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A STUDY TO ASSESS THE KNOWLEDGE AND KNOWLEDGE ON PRACTICE ON MENSTRUAL HYGIENE AMONG NURSING STUDENT AT JIET COLLEGE OF NURSING, JODHPUR

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ABSTRACT

The aim of the study is to assess the knowledge and knowledge on practice on menstrual hygiene among nursing student at JIET College of Nursing, Jodhpur Rajasthan. The objectives of the study were to assess the knowledge on menstrual hygiene, to assess the knowledge on practice of menstrual hygiene. A quantitative research approach and a descriptive study was used to assess the knowledge and knowledge on practice regarding menstrual hygiene. The study was undertaken with 50 female nursing students. Convenience sampling technique was used to select samples. Structured knowledge & practice questionnaire was used for collecting data. The data was analyzed by using descriptive statistics. Quantitative with descriptive approach was used in this study. Data collection was performed by forming a non-standardized, self-administered questionnaire. It was concluded that there was obtained reflected that in our selected samples 84% people had adequate, 14% had moderate and only 02% had inadequate knowledge on menstrual hygiene. When it comes to the knowledge on practice on menstrual hygiene, only 24% of the population was actually practicing the standard methods as shown by their responses. While the majority, 60% had moderate knowledge on practice, a very small, 16% of the respondents exhibited inadequacy in the measured objective.

INTRODUCTION

Women's health concerns are generally underrepresented in basic and translational research, but reproductive health in particular has been hampered by a lack of understanding of basic uterine and menstrual physiology. Menstrual health is an integral part of overall health because between menarche and menopause, most women menstruate. Yet for tens of millions of women around the world, menstruation regularly and often catastrophically disrupts their physical, mental, and social well-being. [1].

Adequate management of menstrual hygiene is

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taken for granted in affluent countries; however, inadequate women in resource-poor countries, which adversely affects the health and development of adolescent girls. Challenges to improving menstrual hygiene management include lack of support from teachers (who are frequently male); teasing by peers when accidental menstrual soiling of clothes occurs; poor familial support; lack of cultural acceptance of alternative menstrual products; limited economic resources to purchase supplies; inadequate water and sanitation facilities at school; menstrual cramps, pain, and discomfort; and lengthy travel to and from school, which increases the likelihood of leaks/stains. [2, 3] has done surveys among menstruating school girls in class 8-10 (above 12 years of age) of 43 government schools selected through stratified random sampling in three Indian states (Maharashtra, Chhattisgarh, Tamil Nadu) in 2015. It showed that more girls were informed about menstruation before menarche in



model schools than in regular schools. Girls reported menstruation affected school attendance and concentration and was associated with pain and fear of stain or smell. About 45% of girls reported using disposable pads in both model and regular schools, but only 55% and 29% of padusers reported good disposal facilities, respectively. [4] have conducted a study on menstrual hygiene management and waste disposal and showed that girls and women have very less or no knowledge about reproductive tract infections caused due to ignorance of personal hygiene during menstruation. Their needs and requirements of them were ignored.

A cross-sectional study was conducted on school going adolescent girls in Jodhpur, Rajasthan, to assess and compare the knowledge, perceptions, and practices of adolescent girls regarding menstrual hygiene in rural and urban areas, it was found that only around one-fourth of the girls in the study area had ever been counseled for menstrual hygiene. Hence, they have recommended for the need of awareness about adolescent health and clinics [5].

Significance of the Problem

According to the Menstrual Hygiene Management in 2013 menstrual cycle has come to occupy an increasingly important place in discussions of women's health, with attention again focusing on the impact of the onset of menarche. Studies of girls' response to menarche have determined that it is a highly salient, intense event and a turning point in female development. They also have demonstrated that more adequate preparation is associated with a more positive initial response. Majority of the female population who are menstruating have no access to clean and safe sanitary products, or to a clean and private space to change menstrual cloths or pads and to wash.

