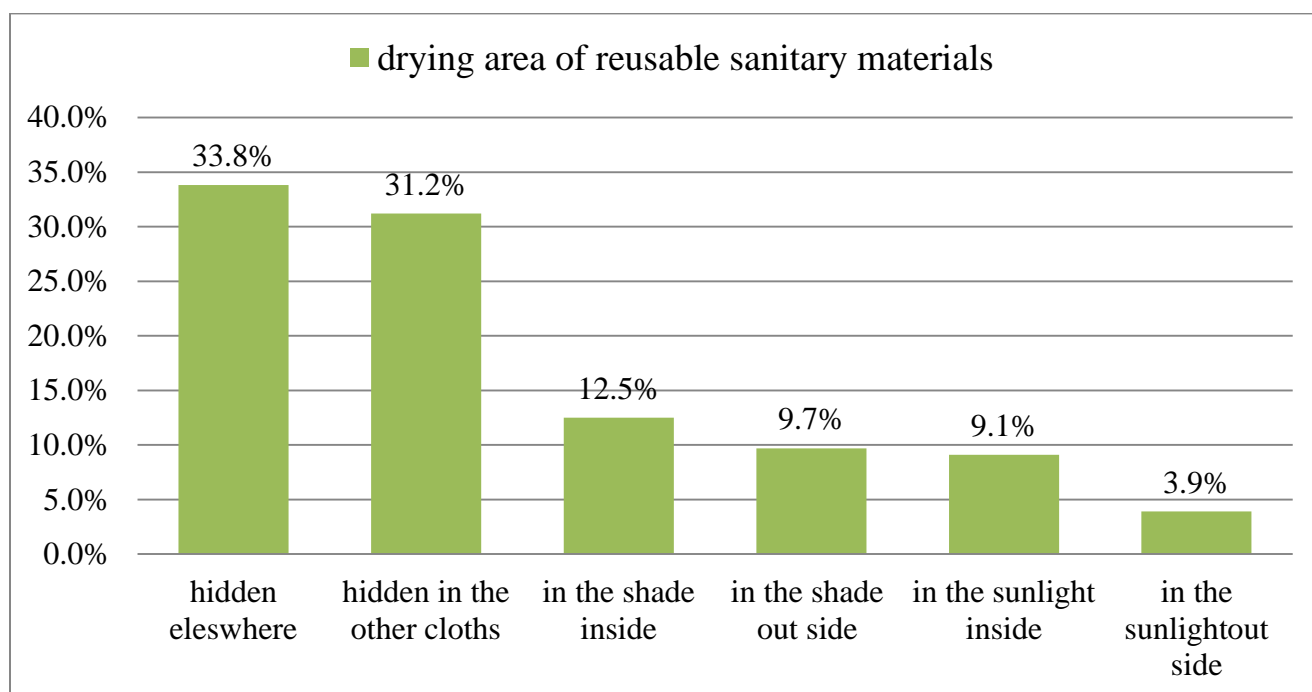


Figure 7: Types of sanitary drying area of reusable sanitary material for adolescent schoolgirls in Debre Tabor town Northwest, Ethiopia, 2019.

6.4. Cultural believes

Four hundred sixty five (65.3%) were discuss with their families/friends among them 199(42.8%) about menstruation and 314(67.5%) about sanitary material respectively (table5).

Table 5: Cultural believes on menstrual hygiene among adolescent schoolgirls in Debre Tabor town, North West, Ethiopia, 2019.

Variable	Frequency	Percentage
Perceive menstruation is secret		
Yes	233	32.7
No	479	67.3
Is there any restrictions		
Yes	259	36.4
No	453	63.6
discus about menstruation with your family/friends		
Yes	465	65.3
No	247	34.7
If you discuss with your family about what issue(s) *(n=465)		
About menstruation	199	42.8
About menstrual hygiene	255	54.8
About sanitary material	314	67.5
If the silence of menstruation break what factors is/are advantage* for girls		
Avoid fear		
Yes	454	63.8
No	258	36.2
Absenteeism will decreased		
Yes	437	61.4
No	275	38.6
Education performance increase		
Yes	448	62.9
No	264	37.1

Menstrual hygiene management increase		
Yes	487	68.4
No	225	31.6
Drop out will decrease		
Yes	492	69.1
No	220	30.9

*multiple choice

Among all participants 233(32.7%) were believed menstruation is secreted. Out of total participants 259(36.4%) were restricted from different activities among them cooking or eating some food types 86(33%) (figure8).

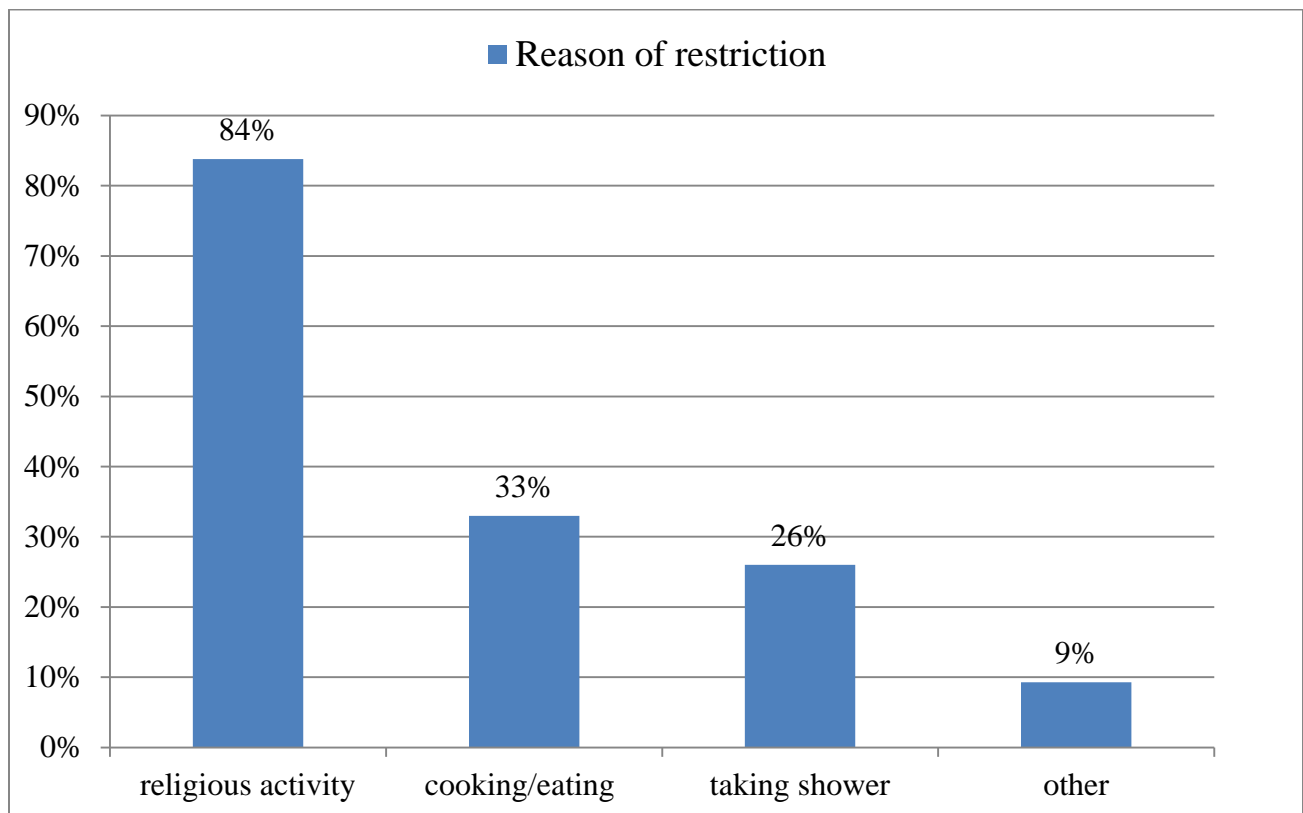


Figure 8: Adolescent girl's restriction during menstruation in Debre Tabor Town, Northwest Ethiopia, 2019.

