International Journal of Community Medicine and Public Health
Gautam KR et al. Int J Community Med Public Health. 2021 Jul;8(7):3331-3335
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20212582

Original Research Article

Menstrual hygiene management practice among adolescent girls: a cross sectional study in Nepal

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Received: 13 April 2021
Revised: 14 May 2021
Accepted: 15 May 2021

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ABSTRACT

Background: Good menstrual hygiene is fundamental to health, hygiene and well-being of women and girls. As menstruation itself considered as taboo in Nepalese society, it has direct impacts on the health of the women and adolescent. The objective of the study is to assess the knowledge and practices regarding menstrual hygiene management among adolescent girls.
Methods: A cross- sectional study design was conducted among 398 samples. Simple random sampling was done to select the resource center schools and probability proportionate sampling (PPS) technique used to get sample size. Structured interview schedule is used to collect data and analysed from SPSS software after validation.
Results: Knowledge on menstrual hygiene management was good in urban adolescent girls (93.69%) as compared to rural (6.31%). Similarly, level of practice was good regarding menstrual hygiene management was good in urban adolescent girls (91.29%) as compared to rural (8.71%). Place of the residence and knowledge level of the adolescent girls was highly significant ($p<0.001$).
Conclusions: The findings showed that rural adolescent girls had poor knowledge, various misconceptions and inadequate practices regarding menstrual hygiene management.

Keywords: Menstrual hygiene management, Adolescent girls, Residence, Practice

INTRODUCTION

Good menstrual hygiene is fundamental to health, hygiene, and well-being of women and girls everywhere. Menstruation remains a taboo in many societies and various negative cultural attitudes and beliefs are still associated with it. Some cultural beliefs around menstruation reinforce gender inequities and have a negative impact on the dignity, health and education of women and girls.[1] In global context, developing countries has big issues on menstruation but developed countries do not consider menstruation as taboos and stigma, they had good menstrual knowledge and menstrual hygiene practices. In many countries, menstruation is considered as a sub-topic within the WASH sector while it is a human rights issue that affects the lives of the reproductive aged female (26% of world population) every month.[2,3]

Currently a raised level of interest on the issue, and an increasing number of initiatives are being designed to address the gap through a large high level inter-sectoral meeting on Menstrual Hygiene Management (MHM) at

United Nations.[2] Over the last few decades, there has been growing attention within the global humanitarian emergency response community to address the menstrual hygiene management (MHM) needs of adolescent girls and women.[4]

Majority of the school girls (60.9%) had good knowledge and nearly two fifth (39.9%) school girls had good practice of menstrual hygiene in western Ethiopia.[5] A study conducted in Chitwan district of Nepal showed that the knowledge and practice were 40.6% and 12.9% respectively among adolescent girls.[6] Similarly, another study conducted at Sunsari district of Nepal revealed that majority (67.2%) of girls agreed to use the sanitary pad whereas only 54.1% used it.[7]

Chaupadi is a long held and widespread practice more than 95 percent in Nepal where adolescents and women are kept in shed during the menstruation period.[3,8] The practice still retains a foothold in the country's western region and myths surrounding women's natural cycles. Even in regions where Chaupadi is not practiced, taboos surrounding menstruation still affect women and girls. The effects of Chaupadi are extremely dehumanizing and psychologically stressful with young girls. There is high school dropout among adolescent girls of age group 10-14 due to menstruation related problems.[9] Therefore, the study was conducted to assess the knowledge and practices regarding menstrual hygiene management among adolescent girls.

METHODS

Quantitative descriptive cross sectional study was conducted among the secondary school of Gorkha district, western region of Nepal with sex ratio of 100:108 (males: females). (10) The study population was adolescent girls aged (11-19 years) who were attending secondary level education. Sample size was 398 considering 50% prevalence and 5% error at 95% confidence level, who had already attended menarche and those took participate with full consent were included in this study. However, who were absent in data collection day were excluded from this study. Simple random sampling technique was done to select the resource center schools for urban (2) and rural (4) settings. Similarly, probability proportionate random sampling was done to select the adolescent girls from the resource centers.