According to WASH United - Menstrual Hygiene Management 2016 reveals that 1 out of every 3 girls in South Asia were unaware of menstruation before menarche, while 48% of the girls in Iran and 10% in India believed that menstruation is a disease. [6] has done a study hygienic practices during menstruation showedthat 18 (11.25%) girls used sanitary pads during menstruation, 68 (42.5%) girls used old cloth pieces and 10 (6.25%) girls used new cloth pieces. Sixty-four (40%) girls used both cloth pieces and sanitary pads during menstruation. Cleanliness of external genitalia was unsatisfactory (frequency of cleaning of external genitalia is 0-1/day) in case of 24 (15%) girls; For cleaning purpose, 156 (97.5%) girls used both soap and water; More than half of the respondents (51.25%) did not possess a covered toilet; Regarding the method of disposal of the used material, 118 (73.75%) girls reused cloth pieces and 92 (57.5%) girls properly disposed the cloth pieces or sanitary pads used, i.e. they wrap the used cloth piece or sanitary pad in a paper bag and disposed in a place used for solid waste disposal.

Interventions in India to improve menstrual health

and hygiene management (MHHM) have been implemented at the national, state, district and school level. However, evaluations of these interventions have been scarce.

A study was done to determine if a social and behavioral change communication (SBCC) intervention (GARIMA) had a relationship with knowledge, attitudes, interpersonal communication, restrictions and MHHM using

A comparison group post-test only design among 2206 adolescent girls.

The results showed that the encoded exposure predicted all behaviors corresponding to MHHM. Additionally, adolescent girls in the high encoded exposure group had significantly higher knowledge about puberty and reproductive parts, positive attitudes towards gender, and higher levels of some discussion and dialogue. [7]

Hence, this study was undertaken to assess the existing level of knowledge and knowledge on practice on menstrual hygiene.

Statement of the problem

A study to assess the knowledge and knowledge on practice on menstrual hygiene among nursing student at JIET College of Nursing, Jodhpur

Objective of the study

- To assess the knowledge on menstrual hygiene among the students at JIET College of Nursing.
- To assess the knowledge on practice of menstrual hygiene among the students at JIET College of Nursing.

Operational Definitions

- Assess: Assess refers to the level of knowledge and knowledge on practice on menstrual hygiene by giving the right answers to the question on the semi structured tool.
- Knowledge: Refers to understanding of students on menstrual hygiene as elicited by the answer given the semi structured questionnaire on knowledge.
- Menstrual hygiene: Refers to how an individual keeps the private part favorable to the physiological changes happening in the bodyas elicited by the answer given the semi structured questionnaire on knowledge on practice.
- Nursing student: The student undergoing baccalaureate program in the selected JIET College of Nursing, Jodhpur.

Assumption

- Nursing students may have some knowledge about menstrual hygiene.
- Nursing students may have inappropriate practice during menstruation.

Delimitation

• This study was delimited to nursing students only.



 This study was delimited to students who are studying in JIET College of Nursing, Jodhpuronly.

REVIEW OF LITERATURE Studies related to Menstrual Hygiene

Appropriate Menstrual Hygiene Management (MHM) is impeded by taboos and secrecy surrounding menstruation. Unhygienic menstrual practices and unpreparedness for managing menstruation has been associated with adverse health and social outcomes among adolescent girls.

In a study conducted in the rural Kiang West district of the Gambia to assess the knowledge, practices and attitudes of menstruation and its management among the mothers, adolescents and teachers, it was found that all groups expressed difficulties, embarrassment and shame in relation to discussing menstruation. Mothers reported facing difficulties in discussing menstruation with their children and felt that boys did not need to be taught about it; however, boys were very curious to know about. [8]

