Short Communication

Menstrual Hygiene Practices and Constraints in Availing Government Sanitary Pad Provision among Adolescents in Rural Puducherry: A Mixed Method Study

Gayathri Surendran, Mamta Gehlawat, Shanthosh Priyan, Sonali Sarkar
Department of Preventive and Social Medicine, JIPMER, Puducherry, India

Abstract

Context: Although free and subsidized sanitary pads are provided by the government, proportion of adolescents availing this service remains low. **Aims:** The aim of the study was to determine the proportion of adolescent girls availing supply of sanitary napkins from a rural health training center (RHTC) in Puducherry; to assess the level of satisfaction with government supply; and to identify reasons for not accessing the same. **Subjects and Methods:** The mixed-method cross-sectional study done in July 2017 included 240 adolescent girls living in the RHTC service area of a tertiary care institute. Quantitative data were collected house to house with a pretested semi-structured questionnaire and qualitative data from a focused group discussion. **Results:** Sanitary pads were used by all of the participants who achieved menarche. Of them, 87 (40.2%) used pads purchased outside and 127 (58.8%) used both government supply and private purchase. Reasons for not availing government supply were insufficient quantity and low quality, lack of information about the government provision, and accessibility issues. **Conclusions:** Ensuring better quality and adequate quantity of sanitary pads supplied by the government along with increased awareness about the government provision can increase the utilization of the same by rural adolescents.

Keywords: Adolescent, India, menstrual hygiene products, primary health care

Introduction

According to Census 2011, India is home to around 250 million adolescents of which around 45% are females.[1]

Use of unhygienic measures to handle menstruation has been found to cause and worsen reproductive tract infections.[2,3] However, menstruation continues to be a stigmatic subject associated with misconceptions.[4-7] According to National Family Health Survey 4, only 57.6% of women aged between 15 and 24 years use hygienic methods of protection during menstruation which dips to 48.2% in rural areas.[8] The preferred absorbents are reusable cloth pads in rural areas and commercial sanitary pads in urban areas.[4,9,10] Mixed use is also reported, especially among adolescents who prefer to use pads during school hours and during heavy flow.[11]

A designated menstrual hygiene scheme was introduced under the National Health Mission by the Government of India.[12] The scheme was initially implemented in 2011 in 107 selected districts, wherein a pack of six sanitary napkins was provided to rural adolescent girls for Rs. 6. From 2014 onward, funds are now being provided to States/union territories (UTs) under National Health Mission for decentralized procurement of sanitary napkins.[12] Puducherry is a UT that records a coverage of 96.9% hygienic menstrual product usage, with free government supply of pads for adolescent girls.[13] Earlier studies show a trend of increased sanitary pad uptake from 2010 to 2017.[6,14]

It is necessary to assess the acceptance of adolescent girls toward sanitary pads provided by the government. However, there is a lacuna in literature regarding this. This study was undertaken to determine the proportion of adolescent girls

Access this article online

Quick Response Code:

Website: www.ijcm.org.in

DOI: 10.4103/ijcm.IJCM_243_20

Address for correspondence: Dr. Sonali Sarkar, Department of Preventive and Social Medicine, JIPMER, Gorimedu, Puducherry - 605 006, India.
E-mail: sarkarsonaligh@gmail.com

How to cite this article: Surendran G, Gehlawat M, Priyan S, Sarkar S. Menstrual hygiene practices and constraints in availing government sanitary pad provision among adolescents in rural Puducherry: A mixed method study. Indian J Community Med 2021;46:288-91.

Received: 15-04-20, **Accepted:** 09-03-21, **Published:** 29-05-21

availing supply of sanitary napkins from a rural health training center (RHTC) in Puducherry, to assess the level of satisfaction with the pads supplied, and to identify reasons for not accessing the government supply of sanitary napkins.

Subjects and Methods

The community-based cross-sectional study was conducted in July 2017 among girls aged 10–19 years in the practice area of the RHTC of a tertiary care institute. Adolescent Friendly Health Services clinic is conducted on all Saturdays. The population of adolescent girls is 720 according to the enumeration conducted by the health center in 2015.

