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Menstrual hygiene awareness programs: A route towards attainment of sustainable development goals

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Abstract:

Healthy menstrual hygiene practices are of utmost importance in the life of every female during her reproductive age. The research paper aims at drawing attention on the importance of awareness of menstrual hygiene and choice of menstrual hygiene products as a means to achieve sustainable development goals (SDGs), with respect to socioeconomic development of the nation and its global impact on health and environment. A cross sectional pilot study on 150 females was conducted. The study involved conduction of menstrual hygiene awareness workshop for the female participants which was followed by interview on the basis of pretested questionnaire. The results of the pilot study indicated that most of the females who are in their reproductive age group are unaware of the basic menstrual hygiene maintenance. The choice of menstrual hygiene product taking into consideration the affordability, impact of menstrual hygiene product on their own health and environment is not done in an appropriate manner. Awareness programs in order to update the females of all the age groups with respect to menstrual hygiene, menstrual hygiene product choice will help in attaining sustainable development goals with respect to good health and well-being of the females in the reproductive age.

Keywords: Sustainable development goals, Menstrual hygiene, Menstrual hygiene products, Awareness programs

Introduction:

One of the crucial stages in the life of a female is adolescence. It signifies the transition from girlhood to womanhood. Many physical and psychological changes take place in the body of the female. One of the major changes the female has to face is menstruation. During this phase, menstrual hygiene practices inhibit healthy and sustainable living. Globally, though nations with advancement in technologies, have geared up to embrace the 21st century, but still there is a huge

female population that awaits proper education, and wellbeing especially in the context of menstrual health and hygiene [1].

Sommer *et al* in their research paper titled “How addressing menstrual health and hygiene may enable progress across the sustainable development goals” have pointed out the potential linkages to all the SDGs. In their research paper the authors have aimed to recognize the fundamental role of Menstrual Health and Hygiene (MHH) in achieving the SDGs and highlighting the ways in which MHH can be monitored within these goals. Their study also points out that while examining SDG5, which aims to achieve gender equality at schools, workplaces and even households, if social and physical environments, enabling safe, hygienic, and comfortable management of menstruation are not provided, then the governments must consider resource investments to address these needs [2].

Chandra Mouli and Patel in their handbook titled “Mapping knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low and middle income countries” have pointed out that lack of preparation, knowledge and poor practices surrounding menstruation are main obstacle not only to girl’s education, but to their personal development. They are of the opinion that in addition to investment in private latrines with clean water for girls in both schools and communities, countries must consider to improve the provision of knowledge and understanding about menstrual hygiene [3].

In the meeting report “Monitoring and Measuring Menstrual Health and Hygiene: Measuring Progress for Girls related to menstruation”, the authors have focused on the ‘Menstrual Movement’. According to the authors there is an urgent need to ensure collaboration and consensus on how to improve the circumstances surrounding menstruation and associated life outcomes. According to the authors, there is a need to understand opportunities for linking menstrual hygiene with other sectors and SDG agendas. The report states that we lack measures as standards by which to assess progress on addressing menstruation-related interventions [4].

In a review paper titled “A Time for Global Action: Addressing Girls’ Menstrual Hygiene Management Needs in Schools”, the authors reveal the gender discriminatory nature of many school environments, with female students and teachers unable to manage their menstruation with safety, dignity, and privacy, negatively impacting their abilities to succeed and thrive within the school environment. Poor school attainment reduces girl’s economic potential over the life course, impacts population health outcomes, and also extends to girl’s sexual and reproductive health outcomes, self-esteem, and sense of agency [5].

Mara *et al* in their paper titled “The Sanitation and Hygiene Targets of the Sustainable Development Goals: Scope and Challenge” have emphasized on the considerable need for training

local sanitation and hygiene professionals, so that they can plan and design interventions to meet the SDG target [6].

Our research paper draws attention on the importance of awareness of menstrual hygiene and choice of menstrual hygiene products as a means to achieve sustainable development goals (SDGs), with respect to socioeconomic development of the nation and its global impact on health and environment.

Method:

A cross sectional pilot study was conducted on 150 females in and around areas of Mumbai city from, January 2022 to January 2023. The study involved females who were menstruating and were between the age group of 12 years to 55 years. Menstrual hygiene awareness workshops were conducted for the females. These workshops, involved the usage of power point presentations to explain the females about various menstrual hygiene methods, menstrual hygiene products that are commonly used and maintenance of menstrual hygiene. The power point presentation also covered topics like myths and facts about menstruation. The workshop also involved some icebreaking activities with the help of which females were made comfortable so that they can narrate their views and experiences after the session. All the females were interviewed on the basis of pretested questionnaire after the workshop. The female participants in the study were given the option to express their views in any of the three languages that is Hindi, English and Marathi. Before the session, a written consent was taken from the participants regarding their involvement in the study.