Attention to women's and girls' menstrual needs is critical for global health and gender equality. Resource limitations underlay inadequate physical infrastructure to support menstruation, as well as an economic environment restricting access to affordable menstrual materials. Menstrual experience includes multiple themes: menstrual practices, perceptions of practices and environments, confidence, shame and distress, and containment of bleeding and odor. Women and girls reported impacts of negative menstrual experiences on physical and psychological health, education, employment, and social participation. Both resource limitations and the sociocultural context contribute to menstrual experience. [9]

In a study done on, 'It's like a burden on the head': Redefining adequate menstrual hygiene management throughout women's varied life stages in Odisha, India, it was found by the investigating team that women voiced needs like access to clean materials, privacy for changing materials, soap and water for bathing, and disposal facilities for materials. Additionally, women required materials that are not only clean but comfortable and reliable; soap and water for more than bathing; privacy for the full spectrum of menstruation-related practices, not just when changing; and disposal facilities that are private and safe, not just accessible.

Studies related to Knowledge on Menstrual Hygiene

Adolescents are the future generation of a country. It is a vulnerable age making them susceptible to many health issues such as reproductive tract infections because of improper menstrual hygiene. In a study done [10], on Knowledge about menstrual hygiene, sexual health, and contraception in educated late adolescent age girls. In that, a pre-designed questionnaire was prepared with reference from WHO adolescent health questionnaire and a health talk

was organized in college. The questionnaire survey was done for 150 college girls. Forty percent did not answer the question from where they knew about puberty. Mother was the most common source of information about puberty (28%). There was a high level of knowledge about menstrual hygiene.

The knowledge of the menstrual cycle and managing it effectively is the most widespread concern. In a cross-sectional study conducted [11], on, Knowledge and practice of self-hygiene during menstruation among 258 intermediate adolescent school girls in Buraidah city, approximately 61.7% participants had 'acceptable' level of knowledge, 2.0% had 'good' knowledge and 36.3% had 'poor' knowledge regarding menstruation. Most (60.5%) students were categorized as having unsatisfactory self-hygiene practice.

One study was done [12] on, 'Adolescent Menstrual Health Literacy in Low, Middle and High-Income Countries', which showed that menstrual literacy is something that is highly affected by the sources from where girls get to know about menstruation and the associated practice methods. Usually mothers are the primary source of information for adolescent girls and in low- and middle-income countries, mothers themselves had insufficient transferrable knowledge due to low literacy levels or were hesitant to talk about significance of menstrual hygiene openly with their daughters.

Studies related to Knowledge on Practice on Menstrual Hygiene

Menstrual insecurity is yet another issue that rises up in discussing the prevailing scenarios of menstrual hygiene. Those without access to a functional latrine, enclosed bathing space, water source within their compound, or who used reusable cloth had significantly higher overall Menstrual Insecurity scores (greater insecurity) than those with these facilities or using disposable pads. Post-hoc exploratory analysis found that women reporting experiencing tension at menstrual onset or difficulty doing work had significantly higher Menstrual Insecurity scores. [13]

A study was done [14], in adolescent girls to evaluate the knowledge and practice on different aspects of menstrual hygiene. They found that students were not properly maintaining the menstrual hygiene. Only 6.0% of girls knew that menstruation is a physiologic process, 36.7% knew that it is caused by hormones. Close to 94% of them use the pads during the period but only 11.3% dispose it in a proper way. Overall knowledge and practice were 40.6% and 12.9% respectively. Although knowledge was better than practice, both were not satisfactory.

A review study compared the absorbent products with new methods like menstrual cup and found that outcome of reported leakage was similar or lower for menstrual cups than for disposable pads or tampons, use of



the menstrual cup showed no adverse effects on the vaginal flora and professional assistance to aid removal of menstrual cup was reported among 47 cervical cup users and two vaginal cup users. Overall the review indicates that menstrual cups are a safe option for menstruation management and are being used internationally. [3]

Access to washroom facilities and a place to dispose of menstrual waste are prerequisites for optimal menstrual hygiene management in schools. Barriers to optimal menstrual hygiene management included lack of functional toilets and private locations for changing menstrual products, and limited options for disposal. Girls, teachers, and janitors preferred and ranked the chute disposal system as their first choice, because it has large capacity (765 L), is relatively durable, requires less maintenance, and will take longer time to fill. [15]

Studies related to Awareness on Menstrual Hygiene

The whole idea of highlighting menstrual hygiene and its management lies on how aware the masses are about it. A study was done [16], on The Extent to Which Menstruation-Related Issues Are Included in Graduate-Level Public Health Curricula, focused on Public health graduates of U.S. schools of public health.

