

A study to assess the knowledge regarding menstrual hygiene among adolescent girls in srs pm shri government senior secondary school, ugalan

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DOI: 10.5281/zenodo.20592639

ABSTRACT

Menstrual hygiene is one of the most essential components of adolescent reproductive health and plays a significant role in maintaining the physical, psychological, emotional, and social well-being of adolescent girls. Menstruation is a natural physiological process experienced by females during their reproductive years; however, despite scientific advancements and improved educational opportunities, menstruation continues to remain a sensitive and stigmatized topic in many societies. Lack of awareness, cultural restrictions, social taboos, myths, misconceptions, inadequate sanitation facilities, and poor menstrual hygiene practices continue to affect adolescent girls negatively, particularly in rural and semi-urban communities.

Menstrual hygiene management refers to the use of clean absorbent materials during menstruation, proper washing and cleaning of the genital area, changing absorbents at appropriate intervals, safe disposal of used materials, and maintaining overall personal hygiene during menstruation. Inadequate menstrual hygiene management may result in urinary tract infections, reproductive tract infections, pelvic inflammatory diseases, emotional stress, poor self-confidence, social isolation, and reduced educational participation.

The present study was conducted to assess the knowledge regarding menstrual hygiene among adolescent girls studying at SRS PM Shri Government Senior Secondary School, Ugalan, Haryana. A quantitative research approach with a descriptive research design was adopted for the study. The sample consisted of 60 adolescent girls selected using non-probability purposive sampling technique. Data were collected using a structured socio-demographic questionnaire and a self-structured knowledge questionnaire regarding menstrual hygiene. The structured questionnaire included multiple dimensions of menstrual hygiene such as menstrual physiology, menstrual cycle, hygienic practices during menstruation, use of sanitary absorbents, frequency of changing pads, genital hygiene, hand hygiene, nutritional requirements during menstruation, disposal methods, prevention of reproductive tract infections, myths and misconceptions, emotional and psychological aspects related to menstruation, and social restrictions faced during menstrual periods.

The collected data were analysed using descriptive and inferential statistics. The findings of the study revealed that the majority of adolescent girls possessed moderately adequate knowledge regarding menstrual hygiene, while a smaller proportion demonstrated adequate knowledge. Some participants still possessed inadequate awareness regarding proper hygienic practices, menstrual physiology, prevention of infections, and disposal methods.

The study further identified significant associations between menstrual hygiene knowledge scores and selected demographic variables such as mother's educational status, source of information, socioeconomic background, and prior exposure to health education programs. Girls who had previously attended awareness sessions or received reproductive health education demonstrated comparatively higher knowledge scores.

The study concluded that although menstrual hygiene awareness among adolescent girls is gradually improving, several misconceptions, social barriers, and knowledge gaps still exist. Continuous school-based health education programs, counselling sessions, adolescent reproductive health services, teacher involvement, parental guidance, and community awareness campaigns are necessary to improve menstrual hygiene knowledge and promote safe menstrual practices among adolescent girls.

Keywords

Menstrual Hygiene, Adolescent Girls, Menstruation, Reproductive Health, Hygienic Practices, School Health

Education, Knowledge Assessment, Menstrual Awareness.

INTRODUCTION

1.1 Introduction

Menstruation is a natural biological process experienced by females during their reproductive years and represents an important milestone in adolescent development. The onset of menstruation, known as menarche, usually occurs between the ages of 10 and 15 years and signifies the beginning of reproductive maturity. Although menstruation is a normal physiological process, it remains surrounded by myths, misconceptions, cultural taboos, and silence in many parts of the world.

