Challenges in Menstrual Hygiene Practices among Urban and Rural Women (Aged 15-45 Years) of District Pali in Western Rajasthan

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Abstract:

Introduction: In India, even today regressive socio-cultural norms pertaining to menstruation continue to thrive in many parts. The government in Rajasthan has been distributing sanitary napkins to girls in the age group 10-19 years through the Education & ICDS department since 2018. This study assesses utilization and acceptance of the sanitary pads distributed free of cost among adolescents and at a nominal rate to women and identifies the challenges in observing menstrual hygiene practices in semi arid areas. Method: A cross-sectional study was conducted among women aged 15-45 years in six urban wards and six sub-centre villages under the Rural Health and training Centre(RHTC) Gundoj. Keeping power of study at 80% adding the 10% non-response, 50% prevalence for hygienic menstrual practices, a sample size of 384 participants was taken, 192 each from rural and urban areas with 50% of the participants being school going girls. Results: Among school going participants, 184 (95.8%) in urban areas and 169(88%) were utilizing the free sanitary pads distributed in schools, rest used locally purchased “red cloth”. Average level of hygiene practices was comparatively more among urban participants, 173(90%) than rural women 77(40.1%) (p value<0.05).During menstruation performing religious activities, doing idol worship, eating and drinking water with family was taboo among 92% of both urban and rural respondents. Conclusion: Distribution of sanitary pads in schools is a successful intervention in Pali District. However, knowledge of healthy menstrual hygiene practices was low (23%) among rural women. Disposal of used pads and attitude towards social taboos need to be addressed in the rural areas of the district with better convergence between Education, ICDS and Health department for advocacy of healthy menstrual hygiene practices.

Keywords: Hygiene, Menstrual hygiene, Sanitary pads, Taboos

Introduction:

In India, even today regressive socio-cultural norms pertaining to menstruation continue to thrive in many parts. UNICEF and the WHO define Menstrual Hygiene Management as “Women using a clean menstrual management material to absorb or collect blood.”[1] Menstrual hygiene management also involves addressing harmful societal beliefs and taboos surrounding the issue.[1] Menstrual taboos are deeply rooted and contribute to gender inequality. Globally, 663 million people lack access to safe water and 2.4 billion people lack access to adequate
sanitation. Water, Sanitation and Hand Hygiene (WASH) services are vital for effective Menstrual Hygiene Management (MHM).

In various parts of India socio cultural practices are responsible for the use of unhygienic products to manage periods instead of much safer sanitary pads. Women are forbidden to bath or cleanse themselves properly during these days, which increase the threat posed to their health. There are varied practices regarding proper disposal of material used and social taboos imposed during this period.

In some settings menstruating women are viewed as impure, so they are separated from men and banned from using the same water sources in order not to contaminate them. These taboos and social beliefs have led some women to internalize this stigma, reporting that they feel dirty when menstruating and are ashamed of it.

Habits like changing sanitary napkins every four hours and washing hands every time sanitary napkin is changed are small but significant steps towards ensuring good hygiene during periods. Infections due to lack of menstrual hygiene and the lack of awareness among women regarding cleanliness of genital areas and access to safe menstrual hygiene products contribute to 97% of the problem.

According to the National Family Health Survey (NFHS-V), in India, 55% of women in the age group 15-24 years use sanitary napkins, 62% use cloth, and 16% use locally prepared napkins. Under the National Health Mission (NHM) the government has started the distribution of sanitary napkins at nominal rate and frontline workers like ASHAs, AWWs and ANMs. The Department of Health and Family Welfare, Rajasthan has been distributing beltless sanitary napkins in a pink plastic packing named "Freedom" to girls in the age group 10-19 years through the health department since 2018. Today girls in the age group 10-19 years who are enrolled in government schools get 12 pads per month from the school and those who are out of schools get the same from the anganwadi centres. However government made sanitary pads available from Accredited Social Health Activist(ASHAs) and Anganwadi worker (AWW) at a subsidized rate, Rs 2/- per pad as a form of social marketing.

The women from tribal and scheduled caste community in rural part of Rajasthan suffer from extreme lack of access to information about safer ways of managing periods as reported by many social activists proactively working for raising awareness regarding menstrual hygiene among them.

It is important to study the utilization and acceptance of the sanitary pads distributed free of cost among adolescents and at a nominal rate to women and identify the gaps in practices recommended for menstrual hygiene in semi arid areas.

Objectives:
1. To study the current menstrual hygiene practices and identify gaps in menstrual hygiene practices among women aged 15-45 years in semiarid urban and rural areas of Pali district
2. To study the acceptance and utilization of government distributed sanitary napkins in urban and rural areas of the district

Method:

This cross sectional study was conducted among women aged 15-45 years in six urban wards in the catchment area of District hospital and six sub-centre villages under the Rural Health and Training Centre(RHTC) at PHC Gundoj.