The sample size was calculated to be 224 presuming that 30% of the study population use government supply of sanitary pads, with 20% relative precision and 95% confidence interval, based on the adolescent clinic registry and a previous study.[6] Systematic random sampling of households was done. If the selected household did not have an adolescent girl, the adjacent household was chosen. KISH technique was applied to if there were more than one adolescent girl per household. The survey was conducted by trained interns, under the supervision of residents posted in RHTC.

It was an explanatory mixed methods study, where the qualitative data collection was undertaken following quantitative data analysis. The tool for quantitative data collection was a semi-structured questionnaire, which collected details related to sociodemographic characteristics and menstrual practices. The above poverty line/below poverty line (BPL) classification was based on the color of the ration card. The reason for not preferring government supply was an open question.

The questionnaire was administered by the data collection personnel after obtaining consent for participation. After quantitative data collection, participants who did not avail free sanitary pads were invited to participate in the focus group discussion (FGD). Only eight eligible participants consented to being part of the discussion and all of them were included. Reasons for refusing participation were shyness to talk further about the topic and time constraints. The FGD was moderated using an interview guide by two female researchers trained in qualitative methods. None other than the researches, and participants were present. Discussion was conducted in Tamil, audiorecorded, and later transcribed and translated to English. There were no repeat interviews. Data saturation could not be explored due to nonconsent of other participants.

Quantitative data entry was done on Epidata version 3.1 and analysis on STATA 14.2 (StataCorp, College Station, TX, USA). Thematic analysis was done for qualitative data to generate codes and subthemes. The study was approved by the department review board.

Results

The total number of adolescent girls who were recruited into the study was 240. The mean (standard deviation [SD]) age of participants was 15 (2) years and ranged from 10 to 19 years and around half (51.3%) were late adolescents. Majority of the participants belonged to BPL families (82.9%) and were unmarried (98.8%). All of them were literate and currently pursuing school or college. Out of all the participants, 216 had attained menarche. The mean age at menarche was 11 (4) years ranging from 10 to 16.

All the participants who had attained menarche were included for the analyses related to menstrual hygiene practices. Table 1 summarizes the practices found among the study population. All the participants used sanitary pads as the main menstrual hygiene product, with or without cloth. The mean (SD) number of pads used per cycle was 16 (7) with minimum of 5 and maximum of 30. The mean frequency of changing pads was 5.3 (2.3) h.

Out of all the participants, 93 (72.1%) were satisfied with the quality of the pads, but only three (2.3%) were satisfied with the quantity provided. Table 2 summarizes the reasons for not availing government supply at all. The main reasons cited were lack of awareness, problems with quantity and quality. The reasons for dissatisfaction as well as reasons for not availing government supply were explored later during the qualitative data collection. The conceptual framework generated from the content is represented in Figure 1.

The main themes derived from the interview are as follows:

Product marketing

Awareness about the napkins was an issue. One of the participants was not aware about there being a government supply at all. She mentioned that if she knew earlier, she may have tried it.

"I came to know about this supply only after you asked" (12G)

Table 1: Menstrual hygiene practices among adolescents residing in rural Puducherry (*n*=216)

Variable	Frequency, *n* (%)
Type of absorbent used	
Sanitary pad	214 (99.1)
Both sanitary pad and cloth pad	2 (0.9)
Number of sanitary pads used per cycle	
1-6	3 (1.4)
7-12	40 (18.5)
13-18	69 (31.9)
19 and above	104 (48.2)
Frequency of changing pads	
6 h or less	181 (83.8)
>6 h	35 (16.2)
Method of disposal	
Burning	167 (77.3)
Disposal along with routine waste	31 (14.4)
Burial	17 (7.9)
Flushing in toilet	1 (0.4)
Source of sanitary pads	
Government supply	2 (0.9)
Own purchase	87 (40.3)
Both	127 (58.8)

Table 2: Reasons for not availing government supply of pads (*n*=87)

