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Original Research Paper

Education

A STUDY ON THE AWARENESS ON MENSTRUAL HYGIENE AMONG HIGHER SECONDARY GIRL STUDENTS

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ABSTRACT

The health and well-being of adolescent girls are intrinsically linked to their ability to manage menstruation with dignity and safety. However, in many developing regions, this biological process remains obscured by socio-cultural taboos and a lack of scientific knowledge. This study evaluated the awareness on menstrual hygiene among higher secondary school girls, Data were collected via a structured, self-administered questionnaire focusing on physiological knowledge, knowledge about hygiene, and socio-cultural restrictions. The primary objective of this study was to assess the level of awareness regarding menstrual hygiene among higher secondary school girl students. This survey study was conducted among 400 girl students of higher secondary section by using random stratified sampling technique. Data were collected through a pre-tested, structured self-administrated questionnaire covering major areas of knowledge in awareness on menstrual hygiene. So, the study reveals that a basic knowledge on menstruation hygiene among girls' students, but this often-societal taboos and lack of scientific biological information. The level of awareness is significantly influenced by maternal, societal and peer interactions. To truly empower the adolescent girls of secondary section, the stakeholders must give more attention to the reproductive health literacy. So, this study points out the urgent transition of knowledge from 'informal' to 'formal' reproductive health education.

KEYWORDS : Menstrual Hygiene, Adolescent Girls, Reproductive Health and Socio-cultural Restrictions

INTRODUCTION

"Improving menstrual health in schoolgirls can lead to long-lasting effects on women's overall education, health and wellbeing".

-Helen Weiss

The word "menses" is derived from the Latin *menses* meaning "months". The word "menstruation" comes from old French *menstrual*, which comes from Latin *menstrualis*, meaning "monthly," especially "of or having monthly courses. "Menstruation Cycle is a normal biological phenomenon which a woman starts experiencing once she enters her puberty. When periods (menstruations) come regularly, this is called the menstrual cycle. Having regular menstrual cycles is a sign that the reproductive system in woman's body is working normally. The menstrual cycle provides important body chemicals, called hormones, to keep a woman healthy. It also prepares her body for pregnancy (Kothari Bela 2010).

Awareness refers to the knowledge or understanding of something important. It is characterized as knowledge in the educational context and is linked to a greater understanding of public and scientific issues (Gafoor, 2012). Menstrual hygiene is the hygiene practices to be adopted during menstruation. It includes using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management materials.' (UNICEF and WHO, 2014).

Education about menstruation is not restricted to school instruction or information provided by adults and peers; exposure to advertisements in teen media provides imagery depicting menstruation and feminine role expectations. Menarche is an important event during adolescence causes physical and behavioral health issues and frequently needs assessment and intervention (WHO,1995).

During puberty, girls experience significant physical, emotional, and hormonal changes, including the onset of menstruation, which marks the beginning of their reproductive years. Understanding menstrual-related aspects of puberty is essential for empowering girls to navigate this transitional period confidently and healthily. menstruation, commonly referred to as periods, typically begins during puberty, usually between the ages of 10 and 15, although the timing can vary widely among individuals. Menstruation occurs as a result of hormonal changes that stimulate the shedding of the uterine lining, leading to the monthly flow of blood from the vagina. This menstrual cycle continues throughout a woman's reproductive years, typically until menopause. The onset of menstruation is a significant milestone in a girl's life, signalling her transition from childhood to adolescence and the potential for future fertility. However, it can also be accompanied by feelings of confusion, embarrassment, or anxiety, especially if girls are unprepared or uninformed about menstruation. Providing education and support around menstrual health and hygiene is crucial for helping girls feel empowered and confident in managing their periods. Understanding the menstrual cycle is essential for girls entering puberty. The menstrual cycle typically lasts around 28 days, although it can vary from person to person. These are so intricately intertwined in the society that it has negatively impacted on women's lives, thereby reinforcing gender inequities and exclusion. Studies have shown that the strong bondage with the traditional beliefs, taboos and misconceptions during menstruation has led to many serious health problems (Baridalyne & Reddaiah 2004; Leena 2008; Dhingra, Kumar and Kaur 2009).

