

## ROLE OF CLINICAL PHARMACIST IN MENSTRUAL HYGIENE PRACTICE AMONG SCHOOL GIRLS IN INDIA

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### ABSTRACT

Menstruation is a natural part of women's reproductive cycle. Throughout the reproductive life every women loss blood with or without discomfort. Although menstruation is a physiological process, but still it is considered as unclean in Indian society. Menstruating girls faced many restrictions on daily activities and cultural taboos. Many adolescents' girls are unaware of choosing adsorbent material used during menstruation. The knowledge on menstruation is less in adolescent girls. These leads them school absenteeism, less hygiene practice and future gynecological problems. Dysmenorrhoea and related symptoms are major problems on menstruation. Thus the menstrual pattern is influenced by a number of host and environmental factor. Knowledge regarding the factors influencing menstrual hygiene is important to manage it effectively by educating family members, school girls and introducing sex education in school curriculum.

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### INTRODUCTION

Natural part of women's reproductive cycle is menstruation.<sup>1</sup> The WHO (World Health Organization) defines adolescents are between the age of 10-19 years. Adolescent girls constitute about one fifth of the female's population in the world.<sup>2</sup> Adolescent is a special period in girls life cycle which needs special and specific attention<sup>3</sup>. Menstruation is a normal physiological process which still considered as something unclean or dirty in Indian society.<sup>4,6</sup> Menstruation is a cyclic process which leads to shedding of endometrial in response to hormones every 28±7 days. In every woman throughout the reproductive life blood loss per cycle is not greater than 50±30ml with or without discomfort.<sup>7</sup> The average menstrual cycle last about 5days which account approximately 400 menstrual cycles prior to menopause. Due to poor knowledge in menstrual hygiene causes increased impact of vulnerability to reproductive tract infections.<sup>8</sup> Reproductive age of woman and girls need access to practice of using soft absorbent sanitaris and cleaning genital area during menstruation. Use of unclean napkins or cloth napkins during menses may cause reproductive tract infections.<sup>9,10</sup> Hygienic practice are necessary during menstruation such as use of sanitary pads and

washing of genital areas.<sup>11</sup> While menstruating restriction followed on daily activities such as not allowing to bath, change dress, comb hair and enter into holy places and dietary restrictions such as consuming of pickle, potato, curd, onion, milk, tamarind, rice, sugarcane, are imposed as taboo believing that such foods will stop or disturb the menstrual flow.<sup>12,13</sup> Thus menstruation and menstrual practice are still considering as socio-cultural restrictions and taboo. It is necessary to practice hygienic health for maintaining positive reproductive health.<sup>14</sup> Researches conform that, adolescent were less vulnerable to reproductive tract infection when they follow safe menstrual hygiene practices.<sup>4</sup>

Increased knowledge from adolescent period about menstruation help in decreased suffering of millions of women.<sup>6</sup> There are many misconceptions and less knowledge about menstruation on Indian women even before and after the menarche. The knowledge of hygiene practice on menstruation was based on socio economic conditions.<sup>13</sup> The best place of educating menstrual hygiene is educational institution.<sup>5</sup> Among the adolescent girls in India there are the scare data on menstrual practice due to population and cultural practice.

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### **Knowledge of Menstrual Hygiene Practice in India**

Girls described the onset of menarche is a shocking or fear full event.<sup>15</sup> The study results found that on seeing first menstruation 30.5% girls were worried and 45.7% were frightened. Inadequate or wrong knowledge on girls may be the reason for anxiety and fear.<sup>16</sup> Rajini *et al.*,<sup>6</sup> concluded that a girl has lack of information before they start to menstruate due to this they more faced gynaecological problems.

