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SANITARY PAD USAGE AND ANALYSIS OF BOTTLENECKS AND BARRIERS IN ITS ADOPTION AMONG WOMEN RESIDING IN THE FIELD PRACTICE AREA OF MADHUBANI MEDICAL COLLEGE

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Abstract

Introduction: Good mensural hygiene is essential for improve reproductive health of women. Usage of sanitary pad is critical step towards this goal.

Objectives: To estimate the prevalence of sanitary pad usage and ascertain various perceived barrier which prevents it usage.

Methodology: We carried out a descriptive cross-sectional study using a mixed methodology among women in reproductive age residing in the field practice area of Madhubani medical college

Results: The mean age of women (Table I) under study was 26 $\pm$ 9.8years. The mean age of onset of menarche was 11$\pm$ 2.9 years. We found that 68% of the women residing in field practice area of Madhubani medical college don't use sanitary pad. On Bottle neck analysis we found that one of the major hinderance to non-usage of sanitary pad was lack of supply to good quality low cost sanitary pad.

Conclusion: The prevalence of sanitary pad usage among women residing field practice area of Madhubani medical college was 32%. Majority of women were of opinion that non availability of low-cost good quality sanitary pad was the major bottle neck which prevented usage among them.

Introduction

The onset of mensuration changes a girl's life and is often used to mark her entry into womanhood. However, this natural biological process has strong sociocultural connotation in various parts of the world, including India(1).Globally including India women have developed their own personal strategies to handle this part of their monthly cycle. These practices are based on cultural belief, economic status, availability of recourse's and their personal preferences. The menstrual unhygienic methods have a negative impact on women health and can lead to serious genitourinary complication which may have catastrophic consequences(2).Various studies(3)(4)(5) from India have shown that majority of young girls especially from rural areas have no idea about mensuration at the onset of menarche, and regard to this natural menstrual phenomenon cycle becomes as dirty or polluting by adopting unsanitary methods.

Studies (6)(7) from Bihar have shown that only a meager of 12-20% of women adopting hygienic methods like sanitary pads and majority of them were even unaware of safe menstrual hygiene practice methods. The biggest barrier faced by these women was price of the pads which can afford monthly by most and additionally poor awareness about the maintenance as well as importance of menstrual hygiene.

In Madhubani district 96.4% of population resides in the rural area(8).NFHS 4 (9) data from the year 2016 has shown that the women literacy rate is 40.9% which much lower when compared to that of state level 51.5%. There is a paucity of data about mensural practice methods adopted by the women residing the field practice area of Madhubani Medical College (MMC). The present study is designed based on this fact and also to estimate the burden of problem. Thus the present study may enhance the awareness among the study population that help them to adopt healthy menstrual hygiene practices to increase their quality of life.

Objectives

i.To estimate the prevalence usage of sanitary pad among women residing in the field practice area of Madhubani Medical college

ii. To ascertain various perceived barrier among women regarding the usage of sanitary pad.

Methodology

The present study is descriptive cross-sectional study conducted using a mixed methodology among women in reproductive age group residing in the rural field practice area of Madhubani Medical college. After taking informed consent and the approval of the protocol review committee and institutional ethics committee . The rural field practice area of the college caters to a population of 36555 residing in 9218 households. Women from these households were selected randomly using a systemic sampling method. Sample size was calculated using the formula 4pq/d2, where p is the prevalence and q= (1-p) and d is absolute error. Assuming the prevalence of good hygienic menstrual practice to be 30% at 95% CI and 5% absolute error sample size was calculated to be 4*0.30*0.70/0.0025 = 336.Adding 10% as non-response rate the sample was calculated to be 372 which was rounded to 400. The women from selected households were explained about the purpose of the study and after they gave consent to be part of the study were enrolled into the study. Women who did not consent to the study or who were not present in the household were not included into the study. The quantitative data was collected using a predesigned and pretested questionnaire. The qualitative data was collected by using in depth interview using open ended questionnaire. Two session of focus group discussion was carried out among randomly selected group of 10 women and their opinion on the subject was obtained. The FDG was carried out in presence of the moderator and faciliator who were all women.