Menstrual health and hygiene (MHH) is a fundamental component of the right to health and education for adolescent girls. Despite being a natural biological process, menstruation remains one of the most significant barriers to the empowerment of young women in developing regions (Sommer et al., 2016). For adolescent girls in higher secondary education, this transition into reproductive maturity is often characterized by a lack of scientific knowledge and the presence of deep-seated socio-cultural taboos. Globally, it is estimated that millions of girls lack the basic facilities and information required to manage their periods with dignity, leading to adverse outcomes in both health and academic performance (UNESCO, 2014).

STATEMENT OF THE PROBLEM

The present study analyses the awareness on menstrual hygiene among girl students of higher secondary schools. Thus, the study is entitled as 'A Study on the Awareness on Menstrual Hygiene among Higher Secondary Girl Students'.

OBJECTIVES

1. To assess the levels of awareness on menstrual hygiene among girl students at higher secondary schools
2. To find out the significant difference in mean scores of awareness on menstrual hygiene among girl students at higher secondary school for the respective sub samples:
   a) Locale (Rural & Urban)
   b) Type of school management (Government, Aided & Unaided)

Hypotheses

1. There exists difference in levels of awareness on menstrual hygiene among girl students at higher secondary schools
2. There exists no significant difference in the awareness on menstrual hygiene among girl students at higher secondary school for the respective sub samples:

a) Locale (Rural & Urban)
b) Type of school management (Government, Aided & Unaided)

METHODOLOGY

Method

The study employed the survey method to systematically gather insights from participants, enabling a comprehensive exploration of various variables of interest.

Sample, Sample Size & Sampling techniques

Population of the study was girls at higher secondary level. Sample selected for the study consisted of 400 higher secondary school girl students from Palakkad district of Kerala state. Purposive sampling technique was used for the study.

Tools used

A self-made standardised tool namely -Awareness test on Menstrual Hygiene for Higher Secondary School Girl Students was used for the study.

Variable of the study

The study aims to find out the awareness on menstrual hygiene of higher secondary girl students of Palakkad District of Kerala State. Awareness on menstrual hygiene is an independent variable and the classificatory variables include:

a) Locale (Rural & Urban)
d) Type of school management (Government, Aided and Unaided)

DATA ANALYSIS

Data Collection Procedure

The present study requires the administration of tools to get sufficient data for analysis. The researcher prepared the questionnaire with corresponding response sheet in the final form. The data collection was conducted in the month of November. The principals of the selected schools were contacted by the investigator and sought permission to administer the tool. Sufficient copies of the questionnaire and response sheet were distributed coupled with proper instructions to the 400 higher secondary girl students. The respondents were assured that their response would be kept confidential and only used for the research purpose. Time limit was strictly followed during tool administration. Uniform procedure was adopted for data collection in all schools. After completing the responses, the response sheet with the question paper were collected from respondents.

Awareness about menstruation before menarche

Table 1 :*Data and result analysis of the awareness about menstruation before menarche*

Awareness on menstruation before menarche	N	%
Yes	166	41.5
No	46	11.5
Partial knowledge	186	46.5
Not answered	2	0.5

From the table 1, of the total sample 41.5% girls responded that they were familiar with the concept of menstruation before menarche,11.5% responded that they were not familiar and 46.5% responded that they had partial knowledge about the concept of menstruation before attaining their menarche .0.5% of students had no comments on this question.

Source of knowledge about menstruation

Table 2: *Data and result analysis of the percentage of Source of knowledge about menstruation*

Source of knowledge about menstruation	N	%
Mother	215	53.75
Friends	143	35.75
Awareness classes	26	6.5
Social media	16	4

From the table 2, of the total sample, 53.75% of girls responded that they attained knowledge about menstruation from their mother.35.75% responded that they gained knowledge from their peer groups or friends.6.5% of respondent from various Awareness classes and remaining 4% of respondent acquired knowledge about menstruation through social media.

Mental status of students during menstruation

Table 3: *Data and result analysis of the percentage of mental status of students during menstruation*

Mental status during menstruation	N	%
Normal like other days	74	18.5
Stressed/frustrated	153	38.25
Happy	51	12.75
Feeling low	122	30.5

From the table 3, of the total sample, 18.5% girls responded that they are felt normal during their menstruation. 38.25% responded that they gets stressed or frustrated, 12.75% responded that they are felt normal happiness during those days and 30.5% of responded that they feeling low during menstruation.