Majority of girls has a false belief that not to take bath during menstrual cycle. On a study population 77% girls don't know the reason with which the menstrual flow was connected. Many government school girls thought that menstruation is related with the excretory system.<sup>16</sup> Bharathalekshmi *et al.*, reports concluded that 61.3% girls thought that menstruation is bleeding from stomach, 30.5% answered that it is a cyclical uterine bleeding, 68.1% girls responded correctly, 62.7% do not know the cause for menstruation.<sup>15</sup> Another study results that 21.04% of girls refers it is a physiological process, however majority has no idea.<sup>17</sup>

While 58.3% of young women stated that they know the reason for menstruation before they get menstruating, 69.8% adult women informed that their daughters received information prior to menarche. Focus group discussions (FGD) and Key information (KI) interviews results that many young girls did not know anything before to their first menstruation and few were shocked why it happened.<sup>18</sup>

Study results found the majority of girls used reusable cloth.<sup>4,19</sup> Study conducted in Nepal says that adolescent girls are not properly maintaining menstrual hygiene.<sup>20</sup> The women were thought to use clean cotton cloth to absorb menstrual blood and were aware of the impacts of using dirty cloth. The used cloth were kept in a separate places to used only on periods.<sup>19</sup> Some girls said that they use clothes when they were at home and to use sanitary pads while moving outside of their home. On the other hand, cloths were said to be better when the bleeding was heavy since it could soak better than sanitary pads. If the woman has an economic resources health care professional recommend sanitary pads or based on their financial problems if they use cloths advice them wash carefully.<sup>18</sup>

### **Menstrual Hygiene Practices**

The absorbent material used during menstruation has a great concerned in health life, because reusable material can be cause infection if improperly cleaned and poorly stored, as it affects health through perineum, reproductive tract, and urinary tract infection.<sup>21</sup> Many of unhygienic practices during menstruation has great impact on reproductive health. Not bathing during menstruation lead to compromise in girls hygiene and thus lead to reproductive tract infections.<sup>22</sup>

The study on slum area shows that only 12.6% of total study population using disposable sanitary adsorbent sanitary napkins, 87.3% was using non adsorbent cloth materials. Maximum girls (87.3%) used reused material and which only 18.4% were use soap to clean cloth materials, 88% were dried in sunlight. 77.3% used insanitary method to dispose waste materials. Over 88% of women uses dried leaves, ashes, husk and newspaper to absorb menstrual blood.<sup>22</sup>

The survey found that 34% dispose the menstrual waste by burying while 32 % disposed with domestic wastes. To maintain genital hygiene 14.5% girls used antiseptics or soap.

46.2% were using only 3 pads a day, many girls stored unused napkins in bathrooms and less girls in dress cabinet.<sup>16</sup> 14.5% were maintaining good practices on menstrual hygiene. Proper disposal of pads has a great concern because of non biodegradable components. While burning is common in some areas, but in some places it is culturally prohibited.<sup>22</sup>

There is significant association between mother's educational status and knowledge of adolescent girls about menstruation. On a study population responders whose mothers were literate were maintaining more hygienic practices in comparison with those whose mothers were illiterate. Respondents who were educated up to high school and above were more aware about menarche before its onset as compared to those who were educated up to primary and middle level.<sup>23</sup>

Bad odor of menstrual blood, abdominal pain, burning while urinating, and profuse discharge of menstrual blood were the most reported problems.<sup>4,24</sup> Women who use cloth are twice as likely to have bacterial vagnosis compared to women who use sanitary napkins during menstruation.<sup>25</sup>

### **Negative Feelings Related to Menstrual Hygiene Practice**

Many school girls experience negative feeling related to menses such as poor water sanitation, lack of hygiene on absorbents, inadequate puberty education make them shame, uncomfortable, pain, embracement and anxiety.<sup>13,26-28</sup> The results of the research conducted in Mumbai said that many girls did not know anything before the occurrence of the first menstruation. Some were scared when it happened some considered it is unfair, only girls had to suffer. Pain in abdomen (dysmenorrhoea), backache and body ache are most common feeling during menstruation.<sup>12</sup>

