A STUDY ON USAGE OF ECO-FRIENDLY SANITARY PADS AMONG FEMALE COLLEGE STUDENTS IN COIMBATORE CITY.

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ABSTRACT

The use of eco-friendly sanitary pads has gained increasing attention in recent years due to growing environmental concerns and the need for sustainable menstrual hygiene products. This study aims to investigate the usage patterns and perceptions of eco-friendly sanitary pads among college female students. A survey was conducted with 250 female students from various colleges in Coimbatore city to understand their awareness, usage, and preferences regarding eco-friendly sanitary pads. The results indicate that while a majority of the students are aware of eco-friendly options, only a small percentage regularly use them.

Keywords: eco-friendly sanitary pads, Coimbatore, sustainable menstrual products, college students, menstrual hygiene, menstrual health, reusable pads, biodegradable pads, period poverty, menstrual education, environmental impact, campus sustainability.

INTRODUCTION

Environmental sustainability and the need to incorporate more eco-friendly activities into our daily lives are major concerns in today's society. One such area that has seen a lot of interest is the use of eco-friendly sanitary pads, sometimes referred to as menstrual pads. Conventional pads have a major negative impact on the environment since they frequently contain plastic and other non-biodegradable elements. In addition, eco-friendly pad use is not only environmentally beneficial but also has potential health benefits. College students are particularly receptive to the idea of using eco-friendly sanitary pads. They are typically more informed and conscious consumers, more open to trying new products, and more concerned about their impact on the environment. Many college campuses also have sustainability initiatives in place, making it easier for students to access eco-friendly products and learn about their benefits. By doing this analysis, the study hopes to further the discussion on sustainable menstruation and inspire college students to manage their menstrual hygiene in an intentional and environmentally responsible manner.

STATEMENT OF THE PROBLEM

College students are known for setting trends in society, and this study tackles the important problem of their adoption of eco-friendly sanitary pads. Despite the sustainable alternatives most of the youths are using regular pads which are very harmful to their health and also a great concern for the environment sustainability. The adoption, awareness, and variables influencing factors among these particular groups are not well studied and to what degree college students are aware, what influences their adoption patterns, and what obstacles stand in the of universal acceptance are the main goals to be addressed. We also don't know why a decent number of female college students are choosing eco-friendly pads, is it the elements like cost, awareness, or convenience that affect their decision-making? Through this research, we can conclude how to best support students in using eco-friendly menstrual hygiene pads.

SCOPE OF THE STUDY

- To investigate the usage of eco-friendly sanitary pads among female college students
- The study comprises the involvement of a wide spectrum of factors, such as region, age, and comparison between various eco-friendly sanitary pads.
- This research aims at the results from deep-root analysis of spreading awareness and ensuring the adoption of eco-friendly alternatives for traditional pads.

OBJECTIVES

- To know the awareness level of eco-friendly sanitary pads among female students in the colleges of Coimbatore city.
- To know the willingness of college students to switch from regular to eco-friendly pads.
- To determine factors that are influencing college students to choose a sanitary pad.
- To analyze the challenges faced by female students in using regular sanitary pads.
- To have in-depth knowledge about the different eco-friendly sustainable alternatives.

LIMITATION OF THE STUDY

- Due to time constraints the sample has been limited to 250 respondents.
- The research area is confined to Coimbatore city only. So, it may not be universally applicable.

RESEARCH METHODOLOGY

This study has been conducted among the residents who belong to the Coimbatore district of Tamil Nadu, India.

RESEARCH DESIGN

AREA OF STUDY:

Coimbatore City was the area of the study.

SAMPLE SIZE:

The 250 samples are to be selected for the respective area of study.

TOOL TO ANALYSIS:

- Simple percentage
- Chi-square
- Weighted average method
- ANOVA

SOURCE OF DATA COLLECTION

The present study is based on a survey conducted in Coimbatore city with the help of both primary data and secondary data.

