



# A STUDY ON CONSUMER'S KNOWLEDGE OF MENSTRUATION & REUSABLE MENSTRUAL PRODUCTS

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**Abstract :** This study investigates consumer knowledge regarding menstruation and their awareness and usage of reusable menstrual products. Through a comprehensive survey administered to a diverse sample, key insights were obtained. Findings reveal a significant gap in understanding among consumers regarding menstruation, with misconceptions prevailing. Additionally, limited awareness and adoption of reusable menstrual products were observed despite their potential benefits for health and the environment. This underscores the importance of education and advocacy to destigmatize menstruation and promote sustainable menstrual product choices.

**Keywords:** Menstruation, Reusable Menstrual Products, Consumer Knowledge, Stigma, Sustainability.

## **INTRODUCTION OF THE STUDY:**

Menstruation is a normal biological process for women, lasting approximately 3-7 days. It's a key aspect of the menstrual cycle, reflecting reproductive health. This study delves into consumer knowledge of menstruation and awareness of reusable menstrual products. Focused on factors like affordability, accessibility, and societal attitudes, it explores user experiences and potential barriers. The aim is to provide recommendations for enhanced menstrual education, addressing gaps in information and understanding consumer perspectives.

According to WHO, a person is considered to be an adolescent from the age of 10 to 19 years. Adolescence is the transitional period between childhood to adulthood. It is characterized by the child's growth and development. During this time, the child undergoes physical, psychological and biological development. It is considered a special period of a girl's life cycle that needs special attention. Menstruation is one of the most important biological stages in a woman's life. It marks the beginning of the reproductive stage of a woman. Menarche is the most common period of a woman's life that marks the beginning of her reproductive life. The

average age of menarche varies from one population to another, but it is generally between 12 to 13 years. Although menstruation is a perfectly natural process, it is still a taboo topic in Indian society because it is considered dirty and unclean.

Menstrual waste is the waste that a woman produces during her reproductive years. Menstrual waste is produced during menstruation, also known as menstruation, periods, or the monthly bleeding cycle. There are three phases of the menstrual cycle: the follicular phase, the ovulation phase and the luteal phase. Menstruation is controlled by hormones; during the follicular phase the endometrium (the lining of the uterus) thickens and sheds and causes bleeding that usually lasts for 3-5 days (and sometimes up to 7 days). The endometrial lining sheds two-thirds during menstruation. The menstrual fluid contains blood as well as mucus and vaginal secretion.

The flow of menstrual fluid varies from woman to woman and may be greater or lesser at the start of menstruation or may fluctuate throughout the menstrual cycle. The colour of menstrual fluid can range from red to bright red and from dark brown to dark black. Some menstrual fluid may have an unpleasant smell, especially if it comes into contact with the air. Menstrual flow or duration also changes before menopause or during gynecological cancers. Under conditions of hormonal imbalance, fibroids, polyps, and endometriosis menstrual flow increases and excessive loss of blood through menstruation can lead to anaemia.

Women have evolved unique coping mechanisms for this phase of life. Due to factors like individual preferences, resource availability, economic standing, cultural customs and beliefs, educational attainment, and menstruation knowledge, these tactics differ significantly across the globe. Menstrual hygiene practices carry significant health implications; neglected, they can result in vaginal diseases, toxic shock syndrome, and reproductive tract infections (RTI). Adolescent health is adversely affected by poor genital hygiene.

Most girls are unaware of and unprepared for menarche because they have not been informed or are misinformed about menstruation. The primary goal of this review was to summarize the concerns and potential solutions for menstrual waste management in low-income countries. The review article sought to understand menstrual practices, product design, demand, and disposal strategies. It contains both a summary of existing menstrual hygiene needs and management strategies, as well as an analysis of current knowledge in public health, water and sanitation, and solid waste management.

### **CULTURAL BELIEFS AND RESTRICTIONS DURING MENSTRUATION:**

Cultural norms, parental influences, personal preferences, economic status, and socioeconomic pressures all had an impact on menstrual hygiene practices. Menstrual beliefs are misconceptions and attitudes toward menstruation within a particular culture or religion. Menstrual beliefs, knowledge, and practices were all linked to menstrual hygiene management. By reviewing literature and articles published in journals and reports available on the Internet, we discovered that many people hold cultural and religious beliefs about menstruation.