Among 712 adolescent girls only 447(62.8%), 393(55.2%) of adolescent girls were discussed with their mothers and fathers respectively. Discussing with mother and father were, 213 (47.7%),

52(13.2%) very easy and 33(7.4%), 137(34.9%) also were said it is very difficult respectively (figure 9).

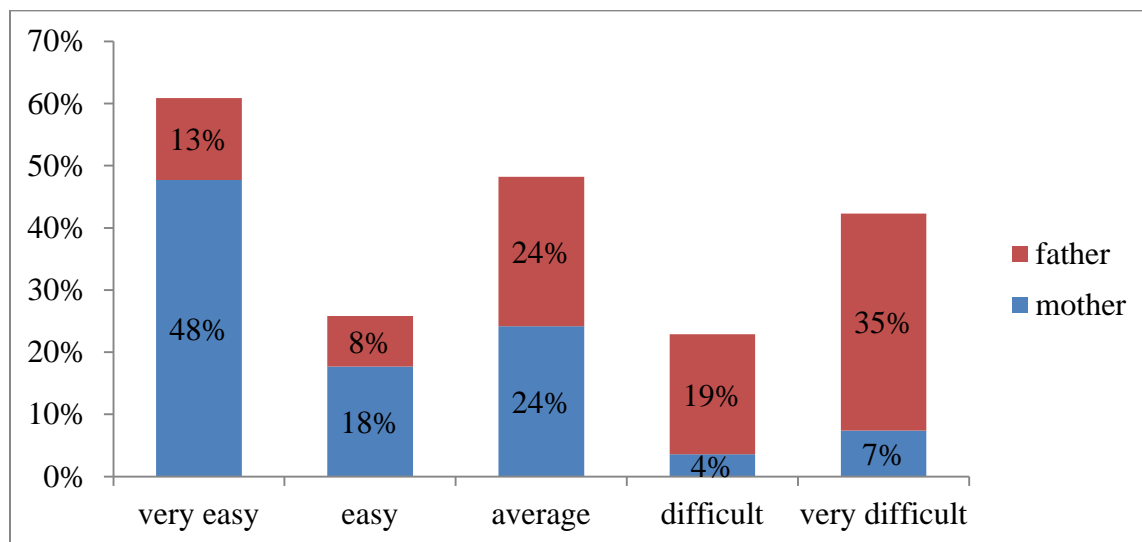


Figure 9: Discussion of adolescent girls with their parents in Debre Tabor town Northwest Ethiopia, 2019.

6.5. School facility based on the observational check list

All schools had separate toilet facility for boys and girls but girl’s toilet lack inside lock of door to preserve privacy, dispose soiled menstrual material and separate rest room during pain (table6)

Table 6: School WaSH facility assessment by using observational checklist in Debre Tabor Town Northwest Ethiopia, 2019

Variables	School name		
	Gafat	D/Tewodros	E/Tsehaytu
Is there a separate toilet for males and females?	✓	✓	✓
If yes number of toilets for female students?	4	3	5
Are there locks in the inside of all toilets?	x	X	X
Do toilets easy to keep clean and hygienic at all times?	✓	X	✓
Walls, door and roof are made of non-transparent materials with no gaps or spaces?	✓	✓	✓

Are the change room safe and private and have bathing facilities with water for changing, washing and drying menstrual materials?	x	X	X
Do girls feel comfortable changing their menstrual materials within their change room (have a door, an internal lock , sufficiently high walls/windows, privacy screens and no gaps or holes in the structure)?	x	X	X
Do shower units have good drainage where the waste water does not flow into the open?	x	X	X
Is there a water source inside or nearby the female toilets?	x	X	X
Are there waste bins with lids located inside the female toilets?	x	X	X
Is end point disposal conducted in a manner and place that avoids creating health, safety or environmental problems for the host and affected populations?	✓	✓	✓
Is there a separate rest room?	x	X	X
Is there a shelf and hook for hygienically storing belongings during usage?	x	X	X
Is there mirror inside the facility?	x	X	X

✓ = indicate yes or presence, x indicate no or have note

School absenteeism and adolescent girls perception on MHM

One hundred seven (15%) of adolescent girls were absent from school during menstruation. One in seven adolescent girls was missed school time from 1 to 5 days. Among all participants 273(38.3%) of adolescent girls were perceived sanitary material change room in their school was not appropriate. The reason was no enough water (79%), and (92%) said no inside lock (Figure10).

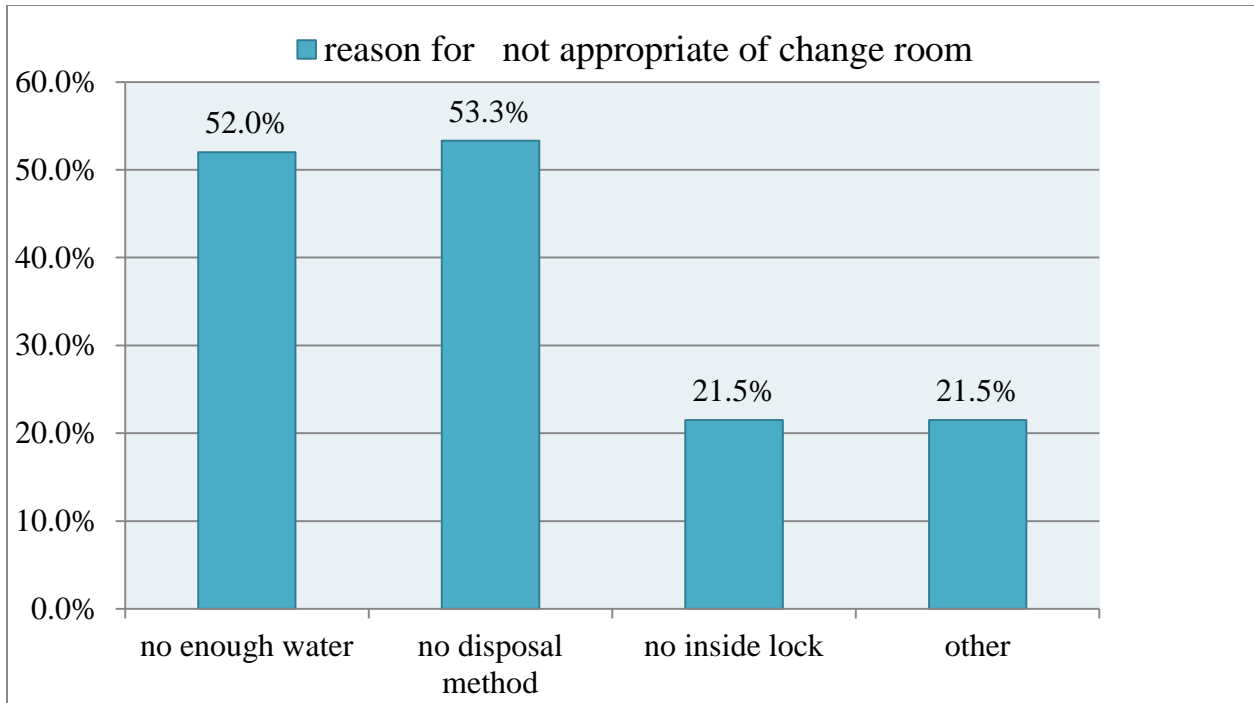


Figure 10: Problem of menstrual hygiene management room based on the adolescent girl's perception in Debre Tabor town Northwest Ethiopia, 2019.