PRIMARY DATA

In primary data, the data has been collected through the questionnaire. Questionnaires were filled out by female respondents from colleges in Coimbatore city.

SECONDARY DATA

In secondary data, the data was collected by going through websites, which have been collected by someone else and which have already been passed through the statistical process.

REVIEW OF LITERATURE

Mahalakshmi, M., & Maheshwari, V. (2024) Women's health and hygiene are supported by absorbent hygiene, an essential type of medical textile, particularly during the menstrual cycle, which presents several challenges for women. To make sanitary napkins more affordable, this research focuses on changing natural fibers to make them appropriate for use in them. This aids in breaking into the rural women's market, assisting the women in adapting to the physiological changes occurring during these vulnerable days, and allowing them to make their vitalizing contributions to society with greater flair.

Mohit Panjwani, Yugendhar Rapolu, Mehak Chaudhary, Mohak Gulati, Karan Razdan, Ananya Dhawan & V. R. Sinha (2023) Conventional sanitary napkins are composed of around 90% plastic, which goes to landfills and remains there for centuries leading to an increased carbon footprint. A study conducted on major brands of sanitary napkins in India revealed that the presence of various phthalate groups harms neurological, cardiovascular, and reproductive systems in women and volatile organic compounds show harmful neurological effects including paralysis and memory loss. To overcome this environmental mayhem and severe pathological effects, various approaches have been undertaken by researchers and government authorities. Plant-based alternatives aid the dire need to manufacture sanitary napkins that can decompose and leave no threat to biodiversity. The use of organic materials like cotton, jute, bamboo, banana fibers, and neem leaves in making sanitary napkins holds magnanimous potential.

Srivastava, D., Kumari, A., & Lal, S. P. (2022) To make and provide generic drugs available at a cheap cost to everyone across the country, "Pradhan Mantri Bhartiya Jan Ausadhi Pariyojana (PMBJP) was launched and under this PMBJP (can be translated in English as Prime Minister Indian Mass Medicine Scheme) scheme, Jan Ausadhi Suvidha Sanitary Napkins were launched to provide biodegradable sanitary napkins at less price for women of the country. Menstruation is a part of women’s life and menstrual hygiene product is the basic need for women to face this menstruation period. The result of the study of the impact on women will surely be used to enhance the health status of women and also complement Swachh Bharat Abhiyan.

Bae J, Kim J. (2018) On average, a woman menstruates for 450 cycles in her lifetime and a majority of the women use disposable sanitary napkins without realizing, that these plastic-lined disposable sanitary napkins are not only harmful to them but also to the environment.

DATA ANALYSIS

CHI-SQUARE

RELATIONSHIP BETWEEN FAMILY INCOME AND TYPE OF PROTECTION USED FOR MENSTRUAL CYCLE

Category	Conventional pads	Eco-friendly pads	Menstrual cups	Tampons	Total
20000-50000	12	33	20	9	74
50000-100000	7	30	14	5	56
above 100000	13	38	14	8	73
below 20000	9	21	12	5	47
Total	**41**	**122**	**60**	**27**	**250**

CHI-SQUARE ANALYSIS

Row Labels	Conventional pads	Eco-friendly pads	Menstrual cups	Tampons	Total
20000-50000	12.136	36.112	17.76	7.992	74
50000-100000	9.184	27.328	13.44	6.048	56
above 100000	11.972	35.624	17.52	7.884	73
below 20000	7.708	22.936	11.28	5.076	47
Total	**41**	**122**	**60**	**27**	**250**

P VALUE = 0.962

INTERPRETATION

The above table reveals that the calculated p-value is 0.962 not significant. The calculated p-value is more than the 5% (0.05) level of significance. So, the null hypothesis is accepted. Hence, there is no significant difference in family income (monthly) and types of protections used for the menstrual cycle.