This study revealed that given growing attention to menstruation domestically and globally, and the limited current inclusion of this issue in US schools of public health curricula, graduates may not be receiving adequate training on a critically important topic of relevance within population health. In a systematic review of studies published in peer-reviewed journals and project reports conducted [17], on Educational interventions to improve menstrual health: approaches and challenges, different intervention studies used a variety of methods like lectures, discussions, demonstrations using multiple audio-visual aids and provision of resources like menstrual cups, sanitary pads and washing soap to spread awareness about menstrual hygiene.

Most of the interventions reported a positive impact on the awareness and menstrual practices of girls. However, in a few studies no significant change was observed in the attitude regarding regular bathing, practices related to self-medication for dysmenorrhea and sociocultural taboos.

Studies related to Educational Intervention

Majority of adolescent girls all over the world suffer from anxiety, shame, discomfort, and isolation during menstruation. Educating about menstrual hygiene and health can help them to overcome this situation.

A study was done [18] to elicit the existing knowledge, attitude, and practices regarding menstruation and to assess the effectiveness of a structured training program through peer educators-PRAGATI (Peer Action for Group Awareness through Intervention) on menstrual hygiene

among adolescent school girls. In the pre-test, only 20.5% had adequate knowledge, 32.5% had poor knowledge, while 48.7% of girls had moderate knowledge about menstruation and menstrual hygiene. Post-intervention, 56.41% girls gained adequate knowledge, 30.76% had moderate knowledge, and only 12.8% of them still had poor knowledge.

METHODOLOGY

Research Design

Type of study: A quantitative researchapproach and a descriptive study was used to assess the knowledge and knowledge on practice regarding menstrual hygiene among the nursing students of JIET College of Nursing.

Study Setting: JIET College JodhpurNursing.

Target population: Female nursing students of JIET College of Nursing.

Accessible population: All the students who responded as per convenience.

Study Population and Sampling: The population included all the female nursing students in JIET College of Nursing. Sample Size:50 Female nursing students.

Sampling Method:A convenience sampling technique was used to select samples.

Description of the Tool Research Tool

- A self-administered questionnaire was developed to assess the demographic profile of the samples.
- A self-administered questionnaire in statement form was constructed to assess the knowledge of menstrual hygiene.
- A self-administered questionnaire in statement form was constructed to assess the knowledge on practice of menstrual hygiene.

Scoring and Interpretation of Knowledge and Knowledge on practice of Menstrual Hygiene

For assessment of Knowledge and Knowledge on Practice, a questionnaire in statement form was prepared with multiple choice questions. Among the statements given four options were provided and out of which participants had to choose one correct option.

The section for assessment of Knowledge onMenstrual Hygiene had 15 statements each with four options and out of which only one option was correct.

For each correct response, one mark and for each incorrect response, zero mark was allotted. The final score was given from fifteen and then converted into percentage ranges which were graded as follows –

- ♦ 0-50% = Inadequate knowledge
- ♦ 50-75% = Moderately adequate knowledge
- ♦ >75% = Adequate knowledge

The section for assessment of Knowledge on Practice on Menstrual Hygiene had 15 statements each with



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For each correct response, one mark and for each incorrect response, zero mark was allotted. The final score was given from fifteen and then converted into percentage ranges which were graded as follows –

- ♦ 0-50% = Inadequate Knowledge on Practice
- ♦ 50-75% = Moderately adequate Knowledge on Practice
- ❖ >75% = Adequate Knowledge on Practice

Tool Validity

The tool and content validity were evaluated by the experts in the specialty of Midwifery and Obstetrical Nursing.