During menses women were not supposed to do religious function, not supposed to cook, and allowed to wash their hair in third or fourth day of menstruation cycle.<sup>18</sup> Some other studies also reported not taking bath on menstruation because of the fear of water scarcity, non availability of private places to bath, physical discomfort and fear of future problems in pregnancy. Rural studies reported that daily baths are less common before, during and after menstruation.<sup>29-33</sup>

Majority of the girls using cloths, it should be washed, dried and reused as instructed by their mother.<sup>18</sup> Cleaning and drying cloths is a major problem if lack of water and drying place.<sup>29,34</sup> Drying the use cloths in sun instead of damping in cupboards or under other cloths is preferred for its microbicidal effect, but girls prefer hiding because of shame.<sup>34</sup> The napkin must be wrapped in news paper or plastic bag before disposing. The reason behind this is to avoid the creatures such as snakes; centipedes to smell or lick the blood stain in that, because it has been superstitiously believe that if it done so they might get infertility.<sup>18</sup> Similar results were found in the study conducted in Delhi, Rajasthan, Gujarat, Haryana and Kerala.<sup>19,35-38</sup> Some women thought that the menstruation is a type of disease that germs get discharged from inside so the same cloth should not be reused.<sup>39</sup> The concept of the evil-eye and magic are strong especially in rural India. Thus it assumes a special significance in the daily lives for Indian women.<sup>11</sup>

### **School Absenteeism**

On 113 million adolescents girls 68 million are going to school from that 1.4 million reported their absenteeism on school due to cultural taboos and poor menstrual hygiene practices.<sup>35,16,44</sup> In less economically developed countries many of the girls

drop out the school while they start to menstruate, thus in India 23% of Indian girls drop out the school.<sup>19</sup> As in many parts of India, menstruations is considered as dirty, impure and discourage which makes girls not to attend the school during the periods.<sup>45</sup> The study conducted in Ranchi adolescent girls reported that, cultural and social practices regarding menstruation depend on girls education, family, cultural belief and attitude.<sup>31</sup> Dysmenorrhea is a probable cause that affects their academic performance.<sup>46</sup> Qualitative studies results that the most common worries expressed during menstruation leads girls to absent themselves from school such as staining on the dress while outside the home, poor menstrual hygiene interventions, pain experienced during menses, body odour.<sup>18,47,48</sup>

#### Traditional Belief Related to Mensuration

Religion	Description
	During menstruation any physical contact between male and female is literally prohibited for a week. <sup>40</sup>
Judaism	The laws says that during her menses one who touches her both are unclean and do not have intercourse with her. Women should be separated after giving birth to child: For son, she separated for seven days and wait for 33 days. For daughter child double for these days. <sup>41</sup>
Christianity	Menstrual taboo was the main reason to keep the women out from the Christian authorities <sup>41</sup> In the eastern orthodox Christian church, menstruation is considered as unclean. They are not supposed to touch the holy bible, religious icon. Western Christianity is less in reinterpretation of polytheistic deities as evil, even though some negative cultural attitudes on menstruation still remain. <sup>42</sup>
Islam	Quran only stipulates one prohibition for menstruating women, which is abstinence from sexual activity. The women were obligated from solemn ceremony such as daily spiritual communication and fasting. Although she is not chosen for carry out this solemn ceremony even if she ready to do. <sup>43</sup>
Buddhism	Buddhism says menstruation is a natural process of body expelling that woman has to undergo on a monthly process nothing more or less. But in daily practice it is not followed because of influence of Hinduism and Buddhism. Many temples do not allow women to ambulate around the stupor. <sup>40</sup>
Sikhism	Gurunanak Sikhism founder condemned the menstruating, that while menstruating women allow praying and visiting the religious places. Menstruation is considered as the necessary and existing process. <sup>43</sup>
Hinduism	Hindu culture says women are not allowed to visit temple in menstruation time. They are board outside of the temple "ladies in monthly period are not allowed". If the results of the rituals are not accepted by the chief priest, it means someone ask defied the rule. <sup>41</sup>

#### Menstrual Issues Faced by Girls and Women in Rural And Backward India

- Less knowledge about menstruation.
- Lack of health awareness and malnutrition.
- Issues and infection related to gynecology.
- Fear of cultural myths and taboo on menstruation
- Inability to bear expenses of commercial sanitary products.
- Lack of privacy for changing menstrual cloth or pads.
- Girls dropping out of schools due to lack of water facilities, early marriage, early pregnancy.