6.6. Factors associated with good menstrual hygiene practice

In Binary logistic regression maternal education level, information before menarche, change sanitary material in school, knowledge ,place of residence, grade level, discuss about menstruation with parents,

learn in school about menstruation and age at first menarche was associated with menstrual hygiene practice.

After Bi variable analysis variables with $p < 0.25$ was entered to multivariable analysis. In multi variable analysis Educational status of mothers had association with menstrual hygiene practice. Adolescent girls mother who attend secondary school were 2.65 times [AOR=2.65, 95%, CI: 1.23, 5.71]] and who attend college and above were 1.72 times [AOR=1.72, 95%, 95%CI :(1.09, 2.71)] more likely to practice good menstrual hygiene than their counterparts.

Adolescent girls who learn about menstrual hygiene in school had an association with good menstrual hygiene practice. Adolescent girls who had learn in school were 3.14 times [AOR=3.14, 95%, CI :(2.11, 4.70)] more likely to practice good menstrual hygiene than those who did not learn in school. Change sanitary material in school had an association with menstrual hygiene practice, adolescent girls who change sanitary material in school were 4.18 times [AOR=4.18, 95%, CI :(2.76, 6.32)] more likely to have good menstrual hygiene practice than their counterparts. Place of residence of adolescent girls had an association with menstrual hygiene management practice. Adolescent girls live in urban area were 1.72 times [AOR=1.72, 95%, CI: (1.10, 2.70)] more likely to practices good menstrual hygiene than their counterparts.

Table7: Factors associated with menstrual hygiene management practice among adolescent schoolgirls in multivariable logistic regression analysis in Debre Tabor town, Northwest Ethiopia, 2019.

Variable	Menstrual hygiene practice		COR (95%CI)	AOR (95%CI)
	Good	Poor		
Education status of mother				
No formal education	275	132	1.00	1.00
Primary	49	13	1.81(0.95,3.45)	1.42(0.71,2.84)
Secondary	58	9	3.09(1.49,6.43)	2.65(1.23,5.71)
College and above	139	37	1.80(1.19,2.74)	1.72(1.09,2.71)
Grade level of adolescents				
Grade 7 and 8	179	61	1.00	1.00
Grade 9 and 10	215	78	0.94(0.64,0.1.39)	0.93(0.60,1.45)
Grade 11 and 12	127	52	0.83(0.53,1.27)	0.74(0.45,1.23)
Place of residence				
Urban	449	147	1.87(1.23, 2.84)	1.72(1.10,2.70)
Rural	72	44	1.00	1.00
Learn in school about menstruation				
Yes	434	115	3.30(2.30,4.80)	3.14(2.11,4.70)
No	87	76	1.00	1.00
Change sanitary material in school				
Yes	448	122	3.47(2.36,5.10)	4.18(2.76,6.32)
No	73	69	1.00	1.00
Discus with parents about menstruation				
Yes	348	113	1.40(0.99,1.95)	0.72(0.50,1.04)
No	173	78	1.00	1.00
Information before menarche				

Yes	466	165	1.34(0.81,2.20)	0.98(0.56,1.70)
No	55	26	1.00	1.00
Age at first menarche				
13 and below	261	80	1.00	1.00
Above 13	260	111	0.72(0.51,1.00)	0.71(0.49,1.03)
Knowledge				
Good	400	133	1.44(0.99,2.09)	1.36(0.90,2.04)
Poor	121	58	1.00	1.00

Note. (P< 0.05 significant, COR=crude odds ratio. AOR=adjusted odds ratio, 1.00=Reference)

7. DISCUSSION

This study was found 73.2 % (with 69.75% to 76.40% range) of adolescent girls who had good menstrual hygiene practice. This study was higher than the study done in Western Iran which revealed that 81% of girls were practicing poor menstrual hygiene management (25). The difference might be low knowledge level, in Iran, 64% of schoolgirls had poor knowledge about menstruation it can lead girls to poor personal hygiene, infrequent change of sanitary material and improper utilization of sanitary material.

This study was consistent with the study done in Kenya it was 71.2% of adolescent girls had good menstrual hygiene management practice(27). This finding is higher than the study done in western Ethiopia, which was 39.9% of girls were practice good menstrual hygiene(29). The difference might be adolescent girls in western Ethiopia had low level of knowledge than in this study, which was only 60.9% had good knowledge on menstruation. Adolescent girls who had low level of knowledge about menstruation might be practice poor menstrual hygiene of menstruation and it might be also the study period.

This finding was higher than a cross sectional study conducted in Adama town Oromia region ,school girls which was 57% of adolescent girls were practice good menstrual hygiene(28). The discrepancy might be the educational level of the adolescent girl's mother, participants whose mothers attend secondary and above level of education were less likely to had good menstrual hygiene practice than whose mothers attend primary and below level of education but the source of information for previous study were mothers. In this study the main source of information was teachers and the educational level of mothers had a positive effect on menstrual hygiene management practice in contradicting the previous study. This finding was higher than the study done in Gedeo zone Southern Ethiopia, which was only 39.7% of adolescent girls were practice good menstrual hygiene management(32).The difference might be the utilization of sanitary material, in this study all adolescent girls were use sanitary materials and in previous study 33.9% of adolescent girls were not used any sanitary material and the other possible reason might be adolescent girls knowledge difference. In previous study 68.3% of adolescent girls had poor knowledge about menstruation.

This finding was lower than the study done in Amhara region ,Mehalmeda and Bhir Dar city high school students which were 90.9% in Mehalmeda and 95.22% in Bahir Dar city were practice good menstrual hygiene(33, 34). The difference might be knowledge of girls in Mehalmeda and Bahir Dar

were higher than this study, good knowledge in Mehalmedal study were significantly associated with good practice but in the case of this study knowledge were not significantly associated with menstrual hygiene management practice. The study done in Bahir Dar city includes private schools and it is significantly associated with good menstrual hygiene management practice. The second possible explanation might be the study participant, study participant in Both study areas were grade 9 and above which may have experience about menstruation but in this study, the participants were grade 7 and above at this age, some adolescent girls started menstruation with/without information on how to manage menstruation properly.

There was a significant association between adolescent girl's maternal education level and good menstrual hygiene management practice. Adolescent girl's mother who attends secondary school had 2.65 times more likely to practice good menstrual hygiene than those who did not have formal education and Adolescent girl's mother who attends college and above also had 1.72 times more likely to practice good menstrual hygiene than their counterparts. This finding is similar with the study done in community-based adolescent girls in Bahir Dar city and this finding was also consistent with the school-based study done in Western Ethiopia (28, 30).The similarity might be educated mother may provide information about menstruation and menstrual hygiene management practice. Adolescent girls from educated families might be openly discussing about sexual and reproductive health including menstruation with families.

The finding of this study was contradict with the study done in Adama town Oromia region (28). Adolescent girl's mother who attend primery school and below were 1.7 times more likely practice good menstrual hygiene than their counter parts. The reason might be cultural difference.

Learning in school about menstruation was significantly associated with menstrual hygiene management practice. Adolescent girls who had learned in school were 3.14 times more likely to practice good menstrual hygiene than those who had not learned in school. This finding is consistence with the study done among adolescent schoolgirls in Addis Ababa (29). The similarity might be the information providing in school might be similar and briefly describes about menstruation is a natural process, caused by hormone and it can be properly managed to reduce school absenteeism and risk of infection.

