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A study on Perspective of women towards biodegradable sanitary napkins

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Abstract

This study was carried out to understand the level of awareness, drivers, and barriers concerning the purchase and use of biodegradable sanitary napkins among women. This study further analyzed the satisfaction level of women using biodegradable sanitary napkins and gathered suggestions for improving the acceptability of the same. The study was carried out in the regions of the national capital Delhi. This study incorporated women using biodegradable and synthetic sanitary napkins for understanding the comparative perspective of both the stakeholders. The study revealed that instead of being aware of the harmful effects of synthetic sanitary napkins women are not willing to shift towards biodegradable sanitary napkins because of the high cost and low availability. Also, the study revealed that in recent 1-2 years only women have shifted towards biodegradable sanitary napkins because of their better availability on online platforms like Amazon, Flipkart, and other brand-specific online buying sites. The study concluded that easy availability and affordability can bring positive changes in the acceptability of biodegradable sanitary napkins among women and the shift towards biodegradable sanitary napkins can reduce the burden of managing non-biodegradable wastes and overflowing landfills due to huge amounts of synthetic sanitary waste generated every year.

Keywords: Environment, sustainability, eco-friendly, green product, waste management, menstrual hygiene

Introduction

As the world is facing the problem of plastic waste management, the usage of disposable sanitary napkins among Indian women is 48% in rural women and 70% in urban women which makes it 57.6% in total (The National Family Health Survey [NFHS], 2016). The Menstrual Hygiene Alliance of India (MHAI) has approximated that there are 336 million menstruating women in India out of which 36 percent use disposable sanitary napkins which totals 121 million women. On average, a woman could use up to 10,000 sanitary napkins from menarche to menopause if the number of sanitary napkins used per menstrual cycle is conservative eight. This implies that India has 12.3 billion disposable sanitary napkins to take care of every year, most of which are synthetic sanitary napkins.

Synthetic sanitary napkins are manufactured by using thermoplastic fibers, hydrophilic absorbent fiber, super absorbent polymers (SAP), plastic covering, and adhesives/ glue; most of these constituents do not degrade simply and remain in the environment, polluting water sources and ruining soil and also enter the food chain injecting toxins into the food humans and animals consume. Synthetic sanitary napkins have over 90 percent plastic and each napkin is equal to four plastic bags (Water Aid India, 2019) ^[4]. While Biodegradable sanitary napkins are made up of natural fibers like bamboo and banana fibers and decompose without harming the environment and health.

The Indian market for biodegradable sanitary napkins is presently manifesting healthy growth. There are numerous non-governmental organizations (NGOs) and self-help groups that are manufacturing biodegradable sanitary napkins but the scale of production is low. However, manufacturers of biodegradable sanitary napkins are now looking at distinctive marketing approaches and adding value to modify their products to expand their customer base. The market has been segregated into bamboo, banana fiber, cotton, and others. By holding the largest share, bamboo is currently ruling the Indian market.

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Provisions of sanitary wastes in Solid Waste Management Rules (SWM) 2018

The considerable issue of sanitary waste has always been their assortment, i.e., whether it is a plastic waste or biomedical waste. According to Solid Waste Management Rules, 2018, household waste like tampons, soiled napkins and blood-soaked cotton, are being disposed after segregation into biodegradable and non-biodegradable components. For ensuring proper disposal of sanitary waste, government of India along with CPCB has framed guidelines on sanitary waste management.

According to Central Pollution Control Board, 2018 the following course of action is recommended for disposal of sanitary waste through different stakeholders (Table 1.):

All such brand owners who sell or market their products in such plastic packaging material which are non-biodegradable

shall put in place a network to collect back the packaging waste generated due to their mass production. Manufacturers, brand owners or marketing companies of sanitary napkins shall scan the probability of using all recyclable materials in their products or they shall provide a pouch or wrapper for disposal of each napkin along with the packet of their sanitary products (Central Pollution Control Board [CPCB], 2018) [5]. These guidelines acknowledge various sanitary waste disposal alternatives. Some of the techniques that can be used for effective sanitary waste disposal are pit burning, deep burial, electric and high temperature incinerators for bio-medical waste etc. Further, the CPCB Guidelines on sanitary waste also direct the responsibility of different stakeholders in the process of sanitary waste disposal, in line with the ordinance under the SWM Rules (CPCB, 2018) [5].