The chances of menstruation elimination

Table 4: *Data and result analysis of the percentage of the chances of menstruation elimination*

The chances of menstruation elimination	N	%
Accept the chance	59	14.75
Reject the chance	99	24.75
Transfer the process to opposite gender	58	14.5
Sometime accept the chance during hectic menstruation	184	46

From the table 4, out of the total sample, 14.75% girls responded that they were like to remove the menstruation process from their body. 24.75% responded that they were not to prefer to remove the menstruation from their body.14.5% responded that they were like to transfer this menstruation process to opposite gender and remaining 46% responded that they were like to remove menstruation process from their body only when they felt hectic.

DISCUSSION

Based on the qualitative analysis, it is seen that majority of the girl students at higher secondary level had only partial knowledge about menstruation. his suggest that there is a lack of complete or proper awareness about menstruation. It

can be concluded that awareness programmed on menstruation has to be provided to girls at proper age. It has to be a part of school curriculum. The primary source of knowledge on menstruation for majority of the girl students were their mothers. Some of them gained awareness from their peer groups. However, the authenticity of knowledge from peers' possess challenges a minority of respondents acquired menstrual knowledge through formal awareness classes. It crucial to provide menstrual awareness to girls starting from lower grades in schools.

Analysis of the levels of awareness on menstrual hygiene among girl students at higher secondary school

Hypothesis 1

There exists difference in levels of awareness on menstrual hygiene among girl students at higher secondary school

To find out the levels of awareness on menstrual hygiene among higher secondary school girl students, they were classified into three categories namely students having high awareness, average awareness and low awareness. The scores which are more than the mean + SD is categorized as student experience high awareness. The students who scored below mean - SD is categorized as students experience low awareness and students who scored in between the above indicated two levels is categorized as student with average awareness.

Table 5: Levels of awareness on menstrual hygiene among girl students at higher secondary schools

Awareness levels		N	Percentage
High awareness	M+ σ	92	23 %
Average awareness	In between M+σ and M- σ	244	61%
Low awareness	— σ	64	16 %

The result in the Table 5, shows that out of the total sample (n=400) 23% of higher secondary girl students experience high awareness, 61% students experience average awareness and 16% experiences low awareness on menstrual hygiene. It was found that, for the whole sample the majority comes under average awareness level on menstrual hygiene. This indicates that higher secondary girl students from the whole sample show average level of awareness on menstrual hygiene.

The result shows there exist different levels of awareness on menstrual hygiene among higher secondary school girl students. Most of the students experience average level of awareness on menstrual hygiene among higher secondary girl students.

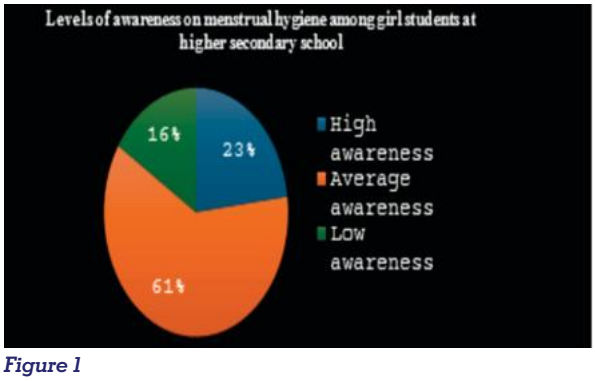

Figure 1

Graphical representation of levels of awareness on menstrual hygiene among girl students at higher secondary school

Difference in the awareness on menstrual hygiene among girl students of higher secondary schools for the subsample's locale and type of management

Hypothesis 3

There exists no significant difference in the awareness on menstrual hygiene among girl students at higher secondary school for the respective sub samples:

- Locale (Rural & Urban)
- Type of management (Government, Aided & Unaided)

Locale: In order to find the significant difference in the awareness on menstrual hygiene among girl students at higher secondary level for the respective sub samples locale rural and urban. t –test was employed. details of which is given in the Table 6.

Table 6: ***Data and result of analysis of awareness on menstrual hygiene among girl students of higher secondary school based on subsample (locale)***

	Locale	N	Mean scores	SD	t	p
Awareness on menstrual hygiene	Rural	231	10.19	3.6	6.24	0.001
	Urban	169	12.75	4.58		

From the table 6, it is clear that the mean scores and standard deviation of awareness on menstrual hygiene for rural are 10.19 and 3.6 respectively. The mean scores and standard deviation of awareness on menstrual hygiene are 12.75 and 4.58 respectively. The critical ratio (t-value) is significant at .001 levels. Since the calculated t value 6.24 is greater than the table value 1.96. In other words there exists significant difference between rural and urban girl students at higher secondary level in the awareness on menstrual hygiene.