Place of residence had significantly association with menstrual hygiene management practice. Adolescent girls who live in urban area were 1.72 times more likely to practice good menstrual hygiene than those who live in rural area. This finding is consistence with the study done in Indonesia,

Mehalmeda high schoolgirls and also consistence with the study done in Bahir Dar city schoolgirls (33, 34, 37). The similarity might be adolescent girls who live in urban areas can expose to a different source of information and the educational level of parents and freedom of discussion with parents might be good in urban than in rural.

Change sanitary material in school was significantly associated with menstrual hygiene management practice. Adolescent girls who change sanitary material in school were 4.18 times more likely to practice good menstrual hygiene than their counter parts. This study was consistence with the study done in adama town, Oromia region (28). The similarity might be adolescent girls need a water facility with water, a private toilet and change room with a washing room during menstruation to manage menstruation properly and attend class.

8. STRENGTH AND LIMITATION

8.1. Strength of the study

- Using observational checklist for assessing Water, sanitation and hygiene facility including change room.

8.2. Limitation of the study

- There may be social desirability bias since menstruation is sensitive issue.
- There may be also recall bias for age of menarche.

9. CONCLUSION

Good menstrual hygiene management practice was high among adolescent schoolgirls. Place of residence, mothers education level, change sanitary material in school and learn in school were had significant positive association with menstrual hygiene management practice among adolescent schoolgirls.

10. RECOMMENDATION

- Zonal health department should be strength rural school health program and community health promotion to minimize the gap between the urban and rural adolescent schoolgirls on menstrual hygiene management practice.

- All concerned bodies (Health, Education, water and finance sectors) should construct WaSH facility especially change room based on the standards so as to provide safe and secured WaSH facility and protect dignity of school girls to sustain and improve change in school practice.
- Schools should be strength school learning program about menstrual hygiene management by strengthen clubs such as WaSH/girls club.
- Zonal and woreda education office should give attention for education level of adolescent girls before they become mothers.

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12. ANNEXES

Annex I. Participant consent information sheet in English version

University of Bahir Dar, College of Medicine and Health Science, school of Public health, Department of Environmental health, MPH in Water, sanitation and hygiene Training Program.

Dear participants

Good morning/afternoon, my name is _____. I am working as a data collector for the study being conducted in this district by **Solomon Bayleyegn** who has studied for his master's degree at University of Bahir Dar, school of Public Health, Department of Environmental health, MPH in WaSH training program. Currently, He will be conducting a research on a topic entitled as assessment of menstrual hygiene management practices and associated factors. For this study, 724 school girls including you have been selected as a participant randomly and before you getting your consent; you need to know all necessary information related to the study which will be detailed as follows.

Purpose of the study: - The purpose of this study is to identify factors that affect menstrual hygiene management practices in adolescent girls in schools which have menstrual hygiene management room in Debre tabor town administration, 2019.

Benefit and risk of the study

Benefit: - For your participation in the study, no payment will be granted or has no any special privilege to you. However, your participation on this study is very important for achievement of the study objectives to identify factors and appropriate program management for reason based prevention of the problems. As a result, we can reduce school absenteeism due to menstrual hygiene management problem.

Risk: - first of all, the researcher has received ethical clearance from University of Bahir dar, school of public health and permission from woreda education office and school dean to conduct this study. In addition to this, the study will be conducted through self-administered questioner. So, we assure that participating in this study will not bring any harm to you except the time spent for responding to the questionnaire.

Participants rights; - Your participation in this research is voluntary. If you decide not to participate, there will be no negative consequences on you. You have full right to stop at any time if you don't wish to answer.

Confidentiality: - Your name will not be written in this form and any information you answer will not be released to third party. If you have any questions regarding this study or would like to be informed of the results after its completion, you can use the contact address of the principal investigator here under. In general the interview period will take approximately about 20 to 30 minutes.

ርእስ: ትምህርት ቤት የሚገኙ ቤት ተማሪዎች የወር አበባ ንጽህና አጠባበቅ መግቢያ: አንች በዚህ ጥናት ላይ እንትሳተፊ የተመረጥሽ ስለሆነ ወደ ጥናቱ ከመግባትሽ በፊት ከዚህ

በታች ስለጥናቱ አስፈላጊነት የተዘረዘሩትን መረጃዎች በአግባቡ አንብቦ መረዳት ይኖርብዎታል። ግልጽ ያልሆነ እና ተጨማሪ ማብራሪያ ካስፈለገሽ መረጃ ሰብሳቢውን መጠየቅ ትችያለሽ።
የሚፈጀው ጊዜ: ጥናቱ ከ 20 እስከ 30 ደቂቃ ሊወስድ ይችላል።

ጉዳት: ጥናቱ ምንም አይነት ጉዳት የለውም። የጥናቱ አይነት ሊያሳፍሩ የሚችሉ ሃሳቦች ሊነሱበት ይችላሉ። በመጥይቁ ወቅት ሁሉንም ወይንም በከፊል ከጥናቱ ራስሽን ማግለል ትችያለሽ።

ጥቅም: በዚህ ጥናት በመሳተፍሽ በቀጥታ የምታገኘው ምንም አይነት ጥቅም ባይኖርም ከጥናቱ በምታገኘው መረጃ በትምህርት ቤቱ ውስጥ ለሚሰሩ ስራዎች ግብአት ይሆንሃል።
የጥናቱ አሰራር: በመጥይቁ መሳተፍ ካልፈለግሽ ከጥናቱ ራስሽን ማግለል ትችያለሽ።
ሚስጥር ጠባቂነት: ስለ ራስሽ ማንነት የሚገልጽ ምንም አይነት መረጃ በመጠይቁ ላይ አይጻፍም ስምም አይጻፍም።

የተሳታፊ ክፍያ: በዚህ ጥናት ላይ ለሚሳተፉ ምንም አይነት የተሳትፎ ክፍያ አይከፈልም። ማካካሻ: በዚህ ጥናት ላይ ለሚሳተፉ ምንም አይነት የማካካሻ ክፍያ አይሰጥም።

ፋቃደኝነት ለተማሪ: መረጃውን በሚገባ አንብቤ ተረድቻለሁ። ተሳትፎዬ በፋቃደኝነት ሲሆን በማንኛውም ሰዓት ምንም ምክንያት እና ክፍያ ሳልጠየቅ ከጥናቱ ራሴን ማግለል እችላለሁ። በፋቃደኝነት ጥናቱ ላይ ለመሳተፍ ተስማምቻለሁ።

Address of the principal investigator

Name: Solomon Bayleyegn
Cell phone: 0925183554 E-mail: solomonbay12@gmail.com

Consent form

I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to take out at any time, without giving a reason and without cost.

ፋቃደኝነት ለወላጅ/አሳዳጊ: ከላይ ያለውን መረጃ በደንብ አንብቤ/ አዳምጬ ተረድቻለሁ ጥናቱም ምንም አይነት ችግን የማያመጣ ከሆነ እንድትሳተፍ ፈቅጃልሁ።

a. I Agree _____ I Disagree _____

Thank you

ፍቃደኛ ነኝ _____ ፊርማ _____

አመሰግናለሁ!!!

