

A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE OF ECO FRIENDLY MENSTRUAL PRODUCTS AMONG A GROUP OF FEMALE WITHIN REPRODUCTIVE AGE IN SELECTED COMMUNITY AREA , DEHRADUN UTTARAKHAND WITH A VIEW TO DEVELOP A PAMPHLET .

Anjali¹ , Priya² , Prashant³ , Dr. Sheeba Philip⁴ , Ms. Sheetal Thapa⁵ Student¹ , Student², Student³ , Professor cum principal⁴ , Nursing tutor⁵

Obstetric and gynecological Nursing
Sai college of Nursing Meedo Grand , 26 A, Rajpur Road , Dehradun Uttarkhand, India

[1uniyalanjali2002@gmail.com](mailto:uniyalanjali2002@gmail.com), [2pihur8396@gmail.com](mailto:pihur8396@gmail.com), [3prashantbkt2000@gmail.com](mailto:prashantbkt2000@gmail.com)

[4sheebarenjith@gmail.com](mailto:sheebarenjith@gmail.com), [5ctlmagarthapa97@gmail.com](mailto:ctlmagarthapa97@gmail.com)

ABSTRACT

Introduction : - Menstrual hygiene plays a crucial role in maintaining the health and overall well-being of women. In recent years, eco-friendly menstrual products have gained popularity as environmentally responsible and cost-effective alternatives to traditional sanitary products. Despite their benefits, awareness and usage of these products differ among women and are often influenced by various socioeconomic factors. Hence, assessing the knowledge and practices related to eco-friendly menstrual products among women of reproductive age is essential for encouraging sustainable menstrual hygiene practices and enhancing awareness.

Methodology : The study used a total of 100 participants who lived in community area Dehradun Uttarakhand . The systemic random sampling technique was used in this study . Structured questionnaire and practice scale were used to collect data from the participants .

Result : Findings indicated that most of the participants had moderate knowledge, score : 15-21 marks whereas participants who had good practice score 14-20 marks. The $\chi^2 = 9.77$, (p = 0.044), shows highly significant (p=0.006) , (p =0.009) association between occupation and monthly family income however, significant association between types of family and non significant association between demographic variable age in year (p = 0.448), marital status (p = 0.556) , place of residence (p = 0.150), age at menarche (p = 0.353) , source of previous information about menstrual product (p = 0.840) .

Conclusion : The study found that a large proportion of reproductive-age women had an average level of knowledge and followed appropriate practices regarding eco-friendly menstrual products. Family type, occupation, and monthly household income were significantly related to their knowledge and practices, while factors such as age, marital status, place of residence, age at menarche, and previous sources of information did not show any significant relationship. These findings indicated that socioeconomic

characteristics played an important influence on the awareness and utilization of eco-friendly menstrual products among women.

Keywords : Reproductive age of female , eco friendly menstrual products , menstrual hygiene , menstruation practice .

Introduction : Eco-friendly menstrual products are sustainable menstrual care products designed to be either reusable or biodegradable. Common examples are menstrual cups, reusable cloth pads, biodegradable sanitary napkins, period underwear, and tampons made from organic cotton. These products are viewed as cost-effective, safe, durable, and environmentally responsible substitutes for disposable sanitary pads. The use of eco-friendly menstrual products can help decrease plastic waste, lower environmental pollution, and support sustainable practices in menstrual hygiene management. Disposable sanitary pads are widely used by women due to their convenience and easy accessibility. However, many of these pads are made with plastic and other synthetic non-biodegradable materials that can negatively affect the environment.

Problem statement:

A study to assess the knowledge and practice of eco friendly menstrual products among a group of female within reproductive age in selected community area , Dehradun Uttarakhand with a view to develop a pamphlet .

Objectives:

1. To assess the knowledge of female within reproductive age regarding the eco-friendly product in selected community area, Dehradun Uttarakhand.
2. To assess the practice of eco-friendly menstrual product among a group of female within reproductive age.
3. To find out association between knowledge level and selected demographic variable .

Review of literature :

Sharma R, et.al 2026 conducted a cross-sectional study on knowledge regarding eco-friendly menstrual products among reproductive-age women in Delhi, India, from January to April 2026. Convenient sampling technique was used to select 320 participants. The study found that 68% of women had heard about menstrual cups, whereas only 21% possessed adequate knowledge regarding their usage, benefits, cleaning methods, and duration of use. The findings showed statistically significant association between educational status and awareness level ($P < 0.05$). The study concluded that awareness regarding eco-friendly menstrual products among reproductive-age women remained insufficient and emphasised the need for educational programmes and community awareness activities to improve knowledge regarding sustainable menstrual hygiene products.

Methodology : The study used a total of 100 participants who lived in community area Dehradun Uttarakhand . The systemic random sampling technique was used in this study . Structured questionnaire and practice scale were used to collect data from the participants .