- Dietary restrictions during menstruation.
- Dysmenoherea .
- Lack of sanitary pads due to financial problems.
- Health symptoms involving urinary and genetal tract.
- Inadequate washing facilities.<sup>13,26-28,30,49,50-55</sup>

#### Financial Barriers

There is very limited research on social and health related menstruation issues in low and middle income countries including India.<sup>11</sup> To manage hygienic menstruation and sanitation practice economic and social condition is unsatisfactory. A particular vulnerable spend Rs.15 for a pack with 9 sanitary pads, they respond that they will spend this money on their children and husband.<sup>51</sup> Traditionally cloth are preferred to absorb menstrual flow, because they are cheaper and less polluting, but now it is replaced by pads specially in urban areas.<sup>29,34</sup> Over the total population of menstruating girls 77% of girls and women in India used cloth as an adsorbent.<sup>19</sup> Reproductive tract infection and cervical dysplasia are the risk factors for poor menstrual hygiene.<sup>6,7</sup> Research and development has limited to business acquisitions, and they are unable to market the products that are in low cost for the poor. Higher percentage of girls used 2-3 pads during their menstrual period.<sup>20</sup> 30.45% girls in rural area and 27.27% girls in urban changing their pads was only once/day. The use of sanitary pads is lower in rural compared to urban this is based often of the financial means.<sup>17</sup> In a study majority of girls preferred cloth pieces as menstrual adsorbent. 54.71% used sanitary pads during menstruation. Ignorance and poverty might be a reason for using menstrual adsorbents available in market.<sup>17</sup> Harshad *et al.*,<sup>18</sup> conclude that 25% participants of urban area are still using cloths. To manage the menstruation the choice of selecting adsorbent (disposable pads or cloths) is influenced by cost factor.<sup>51</sup> Khanna *et al.*,<sup>4</sup> concludes that due to their inadequate knowledge, low socioeconomic status, lesser availability of pads in villages only one third of responders were using sanitary pads. According to girls, sanitary protection cost for a month was 40-45 INR range between 20-100 INR. For school girls mothers will provide money. Those who use cloth might use sanitary pads partly due to lack of money.<sup>18</sup> To change the attitude on menstruation, the gender hygiene programme (GHP) has been launched. The total sanitation programme has been going on for 30 years, but there is a need to sanitation, because no one has considering the safe disposal of menstrual fluids.<sup>51</sup> FGDs and KI interviews says that common advice given to the young women was to change the sanitary pads/napkins 2-4 times/day.<sup>18</sup>

Insertable menstrual products are preferred in some studies such as menstrual cps and taboos. Menstrual cups may be economically advantages because the one cup can be preferred for 10 years, they were acceptable for Nepal and Kenya schools girls.<sup>57,52</sup> Due to the concern about the virginity the insertable products may be in less use.<sup>53</sup>

#### Menstrual Symptoms

This majority of women and girls were experiencing some type of pain. The most common reported is abdominal pain other symptoms such as back ache, discomfort, body ache, cramps, agonizing pain, anxiety, fear.<sup>15,17</sup> Study result concluded that dysmenorrhea is a common problem in India.<sup>16</sup> GI symptoms that include loss of appetite, increased appetite, nausea, vomiting, anorexia and gaseous distension of abdomen. Elimination symptoms that include constipation,

frequency of micturation, diarrhoea, profuse sweating. Psychological symptoms that include depression, inability to concentrate, excitability. Physical symptoms that include lethargy, tiredness, sleeplessness, fullness, tenderness of breast, pain and swelling in ankle and knee joints, feeling of heaviness in lower abdomen.<sup>46</sup> General ill health is one of the causes of dysmenorrhoea.<sup>53,54</sup> Study reported that, 70.8% young women faced physical complaints or health problems during menstruation.<sup>16</sup>