Annex II .Questionnaires both in English version Amharic version

a. Questionnaire in English version

Code of respondent -----//-----code of school-----//-----

Date of Data collection. -----//-----//-----

Socio-demographic and Economic data			
Q.No	Questions	Possible answer	Skip
101	How old are you now?	I am _____years	
102	Have you started your menses?	1. Yes 2. No (Thank you. Please return the questionnaire before proceeding to the next questions.)	
103	How old were you at your menarche?	I was -----years old.	
104	Your Grade	_____	
105	Your religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others (specify) -----	
106	Ethnicity?	1. Amhara 2. Tigre 3. Oromo 4. Other; specify---	
107	Your marital status	1. Single 2. Married 3. Divorced 4. Widowed	
108	Residence?	1. Urban 2. Rural	
109	With whom do you live?	1. Both parents	

		<ul style="list-style-type: none"> 2.Mother only 3. Father Only 4. Relatives 5. Others (specify) ----- 	
110	What is your mother's educational status?	<ul style="list-style-type: none"> 1. Illiterate 2. Read & write 3. Primary 4. Secondary 5. College and above 	
111	What is the father's educational status?	<ul style="list-style-type: none"> 1. Illiterate 2. Read & write 3. Primary 4. Secondary 5. College and above 	
112	What is the mother's occupational status?	<ul style="list-style-type: none"> 1.Housewife 2. Student 3. Merchant 4. Governmental employee 5. Private organization employee 6. Daily laborer 7. Others (specify) ----- 	
113	What is the father's occupational status?	<ul style="list-style-type: none"> 1.Merchant 2. Governmental employee 3.private organization employee 4. Driver 5. Daily laborer 6. Others (specify) ----- 	

114	Do your parents provide permanent pocket money regularly?		1. Yes 2. No		
115	Your family's monthly income (ETB)		-----		
116	Household assets and utilities				
	Utilities	Yes=1, No=0	Utilities	Yes=1, No=0	
	Clock		Private shower		
	Radio		Private latrine		
	TV		Bicycle		
	Mobile phone		Privately owned house		
	Home phone		Types of latrine	Pour flash	
	Refrigerator			VIP	
	Washing machine			Traditional	
	Laptop /computer		Electric cooking material		
	Indoor water plumps				

Part 2:- Knowledge and awareness about menstruation

201	At what age a girl does commence her menarche?	----	
202	Do You learn about menstrual hygiene in the school?	1. Yes 2. No	
203	Do You discuss about menstrual hygiene with your parents and friends?	1. Yes 2. No	

204	Which one is correct Inter menstrual interval?	<ul style="list-style-type: none"> Less than 21 days 2. 21 to 35 days 3. 25 to 28 days 4. More than 35 days 	
205	Duration of menstrual cycle during each period	<ul style="list-style-type: none"> 1. Less than 2 days 2. 2 to 7days 3. More than 7 days 	
206	Did you hear about menstruation before attaining menarche?	<ul style="list-style-type: none"> 1. Yes 2. No 	If no, skip to =208
207	If yes for Q No.206, What was your main source of information about menarche?	<ul style="list-style-type: none"> 1. Mother 2. School (media, teacher,) 3. Friend 4. Elder sisters 5. Television 6. Health professional 7. Internet 8. Father 9. Others (specify) ----- 	
208	Do you Know about menstrual hygiene?	<ul style="list-style-type: none"> 1. Yes 2. No 	
209	What is menstruation?	<ul style="list-style-type: none"> 1. Physiological process 2. Pathological process 3. Curse from god 4. Don't know 5. Others (specify) ----- 	
210	What is the cause of menstruation?	<ul style="list-style-type: none"> 1. Hormones 2. Curse of god 3. Caused by disease 4. Don't know 	

		5. Others (specify) -----	
211	Where is the source of menstrual blood?	1. Uterus 2. Vagina 3. Bladder 4. Abdomen 5. Don't know 6. Others (specify) -----	
212	Do you Know that there is foul smelling during menstruation	1. Yes 2. No	
213	Do you Know that menstrual blood is unhygienic?	1. Yes 2. No	
214	Do you Know that Pain during menstruation means that someone is not sick?	1. Yes 2. No	
215	Do you Know that it is not harmful for a woman's body if she runs or dances during her period?	1. Yes 2. No	
216	Do you Know that a girl should take more nutritious diet during menstruation?	1. Yes 2. No	
217	Do you think that one should know regarding menstruation before menarche?	1. Yes 2. No	
218	Do you think that Menstruation is not a lifelong process?	1. Yes 2. No	
Part 3:-Menstrual hygiene management practice related questions			
301	Do you use sanitary material(s) during menstruation?	1. Yes 2. No	
302	If your answer is Yes for Q no 301, what sanitary material do you use during last menstruation?	1.commercial sanitary pads 2. New cloths 3. Old cloths 4. Others (specify) -----	

303	If your answer is No for Q no 301, why?	<ol style="list-style-type: none"> 1. Cost 2. Difficulty in disposal 3. No knowledge 4. Shyness 5. Others (specify) ----- 	
304	What is your perception regarding sanitary napkins?	<ol style="list-style-type: none"> 1. Comfortable 2. Adequate absorption 3. Do not stain clothes 4. Others (specify) ----- 	
305	Do you clean your external genitalia?	<ol style="list-style-type: none"> 1. Yes 2. No 	
306	If your answer for question no 305 is yes what medium do you use for your genital cleaning purpose?	<ol style="list-style-type: none"> 1. Soap and water. 2. Only Water. 3. Soft/paper 4. Others (specify)----- 	
307	If your answer for question no 305 is yes how often do you wash your genitalia per day?	<ol style="list-style-type: none"> 1. One time Two times 2. Three times 3. More than three times 	
308	Do you Wash your hand during menstruation?	<ol style="list-style-type: none"> 1. Yes 2. No 	
309	If your answer is yes for question No.308, What material do you use for Hand Washing?	<ol style="list-style-type: none"> 1. water and soap 2. Water only 3. Others (specify) ----- 	
310	Do you take shower during menstruation?	<ol style="list-style-type: none"> 1. Yes 2. No 	
311	If your answer for question No.310 is yes when do you start taking shower during menstruation?	<ol style="list-style-type: none"> 1. First day 2. Second day 3. Third day 4. Last day 5. Others (specify) ----- 	
312	If your answer for question No. 310 is yes how often do you take bath during menstruation per day?	<ol style="list-style-type: none"> 1. <= Two times in a day. 2. > Two times in a day. 	

313	Do you change your sanitary material(s) during menstruation at school?	1. Yes 2. No	
114	If your answer for question no 310 is yes how often do you change your sanitary material (s) during menstruation per day?	1. Once 2. Twice 3. Three times 4. More than three times	
115	Where do you put your menstruation pad/cloth?	1.I reuse it 2.I dispose it	
316	Where do you dispose of menstrual material used at school?	1. Open field 2. Latrine 3. Waste bins 4. Others (specify) -----	
317	Where do you drying of washed reusable cloth?	1. In the shade, outside 2. In the shade, inside 3. In the sunlight, inside 4. In the sunlight, outside 5. Hidden under other clothes 6. Hidden elsewhere 7. Others (specify) -----	
318	What materials do you use for Washing of the reusable cloth?	1. With soap and water 2. With water only 3. Others (specify) -----	
319	Where do you store reusable cloth between uses?	1. In plastic bag, separately 2. With other clothes 3. In the bath room 4. Others (specify) -----	

Part 4. School Environment related questions

401	How many days of school have you missed in the last four weeks?	----days	
402	In a normal month, how many days do you miss of school because of your period?	----days	
403	Does your period make you stay at home?	1. Yes 2. No	
404	If yes for Q No 503, why do you absenteeism from school?	a. Afraid of staining my clothes b. Shemful c. pain d. uncomfortable e. no sanitary disposal area f. No sanitary pad g. other (specify)---- ---	
405	Do you perceive that menstrual hygiene management room in your school is appropriate to use?	1. yes 2. No	
406	If your answer for Q No.405 is No why it is not appropriate? (You can circles more than one)	1.No enough water 2.No storage area 3.No rest room 4.Not kept lock inside 5.other(specify)-----	
407	Do you think your privacy in school is maintained during menstruation when to utilize toilet?	1. Yes 2.No	
408	If No for Q No.409, Why do you think your privacy is not maintained in the school? (you can circle more than one response)	1.unimproved toilet 2.Common toilet for male and female students 3.Lack of door with lock 4.others are looking inside 5.If other, please specify_____	
409	Is female's toilet having a light when needed?	1. Yes 2. No	