These norms stood in the way of proper menstrual hygiene practices. Many women face restrictions on their ability to cook, work, engage in sexual intercourse, bathe, worship, and consume certain foods. These restrictions were imposed due to people's general perception of menstruation, which they regard as dirty and polluting. Bathing restrictions existed in some parts of the country, as did a ban on the burial of bloodied menstrual cloths. Clothes should be washed first, then buried or reused. Washing and drying are thought to be done in secret or in a hidden corner where others cannot see them.

It was also believed that menstrual fluids could be used for black magic, so women should only wash the wrapper/cloth they wore during menstruation at night when everyone else was sleeping. Menstrual flow was considered dirty, polluting, and shameful, so women hid their menstrual clothes for fear of being cursed. Similar findings suggested that menstrual waste was associated with witchcraft and danger, so it should be buried unless witches go after human blood and find the menstrual wrapper/cloth, destroying the women by causing infertility. All of these beliefs indicated that education plays an important role in menstrual hygiene management.

These false beliefs and taboos can be overcome by educating both men and women about menstruation. Many girls were under informed about the realities of menstruation due to cultural expectations and restrictions. As a result, they feel abnormal, ill, or traumatized. Unprepared girls were scared, confused, and embarrassed by menarche, and they are more likely to develop negative attitudes toward menstruation. Even touching menstruating women was considered toxic; they were forbidden from cooking and consuming certain foods, such as pickles. These prohibitions are more prevalent in rural areas than urban areas. They were also not permitted to engage in religious activities or contact religious publications. Menstruating girls are also not permitted to bathe or wash their hair, as this is thought to impede blood flow.

#### **OBJECTIVE OF THE STUDY:**

- Assess the current level of consumer awareness regarding menstruation and menstrual products.
- Explore attitudes and preferences of consumers towards reusable menstrual products.

#### **RESEARCH METHODOLOGY:**

This study on consumers' knowledge of menstruation and menstrual products in Coimbatore City used a descriptive research design. A stratified random sample of women aged 18-45 will be surveyed using structured questionnaires. Quantitative data will be analyzed using descriptive statistics, whereas qualitative data will be analyzed thematically. Ethical considerations include informed consent and confidentiality measures.

**QUANTITATIVE DATA-** The survey forms will collect numbers-based information about what people know, think, and do regarding menstruation and menstrual products.

**QUALITATIVE DATA-** We will closely examine participants' written answers to understand their thoughts, feelings, and experiences about menstruation and menstrual products, revealing their deeper beliefs and perceptions.

### **RESEARCH DESIGN:**

The research design should start, include, select, develop, specify, provide, and conclude the research questions, comprehensive literature, appropriate research methods, instruments, procedures of data analysis, clear and concise interpretation of research results and end with conclusions and recommendations. The research design for the current study is descriptive in nature. In the present study, extensive primary data was collected methodically.

### **SAMPLE SIZE:**

The primary data is obtained by collecting responses through questionnaires from 130 respondents.

### **SAMPLING DESIGN:**

The sampling is based in Coimbatore City and the Questionnaire is distributed all working-class communities, businesses & Students. As the questionnaire was in Google SurveyForm, it was easy to reach different sampling units in Coimbatore City. The researcher used sampling design on Probability sampling design (Random sampling).

### **AREA OF STUDY:**

The present study is an attempt to collect the data from people of Coimbatore City.

### **SOURCES OF DATA COLLECTION:**

#### **PRIMARY DATA:**

The primary data was collected from the respondents using a questionnaire through Google Forms. (Simple random sampling)

#### **SECONDARY DATA:**

The Secondary Data is collected from newspaper articles, Magazines.

#### **STATISTICAL TOOLS AND ANALYSIS:**

*The Objectives formed are for the identification of behavioral patterns of the public and based on that adaptability is measured. The following statistical tools were used for analyzing the data.*



- Simple percentage analysis.
- Chi-Square test.
- ANOVA test.
- Descriptive statistics.

### **ANALYSIS AND INTERPRETATION:**

#### **PERCENTAGE ANALYSIS:**

#### **OPINIONS TOWARDS REUSABLE OPTIONS IN FUTURE**

<b>SWITCHING TO REUSABLE</b>	<b>No of respondents</b>	<b>Percentage</b>
Not likely	18	13.8
Somewhat Likely	41	31.5
Neutral	45	34.6
Likely	17	13.1
Very Likely	9	6.9
<b>Total</b>	<b>130</b>	<b>100.0</b>

(SOURCE: PRIMARY DATA)

#### **INTERPRETATION:**

The above table shows that out of 130 respondents, 13.8% are not likely, 31.5 are somewhat likely, 34.6% are neutral, 13.1% are likely and 6.9% are very likely.