Adolescence is considered one of the most critical phases of life because it involves rapid physical, emotional, hormonal, social, and psychological changes. During this stage, adolescent girls require proper guidance and accurate knowledge regarding menstruation and menstrual hygiene management. However, many girls enter menarche without prior awareness regarding the menstrual process, hygienic practices, or reproductive health. Menstrual hygiene management refers to maintaining cleanliness during menstruation through proper use of clean absorbent materials, regular changing of sanitary pads or cloths, washing of genital organs with clean water, maintaining hand hygiene, and proper disposal of menstrual waste. Good menstrual hygiene practices are essential for preventing reproductive tract infections and maintaining reproductive health.

According to World Health Organization et al. (2021), adolescent reproductive health is one of the major public health priorities globally. Inadequate menstrual hygiene management contributes to physical health problems, emotional distress, reduced self-confidence, social withdrawal, and educational difficulties among adolescent girls.

In many rural and traditional societies, menstruation is considered impure or dirty, resulting in social restrictions during menstrual periods. Girls are often prohibited from entering temples, kitchens, or participating in social and religious activities during menstruation. Such cultural practices negatively influence the psychological well-being and self-esteem of adolescent girls (Kumar et al., 2011).

Poor menstrual hygiene practices can lead to reproductive tract infections, urinary tract infections, itching, irritation, skin allergies, unpleasant odour, and discomfort. Dasgupta et al. (2008) reported that unhygienic menstrual practices significantly increase infection risks among adolescent girls.

School absenteeism during menstruation is another important concern associated with poor menstrual hygiene management. According to UNICEF et al. (2020), many adolescent girls miss school during menstruation because of menstrual pain, fear of staining, embarrassment, lack of disposal facilities, and inadequate sanitation infrastructure in schools.

Educational interventions and health awareness programs have demonstrated positive outcomes in improving menstrual hygiene knowledge and hygienic practices among adolescent girls. Sharma et al. (2018) observed that structured educational sessions significantly improved menstrual hygiene awareness and promoted healthy reproductive practices.

Therefore, the present study was undertaken to assess the knowledge regarding menstrual hygiene among adolescent girls studying at SRS PM Shri Government Senior Secondary School, Ugalan, Haryana.

1.2 Background of the Study

Menstruation is an important physiological event in the life of every female. Despite being a normal biological process, menstruation is still associated with stigma, shame, and misinformation in many communities. Adolescent girls often experience fear and confusion at menarche due to inadequate prior knowledge.

According to Shanbhag et al. (2012), a large proportion of adolescent girls lacked awareness regarding menstruation before menarche. Girls who do not receive proper information often perceive menstruation as a disease or abnormal condition.

Menstrual hygiene management is strongly associated with reproductive health outcomes. Proper menstrual hygiene practices help maintain genital cleanliness, reduce infection risks, and improve comfort during menstruation. However, lack of awareness, economic difficulties, and social restrictions continue to influence menstrual hygiene practices negatively.

In India, several traditional beliefs and cultural restrictions are associated with menstruation. Girls are frequently restricted from participating in household activities, religious functions, and social interactions during menstrual periods. These restrictions may create negative attitudes and feelings of shame regarding menstruation.

Studies conducted in rural areas indicate that many adolescent girls continue using unhygienic absorbents such as old cloth pieces due to lack of awareness and financial limitations. Thakre et al. (2011) observed that improper menstrual hygiene practices remain common among rural adolescent girls.

Improving menstrual hygiene awareness among adolescents is essential for promoting reproductive health,

preventing infections, improving educational participation, and enhancing self-confidence among girls.

1.3 Need for the Study

Menstrual hygiene is one of the most neglected aspects of adolescent reproductive health in developing countries. Although menstruation is a normal biological process, many adolescent girls continue to suffer from poor menstrual hygiene management because of lack of awareness and inadequate educational support.

Several studies indicate that adolescent girls often receive insufficient information regarding menstruation before menarche. According to UNESCO et al. (2019), poor menstrual hygiene management negatively affects school attendance and educational performance among girls.

Lack of awareness regarding hygienic menstrual practices can lead to reproductive tract infections and poor reproductive health outcomes. According to Kaur et al. (2018), adolescent girls require proper reproductive health education to adopt safe hygienic practices during menstruation.