Results and Discussion:

Age groups of the Participants in the study:

The study involved 34% of female participants between the age group of 12-15 years. These participants were school going students. Some of these females had just got their menarche. 41% of the female participants were the college going students between the age group of 16-21 years whereas 25% of the females were working females between the age group of 22-45 years. A mix age group of the participants was involved in the study to analyze the awareness of menstrual hygiene, menstrual hygiene products and its impact on health and environment at various stages in the life of the female.

Socio Economic Status:

Based on the ration card possessed by the female participants, it was observed that in the study group, 34% of female participants were below poverty line and 66% of the females were above poverty line. Socio-economic background of the participants was considered in the study because literature review indicated that there is a link between the usage of Menstrual Hygiene Product (MHP), awareness about menstrual hygiene, impact of MHP on human health and environment with

that of the socio economic status [7].

Experiences of female participants in the study were recorded and analyzed further.

Preferences of MHP amongst females:

The study indicated that 94% of the females use disposable sanitary napkin to collect the menstrual blood during periods, 3% of the females use tampons and 2% of the females used menstrual cups whereas only 1% of the females use traditional reusable cloth to collect menstrual blood.

Why females prefer a particular type of MHP?

When the females were questioned about their preference for a specific type of MHP, we received varied answers from them. The reason behind 94% of the females using disposable sanitary napkin was, they felt that it was the only Menstrual Hygiene Product(MHP) available till date, indicating that they were totally unaware of the traditional MHP as well as the MHP in the form of menstrual cup, tampon or biodegradable sanitary napkins. Few of the females even said that on media especially television, disposable sanitary napkins are most of the time advertised as the best MHP. Females were of the opinion that the traditional MHP that were used by their mothers and grandmothers were unhygienic. They got this information from their schools and media. Females in the study said that disposable sanitary napkins were easily available, easy to carry, hygienic and easy to dispose according to them. They don't have to wash it when they are outside the house. Many of the females were of the opinion that they cannot imagine cleaning the reusable sanitary pad containing there on menstrual blood, they felt that it was very dirty, hence they preferred using disposable sanitary pad. The study indicated that females from both the socioeconomic backgrounds preferred using disposable sanitary napkins.

Tampons were used by 3% of the females. Tampons are *period management product* that, unlike pads, is inserted into the vaginal opening to soak up the menstrual fluid during periods. They are mostly made up of cotton or rayon or the blend of two. The reason behind females choosing this MHP was, it is convenient for them to carry, and they don't have to keep on changing it quite often like disposable sanitary napkin. They said that it can be easily disposed and it is quite affordable for them. Tampons was the best choice according to them when females have heavy bleeding during first few days of their cycles, when females have to travel a lot, or be outside their homes that is in the college or workplace, wherein they don't get time and suitable place to change their sanitary napkins. When questioned regarding how they came to know about this MHP, they said that they were advised by their medical practioners, some of the females had read about it in magazines or on social media. When asked about their comfort inserting tampons in the vaginal canal, they said that in the beginning they found it very uncomfortable, but now they are used to it.

Menstrual cups were used by 2% of the females. Menstrual cup is *aperiod management product* that, unlike pads, is inserted into the vaginal opening to collect the menstrual fluid during periods. They are made up of silicon material which is very soft and flexible, hence easy for insertion in the vaginal canal. The reason behind females choosing this MHP was it is convenient for them to carry, and they don't have to keep on changing it quite often like disposable sanitary napkin. They said that, they are very cautious about the environment and hence they feel that menstrual cups are the right choice for them as it is non-disposable and it can be used for 8 to 10 years. Menstrual cup is the best choice according to them when females have heavy bleeding during first few days of their cycles and also when they have light bleeding. Since menstrual cup can be kept in the vaginal canal for about 10 hours it is considered to be a very convenient MHP especially when females have to travel a lot, or be outside their homes, wherein they don't get time and suitable place to change their sanitary napkins. When questioned regarding how they came to know about this MHP, they said that they were advised by their medical practitioners, and some of the females had read about it in magazines or on social media. When asked about their comfort inserting menstrual cup in the vaginal canal, they said that in the beginning they found it very uncomfortable, but they are used to it now. They also said that if female purchases menstrual cup of right size then issues of uncomfortable feeling will be comparatively less. Females using menstrual cup were of the opinion that they can perform any activity during the days of heavy menstrual bleeding like dancing, hiking, swimming using this MHP and they don't have to be under the constant fear that their cloths might be stained. All the females using tampons and menstrual cup were above poverty line.