5. Cultural believes related questions

501	Do you think menstruation is a secret?	1. Yes 2. No	
502	If yes for QNo.501,why do you think is menstruation secret?(you can circle more than one response)	1. Due to culture and believes of the society 2. Due to religion 3. Due to Taboos 4.If other, specify-----	
503	Is there any restriction during menstruation?	1.yes 2.No	
504	If yes for Q No.503 what activities is/are enforced by Families prohibition during menstruation?	1.Not allowed to go out certain place 2.Not allowed perform religious activity 3.Not allowed to cook/eat certain food 4.Instruct not to go fast/run 5. No restriction 6.other,specify-----	
505	Do you freely discuss about menstruation issues with your family members or friends?	1. Yes 2. No	
506	If yes, for QNo.503, What are the issues you are discussing on?	1. About Menstrual Hygiene &Management 2. About use of sanitary pads 3. If other, specify_____	
507	If No, for QNo.503, why you did not discuss freely? (you can circle more than one response)	1. Shame 2. Fear 3.Taboos 4.Not habitual 5.Religious 6. If other, specify-----	
508	If the silence on Menstrual issues was broken, do you think the educational participation of girls would be increased?	1. Yes 2. No	

509	If yes, for Q No. 506 in which factors do you think the girls could be advantageous?(you can circle more than one response)	1. It could be avoided fear and shamefulfulness 2. School girls absenteeism will be decreased 3. Educational performance of school girls will be increased 4. School girls drop out will be decreased 5. School girls menstrual hygiene will be improved 6. IF other , specify -----	
510	Did you ever face any problem related to menstruation?	1.Yes 2.No	
511	If yes what are there?	1.Isolation 2.Insult 3.Discrimination 4.Other /specify	

Thank you very much for your patience

Name of data collector -----signature-----

b. Questionnaire in Amharic version

Student Identification Code: ___/___, School identification code: ___/___

Date of data collection _____/_____/_____

የአኗኗር ሁኔታ እና የኢኮኖሚ መረጃ			
ተ.ቁ	ጥያቄ	መልስ	ዝላቃ
101	እድሜ	_____ ዓመት	
102	የወር አበባ ጀምረሻል	1.አዎ 2. የለም(ጥያቄውን ይመልሱ)	
103	የወር አበባ ስትጀምሪ ስንት አመትሽ ነበር?	_____ ዓመት	
104	የትምህርት ደረጃ	_____	

105	ሃይማኖት	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ (ይገለፅ) ----- 	
106	ብሔር	<ol style="list-style-type: none"> 1. አማራ 2. ትግሬ 3. ኦሮሞ 4. ሌላ ካለ፣ ይገለጽ----- 	
107	የጋብቻ ሁኔታ	<ol style="list-style-type: none"> 1. ያላገባ 2. ያገባ 3. የፈታኝ 4. የሞተባት 	
108	የመኖሪያ ቦታ	1. ከተማ 2. ገጠር	
109	የእናት ሁኔታ	<ol style="list-style-type: none"> 1. እናት እና አባት ጋር 2. እናት ብቻ 3. አባት ብቻ 4. ከዘመድ ጋር 5. ሌላ ካለ፣ ይገለፅ ----- 	
110	የእናት የትምህርት ደረጃ	<ol style="list-style-type: none"> 1. ያልተማረች 2. ማንበብና መጻፍ 3. የመጀመሪያ ደረጃ 4. ሁለተኛ ደረጃ 5. ኮሌጅ እና ዩኒቨርሲቲ 	
111	የአባት የትምህርት ደረጃ	<ol style="list-style-type: none"> 1. ያልተማረ 2. ማንበብና መጻፍ 3. የመጀመሪያ ደረጃ 4. ሁለተኛ ደረጃ 	

			5. ኮሌጅ እና ዩንቨርሲቲ	
112	የእናት የስራ ሁኔታ		1. የቤት እመቤት 2. ተማሪ 3. ነጋዴ 4. የመንግስት ሰራተኛ 5. የግል ድርጅት ሰራተኛ 6. የቀን ሰራተኛ 7. ሌላ ካለ፣ ይገለጹ-----	
113	የአባት የስራ ሁኔታ		1. ነጋዴ 2. የመንግስት ሰራተኛ 3. የግል ድርጅት ሰራተኛ 4. ሹፌር 5. የቀን ሰራተኛ 6. ሌላ ካለ፣ ይገለጹ-----	
114	ቋሚ የኪስ ገንዘብ ክቤተሰብዎ ያገኛሉ?		1.አዎ 2.የለም	
115	ወርሃዊ የቤተሰብ ገቢ በብር ስንት ይሆናል?		_____ብር	
116 የቤት ንብረት እና መገልገያ ቁሳቁሶች				
	የቤት ንብረት እና መገልገያ ቁሳቁሶች	አዎ=1, የለም=0	የቤት ንብረት እና መገልገያ ቁሳቁሶች	አዎ=1, የለም=0
	የግድግዳ ሰዓት		የግል ወይም ቤት ውስጥ ያለ ገላ መታጠቢያ	

	ራዲዮ		ብስክሌት		
	ቴሌቭዥን		የቤት መኪና		
	የተንቀሳቃሽ ስልክ		የግል/የራስ/ መኖሪያ ቤት		
	የቤት ስልክ		የመፀዳጃ ቤት ዓይነት	በውሃ ግፊት የሚሰራ	
	ፍሪጅ			የተሻሻለ	
	የኤሌክትሪክ ልብስ ማጠቢያ ማሽን			ባህላዊ መጸዳጃ	
	ኮምፒውተር/ላፕቶፕ				
	የግል ወይም ቤት ውስት ያለ የውሃ መስመር		በኤሌክትሪክ የሚሰራ ምግብ ማብሰያ		

2. ስለወር አበባ ንፅህና አጠባበቅ ግንዛቤ በተመለከተ

201	አንዲት ልጃገረድ የወር አበባ ማየት የምትጀምርበት እድሜ ስንት ነው?	-----ዓመት	
202	ስለ ወር አበባ ንፅህና ት/ቤት ተምረሽ ታወቁያለሽ?	1. አዎ 2. አላወቅም	
203	ስለ ወር አበባ ንፅህና ከቤተሰብሽ ጋር ትወያያለሽ?	1. አዎ	

		2. አልወያይም	
204	የወር አበባ በየስንት ቀኑ ይመጣል?	1.21 ቀን በታች 2. ከ 21 እስከ 35 ቀን 3. ከ 25 እስከ 28 ቀን 4. ከ 35 ቀን በላይ	
205	የወር አበባ መጥቶ እስኪሄድ ያለው የቀን ብዛት ስንት ነው?	1. ከ 2 ቀን በታች 2. ከ 2 እስከ 7 ቀን 3. ከ 7 ቀን በላይ	
206	የወር አበባ ከማየትሽ በፊት ስለ ወር አበባ ሰምተሽ ታውቂያለሽ?	1. ሰምቻለሁ 2. አልሰማሁም	
207	ለጥያቄ ተራ ቁጥር 206 መልስሽ ስመቻለው ከሆነ በዋናነት መረጃውን የስማሽው ከማን ነው?	1. እናት 2. ትምህርት ቤት (ሚኒሚዲያ, መምህር) 3. ጓደኛ 4. ታላቅ እህት 5. ቴሌቪዥን 6. ጤና ባለሙያ 7. የመረጃ መረብ (ኢንተርኔት) 8. አባት 9. ሌላ ካለ፣ ይገለፅ-----	
208	ስለ ወር አበባ ታውቂያለሽ?	1.አዎ 2.አልሰማውም	
209	የወር አበባ ምንድ ነው?	1. የተፈጥሮ ዑደት 2. በበሽታ የሚመጣ 3. የእግዚአብሔር እርግጫ 4. አላውቅም 5. ሌላ ካለ፣ ይገለፅ-----	