A pre tested semi structured questionnaire (modified and adapted to Indian context) was used by trained volunteers to collect data regarding knowledge, attitudes and practices of menstrual hygiene by interview of participants over a period of 6 months. The questionnaire was translated to vernacular language and back translated to English by two independent researchers.
An average score on seven knowledge points was taken and Good knowledge of menstruation and menstrual hygiene was given to those respondents who scored 5–7 points and Poor Knowledge was given to those who scored 0–4 points. The practice of menstrual hygiene score was calculated out of ten practice specific questions. Each correct response on recommended practices of menstrual hygiene earned one point and Good practice of menstrual hygiene was given to those respondents who scored more than or equal to 6 points.

Areas of survey in urban and rural areas were selected purposively but participants within the area were selected using simple random sampling until sample size was achieved. Studies have shown a variation of 25-70% in prevalence of hygienic menstrual practices. Keeping power of study at 80% adding the 10% non-response and average 50% prevalence for hygienic menstrual practices, a sample size of 384 participants was taken, 192 each from rural and urban areas with 50% of the participants being school going girls.

**Inclusion criteria:**

Women (15-45 years) who had attained menarche at the beginning of the study had been assessed for practice regarding menstrual hygiene.

**Exclusion criteria:**

Women not willing to take part in the study were excluded from the study. Women who were seriously ill were excluded from the study.

Data was analysed using Epi info software version 7.2 for proportions using appropriate statistical test of significance.

Ethical considerations: Institutional Ethical clearance was obtained and informed written consent was taken from all participants.

**Results:**

In this study, 192 participants were from urban area and 192 were from rural area of the district. Among the 384 participants, only 130(34%) were aware about the social marketing of sanitary napkins by the government. Around 223(58%) correctly described the reason for menstruation (bleeding from the uterus) and 173(46%) knew about the harmful effects of unhygienic absorbent material. Around 82(43%) participants in urban and 9(4%) in rural were buying commercially available napkins. Knowledge about proper disposal of napkins was found to be among 78.6% and 34% buried used cloth napkins in a pit in the house /fields in rural areas. Good knowledge of all points of healthy menstrual practices were among 23% in rural areas and 66% in urban areas (Table 1 reflects average of seven knowledge points). Among school going participants 184 (95.8%) in urban areas and 169 (88%) were utilizing the sanitary pads distributed free of cost in schools, rest used locally purchased “red cloth”. Among non school going participants 14% were utilizing the government distributed napkins available at a nominal cost at Anganwadi /health centres.

Average level of hygiene practices was comparatively more among urban participants 173(90%) than rural women 77(40.1%) (p value<0.05). (Table 2) Most participants (90%) of both urban and rural respondents wanted more knowledge regarding the subject from health workers.

During menstruation restrictions on performing religious activities, doing idol worship, using the kitchen, eating and drinking water with family, jumping and running and consequent absenteeism were reported by respondents.

**Discussion:**

Since February 2018, the Rajasthan government has been distributing sanitary napkins free of cost to rural adolescent girls and at a nominal charge to women. Further with a goal to encourage women in rural areas to adopt menstrual hygiene practices and handle their periods with dignity and safety, the government launched a menstrual hygiene management campaign on July 31, 2018. The
### Table 1: Key parameters of menstrual hygiene knowledge among urban and rural participants

<table>
<thead>
<tr>
<th>Variables</th>
<th>Area</th>
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<tbody>
<tr>
<td>Why menstruation happens</td>
<td>Urban (n1=192)</td>
<td>169(88.0%)</td>
<td>123(64.1%)</td>
<td>30.247</td>
<td>0.000</td>
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<td>It is blood from uterus</td>
<td>Rural (n2=192)</td>
<td>154(80.2%)</td>
<td>69(35.9%)</td>
<td>77.275</td>
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<td>It is normal physiological process</td>
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<td>Pain during periods is normal</td>
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<td>One should dry the cloth in sunlight before reuse</td>
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<td>168(87.5%)</td>
<td>108(56.3%)</td>
<td>46.377</td>
<td>0.000</td>
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<td>One should not reuse cloth till it tears /beyond 6 months</td>
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<td>157(81.8%)</td>
<td>90(46.9%)</td>
<td>50.941</td>
<td>0.000</td>
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<td>One should dispose in plastic/paper cover</td>
<td></td>
<td>173(90.1%)</td>
<td>129(67.2%)</td>
<td>30.020</td>
<td>0.000</td>
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<td>Total Score (one point for each of the seven knowledge points)</td>
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<tr>
<td>Good knowledge(5-7 points)</td>
<td></td>
<td>127(66.1%)</td>
<td>44(22.9%)</td>
<td>72.629</td>
<td>0.000</td>
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<td>Poor Knowledge(0-4 points)</td>
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<td>65(33.9%)</td>
<td>148(77.1%)</td>
<td>72.629</td>
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### Table 2: Key parameters of menstrual hygiene practices among urban and rural participants

