

Level of Knowledge, Practice and Comfort Regarding Menstrual Hygiene Management Among Non-Medical Female Staff in a Tertiary Care Hospital Puducherry.

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Abstract—Background: Good menstrual practices prevent infections, reduce odors and helps to stay healthy. Unfortunately, millions of girls and women's worldwide lack access to proper menstrual hygiene facilities and products. **Methods:** The study was conducted among 100 non-medical female staff in a tertiary care hospital using convenient sampling technique. A prevalidated questionnaire was used to assess knowledge, practice and comfort regarding menstrual hygiene management among non-medical female staff. The data was analysed for frequency, percentage mean, and standard deviation. Association between level of Knowledge and Comfort regarding various Strategies of Menstrual Hygiene Management was analysed by using Fisher's exact test. **Results:** 71% participants have inadequate knowledge about menstrual hygiene, menstrual cup (87%), tampons (97%) and menstrual underwear (99%). 11% reported to avoid non-vegetarian and sweets during menstruation. 11% took remedies such as fenugreek, lemon with soda juice to reduce abdominal pain. 43% had to face many restrictions during menstruation in their daily activities. 87.5% reported that they use cloth napkin because they find it reusable. 8(9.5%) change their sanitary napkins when it is completely soaked/wet. Majority 72(88.8%) participants using sanitary napkin and few of the sanitary napkin users expressed that they wash and dry it before disposal. 12.5% washed the cloth napkins and dried inside the room. 68.7% of the participants who use cloth napkin had agreed that cloth napkin absorbed bleeding well, while 6.2% of participants disagreed with restriction of day-to-day life such as walking, working outside as well as doing normal chores. 43.7% of the participants had strong opinion that there is no ill effect with long term use of cloth napkins. Only 46.3% participants agreed that sanitary napkins absorb the discharge well while 26.1% of participants disagreed with the statement 81.3% of the cloth napkin users and 70.2% of sanitary pad users reported relatively

comfortable. There was a statistically significant association between level of knowledge regarding menstrual hygiene management and religion, education, income type of menstrual hygiene material used and type of family at $p < 5$. **Conclusion:** The current study observed that the women are still having inadequate knowledge regarding menstrual hygiene management. Hence, there is a need to educate the women about the menstrual hygiene and its importance to enhance reproductive health a prevention of reproductive tract infection their knowledge.

Index Terms—Menstrual hygiene, knowledge, practice, comfort, non- medical female staff

I. INTRODUCTION

Menstruation is the process of the periodic discharge of blood and tissue from the uterus. Good menstrual practices prevent infections, reduce odors and help to stay healthy. Unfortunately, millions of girls and women worldwide lack access to proper menstrual hygiene facilities and products.¹

According to the survey by World Bank IBRD-IDA (2022), on any given day, more than 300 million women worldwide are menstruating. An estimated 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management. Inadequate wash (water, sanitation and hygiene) facilities, particularly in public places such as schools, workplaces or health centers, can pose a major obstacle for girls.²

Today, millions of girls and women suffer from reproductive tract infections and its consequences. It is proposed that knowledge about menstruation right from every woman may escalate safe practices and may help in mitigating the suffering of millions of

girls and women. Due to lack of adequate knowledge and poor practice on menstruation, the women go through physiological and emotional stress and reproductive tract infections, which has become a silent epidemic that devastates women's life is closely interrelated with poor menstrual hygiene⁶. It is the need of the hour to emphasize the role of good Menstrual Hygiene Management as a trigger for better, stronger personal, educational and professional development of women and girls. Hence, this study is taken up to assess the level of awareness and practice on menstrual hygiene and level of comfort to create an awareness and also promote hygienic practices during menstruation in utilizing different strategies of menstrual hygiene management among women.

II. OBJECTIVES OF THE STUDY

1. To assess the level of knowledge and practice regarding menstrual hygiene management among non-medical female staff
2. To assess the level of comfort in using various devices of menstrual hygiene management among non-medical female staff
3. To determine the association between level of knowledge and comfort regarding various devices of menstrual hygiene management among non-medical female staff with selected demographic variables.

III. METHODS

- Research design: Descriptive cross-sectional design
- Population: Non –medical female staff working in PIMS
- Sample size: 100
- Sampling technique: convenience sampling

Inclusion criteria:

- Non–medical female staff in the reproductive age group of >20 – 49 years

Exclusion criteria:

- Non-medical female staff with a history of abnormal menstrual bleeding
- On long leave
- On dysfunctional uterine bleeding

IV. INSTRUMENTS AND TOOLS

Tool 1 - Performa to collect socio demographic variables of the participants.