There was only one female who still practiced traditional method of menstrual hygiene. The female was between the age group of 45-55. She said that she had been using these traditional cloths which can be washed easily with water and reused for at least a year. Since she is working as a sanitation worker now, she prefers using disposable sanitary napkin during the first few days of her periods when the flow is heavy at work place. But when she is at home she prefers using cloth as MHP. According to her it is affordable and clean. She finds very uncomfortable to dispose the sanitary napkins in the dustbins. She also said that the advertisements of the disposable sanitary napkins that are constantly flashed on the television sets are quite embarrassing and hence irritating. She also pointed out that, she is really worried about the people who are further involved in the disposal of these products which we use. This female who was interviewed was below poverty line.

Our results are in agreement with the research conducted by Patel et al indicating that Menstrual cup is a least popular alternative in Menstrual Hygiene Management [8]. The study conducted in Northeast Ethiopia by *T. Kassaw et al* indicated that only females belonging to families having higher monthly expenditure had more chance of using sanitary napkins than their counterparts

[7]. A study on "Use of Menstrual sanitary products in women of reproductive age: Korea Nurses health study" by Choi Hansol et al have also reported that disposable menstrual pads were most common menstrual hygiene products used by the females of all age groups. [9]

Awareness of females about menstrual hygiene:

58% of the females especially the school-going female participants who might have got their menarche one or two years back and even many of the college going females said that they were not aware of the three openings that are present in the body for the discharge of menstrual blood, urine and feces. Hence while cleaning the genital area and anal region after passage of stools, incorrect method was adopted by them. This might lead to serious issues in the form of urinary tract infections later.

35% of the females used bath soap or vaginal wash which are available in the market. Female participants were unaware of the fact that the habit of washing the vagina with soap might be responsible for vaginal dryness and change in the pH of vagina leading to bacterial and fungal growth and worsen the previous vaginal infection.

All the females agreed upon the fact that hand washing after changing sanitary napkin, tampon or menstrual cup is of utmost importance and they do hand washing with soap if available. Discussion, with respect to awareness about menstrual hygiene amongst female participants indicates that most of them are not much aware about menstrual hygiene maintenance. Bharadwaj and Patkar in a review of the WASH sector based on literature and interviews have also pointed out the height of negligence of menstrual hygiene amongst females. Their study has also indicated that apart from few pilot initiatives, menstrual hygiene management is absent from programs for community. Their study also revealed that even though sanitation and hygiene programs have successfully promoted affordable production and supply of soap and toilet construction materials, for poor communities, the availability of affordable sanitary pads has not been considered [10]

Challenges faced by females in maintaining menstrual hygiene:

Females faced many challenges in maintaining menstrual hygiene. 36% of the female were of the opinion that they do not have access to clean water and soap 24 X 7 in their house. Due to water shortage they have to use very less water to maintain hygiene.

Practicing menstrual hygiene is difficult for most of the females when they are working or studying outside. Few females narrated that the toilets at their work places or while travelling are very unhygienic and hence they don't prefer urinating or changing their menstrual products outside their house but that leads to a very stressful situation and they are constantly under the fear of staining their cloths.

There were some females in the group who did not have access to indoor toilet facility. They

had to move out of the house to change their menstrual products. They felt that it was very shameful to go to washroom many times in order to maintain menstrual hygiene. According to some of them public toilets are not hygienic and well protected.

Mahon and Fernandes in their research paper have also quoted that in India, the Government's Total Sanitation Campaign (TSC) is a national program to ensure access to improved sanitation. In its guidelines, the TSC has recognized the need for the program to incorporate hygiene promotion, provide women's sanitary complexes (community facilities with latrines and bathing facilities), and construct girls' toilets at schools. However, as yet it gives no attention to providing menstrual hygiene services [11].

Affordability of the MHP:

94% of the females depend upon disposable sanitary pads every month. 26% of the female said that they spend Rupees 100/- per menstrual cycle on sanitary napkins. 36% said that they spend Rupees 250/- per menstrual cycle on sanitary napkins. 38% of the females said that they spend more than Rupees 500/- per menstrual cycle on the sanitary napkins. Some of the females mentioned that it becomes very difficult for them to arrange for the money that they have to spend on sanitary napkins every month, whereas the females above poverty line said that it was not difficult for them to spend the amount on sanitary napkins but most of them keep on searching for brands which are comparatively cheap. Female participants also pointed out that they search for wholesale shops or online shops from where they can procure sanitary napkins at a cheaper rate.