210	የወር አበባ መንስኤ ምንድን ነው?	<ol style="list-style-type: none"> 1. ሆርሞን 2. የእግዚአብሔር እርግጥን 3. በበሽታ የሚመጣ 4. አላውቅም 5. ሌላ ካለ፣ ይገለጹ----- 	
211	የወር አበባ ምንጭ ምንድን ነው?	<ol style="list-style-type: none"> 1. ማኅፀን 2. ከረቤዛ 3. የሽንት ፊኛ 4. ሆድ 5. አላውቅም 6. ሌላ ካለ፣ ይገለጹ----- 	
212	የወር አበባ መጥፎ ጠረን እንዳለው ታውቂያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አላውቅም 	
213	የወር አበባ ንጹህ ያልሆነ እንደሆነ ታውቂያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አላውቅም 	
214	አንድ ሴት በወር አበባ ጊዜ ህመም ከተሰማት ታማለች ማለት ነው?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
215	አንዲት ሴት በወር አበባ ወቅት መደነስ ወይም መሮጥ ጉዳት ያደርሳል?	<ol style="list-style-type: none"> 1. አዎ 2. አያደርስም 	
216	በወር አበባ ወቅት የተሻለ ዐመጋገብ ያስፈልጋል ብለሽ ታስቢያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
217	አንድ ሴት የወር አበባ ከማየቷ በፊት ስለ ወር አበባ ማወቅ አለባት ብለሽ ታስቢያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አላስብም 	
218	የወር አበባ ዑደት እድሜ ልክ ይኖራል ብለሽ ታስቢያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
3. የወር አበባ ንፅህና አጠባበቅ በተመለከተ			
301	የወር አበባ ንፅህና መጠበቂያ ተጠቅመሽ ታውቂያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አልጠቀምም 	

302	ለ ጥያቄ 301 መልሱም አዎ ከሆነ ባለው ወር ምን አይነት የወር አበባ ንፅህና መጠበቂያ የተጠቀምሽዉ?	<ol style="list-style-type: none"> 1. ሞዴስ 2. አዲስ ጨርቅ 3. አሮጌ ጨርቅ 4. ሌላ ካለ፣ ይገለፅ----- 	
303	ለ ጥያቄ 301 መልሱም አልጠቀምም ከሆነ ለምን?	<ol style="list-style-type: none"> 1. ወድ ስለሆነ 2. ለማስወገድ ሰለሚያሰቸግር 3. እውቀቱ ስለለሰኝ 4. ሰለማፍር 5. ሌላ ካለ፣ ይገለጽ----- 	
304	የተጠቀምሽበትን የወር አበባ መጠበቂያ ከተጠቀምሽበት በኋላ ምን ታደርጊዋለሽ?	<p>መልሽ እጠቀመዋለዉ.</p> <p>አስወግደዋለዉ.</p>	
305	በወር አበባ ወቅት ከረቤዛ የማዕዳት ልምድ አለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. የለኝም 	
306	ለጥያቄ 305 መልሱም አዎ ከሆነ ለማጽዳት ምን ትጠቀሚያለሽ?	<ol style="list-style-type: none"> 1. ወሃ እና ሳሙና 2. ወሃ ብቻ 3. ሶፍት/ወረቀት 4. ሌላ ካለ፣ ይገለፅ----- 	
307	ለ ጥያቄ 305 መልሱም አዎ ከሆነ በቀን ምን ያህል ጊዜ የማጽዳት ልምድ አለሽ?	<ol style="list-style-type: none"> 1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. ከሶስት ጊዜ በላይ 	
308	በወር አበባ ወቅት እጅሽን የመታጠብ ልምድ አለሽ?	<ol style="list-style-type: none"> 6. አዎ 7. የለኝም 	
309	በወር አበባ ወቅት እጅሽን ለማዕዳት ምን ትጠቀሚያለሽ?	<ol style="list-style-type: none"> 1. ወሃ እና ሳሙና 2. ወሃ ብቻ 3. ሌላ ካለ፣ ይገለፅ----- 	

310	በወር አበባ ወቅት ገላሽን ትታጠቢያለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አልታጠብም 	
311	ለጥያቄ ተራ ቁጥር 310 መልሰሽ አዎ ከሆነ ገላሽን መቸ መታጠብ ትጀምራለሽ?	<ol style="list-style-type: none"> 1. የመጀመሪያ ቀን 2. ሁለተኛ ቀን 3. ሶስተኛ ቀን 4. መጨረሻ ቀን 5. ሌላ ካለ፣ ይገለጹ----- 	
312	ለጥያቄ 310 መልሰህ አዎ ከሆነ ገላሽን ለመታጠብ ምን ትጠቀሚያለሽ?	<ol style="list-style-type: none"> 1. ወ.ሃ እና ሳሙና 2. ወ.ሃ ብቻ 3. ሌላ ካለ፣ ይገለጹ----- 	
313	ለጥያቄ 310 መልሰህ አዎ ከሆነ በቀን ስንት ጊዜ ይታጠባሉ?	ከዚያ በታች በላይ	
314	በወር አበባ ወቅት የንፅህና መጠበቂያ ት/ቤት ውስጥ ትቀይራለሽ?	<ol style="list-style-type: none"> 1. አዎ 2. አልቀይርም 	
315	የተጠቀምሽበትን የንጽህና መጠበቂያ ምን ታደርገዋለሽ?	<ol style="list-style-type: none"> 1. መልሽ እጠቀመዋለወ. 2. አስወግደዋለወ. 	
316	የንፅህና መጠበቂያ የት ታስወግዳለሽ?	<ol style="list-style-type: none"> 1. ሜዳ ላይ 2. መፀዳጃ ቤት 3. የቆሻሻ ማጠራቀሚያ 4. ሌላ ካለ፣ ይገለጹ----- 	
317	አጥበሽ መልሰሽ የምትጠቀሚውን ልብስ የት ታደርቁያለሽ?	<ol style="list-style-type: none"> 1. ከቤት ወጪ 2. ቤት ውስጥ 3. የፀሀይ ብርሀን በሚያገኘው ቦታ 4. የፀሀይ ብርሀን በማይደርስበት 5. ከሌላ ልብስ ስር 6. ድብቅ ቦታ 7. ሌላ ካለ፣ ይገለጹ----- 	