Reason	Frequency, *n* (%)
Unaware	25 (28.7)
Pads are insufficient	25 (28.7)
Pads are of low quality	24 (27.6)
Source is too far	10 (11.5)
Pads are uncomfortable	2 (2.3)
Increased soakage	1 (1.2)

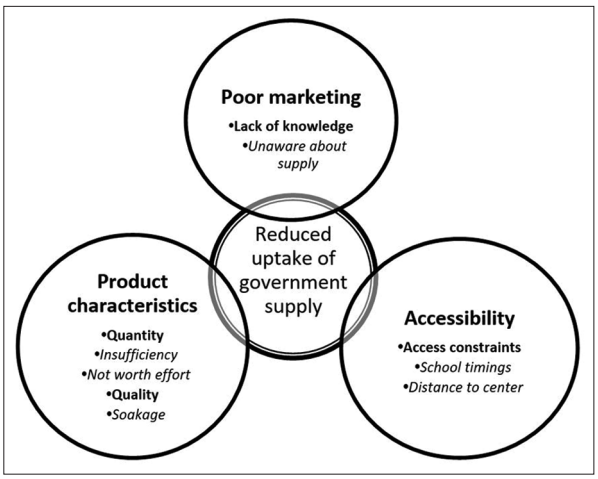

Figure 1: Conceptual framework of factors influencing uptake of government provision of sanitary napkins among adolescents in rural Puducherry (original figure)

Product characteristics

The other subthemes that emerged were characteristics of supply. Almost all participants agreed that six pads are insufficient to cover a monthly cycle. The lesser number makes the journey to the center seem cumbersome. Hence, many adolescents felt that it was better to go with the private supply completely.

"I need at least 12 pads per cycle. But the sister gives only 6" (15G)

"I have to get rest of the pads in shops anyway, so why take the effort for only these many" (17G)

Those who were willing to come were not happy with the quality. They said that the pads soak through easily and hence need to be changed every 3–4 h, which is difficult in the school setting. Furthermore, there were higher chances of slippage and stains since the free pads do not have wings to attach them securely.

"It stained my dress when I used it" (12G)

"It gets soaked in <4 h. How can I keep changing?" (15G)

"It folds because it has no wings, so I cannot use it in school" (16G)

Accessibility

Many of the older students have classes on Saturdays and hence are not able to come to the clinic to collect the pads. The distance to the center is also a problem for those who live more than a kilometer away. It was suggested that they may be able to use the pads if provided in the nearby anganwadi centers instead of the clinic.

"I have to walk nearly 2 kilometers to the clinic. Maybe if it was supplied in anganwadi, I will get it" (16G)

"We have school on Saturdays also, so I cannot come to the clinic to get it" (17G)

Discussion

Almost all menstruating adolescent girls in this study used sanitary pads. In spite of having a platform for improving adolescent menstrual practices, the acceptance of the government product was less among the target population. The quantity of pads supplied was not sufficient to cover a cycle, which acted as a deterrent in approaching clinics. Among those who used government supplied pads, the quality of pads was an issue.

The findings are similar to another study done among menstruating women where all the participants used sanitary pads with or without cloth pads.[6] Their main reasons for not getting government supplied sanitary pads were that the supply was limited to adolescent girls. Among adolescents, one reason was distance constraint, similar to our study. Since the Government of India has framed guidelines to allow supply through Anganwadis as well as door-to-door through Accredited Social Health Activists workers, this reason can be easily mitigated. Another study done in a different region of Puducherry also has similar findings, with a slightly higher proportion mixing cloth and commercial pad use.[15]

The study highlights that government propositions and public health measures may need to be tailored to account for customer choices and local needs. With data pointing toward good uptake of hygienic menstrual management in Puducherry, and with a shift away from the use of cloth, government supply of pads needs to be increased to meet the demand. The number of pads needed for a cycle changes from person to person. This needs to be addressed by providing a personalized and differential supply. Since most of the adolescents manage with private purchase of sanitary napkins, moving away from free provision and embracing subsidized napkins would be a sustainable option in the long term. Suboptimal utility acts as a barrier to uptake. The quality of napkins should be improved to make sure that they do not soak through easily and stay in place with the help of wings.