DISCUSSION

From the result obtained it is clear that there exists significant difference between rural and urban girl students at higher secondary level in the awareness on menstrual hygiene. This can be due to the exposure to the awareness programmes to which students for urban schools are exposed to.

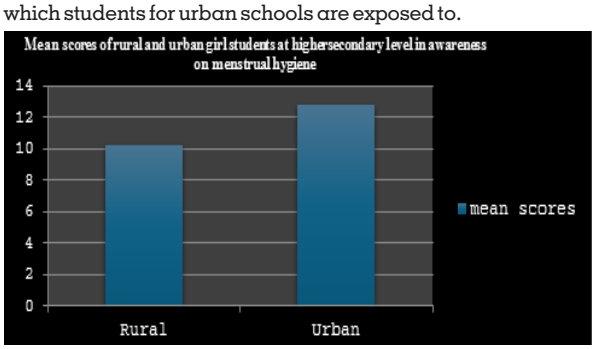

Figure 2

Graph showing mean scores of rural and urban girl students at higher secondary school in awareness on menstrual hygiene

Type of management: In order to find the significant difference in the awareness on menstrual hygiene among girl students at higher secondary level for the respective sub samples type of management government, aided and unaided. One way ANOVA was employed, the details of which is given in the table 7.

There exists no significant difference in the awareness on menstrual hygiene among girl students at higher secondary level for the respective sub sample (Types of management).

Table 7:*Data and results of One Way ANOVA for significant difference in the mean scores of awareness on menstrual hygiene among girl students of higher secondary school based on subsample (type of management).*

	Type of management	N	Mean scores	SD	f	p
Awareness on menstrual hygiene	Government	161	11.17	3.82	24	0.001
	Aided	105	9.45	2.81		
	Unaided	134	12.85	5		

From the analysis given in the table 7, the f value obtained for awareness on menstrual hygiene is 7 similarly and the p value is <.001 which is greater than 0.001 level of significance. So there exists significant difference in the awareness on menstrual hygiene among girl students of higher secondary level based on types of management.

DISCUSSION

From the result obtained it is clear that unaided schools having high mean scores compared to aided and government schools. It may be due to two factors i.e.; they may have more control over their curriculum and budget allowing them to prioritize menstrual hygiene education and allocate resource for dedicated programmes. Additionally, they may often some girl students from families with higher socioeconomic background, who may be comfortable discussing menstruation and have better access to information, potentially influencing the schools approach like sanitation facilities. Government and aided schools might face challenges like resource constraints limited curriculum time dedicated to health education, lack of sanitation facilities and lack of funding also hinders. In the findings of Sivakami, M (2019)., Ensuring sufficient gender specific private toilet facilities with water for changing and washing, and provision of sanitary materials would help reduce girls' absenteeism in schools during menstruation. Providing pain relief, and adapting school rules (to facilitate toilet visits) may further help to facilitate menstrual care in schools. Broader policy implications include the responsiveness of the education sector to enhance girls' reproductive health and life skills, and modify social norms to diminish menstrual restrictions.

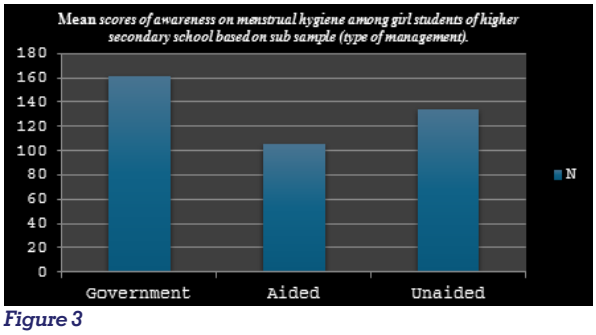

Figure 3

Graph showing the significance difference in the mean scores of awareness on menstrual hygiene among girl students of higher secondary school based on sub sample (type of management).