**MOST (34.6%) OF THE RESPONDENTS ARE NEUTRAL TO SWITCH TO REUSABLE OPTION IN THE FUTURE.**

#### **CHI-SQ ANALYSIS:**

#### **AGE AND CHANGING OF MENSTRUAL PRODUCT DURING A TYPICAL DAY**

Chi-square analysis is used to determine whether there is a significant association between "Age and changing of menstrual product during a typical day".

H0: There is no relationship between Age and changing of menstrual product during a typical day.

H1: There is relationship between Age and changing of menstrual product during a typical day

. Null hypothesis is less than .05, it is rejected. Alternative hypothesis is more than 0.5, it is accepted.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	32.365 <sup>a</sup>	12	.001
Likelihood Ratio	22.030	12	.037
Linear-by-Linear Association	6.011	1	.014
N of Valid Cases	130		

### **INTERPRETATION:**

The chi-square test yields a p-value of 0.001, indicating that the observed differences were statistically significant at the 0.05 level. This indicates thus there is insufficient evidence to reject the alternate hypothesis.

### **ANOVA:**

### **RELATIONSHIP BETWEEN AGE AND PERCEIVED HEALTH AND ENVIRONMENT BENEFITS**

		Sum of Squares	df	Mean Square	F	Sig.
Using reusable menstrual products, such as menstrual cups or cloth pads, has a positive impact on your health	Between Groups	.554	4	.138	.357	.839
	Within Groups	48.438	125	.388		
	Total	48.992	129			
Using reusable menstrual products can help reduce pollution and waste	Between Groups	3.065	4	.766	2.433	.051
	Within Groups	39.366	125	.315		
	Total	42.431	129			

Using reusable menstrual products can save you money in the long run	Between Groups	8.408	4	2.102	4.234	.003
	Within Groups	62.062	125	.496		
	Total	70.469	129			
Recommendation of reusable products to others	Between Groups	2.286	4	.572	1.473	.214
	Within Groups	48.491	125	.388		
	Total	50.777	129			

### **INTERPRETATION:**

#### **Relationship between age and Using reusable menstrual products, such as menstrual cups or cloth pads, has a positive impact on your health:**

From the table the significant value of association between age and Using reusable menstrual products, such as menstrual cups or cloth pads, has a positive impact on your health is  $>0.05$ . So, we are accepting null hypothesis and rejecting alternative hypothesis. So, there is no significant association between age and Using reusable menstrual products, such as menstrual cups or cloth pads, has a positive impact on your health

#### *Relationship between age and Using reusable menstrual products can help reduce pollution and waste:*

From the table the significant value of association between age and Using reusable menstrual products can help reduce pollution and waste is  $<0.05$ . So, we are rejecting null hypothesis and accepting alternative hypothesis. So, there is significant association between age and Using reusable menstrual products can help reduce pollution and waste

#### *Relationship between age and Using reusable menstrual products can save you money in the long run:*

From the table the significant value of association between age and Using reusable menstrual products can save you money in the long run is  $<0.05$ . So, we are rejecting null hypothesis and accepting alternative hypothesis. So, there is significant association between age and Using reusable menstrual products can save you money in the long run

#### *Relationship between age and Recommendation of reusable products to others:*

From the table the significant value of association between age and Recommendation of reusable products to others is  $>0.05$ . So, we are accepting null hypothesis and rejecting alternative hypothesis. So, there is no significant association between age and Recommendation of reusable products to others

## **DESCRIPTIVE ANALYSIS:**

### **CHALLENGES FACED BY THE RESPONDENTS**

	Mean	Std. Deviation
Current knowledge about menstruation and menstrual products	3.41	0.97
Availability of various products information about menstruation and menstrual products	3.32	0.95
Current Knowledge and Awareness: [Knowledge on reusable menstrual product cost]	3.05	1.127
Hygiene concerns while using reusable menstrual products	3.45	1.072
educational resources available to help women learn more about reusable menstrual products	3.28	1.168
reusable menstrual products contribute to reducing waste and protecting the environment	3.43	1.12
AVERAGE	3.323333333	

## **INTERPRETATION:**

From the above table the highest mean score 3.45 indicates the respondent's agreeability towards the statement Hygiene concerns while using reusable menstrual products as a challenge faced and the lowest mean score 3.05 indicates that the respondents agree towards this statement Knowledge on reusable menstrual product cost as a challenge faced.

The average mean score 3 implies that respondents agree with the statements of challenges faced by the respondents.

## **FINDINGS:**

- Mos T (34.6%) OF THE RESPONDENTS ARE NEUTRAL TO SWITCH TO REUSABLE OPTION IN THE FUTURE.