Result :

Objective 1 : To assess the knowledge of female within reproductive age regarding the eco-friendly product in selected community area , Dehradun Uttarakhand .

Table 1 : Finding related to Knowledge score

S. No	Score interpretation	Level of knowledge	Frequency	Percentage (%)
1.	0-14	Inadequate Knowledge	02	02
2.	15-21	Moderate Knowledge	51	51
3.	22-30	Adequate Knowledge	47	47
TOTAL	—	—	100	100

Table 1 : Presents the distribution of participants according to their finding-related knowledge score among 100 participants. The findings show that the majority of participants, 51 (51%), had moderate knowledge with a score range of 15–21. Nearly half of the participants, 47 (47%), had adequate knowledge with a score range of 22–30. Only 2 (2%) participants had inadequate knowledge with a score range of 0–14. This indicates that most participants possessed moderate to adequate knowledge regarding the study topic.

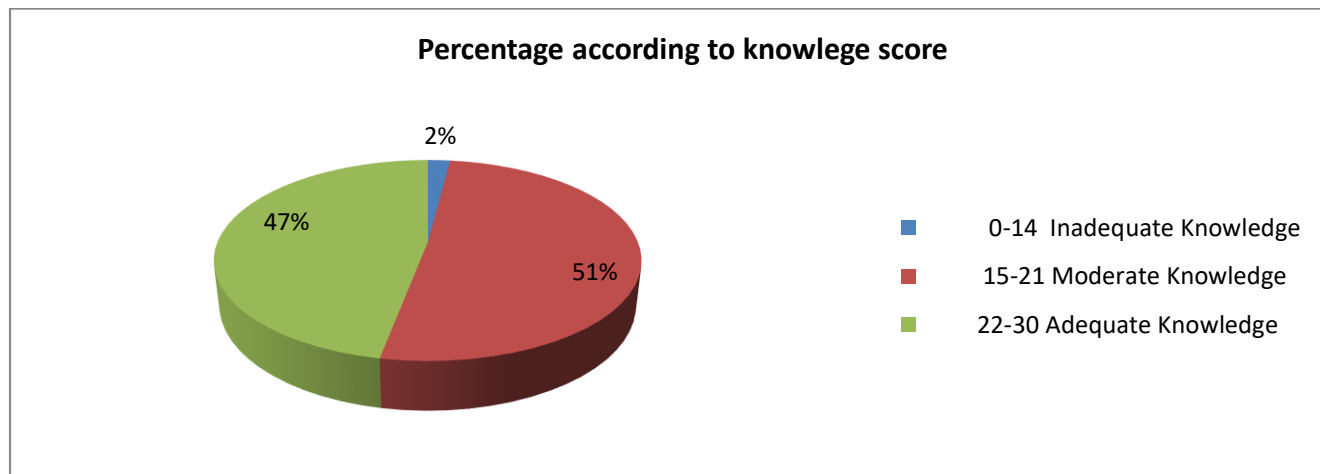


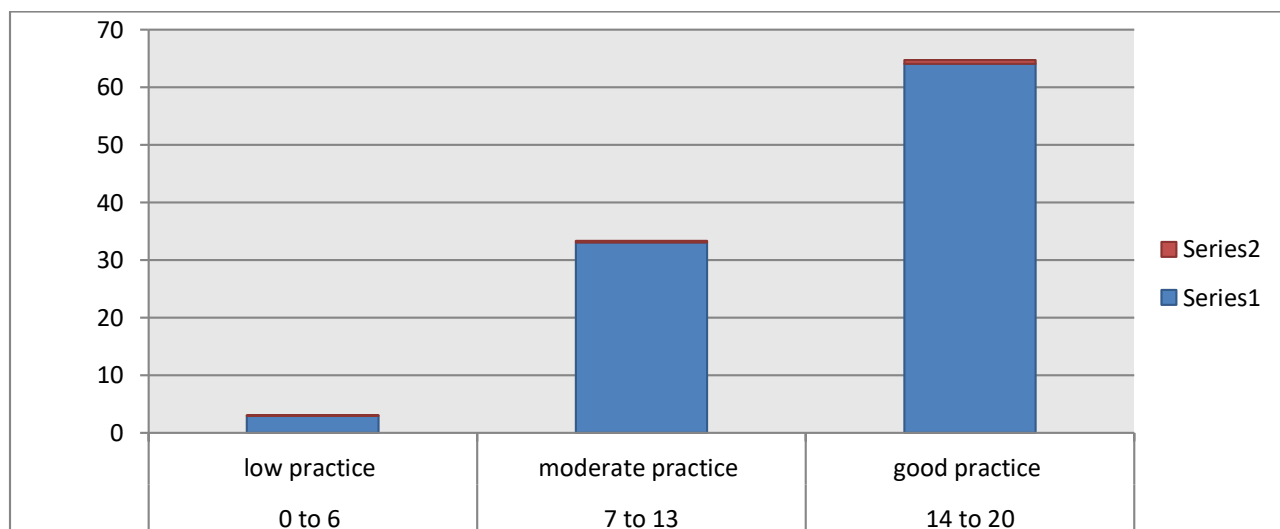
Figure-1: Finding according to knowledge Score

Objective: 2 To assess the practice of eco-friendly mental product among a group of female within reproductive age.