Table 8: ***Data and results of Tukey Post-Hoc test of difference among the mean scores of awareness on menstrual hygiene among girl students of higher secondary level based on type of management***

Types of management	Types of management	Mean difference	p
Aided	Government	-1.72	0.002
	Unaided	-3.4	<.001
Government	Unaided	-1.68	0.001

From the table 8, it is clear that there exists a significance difference in the mean scores of awareness on menstrual hygiene among girl students of higher secondary level belong to the aided and government (-1.72, p=0.002), aided and unaided (-3.4, p=.001), government and unaided (-1.68, p=0.001).

FINDINGS OF THE STUDY

The findings of the study can be interpreted on the context of higher secondary school students.

- Regarding awareness about menstruation before menarche among girl students at higher secondary school, 41.5% of students were familiar with the concept of menstruation, 11.5% of students were not familiar with the concept of menstruation and 46.5% students had partial knowledge about the concept of menstruation before attaining their menarche.
- Regarding source of knowledge about menstruation among girl students at higher secondary school, 53.75% of students attained knowledge about menstruation from their mother.35.75% of students gained knowledge from their peer groups or friends.6.5% of students from various Awareness classes and remaining 4% of students acquired knowledge about menstruation through social media.
- Regarding mental statuses of students during menstruation among girl students at higher secondary school, 18.5% of students are felt normal like usual days during their menstruation. 38.25% of student gets stressed or frustrated during their menstruation. 12.75% of students are felt normal happiness during those days and 30.5% of students are feeling low during menstruation.
- Based on eliminating menstruation 14.75% of the students were liked to remove the menstruation from their body. 24.75% of students did not to prefer to remove the menstruation.14.5% of students liked to transfer this menstruation process to opposite gender and remaining 46% of students liked to remove menstruation process from their body only when they felt hectic and ill healthy
- The level of awareness on menstrual hygiene among girl students at higher secondary school is, 23% of girl students had high awareness, 61% girl students had average awareness and 16% had low awareness.
- Awareness on menstrual hygiene for rural are 10.19 and 3.6 respectively. The mean scores and standard deviation of awareness on menstrual hygiene are 12.75 and 4.58 respectively. The critical ratio (t-value) is significant at .001 levels. Since the calculated t value 6.24 is greater than the table value 1.96. In other words there exists significant difference between rural and urban girl students at higher secondary level in the awareness on menstrual hygiene.
- Awareness on menstrual hygiene is 24 similarly and the p value is <.001 which is greater than 0.001 level of significance. So there exists significant difference in the awareness on menstrual hygiene among girl students of higher secondary school based on types of management.

TENABILITY OF THE HYPOTHESIS

Hypothesis 1

- It states that "There exists difference in levels of awareness on menstrual hygiene among girl students at higher secondary level"
- This hypothesis was tested by using percentage analysis. The result indicates that there are different levels of awareness on menstrual hygiene among girl students at higher secondary level. The hypothesis is fully substantiated.

Hypothesis 3

- It states that "There exists no significant difference in the awareness on menstrual hygiene among girl students at higher secondary level for the respective sub samples locale, type of school management".
- To find the significance difference in awareness on menstrual hygiene based on locale t-test was employed the results shows that there exists significant difference between rural & urban in girl students at higher secondary level. To find the significance difference in awareness on menstrual hygiene based on type of management ANOVA was employed. The result shows that there exists significance difference between in type of management (Government, Aided & Unaided) thus the hypothesis is not substantiated

CONCLUSION

The different analysis enabled the investigator to arrive at the following conclusions.

- There is an element of difference in the levels of awareness on menstrual hygiene among girl students at higher secondary school ranging from high, average and low.
- It is evident that there is a difference in the awareness on menstrual hygiene among girl students at higher secondary school with respect to the sub samples locale and type of school management

EDUCATIONAL IMPLICATIONS

The present study has the following educational implications.

1. Tailoring educational programs to address specific gaps in menstrual hygiene knowledge can enhance girls' understanding and confidence in managing their menstrual health effectively.
2. Peer education initiatives offer a supportive platform for older girls to impart knowledge and empower younger peers with essential menstrual hygiene management skills.
3. Integrating menstrual hygiene education into the curriculum ensures that all students have access to comprehensive information and resources regardless of their background or circumstances.
4. Inclusivity in educational materials and programs is essential to respect and accommodate the diverse cultural and socioeconomic backgrounds of students.
5. Stigma reduction campaigns challenge harmful societal norms surrounding menstruation, fostering a more supportive and understanding environment for girls to learn and discuss menstrual hygiene.

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