Dysmenorrhoea is associated with early or late menarche, prolonged and heavier than normal flow, inadequate physical exercise, stress and mental illness, diet.<sup>55-64</sup> Dysmenorrhoea have a great impact on occupational and public health its prevalence is unclear.<sup>65,66</sup>

Visual analogue scale (VAS) fails on categorizing pain intensity to consider women capacity to adjust with pain and not taking medication or ability of women to function normally when suffering from dysmenorrhoea.<sup>55,56</sup> In recent time study concluded that dysmenorrhoea is a major problem in India. Similar findings have been reported by the study conducted in Andhra Pradesh.<sup>57</sup>

### Role of Clinical Pharmacist in Mhp

The major source of information was sisters and mothers. So there is a great need for educating the family members also. This can be achieved with the help of media, sex education in school curriculum, and focused group discussions. All mothers should be encouraged to break their inhibitions about discussing with their daughters regarding menstruation and menstrual hygiene.<sup>17</sup> A gender equitable school environment is important for girls to engage in class and stay in school.<sup>67</sup> While education could dispel some restrictions (eg. Of foods or activities), beliefs and negative attitudes are deeply entrenched within the religious.<sup>68,69</sup>

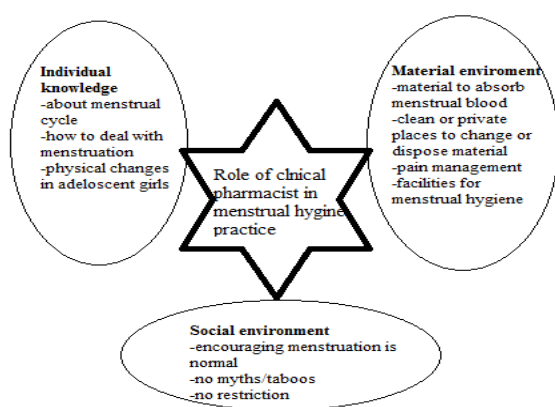


Fig 1<sup>70</sup> Elements necessary for menstrual hygiene practice

All MHM packages thus needs to strengthen mothers practical MHM knowledge to support girls and in schools teach about female reproductive physiology. Many countries resolve this through age and culture, appropriate sex and relationship packages in the school curriculum to familiarize children with puberty changes. By increasing the educational status of women in community the health status and cultural taboos can be overcome.<sup>19</sup> Low cost sanitary napkins can be locally made and distributed particularly in rural and slum areas as these are the areas where access to the product is difficult.<sup>31</sup> In most cases men and boys has less information on menstruation thus

increasing the knowledge about menstruation on boys and male partner about the nor optimistic thoughts, thus they can help their mothers, wives, daughters, employees, students and peers.<sup>14</sup> However, scientifically it is known that the actual cause of menstruation is ovulation followed by missed chance of pregnancy that results in bleeding from endometrial vessels and is followed by preparation of next cycle. Thus there is no reason for this inscription to endure that menstruating women are sinful.<sup>71</sup> We need to link physical infrastructure and water and sanitation projects to health education and reproductive health programs and address the issue in more holistic ways.<sup>72</sup>

### CONCLUSION

Pubescent girls and women should understand that menstruation is a normal biological activity and they has the ability to defeat this by their integrity.<sup>73</sup> Girls should educated about the facts of menstruation, physiological implications, significance of menstruation, and proper hygienic practices during menstruation. It is also required to bring them out of traditional beliefs, taboos, misconceptions and restrictions.<sup>17</sup> Availability of sanitary napkins and adequate provision for sanitation and washing should be made convenient on gender basis.<sup>19</sup> Government of India has approved a scheme to improve menstrual hygiene for 1.5 Crore adolescent girls by distributing low cost sanitary napkins in rural areas under the National Rural Health Mission since 2010.<sup>74</sup>

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