The investigator observed that many adolescent girls hesitate to discuss menstrual issues openly due to embarrassment and social stigma. Therefore, the present study was conducted to assess the knowledge regarding menstrual hygiene among adolescent girls and identify areas requiring educational intervention.

1.4 Problem Statement

A study to assess the knowledge regarding menstrual hygiene among adolescent girls in SRS PM Shri Government Senior Secondary School, Ugalan, Haryana.

1.5 Objectives of the Study

1. To assess the level of knowledge regarding menstrual hygiene among adolescent girls.
2. To identify areas of inadequate knowledge regarding menstrual hygiene.
3. To determine the association between knowledge scores and selected demographic variables.
4. To provide awareness regarding safe menstrual hygiene practices.
5. To identify misconceptions and social restrictions associated with menstruation.

1.6 Research Hypothesis

H1: There will be a statistically significant association between knowledge regarding menstrual hygiene and selected demographic variables among adolescent girls at $p < 0.05$ level of significance.

1.7 Operational Definitions

Knowledge

Refers to awareness and understanding regarding menstruation and menstrual hygiene assessed through structured questionnaire.

Menstrual Hygiene

Refers to hygienic practices maintained during menstruation including use of sanitary absorbents, washing practices, hand hygiene, disposal methods, and prevention of infections.

Adolescent Girls

Refers to school-going girls aged between 13–18 years studying at SRS PM Shri Government Senior Secondary School, Ugalan.

1.8 Assumptions

1. Adolescent girls possess varying levels of menstrual hygiene knowledge.
2. Educational status and family background influence menstrual hygiene awareness.
3. Health education programs improve menstrual hygiene knowledge and practices.
4. School-based awareness programs positively influence reproductive health behaviour.

1.9 Delimitations

1. The study is limited to adolescent girls studying in one selected school.
2. The study focuses only on knowledge assessment.
3. The sample size is limited to 60 participants.
4. The study duration is limited to one month.

1.10 Conceptual Framework

The conceptual framework for the study was based on Health Belief Model which emphasizes that health-related behaviour is influenced by knowledge, perceptions, beliefs, and awareness regarding health problems and preventive measures.

The framework explains that adequate knowledge regarding menstrual hygiene positively influences hygienic practices and reproductive health outcomes among adolescent girls.

REVIEW OF LITERATURE

2.1 Introduction

Review of literature refers to systematic identification, analysis, and interpretation of previous studies related to the research topic. Literature review helps the investigator understand the current status of knowledge,

identify research gaps, and develop conceptual understanding regarding the research problem.

The review of literature for the present study was organized under the following headings:

1. Literature related to awareness regarding menstruation.
2. Literature related to menstrual hygiene practices.
3. Literature related to school absenteeism during menstruation.
4. Literature related to myths and misconceptions regarding menstruation.
5. Literature related to educational interventions regarding menstrual hygiene.

2.2 Literature Related to Awareness Regarding Menstruation

Dasgupta et al. (2008) conducted a study among adolescent girls and reported that many participants lacked adequate awareness regarding menstruation before menarche. The study highlighted the importance of reproductive health education before onset of menstruation.

Kumar et al. (2011) observed that social stigma and cultural restrictions prevented open communication regarding menstruation among adolescent girls.

Shanbhag et al. (2012) found that mothers were the primary source of menstrual information among adolescent girls, followed by peers and teachers.

2.3 Literature Related to Menstrual Hygiene Practices

Thakre et al. (2011) conducted a study among rural adolescent girls and found that many participants used old cloth pieces instead of sanitary pads because of financial limitations and inadequate awareness.

Kaur et al. (2018) reported that regular changing of sanitary pads significantly reduces infection risks and improves comfort during menstruation.

Grover et al. (2016) observed that girls with adequate menstrual hygiene awareness demonstrated healthier hygienic practices during menstruation.