Table 1: CPCB guidelines on sanitary waste disposal by different stakeholders

At consumer level	At producers Level
The consumer should wrap the used sanitary napkins using wrapping pouch or keep the sanitary waste in leak-proof pouches provided by manufacturer and discard the same along with dry waste or keep the waste in separate dustbin provided at the time of door to door collection by local agency.	As per the instructions given under the SWM Rules, 2018, the manufacturers should work with local agencies for achieving segregated collection and disposal of sanitary waste.
In case separate bin is not provided by authorized waste picker, the wrapped/pouched sanitary waste should be placed in dry-waste bin for collection by authorized waste picker (during door to door collection).	Indulge in providing mass education and awareness in proper handling, segregation and disposal of sanitary napkins.
In case manufacturer does not provide wrapper or pouch, the used sanitary napkins should be wrapped in old newspaper and placed in dry-waste bin for collection by approved waste picker.	Search for the possibility of using recyclable materials in their products.

Review of literature

In a study titled "Menstrual Hygiene Management and waste disposal in low and middle-income countries—A review of the literature", Elledge, Muralidharan, Parker, Ravndal, and Siddiqui (2018) have studied the subsisting policies on Menstrual Hygiene Management focusing on India and South Africa. The review manifested that the discarding of sanitary waste is often not taken care of. Menstrual Hygiene Management and sanitation service chains were leading to inadequate disposal and harmful effects on users, sanitation workers, and the environment. User-centered design thinking to consider socio-cultural norms regarding menstruation, product availability, quality, and use, and existing sanitation systems was important to understand the disposal of used sanitary napkins.

In a study titled "Imperfect information in menstrual health and the role of informed choice", Mahajan (2019) studied how imperfect information and the culture of silence around menstruation have shaped the menstrual hygiene product market and found out that mere access to any one type of product, that is, sanitary pads, will only lead to increasing in the use of these products, but not necessarily hygienic and informed use. Hence, the only means to reverse this 'adverse selection' by consumers and policymakers is to offer them correct and complete information about all potential products and their hygienic use.

In a study titled "Design of domestic incinerator for the safe disposal of menstrual waste in the rural areas", Subramanian (2019) [8] analyzed that still there are many villages in India where women suffer a lot because of lack of safe disposal methods for sanitary waste; even some will skip schools during menstruation days. The improper disposal of menstrual waste in open environmental conditions will affect the health and environment of the surrounding population in a great manner. As a responsible citizen of our country, we have to provide environment friendly designs and somewhere it is

user's responsibility to dispose the sanitary waste in the best possible way as super absorbent polymer used in sanitary napkins is harming environment for years.

Aim and Objectives

- To assess the level of awareness amongst women regarding biodegradable sanitary napkins
- To identify the drivers and barriers with respect to the purchase and use of biodegradable sanitary napkins
- To assess the level of satisfaction among women with respect to biodegradable sanitary napkins and to gather suggestions for improving acceptability of the same

Research Methodology

The sample consisted of 60 women, out of which 30 women were those who were using biodegradable sanitary napkins and 30 were using synthetic sanitary napkins. Purposive sampling was used to select stakeholders for the study. Primary data was collected through questionnaires using Google forms. Separate Google forms were prepared for both the stakeholders. The data obtained were analyzed both quantitatively and qualitatively as per the objectives of the study.

Result and Discussion

The findings of the study revealed that the availability of biodegradable sanitary napkins plays a crucial role in maintaining the sales of these napkins in the market. It was reported by 87% of respondents, that these napkins are not available locally. They mentioned that they purchased these napkins from online websites like Amazon, Flipkart and specific brand websites like Carmesi, Heyday, and Azha, etc. Thus, this shows that women who can access the internet and smartphones can purchase these napkins.

Social media which was selected by 63% of the respondents reflected that they found out about the brands of

biodegradable sanitary napkins and their qualities through advertisements on various social media sites such as Instagram, Facebook, and Youtube.

The study revealed that eco-friendliness was the most important driver that persuades women using biodegradable sanitary napkins to buy these napkins as they preferred products that are green and cause less harm to the environment. For both the stakeholders' good offers and discounts were also ranked as important drivers. The respondents explained that offers and discounts provided could act as an important driver as this is a frequently purchased item.

Women using synthetic sanitary napkins mentioned that they can't afford to buy biodegradable sanitary napkins offered by known brands every month as they are expensive and they don't offer discounts often they also mentioned that this is a recurring expense for them. The data also revealed that women using synthetic sanitary napkins are not aware of the

availability of disposable biodegradable sanitary napkins in the market respondents elaborated that sanitary napkins must have a soft surface that prevents itchiness, rashes, and redness making it an important driver for both stakeholders. Women using biodegradable sanitary napkins mentioned that they are highly satisfied with the material comfort as these napkins are made up of natural materials they do not cause rashes and irritation even if they have sensitive skin.