- It was found that the significant value is less than 0.005(i.e. 0.001). Hence null Hypothesis is



rejected and alternate hypothesis is accepted. There is relationship between Age and changing of menstrual product during a typical day.

- There is significance between age and Using reusable menstrual products can help reduce pollution and waste.
- There is significance between age and Using reusable menstrual products can save you money in the long run.
- There is no significance between age and Recommendation of reusable products to others.
- challenges faced by the respondents the highest mean score 3.45 indicates the agreeability towards the statement hygiene concerns while using reusable menstrual products.

### SUGGESTIONS:

- From the findings of an online survey, it was reported that the majority of the respondents are aware of napkins.
- This type of survey showcases the physical and mental imbalances that women undergo during their menstrual phase.
- Since most of the women are doing their higher education and employed, and household women the study was conducted between the age group of 18 to above 45 (who are still menstruating) and it was identified from the survey.
- That most women are unaware of the thing called Reusable Menstrual Products. Awareness regarding Reusable products is important.
- Role of Teachers in Creating Awareness regarding Menstruation, Reusable products, and Menstrual Waste Management.
- Regular menstrual health check-ups can be done irrespective of whether poor or rich.
- Menstrual leaves can be provided for the women who are working as Police, building workers, etc. if they are willing to take off.
- Pad Disposable Machines must be installed in schools, Colleges, IT parks, etc.
- Good quality pads must be produced in order to avoid allergy problems.
- The role of adults towards Menstruation, Menstrual Health, and Menstrual products have to increase in the upcoming generation.

- A good and balanced diet, dressing wearing fit or tight dresses can be avoided at the time of period to avoid cramps, Stomach bloating, and many other health issues.

### CONCLUSION:

To promote menstrual hygiene, consider offering a course on menstruation and management. Teachers should receive education and training to teach students about menstruation and hygiene management. Social and electronic media help women stay informed about menstrual products, manufacturers, and government policies. Subsidies should be provided for menstrual products so that every girl/woman can easily afford them.

Non-governmental organizations should educate rural communities on menstruation, menstrual hygiene management, toilet use, hand washing, and reproductive health issues caused by poor hygiene practices. Encourage the use of reusable sanitary or cloth pads to reduce waste. Disposing of

used menstrual products in public or flushing them in toilets can have negative consequences for girls and women. Toilets should have dustbins with proper lids. Incinerators should be installed in homes, schools, and communities. The study found that lack of privacy is a major concern in both households and schools. Ignorance, misconceptions, unsafe practices, and illiteracy among mothers and children about menstruation are major causes of problems.

Thus, it is imperative that schools promote safe and hygienic behavior among adolescents. The aforementioned findings clarify why menstruation is now viewed as a natural process that requires discussion in order to produce a future generation that is healthy and hygienic, rather than as a taboo subject. In large segments of society, menstrual health and hygiene are largely disregarded, regardless of location, language, caste, culture, or status. But when it comes to girls who are visually impaired, it becomes even more important to talk about menstrual hygiene.

These girls, who participated in the study as respondents, talked about the limitations and rules that they had to live by as well as the issues and difficulties they encountered. Their approach to managing their menstruation and leading a healthy menstrual life is influenced by their living standards, economic circumstances, parents' attitudes, and perceptions. The majority of the girls described how many issues they had in the early years of menstruation, including not knowing how to fold napkins correctly, how to clean their genitalia, how often to wash their vagina, and how to change pads. As a result, they either dropped out of school or felt ashamed. At first, they are unaware of what is going on because they are experiencing irregular periods, leakage or bad odors, and occasionally they are unable to control menstrual cramps.

They also feel like untouchables in their homes, where they detest their periods because they are unable to go about, remain in one spot, sleep on the floor, go to the kitchen or play, or greet guests, making them feel

ignored. In addition, they were highly irritated by certain limitations on their eating and drinking habits as well as the requirement to miss five days of class. They suffer academic losses as a result, and their growth is also hampered.

As a result, they view menstruation as an unwanted illness. As a result of increased social intervention and education provided by free medical camps, talks, and seminars, people's perspectives broaden and their attitudes shift. Page. These social work initiatives also have an impact on their parents, who encourage and instill in their daughter's knowledge about health and hygiene. These visually impaired students are able to manage their menstrual periods with ease thanks to workshops and training on good menstrual hygiene. Social workers instruct them on how to use pads and how often to change them after a set amount of time. In addition, they provided them with free samples and an introduction to affordable, reusable sanitary napkins.

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