Tool 2 - Structured interview Schedule to assess the knowledge of menstrual hygiene of the participants: This consists of 20 questions. Score 1 is given for a correct answer and 0 for a wrong answer.

Scoring Key:

- 50%- Inadequate knowledge
- 50%-75% - Moderately adequate knowledge
- >75% - Adequate Knowledge

Tool 3 - Structured interview Schedule to assess the practice of menstrual hygiene of the participants

Tool 4 – Five-point likert scale used to assess the level of comfort of the participants

- Very much comfortable – 91 -100%
- Comfortable – 76 – 90%
- Relatively comfortable- 51 – 75%
- Less comfortable – 26 – 50%
- Not comfortable - < 25

V. DATA COLLECTION PROCEDURE

- Participants who fulfilled the inclusion criteria were selected by convenient sampling technique.
- The nature and purpose of the study were explained to the study participants, and informed consent was obtained.
- The data was collected by face-to-face interviews using a structured interview schedule to assess the level of knowledge and practice of menstrual hygiene management and a 5-point Likert scale was used to assess the level of comfort regarding menstrual hygiene management.
- 5–7 participants were interviewed per day and 15-20 minutes was spent for each participant to answer the questions.
- After collecting data, a pamphlet on various strategies of menstrual hygiene management was distributed to participants to make them aware of menstrual hygiene management.

VI. STATISTICAL ANALYSIS

Descriptive analysis: frequency and percentage distribution, mean & standard deviation Inferential statistics: Chi square and fisher exact test was used.

VII. RESULTS

Table 3: Frequency and percentage distribution of level of knowledge regarding menstrual hygiene management among non-medical female staff

Sl. No	Level of knowledge	f	%	Mean	Sd
1	Inadequate Knowledge	71	71.0	8.56	2.713
2	Moderate Knowledge	28	28.0		
3	Adequate Knowledge	1	1.0		

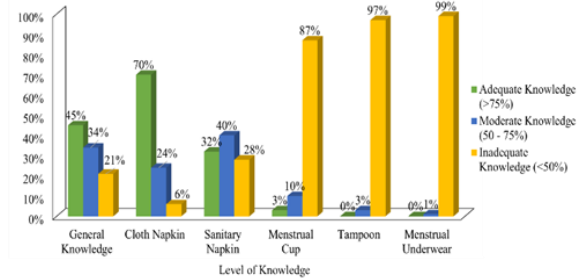


Figure 3: Level of Knowledge regarding different strategies of menstrual hygiene management

Table 4: Distribution of participants according to level of practice regarding menstrual hygiene management

Sl. No	Items	Response	f	%
1	Restriction in diet during menstruation	Yes	11	11
		Sometime	15	15
		Never	74	74
2	Frequency of bath during menstruation	Once a day	23	23
		Twice a day	77	77
3	Frequency of changing innerwear per day	Once a day	14	14
		Twice a day	86	86
4	Taking pain relief medications	Oral pain killer	2	2
		Home remedies	11	11
		No medication	87	87
5	Other restriction	Yes	43	43
		No	57	57

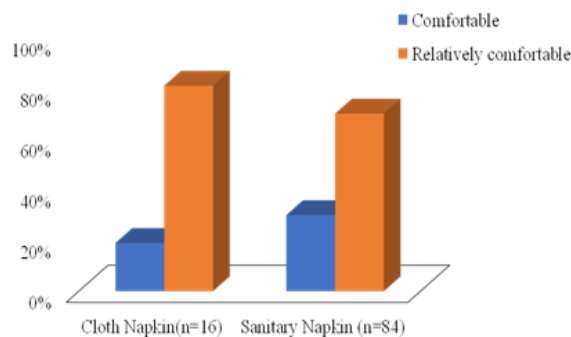


Figure 11: Comparison of overall level of comfort regarding cloth napkin and sanitary napkin among non-medical female staff.

Association between level of knowledge and practice regarding various strategies of menstrual hygiene management among non-medical female staff with selected demographic variables

There was a significant association between the level of knowledge regarding menstrual hygiene management among non-medical female staff with religion, education, family income, type of family

and material used at $p < 0.05$.

There was a significant association between the level of comfort and the type of material used for menstrual hygiene management at $p < 0.05$.

VIII. DISCUSSION

Objective 1: To assess the level of knowledge and practice regarding menstrual hygiene management among non-medical female staff.