Ethical Consideration

Permission was obtained from the Management and Principal of JIET College of Nursing, informed consent was obtained from the participants and confidentiality was maintained.

Data Analysis & Interpretation

Data analysis and interpretation is done by Descriptive statistics by using Microsoft Excel.

ANALYSIS AND RESULT

Data was collected on Menstrual Hygiene among the 50 participants from the JIET College of Nursing using a non-standardized tool by using a self-administered questionnaire. Data was entered in Microsoft Excel and analysis was done using descriptive statistics. The following were the objectives used for the data analysis.

- 1. To assess the level of knowledge on Menstrual Hygiene among the students of JIET College of Nursing, Jodhpur.
- 2. To find out the level of Knowledge on Practice on Menstrual Hygiene JIET Jodhpur.

Objective 1: To assess the level of Knowledge on Menstrual Hygiene among the students of JIET College of Nursing, Jodhpur.

Inference

- * Above table shows the demographic variables of the participants.
- In regard to the age group, 64% of the population belongs to the age group of 20-21 years, 28% of them

- are from 18-19 years and only 08% are between 22-23 years.
- In regards to residence, 74% of the population is from urban area and 26% is from rural area.
- In regard to religious background, 96% people were Hindu and 02% were Christian.
- In regard to marital status, 98% of the sample population was unmarried and 02% were married.
- In regard to the type of family, 48% belong to nuclear family, 46% from joint family and 06% from extended family.
- In regard to age of menarche, 76% of girls had menarche between 12-15 years, 16% had it after 16 years and 08% had it before 12 years.
- In regard to the class (of study), 38% students were from B. Sc. Nursing Part I, 36% from B. Sc. Nursing Part II and 26% from B. Sc. Nursing Part III.
- In regard to the duration of blood flow, 76% of the population faced menstrual flow between 4-7 days, 18% experienced a flow for less than 3 days and 06% had menstrual flow for more than 7 days.
- In regard to maternal education status, 46% reported higher secondary, 28% said illiterate and 26% said graduate and more.
- In regard to family (economic) status, 96% belong to the middle class with 02% from lower and 02% from higher class.

Inference

The above table shows the knowledge level of participants involved in the study.

Among the respondents, 84% (42) of the participants have adequate knowledge. A relatively smaller fraction of the participants, 14% (07) have moderate knowledge and 02% (01) of the participants have inadequate knowledge.

Objective 2: To assess the level of Knowledge on Practice on Menstrual Hygiene among the students of JIET College of Nursing, Jodhpur.

Inference

The above table shows the level of knowledge on practice of participants involved in the study.

Among the respondents, 24% (12) of the population have adequate knowledge on practice. At the same time, 60% (30) of the population have moderate knowledge on practice and 16% (08) of the population have inadequate knowledge on practice.

Table 1: Demographic Variables of the Participants (50) in the study

Sr. No.	Variables		Number	Percentage
1	Age in years	18-19	14	28%
		20-21	32	64%
		22-23	04	08%



2	Residence	Urban	37	74%
		Rural	13	26%
3	Religion	Hindu	48	96%
		Muslim	00	00%
		Christian	02	04%
4	Marital Status	Unmarried	49	98%
		Married	01	02%
5	Type of Family	Nuclear	24	48%
		Joint	23	46%
		Extended	03	06%
6	Age at Menarche	Before 12	04	08%
		12-15	38	76%
		After 16	08	16%
7	Class	B. Sc. Nursing I Year	19	38%
		B. Sc. Nursing II Year	13	26%
		B. Sc. Nursing III Year	18	36%
8	Duration of Menstrual Blood	Less than 3 days	09	18%
	Flow	4-7 days	38	76%
		More than 7 days	03	06%
9	Maternal Education Status	Illiterate	14	28%
		Higher secondary	23	46%
		Graduate and more	13	26%
10	Family Status	Lower Class	1	02%
		Middle Class	48	96%
		Higher Class	1	02%

Table 2: Assessment of Knowledge on Menstrual Hygiene.