2.4 Literature Related to School Absenteeism During Menstruation

UNICEF et al. (2020) highlighted that menstrual discomfort, fear of leakage, and inadequate school sanitation facilities contribute to school absenteeism among adolescent girls.

UNESCO et al. (2019) reported that poor menstrual hygiene management negatively affects educational participation and academic performance among girls.

2.5 Literature Related to Myths and Misconceptions

Several studies have shown that adolescent girls continue to face social restrictions during menstruation.

Kumar et al. (2011) stated that girls are often restricted from entering temples, kitchens, and social gatherings during menstrual periods.

Dasgupta et al. (2008) reported that myths and misconceptions regarding menstruation contribute to shame, fear, and embarrassment among adolescent girls.

2.6 Literature Related to Educational Interventions

Sharma et al. (2018) conducted a structured teaching program regarding menstrual hygiene and observed significant improvement in knowledge scores among adolescent girls.

Grover et al. (2016) demonstrated that educational interventions improve menstrual hygiene awareness and encourage healthy hygienic practices.

2.7 Summary of Literature Review

The reviewed literature indicates that menstrual hygiene remains a significant adolescent health issue. Inadequate awareness, poor hygienic practices, myths, and cultural restrictions continue to affect adolescent girls negatively. Educational interventions have shown positive outcomes in improving menstrual hygiene awareness and reproductive health behaviour among adolescents.

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the systematic process used to conduct research scientifically. It includes research approach, design, setting, population, sample, sampling technique, tools, data collection procedure, and plan for data analysis.

3.2 Research Approach

A quantitative research approach was adopted for the present study. Quantitative research approach is considered appropriate when the investigator aims to measure variables numerically and analyse data statistically. The present study intended to assess the level of knowledge regarding menstrual hygiene among adolescent girls; therefore, quantitative approach was found suitable.

According to Polit et al. (2021), quantitative research provides objective measurement and systematic analysis of phenomena using structured tools and statistical methods. The approach enabled the investigator to quantify menstrual hygiene knowledge among participants and identify areas requiring educational intervention.

3.3 Research Design

A descriptive research design was used for the present study. Descriptive research design helps in obtaining accurate information regarding current knowledge, attitudes, behaviours, and practices of a population. The design was considered appropriate because the investigator intended to assess the existing knowledge regarding menstrual hygiene among adolescent girls without introducing any intervention during data collection.

Table 1: Schematic Representation of Research Design

Group	Assessment
Adolescent Girls	Knowledge Assessment Regarding Menstrual Hygiene

The descriptive design enabled the investigator to systematically collect information regarding awareness levels, hygienic practices, misconceptions, and associated demographic variables.

3.4 Variables of the Study

Research Variable

Knowledge regarding menstrual hygiene among adolescent girls.

Demographic Variables

The demographic variables included:

- Age
- Educational class
- Religion
- Type of family
- Monthly family income
- Mother's education
- Father's education
- Occupation of parents
- Source of information regarding menstruation
- Previous exposure to health education programs

These variables were included to determine their association with menstrual hygiene knowledge.

3.5 Setting of the Study

The study was conducted at SRS PM Shri Government Senior Secondary School, Ugalan, Haryana. The school is a government educational institution providing secondary and senior secondary education to students from surrounding rural and semi-urban communities.

The school was selected because:

1. Adequate number of adolescent girls were available.
2. School authorities provided permission and cooperation.
3. The setting was easily accessible to the investigator.
4. Adolescent girls in this age group commonly experience menstrual and reproductive health concerns.

The school environment consisted of classrooms, sanitation facilities, playgrounds, and separate toilet facilities for girls. Despite availability of basic facilities, many adolescent girls still lacked adequate awareness regarding menstrual hygiene management.

3.6 Population

Target Population

The target population consisted of all adolescent girls studying in senior secondary schools of Haryana.