Face to face interview with a validated structured interview schedule was administered to the adolescent girls for data collection. Study was conducted from January 2020 to September 2020. Ethical approval was obtained from the Institutional ethics committee of Nitte University. Verbal consents were taken from all the selected adolescent girls after permission from the resource center schools. The data management and analysis were performed by using Statistical package for social sciences (SPSS) 20 version. The analyzed data were interpreted by frequency, percentage, mean, and chi square test. Median was measured from the total of knowledge (11) and practice (16) related questions respectively as the cut off points for good and poor.

Patient and public involvement statement

Patients were not involved in this research. During the development of research questions and design of the study, participants were not directly involved but researchers had followed the similar literature. After selection of the study participants, they were consented and briefed on the purpose and usefulness of the findings. A brief fact sheet and the article will be provided to the schools for awareness and better practice.

RESULTS

Among 398 participants, more than half (52%) were from rural area and remaining 48 percent were from urban area.

Table 1: Socio demographic characteristics of participants.

Variables	Frequency	Percent
Place of residence		
Rural	207	52
Urban	191	48
Age of the participants (years)		
11	113	28.4
12	146	36.7
13	68	17.1
14	69	17.3
15	2	0.5
Participants mother education		
Un-educated	99	24.9
Read and write	85	21.4
Primary	23	5.8
Secondary	9	2.3
Secondary above	182	45.7
Participants class		
Seven	206	51.8
Eight	135	33.9
Nine	57	14.3
Participants sister		
Yes	270	67.8
No	128	32.2
Menstrual knowledge before menarche		
Yes	326	81.9
No	72	18.1

The mean age of participants was 12.24±1.06 years (Ranges from 11 to 15 years). Nearly half (46%) of the participants' mother had completed above secondary level, 30 percent mothers were uneducated and 21 percent can read and write. More than half of the participants were

from class seven (51.8%), remaining 33.9% and 14.3% were from class eight and nine respectively.

Table 2: Knowledge on menstrual hygiene management.

Menstrual Hygiene Characteristics	Frequency	Percent
Heard about reusable Sanitary Pad		
Yes	291	73
No	107	27
Methods to clean the used pads		
Normal	70	18
Soap/Detergent/Water	328	82
Clean genital organ during menstruation		
Yes	290	73
No	108	27
Maintain personal hygiene		
Pad change daily	339	85
Pad change on needs	309	76

Majority of the participants had got menarche at the age of 12 years and four fifth (81%) of the participants had information about menstruation and menstrual hygiene.

Table 3: Level of knowledge and practice.

Level	Knowledge (%)	Practice
Good	48	49
Poor	52	51

Among the total participants, almost all (91%) had acquired information from their friends, 74 percent from self-study and 69 from family, followed by 61 percent and 54 percent from teachers and media respectively. Regarding the changes occur in the body during adolescent, almost all (93.7%) of the participants said body and genital hair, 85.9 percent told increment in the breast size and 84.8 percent replied changes in voice. The meaning of menstruation as per the participants was dirty blood excretion (81.0%) followed by physiological process (62%), un-natural process (41.9%), normal body change (41.2%), curse (21.9%) and disease process (19.8%).

More than half (52%) of participants had poor knowledge level and remaining 48% of participants had good knowledge level regarding menstrual hygiene management practices. Nearly half of the participants (45.2%) used old clothes, 28.4 percent used new clothes where rest of them used sanitary pads. Participants who always used the sanitary pads, 40.2 percent got from the shops, 30.2 percent got from the medical shops and 29.6 got from the school. It was found that 26 percent of the respondent missed the school and remaining did not. Likewise, more than half (58%) of the participants were not allowed to move around with friends.

More than one fourth (28.51%) of participants had poor practice and remaining 49% of participants had good practice regarding menstrual hygiene practices. Most of the participants (82%) had used soap/detergent water and nearly one fifth (18%) of the participants used normal water to clean their used pad during the menstrual time. Within family, more than half (57%) of the participants had shared pad with sister and mother and 43 percent had not.

Place of the residence with knowledge level regarding menstrual hygiene management of the participants had showed highly significant, where the chi-square value is 3.33 and $p<0.001$. Participants from urban area had good knowledge and good practice level compared to the rural area participants. Similarly in practice, urban participants had good practice level than the rural area with mean±SD, 22.08±2.43 and 14.41±2.76 respectively.

Table 4: Multivariate analysis on place of residence with practice level*.