When the females were questioned about the usage of napkin vending machine at work place, schools and colleges, most of them said that the quality of the napkin was not so good. The size of the napkin was so small that they cannot use it comfortably. Many of them complained that either the napkin vending machine is unavailable at workplace and colleges or even if the machine is available, it is not in a working condition.

Menstrual product disposal:

97% of the female participants said that they wrap the disposable sanitary pads or tampons after every use in the newspaper and dispose it off in the dust bin. 2% of them said they incinerate it at their backyard whereas 1% of them said that they use incinerator present at their work place or in the college.

Awareness about harmful effects of MHPs:

When the female participants were questioned about their awareness with respect to harmful effects of some of the menstrual hygiene products like disposable sanitary pads or tampons on their body and environment, only 20% of the females said that they were aware of the harmful effect of MHPs like tampons or disposable sanitary napkins on their body. These female participants were

aware of the fact that disposable sanitary pads, if not changed for a longer time period may lead to certain conditions like toxic shock syndrome or urinary tract infections. Some of the females (the college students) said that the chemicals which were present in the sanitary napkins may cause cancer in long run. Most of the females were of the opinion that disposable sanitary napkins are the safest and best MHP that they are using.

15% of the females were aware of the harmful effects of MHP like sanitary pads on the environment whereas 85 % were totally unaware of the effect of disposable sanitary napkin on the environment. Females who were aware of the harmful effect of MHP on the environment have received this information via social media. College going female participants also said that they had read research article indicating harmful effect of MHP on the environment.

Awareness about Alternative Menstrual Hygiene products that are safe for them self and the environment:

94% of the females feel that disposable sanitary napkins were the only safe hygienic product available in the market. 6 % of the female participants were aware of other alternative MHPs in the form of menstrual cup or biodegradable sanitary pads.

When the female participants were asked, why don't they switch on to these alternative MHP which are safe for both environment and themselves, they replied that even though menstrual cup seems to be a good option, some of the females are scared to insert it into their vagina. The participants said that they need proper training to use the product. Few of them were scared of losing their virginity after the usage of menstrual cup since it is to be inserted into the vagina. Some of them said that they feel that it is not a safe option, since the menstrual blood remains in the menstrual cup which is inside the body for a very long period of time. Some of the females said that it might become difficult for them to dispose of the menstrual blood and clean the menstrual cup, when they are outside the house.

When discussed about Biodegradable sanitary pads, they said that it is a very good option but these pads are not available easily in general stores or medical stores and they are very costly.

Similar observation has been made by E. Peberdy et al in a research paper titled "A Study into Public Awareness of the Environmental Impact of Menstrual Products and Product Choice". The authors have pointed out that maximum participants were not aware about the amount of plastic in disposable menstrual products. They also mentioned that some of the participants in their study who had more awareness about the ill effects of plastics used in disposable sanitary napkins were likely to choose less environmentally harmful MHP [12].

Participants view about Awareness workshops:

All the female participants agreed upon the fact that awareness workshops conducted with

respect to menstrual hygiene, menstrual hygiene products and impact of menstrual hygiene products on the health of females and the environment are very fruitful. Some of the females between the age group of 20-45 years were of the opinion that these workshops should be conducted at school and college levels so that the females will be more cautious about menstrual hygiene and usage of menstrual hygiene products at an early age, according to them later it becomes difficult for the females to get habituated to a particular type of menstrual hygiene product.

Conclusion:

The pilot study indicated that most of the females who are in their reproductive age group are unaware of the basic menstrual hygiene maintenance. The choice of menstrual hygiene product taking into consideration the affordability, impact of menstrual hygiene product on their own health and environment is not done in an appropriate manner. Awareness programs in order to update the females of all the age groups with respect to menstrual hygiene, menstrual hygiene product choice will help in attaining sustainable development goals with respect to good health and well-being of the females in the reproductive age.

Limitations of the study:

The study was a pilot study; it was conducted on very small sample size. Since it was a cross sectional study, which was carried out only for one year, the outcomes of the awareness via workshop could not be measured properly.

Future scope and Recommendations:

It was observed that in the metropolitan city like Mumbai and the areas around Mumbai, females are unaware and skeptical to use recyclable sanitary napkins which are environmental friendly, pocket friendly and healthy. More usage of such recyclable sanitary pads may help us to attain sustainable development goals not only in terms of health and well-being of the females but also sustainable goals in terms of 1) quality education (by conducting awareness programs), 2) protecting life below water and life on land (by creating awareness about ill effect of MHP on environment 3) promotion of sustainable and economic growth of all the communities (by supporting the use of recyclable sanitary pads). A longitudinal study of same kind is recommended to measure the outcomes of the awareness programs.

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