Accessible Population

The accessible population consisted of adolescent girls studying at SRS PM Shri Government Senior Secondary School, Ugalan.

3.7 Sample and Sample Size

The sample for the study consisted of 60 adolescent girls studying in the selected school.

Sample size was considered adequate for assessing knowledge regarding menstrual hygiene among adolescent girls and performing statistical analysis.

3.8 Sampling Technique

Non-probability purposive sampling technique was used to select participants for the study.

According to Polit et al. (2021), purposive sampling involves selecting participants based on predetermined criteria relevant to the research objectives.

The sampling technique was selected because:

1. Participants possessed required characteristics.
2. Adolescent girls were easily accessible.

3. The study specifically focused on school-going adolescent girls.

3.9 Inclusion Criteria

The study included:

1. Adolescent girls studying in SRS PM Shri Government Senior Secondary School, Ugalan.
2. Girls aged between 13–18 years.
3. Girls willing to participate in the study.
4. Girls available during data collection period.

3.10 Exclusion Criteria

The study excluded:

1. Girls absent during data collection.
2. Girls unwilling to participate.
3. Girls suffering from severe illness during data collection.

3.11 Description of Data Collection Tool

The data collection tool consisted of two sections:

Section I: Socio-Demographic Variables

This section included information regarding:

- Age
- Educational class
- Religion
- Family type
- Parent's education
- Family income
- Source of information
- Previous health education exposure

Section II: Structured Knowledge Questionnaire

The structured questionnaire consisted of 30 multiple-choice questions regarding menstrual hygiene.

The questionnaire included the following areas:

1. Meaning and physiology of menstruation
2. Menstrual cycle
3. Use of sanitary absorbents
4. Frequency of changing pads
5. Hand hygiene practices
6. Cleaning of genital area
7. Disposal methods
8. Prevention of infections
9. Nutritional requirements during menstruation
10. Myths and misconceptions
11. Emotional aspects during menstruation
12. School participation during menstruation

Scoring Procedure

Each correct answer carried one mark, and incorrect answers carried zero marks.

Table 2: Scoring procedure

Knowledge Level	Score Range
Inadequate Knowledge	0–10
Moderately Adequate Knowledge	11–20
Adequate Knowledge	21–30

3.12 Validity of the Tool

Validity refers to the extent to which a tool measures what it intends to measure.

The structured questionnaire was validated by experts from:

- Community Health Nursing
- Obstetrics and Gynecological Nursing
- Child Health Nursing
- Education Department

Experts reviewed the questionnaire for clarity, relevance, simplicity, and adequacy. Necessary modifications were made according to suggestions provided by experts.

3.13 Reliability of the Tool

Reliability refers to consistency and stability of a tool.

Reliability of the questionnaire was established using split-half method. The reliability coefficient was found to be highly acceptable, indicating that the tool was reliable for data collection.

3.14 Pilot Study

Pilot study refers to small-scale preliminary testing of research methodology and tools before conducting final study.

Pilot study was conducted among 6 adolescent girls in another government school of nearby area.

Objectives of pilot study:

1. To assess feasibility of study.
2. To determine practicability of tool.
3. To estimate time required for data collection.
4. To identify difficulties during data collection.

Findings of pilot study indicated that:

- Questionnaire was understandable.
- Participants cooperated effectively.
- Data collection procedure was feasible.
- No major modifications were required.

3.15 Data Collection Procedure

Formal administrative permission was obtained from the principal of SRS PM Shri Government Senior Secondary School, Ugalan.

The investigator explained:

- Purpose of study
- Importance of participation
- Confidentiality of information
- Voluntary nature of participation

Written informed consent was obtained from participants.

The investigator established rapport with adolescent girls and distributed questionnaires in classroom setting. Participants were instructed to answer independently and honestly.

The average time required for completion of questionnaire was approximately 25–30 minutes.