| Variables                                      | Area                       |          |          |          |          |          |          |          |          |          |          |          |          |          |
|------------------------------------------------|----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Use government distributed sanitary pa (free of cost) materials during menstruation | Urban (n1=192)             | 184(95.8%) | 169(88.0%) | 7.895    | 0.005    |          |          |          |          |          |          |          |          |
| Uses commercially available brands             | Rural (n2=192)             | 82(43.0%)  | 8(4.2%)   | 0.844    | 0.358    |          |          |          |          |          |          |          |          |
| Buy red cloth from ladies stores and use       |                            | 2(1.0%)   | 23(12.0%) | 18.868   | 0.000    |          |          |          |          |          |          |          |          |
| Clean red cloth with soap and water            |                            | 5(2.6%)   | 2(1.0%)   | 1.310    | 0.252    |          |          |          |          |          |          |          |          |
| Dry used cloth in sunlight                     |                            | 2(1.0%)   | 2(1.0%)   | 0.000    | 1.000    |          |          |          |          |          |          |          |          |
| Change pads or cloth more than once /day and above during menstruation |                            | 90(46.9%)  | 67(34.8%) | 5.700    | 0.017    |          |          |          |          |          |          |          |          |
| Disposes used sanitary pads in dustbin in plastic bag |                            | 65(33.9%)  | 125(65.1%)| 37.504   | 0.000    |          |          |          |          |          |          |          |          |
| Uses paper to dispose the pads by wrapping in paper |                            | 146(76.0%) | 19(9.9%)  | 171.400  | 0.000    |          |          |          |          |          |          |          |          |
| Bury the pad/cloth used in pit/soil            |                            | 2(1.0%)   | 48(25.0%) | 48.655   | 0.000    |          |          |          |          |          |          |          |          |
| Takes bath daily with soap during menstruation |                            | 184(95.8%) | 173(90.1%)| 4.820    | 0.028    |          |          |          |          |          |          |          |          |
| Clean external genitalia during menstruation   |                            | 165(85.9%) | 134(69.8%)| 14.520   | 0.000    |          |          |          |          |          |          |          |          |
| Practice (summary index)                       |                            |          |          |          |          |          |          |          |          |          |          |          |          |
| Good practices (follow≥6 recommended practices) |                            | 173(90.1%) | 77(40.1%) | 105.640  | 0.000    |          |          |          |          |          |          |          |          |
campaign, which was a joint effort between the departments of Women and Child Development, Panchayati Raj and Rural Development, and Health and Family Welfare, addresses the issue of taboos related to menstruation and encourage women in rural areas to speak more freely on “chuppitododiwas” every three months about menstrual hygiene issues. Our study showed good acceptance 96% and 88% respectively in urban and rural areas of the sanitary pads distributed among adolescent girls in schools and Anganwadis. However in rural areas 14% of women continued to use the red cloth or “kapda” which was not properly sun-dried after use. It was dried inside homes in unhygienic corners inside or outside where it could not be seen. This is similar to the study by Choudhary N et al (2019) in rural areas of adjacent Jodhpur district. Knowledge levels about healthy menstrual practices were higher in urban areas (66%) as compared to rural areas (23%). This is similar to the finding from other studies done in Rajasthan in Jodhpur and Udaipur.

However cultural taboos existed in both rural and urban areas in Pali wherein menstruating girls do not visit religious places, do not water the holy basil (tulsi) and do not even enter the kitchen. This is similar to the findings in other studies by DeoDS et al (2005), Grace G et al (2019 in Kancheepuram) and Shaili V (2021).

Women of rural area were less aware about bleeding from the uterus in comparison to urban (14% versus 73%) in this study, which is also evident from a study done by Kalpana Katiyar et al 2013 in Meerut. The possible reason for lower awareness among rural girls is lack of literacy of their mother, sisters, friends or elderly female relatives who are usually the greatest source of information.

Bathing and keeping external genitalia clean were practiced equally in both urban and rural areas especially in households with access to closed toilets. The safe disposal of napkins in an environment-friendly manner is a real challenge in semi-arid areas. Regarding disposal practices, in rural areas sanitary pads were mostly thrown in dustbins or buried in the ground/fields. In urban areas pads were wrapped in plastic or newspaper and disposed in dustbins. In a study by Kothari B (2010 Jaipur) similar practice of disposal was seen. Lack of toilet facilities at school with no dustbins, lockable toilet doors and lack of water led to discomfort in changing pads and hence absenteeism among rural and urban adolescents. Vashisht R et al (2018) and Jothy K et al (2012) also reported similar findings.

Conclusions:
Distribution of Sanitary pads in schools is a successful intervention of NHM in Pali District. However knowledge of healthy menstrual hygiene practices was low among rural women. Soft and absorbent pads supplied in schools were used by 93% of respondents; rest used locally purchased red cloth. Among the respondents 90% wanted more knowledge from health workers regarding the subject.

Recommendations:
Disposal of used pads and attitude towards social taboos need to be addressed in the rural areas of the district. Better convergence between Education, ICDS and Health department for advocacy of healthy menstrual hygiene practices is required. Self help groups and NGOs can further advocate use and proper disposal of free sanitary napkins. Menstrual hygiene day on May 28 should be commemorated more openly to spread awareness on the issue.

Declaration:
Funding: Nil
Conflict of Interest: Nil

References:
7. Directorate of Medical, health and family welfare, http://rajswasthya.nic.in [last accessed on 21 July 21]