318	አጥበብ መልሰሽ የምትጠቀሟቸውን ልብስ በምን ታጥቢያለሽ?	1. ሳሙናና ወሃ 2. ወሃ ብቻ 3. ሌላ ካለ፣ ይገለፅ-----	
319	መልሰሽ የምትጠቀሟቸውን ልብስ የት ታስቀምጫለሽ?	1. በፌስታል ተለይቶ 2. ከሌሎች ልብሶች ጋር 3. መታጠቢያ ቤት 4. ሌላ ካለ፣ ይገለፅ-----	
4. የትምህርት ቤቱን ሁኔታ በተመለከተ			
401	ባለፈው አንድ ወር ውስጥ ስንት ቀን ከትምህርት ቤት ቀርተሻል?	_____ ቀን	
402	በወር አበባ ምክንያት በወር ውስጥ ስንት ቀን ከትምህርት ቤት ቀርተሻል?	_____ ቀን	
403	የወር አበባ ቤት እንድትቀመጧል አድርጎሽ ያውቃል?	1. አዎ 2. አያውቅም	
404	በወር አበባ ምክንያት ከትምህርት ቤት የምትቀረቡት ምክንያት ምንድን ነበር? (ከአንድ በላይ ምላሽ መስጠት ይቻላል)	1. ልብስ ስለሚበላሽ 2. ስለምታፍሪ 3. ስለሚያምሽ 4. ምቹት ስለማይሰማሽ 5. ትምህርት ቤት የንጽህና መጠበቂያ ማስወገጃ ስለሌለ 7. ትምህርት ቤት የንጽህና መጠበቂያ ሞዴስ ስለሌለ	
405	ለሞዴስ መቀየሪያ የተዘጋጀው ክፍል ለመጠቀም ይመቻል ብለሽ ታስቢያለሽ?	1. አዎ 2. አይመችም	
406	ለተራ ቁጥር 405 መልሰሽ አይመችም ከሆነ በምን ምክንያት ነው የማይመች?	1. በቂ ወሃ ስለሌለ 2. የንጽህና መጠበቂያ ማስወገጃ ስለሌለ 3. የማረፊያ ክፍል ስለሌለ	

		4.በውስጥ ስለማይቆላፍ 5.ሌላ ካለ፣ ይገለጹ-----	
407	መቀየሪያ ክፍል ውስጥ ሲጠቀሙ የራሳዎት ሚስጥር ይጠበቃል ብለው ያስባሉ ወይም ሰው የማያሳይና የማያስፈራ ነው?	1.አዎ 2. አይደለም	
408	ለተራ ቁጥር 407 መልሰዎ አይደለም ከሆነ በምን ምክንያት ነው ሚስጥረዎ የማይጠበቀው?	1.ሽንት ቤቱ ስለፈራረሰ 2. የወንድ ና የሴት መ/ቤት አንድ ስለሆነ 3.መርና ቁልፍ ስለለለው 4.ወደ ውስጥ ስለሚያሳይ	
409	መጻፍቶች ቤቱ መብራት በሚያስፈልግበት ጊዜ አለው?	1.አዎ 2.የለውም	

5.ስለ ወር አበባ ግንዛቤና አመለካከት

501	የወር አበባ ሚስጥር ነው ብለሽ ታስቢያለሽ ?	1.አዎ 2.አላስብም	
502	ከላይ በተራ ቁጥር 501 ለቀረበው ጥያቄ መልስሽ አዎ ከሆነ የወር አበባ ሚስጥር የሆነበት ምክንያት ምንድን ነው ብለሽ ታስቢያለሽ? (ከአንድ በላይ ማክበብ ይቻላል)	1.የአካባቢው ማህበረሰብ እምነትና አመለካከት ስለሆነ 2.በሃይማኖታዊ ምክንያት 3.ነውር ስለሆነ 4. ሌላ ካለ፣ ይገለጹ_____	
503	በወር አበባ ወቅት እንዳትሰሪ የምትከለከይው ነገር አለ?	1.አዎ 2.የለም	
504	ለጥያቄ ቁጥር 5.4 መልሰዎ አዎ ከሆነ ምን ምን ተግባራት (ቶች) ናቸው የማይፈቀዱት?	1.ማእድ ቤት መግባት 2.ሀይማኖታዊ ስርዓትን ማከናወን 3.ሻወር መውሰድ 4.ት/ቤት መሄድ 5.ሌላ ካለ፣ ይገለጹ-----	
505	ከጓደኞቻችሁ ወይም ከቤተሰቦቻችሁ ጋር ስለየወር አበባ በግልጽ ትነጋገራያለሽ ?	1.አዎ 2.የለም	

506	ከላይ በተራ ቁጥር 5.5 ለቀረበው ጥያቄ መልስሽ አዎ ከሆነ በየትኞቹ ጉዳዮች ላይ ትውያያለሽ? (ከአንድ በላይ ማክበብ ይቻላል)	<ol style="list-style-type: none"> 1.ስለየወርአበባምንነት 2.ስለ የወር አበባ ንጽህና አጠባበቅ 3.ስለ የወር አበባ ንጽህና መጠበቂያ ሞዴስ 4.ሌላ ካለ፣ይገለፅ_____ 	
507	በተራ ቁጥር 5.5 ለቀረበው ጥያቄ መልስሽ የለም ከሆነ ለምን? (ከአንድ በላይ ማክበብ ይቻላል)	<ol style="list-style-type: none"> 1. አሳፋሪ ስለሆነ 2. ስለምፈራ 3. ነውር ስለሆነ 4.ስላልተለመደ 5.ሀይማኖቱ ስለማይፈቅድ 6. ሌላ ካለ፣ይገለፅ_____ 	
508	በወር አበባ ላይ ያለው ዝምታ ቢሰበር ወይም ቢቀረፍ የልጃገረዶች የትምህርት ተሳትፎ ያድጋል ብለሽ ታስቢያለሽ ?	<ol style="list-style-type: none"> 1.አዎ 2.የለም 	
509	ለጥያቄ ቁጥር 506 መልስሽ አዎ ከሆነ በምን ሁኔታ? (ከአንድ በላይ ማክበብ ይቻላል)	<ol style="list-style-type: none"> 1.የሴቶችን መሸማቀቅና ሃፍረት ያስወግዳል 2.የሴቶች ከትምህርት ገበታ የመቅረት ችግር ይቀንሳል 3.የልጃ ገረዶች የትምህርት ውጤት ይሻሻላል 4.የሴቶች ትምህርት የማቋረጥ ችግር ይቀንሳል 5.ሌላ ካለ፣ይገለፅ _____ 	
510	በወር አበባሽ ጊዜ ችግር ገጥሞሽ ያውቃል ወይ?	<ol style="list-style-type: none"> 1. አዎ 2.የለም 	
511	መልስሽ አዎ ከሆነ ምን ዓይነት ችግር ገጥሞሽ ያውቃል ?	<ol style="list-style-type: none"> 1.ራስን ማግለል 2. ስድብ 3.በሌሎችመገለል 	

		4.ሌላ ካለ፣ ይገለፅ _____	
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ጥያቄና አስተያየት ካለዎት መጠየቅ ይቻላል-----

ስለነበረን ቆይታ እጅግ አመሰግናለው!!!

መረጃውን የሞላው ስም-----ፊረማ-----

Annex III : Observational checklist for school to assess menstrual change room

School name	
Variables	Yes/No
Is there a separate toilet for males and females?	
If yes number of toilets for female students?	

Are there locks in the inside of all toilets?	
Do toilets easy to keep clean and hygienic at all times?	
Walls, door and roof are made of non-transparent materials with no gaps or spaces?	
Do doors and windows (when installed) have interior locks?	
Are the change room safe and private and have bathing facilities with water for changing, washing and drying menstrual materials?	
Do girls feel comfortable changing their menstrual materials within their change room (have a door, an internal lock, sufficiently high walls/windows, privacy screens and no gaps or holes in the structure)?	
Do shower units have good drainage where the waste water does not flow into the open?	
Is there a water source inside or nearby the female toilets?	
Are there waste bins with lids located inside the female toilets?	
Is end point disposal conducted in a manner and place that avoids creating health, safety or environmental problems for the host and affected populations?	
Is there a separate rest room?	
Is there a shelf and hook for hygienically storing belongings during usage?	
Is there mirror inside the facility?	
Is there a wash club in schools	