Sr. No.	Knowledge Level	Number	Percentage
1	Adequate Knowledge(>75%)	42	84%
2	Moderate Knowledge (51-75%)	07	14%
3	Inadequate Knowledge (<50%)	01	02%

Table 3: Assessment of Knowledge on Practice on Menstrual Hygiene.

Sr. No.	Level of Knowledge on Practice	Number	Percentage
1	Adequate Knowledge on Practice (>75%)	12	24%
2	Moderate Knowledge on Practice (51-75%)	30	60%
3	Inadequate Knowledge on Practice (<50%)	8	16%

DISCUSSION

Menstrual hygiene management, awareness and education remain to be one of the most widely studied topics when it comes to its importance and the need in today's time. Countless studies done on an array of variables suggest numerous areas that need to be addressed for enhancing the knowledge and practices about menstrual hygiene. Our study particularly focuses on the knowledge and knowledge on practices on menstrual hygiene among the undergraduate nursing students.

Discussion on Knowledge on Menstrual Hygiene

In a study done [10], questionnaire survey was done for 150 college girls and there was a high level of knowledge about menstrual hygiene. In our study we found that over a sample size of 50 nursing students, a larger share

of them, about 84% had adequate knowledge.

There was a lot of literature available from various studies which reflected the knowledge levels of females of reproductive age from the resource deprived and developing countries.

In the study [12] on, on, 'Adolescent Menstrual Health Literacy in Low, Middle and High-Income Countries', poor knowledge transfer from mothers to their daughters was due to the illiteracy prevailing among mothers. Similarly, in our study we performed a demographic check of the maternal education status and about 26% of the respondents had their mother undergone graduation and 46% of the respondents had their mother with at least higher secondary level of education. This strongly was in synergy with the finding that maternal literacy was indeed a very elemental factor in



the students' knowledge about menstrual hygiene.

Menstruation is a normal phenomenon which every female undergoes in her lifespan and to consider this as a topic of secrecy is not at all justified. Education needs to be provided to all children irrespective of the gender to promote a healthy mindset and proper flow of appropriate knowledge. In a study conducted [11], among 258 intermediate adolescent school girls, only 2.0% had 'good' knowledge. Our study presented the attitude of participants as 88% of them reported that education about menstrual hygiene is necessary in schools because it will increase awareness and this was in consonance with our thought that knowledge about menstrual hygiene should not be limited to just the females and provided only through traditional practices.

Discussion on Knowledge on Practice on Menstrual Hygiene

Having the basic know how of menstruation just half the matter of concern. The actual utilization of this knowledge is represented by the practices being followed. In a study done [14], a very small number, 6.0% of girls knew that menstruation is a physiologic process and adequate practice was 12.9% only. In our study we found that 96% of the participants responded as menstruation to be a physiologic process and 24% of them had adequate knowledge on practices about menstrual hygiene. This is a proof that in real world scenarios, the practices followed differ greatly than those recommended by the experts.

The practices vary when utilization of menstrual flow absorbents but the convergence is seen when disposing the waste products. Our study shows that sanitary napkins or cellulose pads are the most menstrual flow absorbent and 62% participants know that the pad is changed about once in 6 hours.

In a study done [15], girls, teachers, and janitors preferred and ranked the chute disposal system as their first choice but 98% of our sample population opted that disposal of pads should be done by wrapping it in a piece of paper and discarding in dustbin, from where it could be degraded by various means.