The respondents using biodegradable sanitary napkins were satisfied with the customization options available on their website. The respondents specified they were able to customize the box of napkins as per the flow of their menstrual cycle. These sanitary napkins were available in three different sizes for three different types of flow that are heavy, medium, and low. This attracted a lot of buyers who preferred napkin length according to their flow. They were also able to customize the length of the pads as per their preference.

Table 2: Reasons stated by respondents for recommending biodegradable sanitary napkins to others

Reasons for recommendation	
Reasons associated with environment	Reasons associated with health
These napkins do not harm environment as these are manufactured with organic material and degrade in months	Surface material is made with organic material hence don't cause rashes and skin allergies.
These napkins do not have any chemicals and toxins hence do not pollute surroundings while disintegrating	These napkins are highly comfortable and have soft surface layer therefore do not leads to discomfort
Do not add to the plastic waste	These napkins have a provision for customization
Disposable pouches makes disposing process more environment- friendly	Material is comfortable that's why these can be used for longer hours easily
Do not clog and pollute water streams	By using these napkins there is no risk of having diseases like cancer, infections, and skin allergies.

The data revealed that material comfort is considered an important driver by women using biodegradable and synthetic sanitary napkins as established by high mean rating.

The respondents using biodegradable sanitary napkins were dissatisfied with the availability of the biodegradable napkins. They mentioned that these napkins were hard to find in local markets, and it was difficult for them to buy one for immediate or urgent use. They elaborated that they had to think ahead of time and order it online in advance. Further, respondents were dissatisfied with the odor-locking capacity of the biodegradable sanitary napkins. They mentioned that this parameter caused them a lot of discomfort especially if the pad was used for long hours due to work-related commitments.

Respondents have suggested that manufacturers can use natural fragrances, that do not contain chemicals and these sanitary napkins can be made available in different fragrances so that customers can buy accordingly. Also, these should be available locally and brands can plan workshops in association with colleges, schools and offices. Brands can offer high discounts if purchased in bulk. Brands can offer yearly plans to the regular buyers so that they can find these napkins affordable.

Conclusion

As per the sales of biodegradable sanitary napkins are concerned it's very important to find out women's perspectives as they are the end users. Also, for increasing the usage of these napkins manufacturers should know about the drivers and barriers regarding these from the users' point of view. This study concluded that awareness regarding the availability of biodegradable sanitary napkins can be improved through social media platforms and workshops in schools, colleges, and offices. Brands should focus on

affordability by coming up with yearly plans and discounts. For protecting the environment disposable biodegradable sanitary napkins should be made available locally by the government at reasonable rates in government hospitals in Delhi and other parts of India where menstrual hygiene is still a big concern. Also, brands selling sanitary napkins and the government should provide workshops in schools and colleges regarding disposing of used napkins, as disposing of them in a wrong way can become a threat to the environment and human health.

References

1. International Institute for Population Sciences (IIPS) and ICF; 2017.
2. Family Health Survey (NFHS-4), 2015-16: India. <http://rchiips.org/nfhs/NFHS4Reports/India.pdf>
3. Ministry of Home Affairs, Government of India. Census. 2011. <http://www.censusindia.gov.in/2011Commo n/CensusData2011.html>
4. Water Aid India 2019. what is Menstrual Hygiene Management? <https://www.wateraid.org/in/publications/me nstrual-hygiene-management-informed-product-choice-and-disposal>
5. Central Pollution Control Board, 2018. Guidelines for management of sanitary waste as per Solid Waste Management Rules, 2016. https://cpcb.nic.in/uploads/MSW/Final_Sani tary_Waste_Guidelines_15.05.2018.pdf
6. Elledge M, Muralidharan A, Parker A, Ravndal K, Siddiqui M. Menstrual Hygiene Management and waste disposal in low and middle-income countries. International journal of Environment Research and Public Health. 2018;15(11):2562.

7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6266558> / Mahajan, T. Imperfect information in menstrual health and the role of informed choice.2019; 26: 1 <https://journals.sagepub.com/doi/full/10.1177/0971521518811169>
8. Subramaniyan M, Moorthy A, Sadaiappan S. Design of domestic incinerator for the safe disposal of menstrual waste in the rural areas. International Journal of Research in Engineering, Science and Management. 2019;2(3):2581-5792. https://www.researchgate.net/publication/334290335_Design_of_Domestic_Incinerator_for_the_Safe_Disposal_of_Menstrual_Waste_in_the_Rural_Areas