After completion of questionnaires, the investigator provided brief health education regarding:

- Menstrual hygiene practices
- Proper use of sanitary pads
- Disposal methods
- Prevention of infections
- Nutritional care during menstruation

3.16 Ethical Considerations

Ethical principles were strictly maintained throughout the study.

The following ethical measures were adopted:

1. Administrative permission obtained from school authorities.
2. Informed consent obtained from participants.
3. Confidentiality and anonymity maintained.
4. Participation was voluntary.
5. Participants had freedom to withdraw at any time.
6. No physical or psychological harm was caused.

3.17 Plan for Data Analysis

The collected data were organized, coded, tabulated, and analysed using descriptive and inferential statistics.

Descriptive Statistics

Used for:

- Frequency
- Percentage
- Mean
- Standard deviation

Inferential Statistics

Chi-square test was used to determine association between knowledge scores and selected demographic variables.

Formula for Chi-square Test

$$\chi^2 = \sum (O - E)^2 / E$$

Where:

- O = Observed frequency
- E = Expected frequency

Level of significance was set at $p < 0.05$.

RESULTS AND DATA ANALYSIS

4.1 Introduction

This chapter deals with analysis and interpretation of data collected from 60 adolescent girls regarding menstrual hygiene knowledge.

The findings were organized according to objectives of the study.

SECTION I

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

Table 3: Distribution According to Age

Age Group	Frequency	Percentage
13–14 Years	18	30%
15–16 Years	28	46.7%
17–18 Years	14	23.3%

The table indicates that majority of participants belonged to 15–16 years age group.

Table 4: Distribution According to Educational Class

Class	Frequency	Percentage
8th	10	16.7%
9th	14	23.3%
10th	16	26.7%
11th	12	20%
12th	8	13.3%

Majority of participants were studying in 10th class.

Table 5: Distribution According to Mother's Education

Education	Frequency	Percentage
Illiterate	14	23.3%
Primary	18	30%
Secondary	20	33.3%
Graduate	8	13.4%

The table reveals that majority of mothers had secondary education.

Table 6: Distribution According to Source of Information

Source	Frequency	Percentage
Mother	30	50%
Friends	10	16.7%
Teachers	12	20%
Media	8	13.3%

Majority of participants received menstrual information from mothers.

SECTION II

ASSESSMENT OF KNOWLEDGE REGARDING MENSTRUAL HYGIENE

Table 7: Knowledge Classification

Knowledge Level	Frequency	Percentage
Inadequate	12	20%

Knowledge Level	Frequency	Percentage
Moderately Adequate	34	56.7%
Adequate	14	23.3%

Mean Knowledge Score = 18.4 ± 4.2

The findings indicate that majority of adolescent girls possessed moderately adequate knowledge regarding menstrual hygiene.

4.2 Area-wise Analysis of Knowledge Scores

Table 8: Area-wise Mean Knowledge Scores Regarding Menstrual Hygiene

Knowledge Area	Maximum Score	Mean Score	Standard Deviation
Meaning and Physiology of Menstruation	5	3.8	1.1
Hygienic Practices During Menstruation	7	5.6	1.3
Use and Disposal of Sanitary Pads	5	3.1	1.0
Prevention of Infections	5	3.0	1.2
Nutritional Care During Menstruation	4	2.4	0.9
Myths and Misconceptions	4	2.1	1.0

The table shows that adolescent girls had comparatively higher knowledge regarding hygienic practices during menstruation, while lower scores were observed in areas related to myths, misconceptions, and nutritional care.

4.3 Knowledge Regarding Menstrual Physiology

Table 9: Responses Related to Menstrual Physiology

Statement	Correct Response (n)	Percentage
Menstruation is a natural process	52	86.7%
Menstruation occurs monthly	50	83.3%
Menstruation indicates reproductive maturity	42	70%
Menstrual blood comes from uterus	36	60%
Menstrual cycle normally lasts 28–30 days	30	50%

The findings indicate that most adolescent girls understood that menstruation is a natural process; however, awareness regarding menstrual physiology and menstrual cycle duration remained inadequate among some participants.