ANOVA

RELATIONSHIP BETWEEN PERIOD OF USING ECO-FRIENDLY SANITARY PADS AND IMPROVEMENTS NEEDED IN TERMS OF PERFORMANCE AND DESIGN

H0 = There is no significant difference between the period of using eco-friendly pads of the respondents and the improvements needed in terms of performance and design.

TABLE 4.2.4

VARIABLES	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
Between Groups	9.977	3	3.326	4.360	.005
Within Groups	187.623	246	.763		
Total	197.600	249			

(source: primary data)

INTERPRETATION

ANOVA was conducted between the period of using eco-friendly sanitary pads and improvements needed in terms of performance and design. The results show that, with degrees of freedom 3 and F-value 4.360, the significance value is 0.005, which is not greater than 0.05 so the H0 is not accepted.

WEIGHTED AVERAGE ANALYSIS

PREFERENCE FOR PADS IN TERMS OF ECO-FRIENDLY MATERIALS

(source: primary data)

CATEGORY	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	MEAN SCORE
Organic cotton	131 655	46 184	30 90	20 40	23 23	250 992	3.968
Bamboo fiber	28 140	122 488	68 204	29 58	3 3	250 893	3.572
Jute fiber	27 135	68 272	129 387	21 42	5 5	250 841	3.364
Recycled materials	27 135	84 336	85 255	48 96	6 6	250 798	3.192
Banana fiber	54 270	61 244	69 207	33 66	33 33	250 820	3.281

INTERPRETATION

The above table shows that the majority of the respondents have chosen organic cotton as their preference for pads in terms of eco-friendly materials which has the highest mean score of 3.968.

FINDINGS

- The study reveals that the calculated p-value is 0.962 not significant. The calculated p-value is more than the 5% (0.05) level of significance. So, the null hypothesis is accepted. Hence, there is no significant difference in family income (monthly) and types of protections used for the menstrual cycle.
- The study in ANOVA was conducted between the period of using eco-friendly sanitary pads and improvements needed in terms of performance and design. The results show that, with degrees of freedom 3 and F-value 4.360, the significance value is 0.005, which is not greater than 0.05 so the H0 is not accepted.
- The study shows that the majority of the respondents have chosen organic cotton as their preference for pads in terms of eco-friendly materials which has the highest mean score of 3.968.

SUGGESTIONS

- Examine college students' knowledge of sustainability practices and their influence on the environment when it comes to eco-friendly sanitary pads.
- Examine the rates at which college students are adopting environmentally friendly sanitary pads, taking into account the accessibility, price, and perceived efficacy of the product.
- To encourage students to manage their periods sustainably, suggest educational initiatives and campaigns on college campuses that highlight the use of eco-friendly sanitary pads.
- Examine the challenges and opportunities in integrating eco-friendly menstrual hygiene products into campus facilities and services, addressing issues such as product availability, disposal infrastructure, and institutional support.
- Need more awareness related to this content.
- Eco-friendly pads must be advertised and campaigned about even more and get improved in the absorbance and odor sector.
- Reduce the prices of eco-friendly pads.
- More introduction of eco-friendly pads in supermarkets would be easy for purchase.
- Many campaigns can be conducted to the awareness.

More advertisements about these pads can be more useful to people.

CONCLUSION

In conclusion, research on college students' use of environmentally friendly sanitary pads highlights the group's increasing knowledge of and interest in sustainable menstruation habits. Our research has led us to identify a number of elements that influence the adoption of environmentally friendly solutions, such as peer influence, pricing, accessibility, and awareness levels. The results point to a large window of opportunity for campus-wide campaigns and educational interventions to encourage the adoption of environmentally friendly sanitary pads, which will support environmental conservation efforts and help college campuses develop an eco-aware culture. Finding sustainable solutions for students' menstrual hygiene requirements is becoming increasingly important as institutions work to include sustainability into their practices and regulations. To encourage the wider use of environmentally friendly menstrual hygiene products and accelerate the shift to a more sustainable future, more research and cooperative efforts between academic institutions, manufacturers, and stakeholders are crucial.

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