Place of residence	Frequency	Percent	P-value	95.0% C.I. for AOR		
				AOR	Lower	Upper
Rural	207	52	<0.001	0.018	0.006	0.053
Urban	191	48		Ref		

*Other variables were education, elder sisters at home

DISCUSSION

The present study shows that 83 percent of the participants were aware of menstruation before menarche. This is similar to the findings of many other studies who found that majority of the girls were aware about menstruation before menarche.[11-13] In most of the study, participants were highly aware in menstrual hygiene before getting menarche while main source of information about menstruation were friends (91%), self-study (74%) followed by family (mother-69%), teacher (61%) and media (54%) in this study. Various studies in India and Nepal showed that mother was the main source of information about menstruation.[7,14,15]

In present study, 81 percent of the participant responded the normal age for menarche is 12 years which is similar to a study conducted in Patahani (78%).[6]

Majority (62.8%) of participants reported that menstruation is physiological process, 81% told dirty blood excretion process and 21.9% participants told it is due to curse. In contrast to the study, more than four fifth (82%) believed curse as meaning of menstruation while 12 percent participants thought pathological and remaining six percent told physiological process.[6] The study participants were more aware about menstruation and menstrual hygiene management.

Present study shows 52.3 percent had poor knowledge level and 47.7 percent had good knowledge level which is different to a study in north western Nigerian where only 8.5% had poor knowledge.[16]

During the period of menstruation, 26.4 percent of the participants had used sanitary pad, where 45 percent of participants had used sanitary pad either one time or continuously. Another study done in Nepal showed participants were using old clothes and only two percent of participants were using sanitary pad.[6] Likewise, a study in Hyderabad, India showed that only 11.3 percent were using sanitary pad for the absorbents of the menstrual blood. More than four fifth (82%) of the participants used soap/detergent water and 18 percent had washed with normal water for cleaning pad. In Hyderabad study, 82.2 percent of participant girls used both soap and water.[7,17]

In cases of re-used cloth, the places of its drying which were observed, was rope outside the house in sunlight (44%) and dried them inside the house (56%). In Nagpur study, more than half (51.3%) dried their washed pad outside of house to the sunlight and 47.4 percent dried them inside the houses where they wash.[3]

Eighty nine (89%) of the participants in this study practiced restriction to touch kitchen food and utensils, and other different type of restriction. Likewise, 42 percent of the participants were not allowed to stay and move outside. A similar study shows that seventy three (73.64%) girls practiced some form of restriction on daily activities and chores.[3]

In this study, almost all (90.4%) participants had used sanitary pad from urban area and only 14.6% from the rural area. Using sanitary pad during the period of menstruation in rural and urban area was highly significant (chi-square-1.030, $p<0.001$). Similar to our study, more urban adolescent girls (60.6%) had used sanitary pad than rural area girls (30.8%) ($p=0.001$).[3]

Similarly, practice level regarding menstruation in rural and urban area was highly significant. In rural area, only 8.2% of the participants had good practice level where in urban area, 93.2% participants had good practice regarding menstrual hygiene management.[3]

The difference in the knowledge regarding menstruation in rural and urban area was highly significant. In rural area, only 6.4% had good knowledge but in urban area 93.6% of the participants had good knowledge level regarding menstruation which is similar to a study in West Bengal.[12] The study left out the young girls above 19 years and not generalizable in developed country were the limitations.

CONCLUSION

Menstruation is big taboos in Nepalese society. While comparing the rural and urban area adolescent girls; urban participants had good knowledge level and practice level than rural girls. The findings led to the conclusion that in rural areas, the adolescent girls had poor knowledge, various misconceptions and poor practices regarding menstrual hygiene management. Taking into account the health implications and prevailing socio-cultural and economic factors, there is an urgent need for intensifying effective strategies to persuade the adolescent school girls to adopt menstrual hygiene management practices. Moreover, the education and behavioural changing activities regarding menstrual hygiene management should be provided to adolescent girls.

ACKNOWLEDGEMENTS

We acknowledge the support from Nitte University, participants' adolescent girls of the study and the resource center schools.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Gautam KR, Dahal HR, Karki K, Acharya S, Subedi S, Upadhyay A et al. Menstrual hygiene management practice among adolescent girls: a cross sectional study in Nepal. Int J Community Med Public Health 2021;8:3331-5.