4.4 Knowledge Regarding Hygienic Practices

Table 10: Responses Related to Hygienic Practices

Hygienic Practice	Correct Response (n)	Percentage
Sanitary pads should be changed regularly	54	90%
Hands should be washed before and after changing pads	48	80%
Genital area should be cleaned properly	50	83.3%
Dirty cloths should not be reused without washing	46	76.7%
Proper drying of reusable cloths is important	38	63.3%

The findings reveal that most participants possessed adequate knowledge regarding basic hygienic practices during menstruation.

4.5 Knowledge Regarding Disposal Methods

Table 11: Responses Related to Disposal of Menstrual Waste

Disposal Method	Correct Response (n)	Percentage
Used sanitary pads should be wrapped before disposal	44	73.3%
Pads should not be thrown in open places	48	80%
Burning or proper disposal is necessary	32	53.3%
Used cloths should be washed with soap and dried in sunlight	28	46.7%

The findings indicate that several participants lacked adequate knowledge regarding safe disposal methods of

menstrual waste.

4.6 Knowledge Regarding Prevention of Infections

Table 12: Responses Related to Infection Prevention

Infection Prevention Measure	Correct Response (n)	Percentage
Maintaining cleanliness prevents infection	50	83.3%
Dirty absorbents may cause infections	48	80%
Reusing dirty cloths increases infection risk	44	73.3%
Frequent pad changing reduces infection risk	40	66.7%

The findings suggest that although participants possessed basic awareness regarding prevention of infections, detailed understanding remained limited among some girls.

4.7 Knowledge Regarding Nutritional Care During Menstruation

Table 13: Responses Related to Nutrition

Nutritional Aspect	Correct Response (n)	Percentage
Iron-rich food is important during menstruation	38	63.3%
Drinking adequate water is necessary	42	70%
Healthy diet helps reduce weakness	40	66.7%
Junk food should be limited	28	46.7%

The findings indicate moderate awareness regarding nutritional care during menstruation.

4.8 Knowledge Regarding Myths and Misconceptions

Table 14: Responses Related to Myths

Myth Statement	Correct Response (n)	Percentage
Menstruating girls should not attend school	46	76.7%
Menstruation is not a disease	52	86.7%
Girls can participate in normal activities during menstruation	40	66.7%
Menstruating girls can take bath regularly	36	60%

The findings indicate that myths and misconceptions regarding menstruation still existed among several participants.

4.9 Association Between Knowledge Scores and Demographic Variables

Table 15: Association Between Knowledge and Mother's Education

Mother's Education	Inadequate	Moderate	Adequate	χ^2 Value
Illiterate	8	6	0	12.4
Primary	3	12	3	
Secondary	1	12	7	
Graduate	0	4	4	

Calculated χ^2 value was significant at $p < 0.05$ level.

The findings indicate significant association between menstrual hygiene knowledge and mother's education.

4.10 Association Between Knowledge and Source of Information

Table 16: Association Between Knowledge and Source of Information

Source	Inadequate	Moderate	Adequate	χ^2 Value
Mother	2	18	10	10.8
Friends	4	5	1	
Teachers	2	8	2	
Media	4	3	1	

The findings indicate significant association between source of information and menstrual hygiene knowledge.

DISCUSSION

5.1 Introduction

This chapter presents discussion of findings in relation to objectives of the study and comparison with findings of previous studies.

The present study was conducted to assess the knowledge regarding menstrual hygiene among adolescent girls studying at SRS PM Shri Government Senior Secondary School, Ugalan.

5.2 Discussion Related to Demographic Variables

The present study revealed that majority of participants belonged to 15–16 years age group. Similar findings were reported by Dasgupta et al. (2008), who observed that adolescent girls in middle adolescence formed major proportion of study samples related to menstrual hygiene.