- 71(71.0%) had inadequate knowledge, 28(28.0%) had moderate knowledge and 1(1.0%) had adequate knowledge regarding menstrual hygiene management.
- 84(84%) of them used sanitary napkin and 16(16%) of them used cloth napkin.
- A quasi-experimental study on the practice of menstrual hygiene among 100 adolescent girls in Nagpur, India also showed that the majority of adolescents (72%) had inadequate knowledge, 28% had a moderate level of knowledge, and none of them had an adequate level of knowledge regarding menstrual hygiene¹⁰
- A cross-sectional study of menstrual hygiene

practices among 242 adolescent girls in a tribal area of Nagpur showed that around 73.79% of girls were using sanitary napkins, while 26.21% of girls were using cloths ¹¹

Objective 2: To Assess the level of Comfort in using various devices of Menstrual Hygiene Management among Non-Medical Female staff

- Among 16 participants who used cloth napkin, 81.20% were relatively comfortable, and 18.70% were comfortable.
- Among 84 sanitary napkin users 70.2% reported that they are relatively comfortable and 29.70% were comfortable in using of sanitary napkin
- A descriptive cross-sectional study on menstrual hygiene management among 242 adolescent girls in a union territory of Puducherry, India showed that 67.4% were comfortable with the use of sanitary napkin

Objective 3: To Determine the Association between level of Knowledge and Comfort regarding various Strategies of Menstrual Hygiene Management among Non-Medical Female Staff with selected demographic variables

- There was a statistically significant association between level of knowledge regarding menstrual hygiene management among non-medical female staff with like religion, education, income, type of material used and type of family.
 - There is a statistically significant association between the level of comfort with type of material used
 - A study on level of knowledge and practice of menstrual hygiene among 280 women of Digboi, Assam study also showed a significant association between level of knowledge with age and income
- H₁ stated there is a significant association between the level of knowledge and comfort regarding menstrual hygiene management among non-medical female staff with selected socio demographic variables is accepted.

Other interesting findings from study

- 11% of the participants verbalized that they avoid non-vegetarian food and sweets during menstruation.
- 11% of the participants had practice of taking home remedies (fenugreek, lemon with soda juice) for dysmenorrhea.
- 20% of the participants had to face many restrictions during menstruation, like having separate vessels for eating, not being allowed to

touch washed cloths, sleeping in a separate room, not being allowed to attend any religious/cultural activities, forced to take sesame oil bath on the last day of menstrual cycle.

- Few of the sanitary napkin users expressed that they wash and dry it before disposal.

IX. NURSING IMPLICATIONS

A. Nursing Practice

Nurses must utilize every opportunity to educate women regarding different methods of menstrual hygiene.

All the women need to be given a chance to attend a health education session on menstrual hygiene management.

Nurses play an important role in equipping the women with adequate knowledge regarding menstrual hygiene management.

B. Nursing Education

Student Nurses can be given opportunity to organize camps and mass education programs on menstrual hygiene management in adopted communities.

Importance for menstrual health and hygiene in work place and school

Menstrual hygiene management could be included as a mandatory module in Nursing curriculum

C. Nursing Administration

Health administration plays a vital role in supervision and management of nursing profession. The nurse administrator can utilize the present tool for assessing the knowledge of women and can implement measures to promote health on the findings of the study. Teaching module, group discussion and periodical educational sessions can also be arranged for every reproductive age group of women.

Knowledge regarding reproductive health being concern of medical health care facilities, programs at every school, college, institutions and companies in both urban and rural area level for perspective can be planned and implemented country wide to prevent the occurrence of menstrual hygiene

D. Nursing Research

The findings of the present study can be utilized by nurse researchers to contribute to the profession to accumulate new knowledge regarding menstrual

hygiene, and can take professional accountability to educate and motivate every reproductive age group of women towards health promoting practices.

The present study would help nurses and other health care personnel to understand the level of knowledge of every woman regarding menstrual hygiene.

Nurse researchers may utilize the suggestions and recommendations for conducting further study.

X. RECOMMENDATIONS

Based on the study, the following recommendations have been made:

- A similar study can be done for a larger group of people
- A similar study can be conducted to evaluate the efficiency of various teaching strategies like information booklets and computer-assisted instruction of menstrual hygiene.
- Mass media and educational programs should be arranged to educate women regarding menstrual hygiene.

XI. CONCLUSION

The current study observed that the women still have inadequate knowledge regarding menstrual hygiene management. The knowledge of women was significantly associated with their socio-demographic variables, which include religion, education, monthly income, type of family, and menstrual hygiene material.

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Conflict of interest:

None declared

Ethical approval:

The study was approved by the Institutional Ethics Committee