Table 2 : - Distribution of participants according to practice score

S. No.	Score interpretation	Level of practice	Frequency	Percentage (%)
1.	0 – 6	Poor practice	03	3
2.	7 – 13	Moderate practice	33	33
3.	14 – 20	Good practice	64	64
TOTAL	–	–	100	100

Table 2 : Presents the distribution of reproductive age of women (15 – 45 year) based on practice of eco friendly menstrual products, as assessed through a checklist . The findings revealed that a majority of the participants (64%) using eco friendly menstrual products , scoring between 14-20 on the practice scale . A similar proportion (33%) exhibited moderate practice, scoring between 7-13 . Notably , only 3% of the participants exhibited poor practice , with score ranging from 0 to 6 .

**Figure : 2 Distribution of participants according to practice score**

Objective – 3 To find out association between knowledge level and selected demographic variable.

Variable	Inadequate	Moderate	Adequate	Chi square	D f	P Value	Inference
Age in Year							
15-25	02	35	27	3.70	4	0.448	Not Significant
25-35	-	07	12				
35-45	01	07	09				
Total	03	49	48				
Marital status							
Unmarried	01	31	32	4.90	6	0.556	Not Significant
Married	02	08	12				
Divorced / seprated	-	01	01				
Widowed	-	-	02				
Total	03	50	47				
Types of family							
Nuclear	01	12	25	9.77	4	0.044	Significant*
Joint	02	34	20				
Extended	-	02	04				
Total	03	48	49				
Place of Residence							
Urban	-	08	14	6.75	4	0.150	Not Significant
Rural	03	31	20				
Semi – urban	-	11	13				
Total	3	50	47				
Occupation							
Student	-	26	17	18.00	6	0.006	Significant**
Home maker	03	15	12				
Employed	-	05	17				
Unemployed	-	04	01				
Total	03	50	47				
Monthly Family Income							
Below – 10000	03	38	22	16.96	6	0.009	Significant**
10001- 20000	-	05	11				
20001- 30000	-	02	-				
Above30000	-	04	15				
Total	03	49	48				
Age at menarche							
Below 12	02	06	04	4.41	4	0.353	Not Significant
12- 14 years	01	33	29				
Above 14 years	-	10	15				
Total	03	49	48				
Source of previous information about menstrual products							
Family/ Friends	02	31	31	2.75	6	0.840	Not Significant
Teachers	01	13	10				
Health Professional	-	01	01				
Social media / internet	-	04	06				
Total	03	49	48				

S* = (p<0.05) SIGNIFICANT

S = ($p < 0.01$) HIGHLY SIGNIFICANT**

NS = NON SIGNIFICANT

Table 3: Depict the association between selected demographic variables and the level of knowledge / practice regarding the eco-friendly menstrual products using the Chi-square test. The findings revealed that age in years ($\chi^2 = 3.70$, $p = 0.448$), marital status ($\chi^2 = 4.90$, $p = 0.556$), place of residence including urban, rural, and semi-urban areas ($\chi^2 = 6.75$, $p = 0.150$), age at menarche ($\chi^2 = 4.41$, $p = 0.353$), and source of previous information about menstrual products ($\chi^2 = 2.75$, $p = 0.840$) had no statistically significant association with the level of knowledge/practice, as their p-values were greater than 0.05. In contrast, type of family ($\chi^2 = 9.77$, $p = 0.044$), occupation ($\chi^2 = 18.00$, $p = 0.006$), and monthly family income ($\chi^2 = 16.96$, $p = 0.009$) showed statistically significant associations with the level of knowledge/practice regarding menstrual products, since their p-values were less than 0.05. These findings indicate that family type, occupation, and monthly family income significantly influenced the participants' level of knowledge/practice, whereas the other demographic variables did not show any significant influence.

Recommendation:

- Comparative studies can be conducted between rural and urban women regarding knowledge and practice of eco-friendly menstrual products.
- Educational intervention studies can be conducted to evaluate the effectiveness of pamphlets, teaching programs, and awareness campaigns on menstrual hygiene practices.
- Similar research can be carried out among adolescent girls, college students, and working women in different community .

Conclusion :

The study found that a large proportion of reproductive-age women had an average level of knowledge and followed appropriate practices regarding eco-friendly menstrual products. Family type, occupation, and monthly household income were significantly related to their knowledge and practices, while factors such as age, marital status, place of residence, age at menarche, and previous sources of information did not show any significant relationship. These findings indicated that socioeconomic characteristics played an important influence on the awareness and utilization of eco-friendly menstrual products among women.

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