

# A Study of Sanitary Napkin Packing Method for Hygiene and Eco-Friendly Environment

K. Swetha<sup>1</sup>, M. Kavitha<sup>2</sup>

<sup>1</sup>Asst. Professor, Dept. of Apparel Fashion Designing, NIFT-TEA College of Knitwear Fashion, Tirupur, India <sup>2</sup>Student, Dept. of Apparel Fashion Designing, NIFT-TEA College of Knitwear Fashion, Tirupur, India

Abstract: Women's health and hygiene has been one of the key concerns over the years across the world. The awareness on menstrual hygiene and usage of sanitary napkins is virtually absent in rural areas. For this we developed a novel idea which will be hygienic. The napkin pads have been modified with the soap coated covers which would be useful for hand wash. Since the idea is in its inception phase, we would want to see and plan growth as the inception phase and pilot phase materializes. Another important aspect of the project is to develop bio degradable package for the napkin pad which reduces the environmental pollution due to non-biodegradable napkin bags. Also, Quotes and Health tips are printed on paper to help women alleviate pain physically and mentally. This project would helpful in ensuring the women's hygiene and also environmental pollution. Questionnaire was prepared and given to the adolescent girls, women's and personal interview. The researcher given certain recommendations to enrich existing knowledge of sanitary napkins to the adolescent girls who are going to school, college, office.

*Keywords*: Menstruation hygiene, Eco-packaging, pain alleviating

#### 1. Introduction

Hygiene related practices of women during menstruation are of considerable importance especially for young girls who do not have experience especially during the onset, at menarche. Many studies have shown poor menstrual hygienic practice during adolescence. A study in tribal adolescent girls reported very poor menstrual management (they used dirty cloth or an old used cloth was recycled for absorption of menstrual blood, improper washing of used cloth and improper disposal of used cloth). Another study shown hygiene practices unsatisfactory because girls do not get adequate time and opportunity to clean and change timely at school. Attitude of parents in discussing the related issues are obstacle to the right kind of information, especially in the rural areas. Menstruation is thus considered to be a matter of awkwardness in most cultures. Primarily poor personal hygiene and unsafe sanitary conditions result in gynecological problems. Infections due to lack of hygiene during menstruation are often reported

Repeated use of unclean napkins or the improperly dried cloth napkins before its reuse results in harboring of microorganisms causing vaginal infections. The prevalence of RTIs is quite higher among girls having unsafe menstrual practices. It is clear from earlier studies that majority of girls had correct knowledge about menstruation but were poor in hygienic practices.

### 2. Objectives

- To study about the bio-degradable covers for sanitary napkins
- To study easy and hygienic disposal of used napkins
- To study about the sanitary napkins packing method
- To study about carrying napkins in public
- To study about pain alleviations physically and mentally

# 3. Review of Literature

In this chapter, an attempt is made to review the literature directly and indirectly related to present research problem. The reviewed literature is classified and presented under three headings in order to understand the gaps in the existing knowledge or literature on menstrual hygiene.

- Studies on knowledge about menstruation
- Studies on attitude towards menstruation
- Studies on menstrual practices
- Socio biological aspects of menstruation



Fig. 1. Brown Paper package with Quotes: "Those Five Days, Power to Nurture Life Within, A Women Must Empower"



Fig. 2. Brown pack with tips





Fig. 3. Content in Tips

The study reveals that most of the girls used cloth as a menstrual pad, and they reused the cloth after washing it with soap and water and discarded the cloth by burning it after using it at least for 4 - 5 months. Very few girls use sanitary napkins available in the market; possibly due to low socioeconomic status, less availability at rural areas and lack of awareness. Majority of the girls were using cloth (46.67per cent) and only 15.67per cent were using sanitary napkins. Amongst those who used cloth, 65.70per cent were found to be suffering from genital infections as compared to 12.30per cent in those who used sanitary napkins. In another study, majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. More than half of the girls were ignorant about the use of sanitary pads during menstruation Only 13.2% girls used only sanitary pads during menstruation and around 24.2% used both reusable cloth and sanitary pad. Apparently, poverty, high cost of disposable sanitary pads and to some extent ignorance dissuaded the study population from using the menstrual absorbents available in the market. It was observed in this study that the usual practice was to wash the cloth with soap in the pond after use and keep it at some secret place till the next menstrual period. To keep the cloth away from prying eyes, these were sometimes hidden in unhygienic places. Privacy for washing, changing or cleaning purpose is something very important for proper menstrual hygiene, but in this study, lack of privacy was an important problem both at home and at school. various methods that students used for disposing of used menstrual absorbents include disposal with domestic wastes 71.2%; burning 24.3%; burial 4.3% and flushing in toilet 0.3%. Heaps of sanitary napkins with a large amount of disease causing bacteria on them pose a significant threat to the hygiene in the surrounding areas. So, proper disposal is very important.

## 4. Scope of the Study

- The main medical purpose of washing hands is to cleanse the hands of bacteria or viruses.
- If soap is not available, while using sanitary napkins hands can be cleaned with the paper soap.
- This project can be utilizes in future for making a research on the sanitary napkins packing materials.
- It is also about the environmental impact of the biodegradable packing method in napkin industry which also

guide women in disposing them.

- In future this project helps to introduce the bio-degradable packing material to the napkin industry.
- It helps women to overcome pain such as cramps by following the tips printed.

#### 5. Research methodology

Antiseptic soap scarps Melted soap solution (Fig. 4) Layer7 peeled from napkin Soap solution is applied on face side (Fig. 5) Drying for 30mins in a shadow Now the applied soap paper placed on 6<sup>th</sup> layer of napkin The napkins should be folded as quarter size Packing with the brown paper contain quotations and tips

And finally packed with the bio-degradable cover



Fig. 4. Molten soap



Fig. 5. Dipped 7th Layer of napkin

#### 6. Suggestions

The environmental impact of packing material (biodegradable) cover to the sanitary napkins are increased by using the bio bags and also soap strap of napkins are used for women's hygiene during their menstrual time. Hygiene is an important part for the women's of their reproductive systems.

The biodegradable cover and soap strap has developed comprehensive guidelines for packaging and hygiene.

- The alternative source for the non-degradable material in sanitary napkins.
- The environmental influence of bio-degradable bags.
- Consumer preference toward environmental-friendly products.



- The main medical purpose of washing hands is to cleanse the hands of bacteria or viruses when they are changing of their pads.
- If soap is not available, while using sanitary napkins hands can be cleaned with the soap strip.



Fig. 6. Logo of the product



Fig. 7. Final Product

# 7. Conclusion

In the environment most of the people are not aware about the non-degradable packing material. By this project the packing materials are thoroughly analyzed and segregated based on the type of bio-degradable covers are used for the packing of the sanitary napkins with addition of soap strap is included in the seventh layer of the napkins. The ratio of the survey report about the Ova pads are 73% of bio-degradable with soap strap and 24% of non-bio-degradable packing material. This is achieved by using the alternative degradable or bio-degradable packing material.

The size of the folding napkins are reduced and it should be comfortable to handy and then altered of 7th layer of the napkins should be coated with antiseptic soap solution for the purpose of hand washing. In future we can create some guidelines for sanitary napkin industry by this way somewhat we can reduce the impact of the non-degradable packing method on environment and the awareness about the hygiene to handwash. This is the first step from the napkin industry like that if other industry can reduce the packing method so that we can save our environment and we can help government "GO GREEN AND SAVE EARTH" policy.

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