Summary, Conclusion and Recommendations

This study revolves around a very important theme of female reproductive events. Menstrual cycle or periods are very well known to the world and the current report focus on the area of menstrual hygiene. The problem statement was devised as, 'A study to assess the knowledge and knowledge on practice on menstrual hygiene among nursing student at JIET College of Nursing, Jodhpur'

To proceed further with this study, two objectives were formulated. One objective was to assess the knowledge on menstrual hygiene and the second in line was to assess the knowledge on practice of menstrual hygiene. The study was delimited to nursing students and that too,

undergoing B. Sc. Programmer in JIET college of Nursing.

A quantitative with descriptive approach was used to study among 50 female nursing students using convenient sampling technique. Data collection was performed by forming a non-standardized, self-administered questionnaire using Google Forum. Data was collected under three headings namely the demographic variables, the knowledge and the knowledge on practice on menstrual hygiene. The tool was validated by the experts.

Data was entered in Microsoft Excel and descriptive statistics was used to analyze the data.

Findings of the study showed that

- 84% of population has adequate knowledge and 2% of population has inadequate knowledge about Menstrual Hygiene.
- 24% of population has adequate knowledge on practice and 16% of population has poor knowledge on practice on Menstrual Hygine.

CONCLUSION

This study yielded results that were meant to be achieved through set objectives. Ten demographic variables were chosen and thirty statements were presented in total to assess the knowledge and knowledge on practice on menstrual hygiene.

The results obtained reflected that in our selected samples 84% people had adequate, 14% had moderate and only 02% had inadequate knowledge on menstrual hygiene. When it comes to the knowledge on practice on menstrual hygiene, only 24% of the population was actually practicing the standard methods as shown by their responses. While the majority, 60% had moderate knowledge on practice, a very small, 16% of the respondents exhibited inadequacy in the measured objective.

Recommendations

After the thorough study there are some points which if taken into consideration could change the overall results. Following recommendations are suggested -

- For the nursing professionals, to educate the adolescent age group about reproductive changes and menstrual health, of both genders to broaden the horizon of thought and change the perception from a taboo to free discussion about it.
- In nursing education itself, the students should be educated about menstrual hygiene and the associated topics should be discussed in the initial years of course instead of waiting till the concerned subject like midwifery is taught.
- The administration of any institution should provide safe water, sanitation and hygiene maintenance areas.
 There should be availability of sanitary pad, changing areas and proper disposal system at no extra cost.



4. This research study was done on a very small sample size due to time constraints. A similar study can be

performed with more variables and objectives to gain further insight into this topic.