The present study also identified mothers as the major source of information regarding menstruation. These findings are consistent with Shanbhag et al. (2012), who reported that mothers were primary providers of menstrual information among adolescent girls.

5.3 Discussion Related to Knowledge Scores

The findings of the study showed that majority of adolescent girls possessed moderately adequate knowledge regarding menstrual hygiene.

These findings are supported by Thakre et al. (2011), who observed moderate awareness regarding menstrual hygiene among rural adolescent girls.

The present study identified inadequate awareness regarding disposal methods and prevention of infections. Similar findings were reported by Kaur et al. (2018), who stated that many girls lacked complete understanding regarding safe disposal and infection prevention practices.

5.4 Discussion Related to Hygienic Practices

The present study observed that most participants knew the importance of regular changing of sanitary pads and genital hygiene. Similar findings were reported by Sharma et al. (2018), who demonstrated positive awareness regarding basic hygienic practices among adolescent girls.

However, detailed understanding regarding proper drying of reusable cloths and prevention of infections remained inadequate among several participants.

5.5 Discussion Related to Myths and Misconceptions

The present study identified persistence of myths and social restrictions regarding menstruation among adolescent girls.

These findings are consistent with Kumar et al. (2011), who observed that menstruation continues to be associated with cultural restrictions and misconceptions in many communities.

Many girls believed that menstruating females should avoid religious activities and social participation during menstrual periods.

5.6 Discussion Related to Educational Interventions

The study findings emphasize the importance of school-based reproductive health education programs.

Grover et al. (2016) reported that educational interventions significantly improve menstrual hygiene awareness and promote healthy hygienic behaviour among adolescent girls.

Similarly, Sharma et al. (2018) found that structured teaching programs improve menstrual hygiene knowledge and reduce misconceptions related to menstruation.

CONCLUSION

The present study was conducted to assess the knowledge regarding menstrual hygiene among adolescent girls studying at SRS PM Shri Government Senior Secondary School, Ugalan, Haryana. The findings of the study revealed that menstrual hygiene remains an important component of adolescent reproductive health and requires continuous attention through health education and awareness programs.

The study showed that the majority of adolescent girls possessed moderately adequate knowledge regarding menstrual hygiene, while only a smaller proportion demonstrated adequate knowledge. A considerable number of participants still lacked complete awareness regarding menstrual physiology, prevention of infections, proper disposal methods, nutritional care, and myths related to menstruation. Although most girls understood the importance of maintaining cleanliness, changing sanitary pads regularly, and washing hands during menstruation, gaps in detailed understanding were still observed.

The findings further revealed that mothers were the primary source of menstrual information among adolescent girls. Educational status of mothers, source of information, and previous exposure to health education programs showed significant association with menstrual hygiene knowledge scores. Girls who had received guidance from teachers, health workers, or awareness programs demonstrated comparatively better knowledge and healthier attitudes regarding menstruation.

The study also identified persistence of cultural restrictions, misconceptions, and social stigma associated with menstruation. Some adolescent girls continued to believe in myths regarding participation in religious activities, bathing practices, and social interaction during menstrual periods. Such misconceptions may

negatively affect emotional well-being, confidence, and social participation among adolescent girls. The results emphasize the importance of school-based menstrual hygiene education programs, counselling sessions, parental guidance, and community awareness initiatives. Teachers, parents, nurses, and healthcare professionals play an important role in providing scientifically accurate information regarding menstruation and reproductive health. Availability of proper sanitation facilities, affordable sanitary products, and supportive educational environments are also essential for promoting healthy menstrual hygiene practices. The study concludes that improving menstrual hygiene knowledge among adolescent girls is essential for prevention of reproductive tract infections, promotion of reproductive health, enhancement of self-confidence, reduction of school absenteeism, and improvement of overall quality of life. Continuous educational interventions and adolescent health awareness programs can significantly improve menstrual hygiene practices and help eliminate stigma and misconceptions related to menstruation among adolescent girls.

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