

Silicone & Science: How Menstrual Cups Reshaped Period Health

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ABSTRACT

Since ages, menstruation seemed to swathe in quietude and shame being subjected to precarious harmful practices. There was a lack of understanding and accessibility of menstrual hygiene products. Even after certain menstrual hygiene products were invented, they were still not feasible enough to be within the reach of the majority. This research paper aims to highlight how the invention of the menstrual cup added a new layer of comfort and safety along with better feasibility and attainability and how it has been viewed by the people exposed to the mentioned product. Using the mixed-approach method, consisting of secondary data, it was found out that STEM didn't just contribute to women empowerment and safety but introduced a much more sustainable alternative to pads. Their enduring use and feasibility helped in combating period poverty. Even in this cusp of modernization, periods remained a taboo. The consistent effort of science and technology tried eradicating this gap by presenting facts fighting with age-old beliefs and reducing the casualties caused by poor menstrual hygiene.

Keywords: menstruation, harmful practices, accessibility, hygiene products, feasibility, attainability, period poverty, taboo

METHODOLOGY

This research paper consists of secondary data primarily from credible sources like WHO, UNICEF and NFHS. It contains a mixed-method approach using both qualitative data and quantitative data, it also presents different case studies to understand the social impact the subject brings with it. It involves scientific findings of the engineering of menstrual cups from websites like Healthline. The historical overview has been presented by using the findings of sources like The Guardian. Due to the time and resource constraints, this paper doesn't contain any primary data.

INTRODUCTION

The landscape of menstrual hygiene seems to be quite under the water. On an average 80 to 90 percent of the women in underprivileged areas are prey of Reproductive Tract Infection due to the lack of menstrual hygiene. A few decades ago, the position of menstrual hygiene was even worse. It had killed more lives than it had given. The use of animal skins, old ragged clothes and leaves was and is the reality of places where STEM hasn't intervened. During the Roman civilization there was no concept of menstrual hygiene products, people believed menstruation to be a curse-something which could destroy field crops and control the weather. Even during the medieval period menstruation was something that was seldom spoken of, it was linked with shame and cramps were seen as punishment even the forthcoming

generations saw very little improvement in the social outlook of menstruation. In this dusk, STEM seemed to be the dawn bringing the impossible to life. It provided relief to women by introducing small yet world-changing inventions starting with period belts. The invention of menstrual hygiene products seemed to be the answer to most of the difficulties faced by women while menstruating. Along with providing a better hygiene product it also opened up the plethora to have a discussion about the believed curse. The hygiene products were a result of efficient engineering and a product of science. Not only did it adhere to the SDG3 Good Health and Wellbeing but also achieved others like SDG 5 Gender Equality and SDG 9 industry, Innovation, and Infrastructure. Though the entire issue is not combated it still has been improvised on a large scale, there has been a noted 96% negative response for women showing symptoms of RTI on those who have used menstrual hygiene products. These menstrual hygiene products are the end result of STEM. Even in the world of taboo, STEM managed to provide safe life to 29000 per 30000 women. The shift from dirty clothes to menstrual cups is one testament to it. The idea wasn't just limited to providing a product for menstrual hygiene but was filled with providing a better standard of life. Even after the inventions of sanitary napkins and menstrual cups STEM aims to bring forth more to the plate. In the brink of new innovations and changing of time, Menstrual cups seem to be the most efficient solution to all the problems.

WHY MENSTRUAL CUPS?

Menstrual cups are made up of medical-grade silicone, rubber, latex, or elastomer which are both safe and comfortable to use and it undergoes strict biocompatibility testing before being launched. It uses the injection molding of liquid silicon method and sterilizing. It has a V-shaped or cup structure (length 40–60 mm, capacities 15–50 mL). Air holes and Grip rims are the vital elements ensuring the safe and comfortable usage of the menstrual cups.

1.1 SANITARY PROTECTION

A.C. Nielsen conducted research named Sanitary Protection: Every Woman Health Right provided a detailed understanding of the rampant use of unsafe exercises related to menstrual health. The study involved 1033 females and 151 gynecologists. It presented that about 12% women use sanitary tissues while the remaining 88% opted for dismayed substitutes. About 70% of the women said that they lacked the resources to afford adequate menstrual products and found sanitary napkins to be beyond their purview of affordability.

1.2 - STUDY by Gujarat Medical Education and Research Society

A study presented by C. R. Kakani, Jalpa K. Bhatt revealed that 30% out of the 150 women were dissatisfied with the use of sanitary napkins. They were asked to use menstrual cups and revert back. About 80% of women after the first cycle appreciated the product. By the end of 5 cycles all of the women gave positive affirmations related to the menstrual cup claiming that it solved most of their concerns like those of leakage and feasibility.

1.3 THE KENYA STORY

A study in the rural areas of Kenya reported that 25% of the women used traditional resources (rags, old cloth, leaves) during their menstruation as the disposable sanitary napkins were not cost effective for them. This reported a high infection rate among the women (73% in age 20-22). However, after the introduction

with the menstrual cups about 93% women reported consistent usage and positively affirmed it to be affordable assuring them improvised mobility and decrease in the level of stress regarding chances of leakage and stains. There were a remarkable 24% reduced odds of having BV.

1.4 SUSTAINABILITY

On the occasion of world health day, Dr. Swaminathan released a report claiming that menstrual cups reduce non- biodegradable waste by 99% as they release only 0.6kg of non-biodegradable waste. It lasts up to 10 years replacing 2500 pads or 1800 cloths. Along with this, it requires fairly less water to be cleaned.

1.5 COST AND OVERALL IMPACT

On an average per menstrual cycle, it costs up to 200 rupees. For 10 years this would result in somewhere around 24000 rupees. While a menstrual cup would cost only 1000 rupees for 10 years. Along with being cost-effective and durable it also proves to be rash-free and proves to be the safest hygiene product

THE QUIET CUP REVOLUTION

The landscape of menstrual hygiene has changed significantly after the introduction of menstrual cups as they cross down one of the major concerns when it comes to menstrual hygiene the feasibility. The cost-effectiveness has changed the purview of maintaining menstrual hygiene especially in the rural areas and weaker sections of the society. There has been a notable drop in the health casualties caused due to poor hygiene. Menstrual cups are seen to be intricately designed for serving the purpose of healthy and comfortable menstrual cycles. It is also to be highlighted that the goals achieved today were impossible dreams eons ago. The very introduction of STEM and its invention has played a key role in developing the individuals and the society, empowering women and bringing about sustainable development. In order to fully combat the issue highlighted in the paper it is recommended to add menstrual hygiene in the school curriculums and to advocate for a more vocal and open government policy aimed at providing menstrual literacy and hold distributive campaigns providing menstrual products to the unprivileged section. By investing more in research and development we can further strengthen our aim of sustainable development.

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