The study has many strengths. It is one of the few studies assessing coverage of government supply of sanitary napkins and studying reasons for not availing the same. Qualitative study was conducted along with quantitative to triangulate the results. Sample size was adequate to get a representational sample of the population and ensures generalizability to other regions of the UT. The main limitation of the study was that it was a single-center study, so results may be influenced by the

existing sociodemographic characteristics of the community. Furthermore, more than one FGD could not be conducted, hence there could be further reasons that were missed.

Conclusions

Most of the adolescents prefer private purchase of sanitary napkins. Ensuring quality, increasing quantity of supply to meet differential need, and increasing awareness about the government provision may increase the utilization of the same by rural adolescents.

Acknowledgement

We would like to acknowledge the contribution of all the staff and interns who were posted at the health centre during the study period.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Census of India Website: Office of the Registrar General & Census Commissioner, India. Available from: http://censusindia.gov.in/2011-Common/CensusInfo.html. [Last accessed on 2020 Apr 01].
2. Anand E, Singh J, Unisa S. Menstrual hygiene practices and its association with reproductive tract infections and abnormal vaginal discharge among women in India. Sex Reprod Healthc 2015;6:249-54.
3. Torondel B, Sinha S, Mohanty JR, Swain T, Sahoo P, Panda B, *et al*. Association between unhygienic menstrual management practices and prevalence of lower reproductive tract infections: A hospital-based cross-sectional study in Odisha, India. BMC Infect Dis 2018;18:473.
4. Kaur R, Kaur K, Kaur R. Menstrual hygiene, management, and waste disposal: Practices and challenges faced by girls/women of developing countries. J Environ Public Health 2018.
5. Shah SP, Nair R, Shah PP, Modi DK, Desai SA, Desai L. Improving quality of life with new menstrual hygiene practices among adolescent tribal girls in rural Gujarat, India. Reprod Health Matters 2013;21:205-13.
6. Chandar D, Vaishnavi Y, Priyan S, Ganeshkumar S. Awareness and practices of menstrual hygiene among females of reproductive age in rural Puducherry-A mixed method study. Int J Adolesc Med Health 2018;1.
7. van Eijk AM, Sivakami M, Thakkar MB, Bauman A, Laserson KF, Coates S, *et al*. Menstrual hygiene management among adolescent girls in India: A systematic review and meta-analysis. BMJ Open 2016;6:e010290.
8. Ministry of Health and Family Welfare, Government of India. National Family Health Survey 2015-16-India. Mumbai: International Institute for Population Science; 2016.
9. Dasgupta A, Sarkar M. Menstrual hygiene: How hygienic is the adolescent girl? Indian J Community Med 2008;33:77-80.
10. Paria B, Bhattacharyya A, Das S. A comparative study on menstrual hygiene among urban and rural adolescent girls of West Bengal. J Family Med Prim Care 2014;3:413-7.
11. Elledge MF, Muralidharan A, Parker A, Ravndal KT, Siddiqui M, Toolaram AP, *et al*. Menstrual hygiene management and waste disposal in low and middle income countries-A review of the literature. Int J Environ Res Public Health 2018;15:2562.
12. Menstrual Hygiene Scheme (MHS). National Health Mission. Available from: https://nhm.gov.in/inde×1.php?lang=1&level=3&sublinkid=1021&lid=391. [Last accessed on 2020 Apr 01].
13. Ministry of Health and Family Welfare, Government of India. National Family Health Survey 2015-16-Puducherry. Mumbai: International Institute for Population Science; 2016.
14. Boratne AV, Datta SS, Vijaykumar K. Socio-demographic aspects of selected menstrual hygienic practices among adolescent school girls in Pondicherry. Nat J Community Med 2016;7:510-4.
15. Mathiyalagen P, Peramasamy B, Vasudevan K, Basu M, Cherian J, Sundar B. A descriptive cross-sectional study on menstrual hygiene and perceived reproductive morbidity among adolescent girls in a union territory, India. J Fam Med Prim Care 2017;6:360-5.