REFERENCES

- Critchley, H., Babayev, E., Bulun, S. E., Clark, S., Garcia-Grau, I., Gregersen, P. K., Kilcoyne, A., Kim, J. J., Lavender, M., Marsh, E. E., Matteson, K. A., Maybin, J. A., Metz, C. N., Moreno, I., Silk, K., Sommer, M., Simon, C., Tariyal, R., Taylor, H. S., Wagner, G. P., ... Griffith, L. G. (2020). Menstruation: science and society. *American journal of obstetrics and gynecology*, 223(5), 624–664.
- 2. Kuhlmann, A. S., Henry, K., & Wall, L. L. (2017). Menstrual Hygiene Management in Resource-Poor Countries. *Obstetrical & gynecological survey*, 72(6), 356–376.
- 3. Sivakami, M., Maria van Eijk, A., Thakur, H., Kakade, N., Patil, C., Shinde, S., Surani, N., Bauman, A., Zulaika, G., Kabir, Y., Dobhal, A., Singh, P., Tahiliani, B., Mason, L., Alexander, K. T., Thakkar, M. B., Laserson, K. F., & Phillips-Howard, P. A. (2019). Effect of menstruation on girls and their schooling, and facilitators of menstrual hygiene management in schools: surveys in government schools in three states in India, 2015. *Journal of global health*, *9*(1), 010408.
- 4. Kaur, R., Kaur, K., &Kaur, R. (2018). Menstrual Hygiene, Management, and Waste Disposal: Practices and Challenges Faced by Girls/Women of Developing Countries. *Journal of environmental and public health*, 2018, 1730964.
- 5. Choudhary, N., & Gupta, M. K. (2019). A comparative study of perception and practices regarding menstrual hygiene among adolescent girls in urban and rural areas of Jodhpur district, Rajasthan. *Journal of family medicine and primary care*, 8(3), 875–880.
- 6. Dasgupta, A., & Sarkar, M. (2008). Menstrual Hygiene: How Hygienic is the Adolescent Girl? *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 33(2), 77–80.
- 7. Ramaiya, A., Malhotra, A., Cronin, C., Stevens, S., Kostizak, K., Sharma, A., Nagar, S., &Sood, S. (2019). How does a Social and Behavioral Change Communication Intervention Predict Menstrual Health and Hygiene Management: A Cross-Sectional Study. *BMC public health*, 19(1), 1039.
- 8. Shah, V., Nabwera, H. M., Sosseh, F., Jallow, Y., Comma, E., Keita, O., &Torondel, B. (2019). A rite of passage: a mixed methodology study about knowledge, perceptions and practices of menstrual hygiene management in rural Gambia. *BMC public health*, 19(1), 277.
- 9. Hennegan, J., Shannon, A. K., Rubli, J., Schwab, K. J., & Melendez-Torres, G. J. (2019). Women's and girls' experiences of menstruation in low- and middle-income countries: A systematic review and qualitative metasynthesis. *PLoS medicine*, 16(5), e1002803.
- 10. Mamilla, S., &Goundla, S. (2019). Knowledge about menstrual hygiene, sexual health, and contraception in educated late adolescent age girls. *Journal of family medicine and primary care*, 8(2), 610–613.
- 11. Al Mutairi, H., &Jahan, S. (2021). Knowledge and practice of self-hygiene during menstruation among female adolescent students in Buraidahcity. *Journal of family medicine and primary care*, 10(4), 1569–1575.
- 12. Holmes, K., Curry, C., Sherry, Ferfolja, T., Parry, K., Smith, C., Hyman, M., & Armour, M. (2021). Adolescent Menstrual Health Literacy in Low, Middle and High-Income Countries: A Narrative Review. *International journal of environmental research and public health*, 18(5), 2260.
- 13. Caruso, B. A., Portela, G., McManus, S., &Clasen, T. (2020). Assessing Women's Menstruation Concerns and Experiences in Rural India: Development and Validation of a Menstrual Insecurity Measure. *International journal of environmental research and public health*, 17(10), 3468.
- 14. Adhikari, P., Kadel, B., Dhungel, S. I., &Mandal, A. (2007). Knowledge and practice regarding menstrual hygiene in rural adolescent girls of Nepal. *Kathmandu University medical journal (KUMJ)*, 5(3), 382–386.
- 15. Jahan, F., Nuruzzaman, M., Sultana, F., Mahfuz, M. T., Rahman, M., Akhand, F., Luby, S. P., Unicomb, L., & Winch, P. J. (2020). Piloting an acceptable and feasible menstrual hygiene products disposal system in urban and rural schools in Bangladesh. *BMC public health*, 20(1), 1366.
- 16. Sommer, M., Lee, C., Liu, D., &Gruer, C. (2020). The Extent to Which Menstruation-Related Issues Are Included in Graduate-Level Public Health Curricula. *Frontiers in public health*, 8, 442.
- 17. Rastogi, S., Khanna, A., &Mathur, P. (2019). Educational interventions to improve menstrual health: approaches and challenges. *International journal of adolescent medicine and health*, /j/ijamh.ahead-of-print/ijamh-2019-0024/ijamh-2019-0024.xml. Advance online publication.
- 18. Dwivedi, R., Sharma, C., Bhardwaj, P., Singh, K., Joshi, N., & Sharma, P. P. (2020). Effect of peer educator-PRAGATI (PeeR Action for Group Awareness through Intervention) on knowledge, attitude, and practice of menstrual hygiene in adolescent school girls. *Journal of family medicine and primary care*, 9(7), 3593–3599.