Statistical Analysis

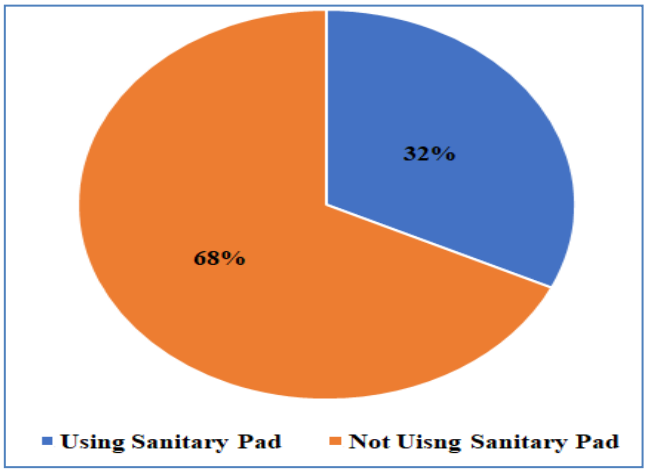
Data collected will be entered in the Microsoft excel worksheet. The descriptive statistics will be displayed using the appropriate table and graphs. The association between of categorical variable was done using Pearson Chi-square test or Fischer Exact Test. A value less than 0.05 was considered significant. The continuous variable is showed using Mean $\pm$ SD. Shapiro-Wilk Test was used to test for normality**.** A p value more than 0.05 was suggestive of normal distribution. Levine Test was used as test for homogeneity of variance. The cut off value was 0.05 below which data was considered to have homogeneity of variance. Independent sample T test was them applied to check for the mean difference and a p value less than 0.05 was considered statistically significant. Mann-Whitney test was applied when the numerical data was not found to be normally distributed. A p value less than 0.05 was considered statistically significant. Thematic analysis of qualitative data would be carried out using the ATLAS software.

Results:

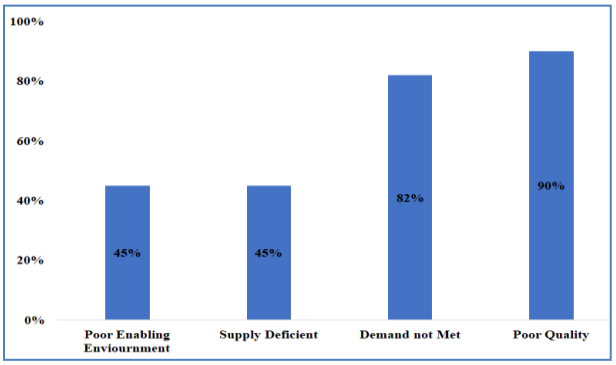
The mean age of women(Table 1) under study was 26 $\pm$ 9.8years. The mean age of onset of menarche was 11$\pm$ 2.9 years. We found that 68% of the women residing in field practice area of Madhubani medical college don't use sanitary pad(Pie Graph 1). Women who use sanitary pad 80% of disposed them in insanitary way. On Bottle neck analysis (Graph1,2) we found that one of the major hinderance to non-usage of sanitary pad was lack of supply to good quality low cost sanitary pad. During the two session of FDG thematic analysis of the data showed majority of women were worried about the financial cost. One women said " it either buying pad or our household items" , we cannot add more constrain to our budget. When we enquired about the sanitary pad availability with health worker ASHA and ANM, they said it was not available with them and they were not aware of any such service provided. Some said government quality is very poor and they would continue with their current practice.

Table 1: Socio-demographic profile of the study population

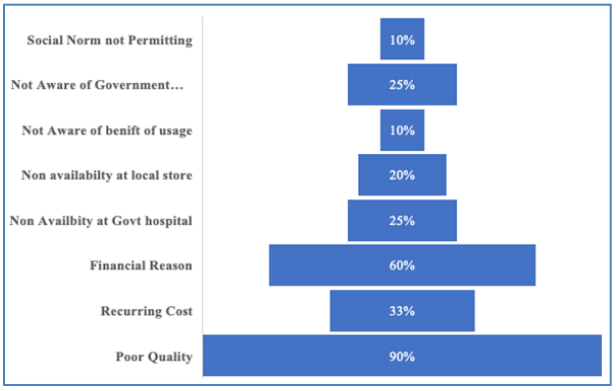
S.No	Variable	Using Sanitary Pad (%)	Not Using Sanitary Pad (%)	P value
1	Mean age of women	26 ± 9.8	25 ± 9.1	0.23
2	Mean age of menarche	10±2.9	11±1.9	0.45
3	Hindu Muslim Other	68% 27% 5%	66% 24% 10%	0.02
4	General OBC SC/ST	54% 32% 14%	55% 31% 14%	0.03
5	Literate Illiterate	62% 28%	24 76%	0.002



Pie 1: Prevalence of Sanitary pad Usage



Bar Graph 1: Bottleneck analysis for non-usage of sanitary pads



Graph 2: Thematic Analysis of Qualitative Data

Discussion:

Various studies (10-16) have found non usage of sanitary pad in rural India to be around 10 -35%, which results are similar to our study. Qualitative study on bottle neck analysis have shown that this complex problem have multiple factors, non-availability of good quality low cost product in one of the factor in most of the studies (17-20)in various proportions. However, in our study we found to be the most important limiting factor.

Limitation

The present study is single center study carried among women residing in one filed practice area, so the external validity of study can be questioned. The bottle neck analysis for non-usage of sanitary pad was performed using thematic approach ,in which various outcome were quantitatively summarized into particular themes (like enabling environment, supply , demand , quality) for easier analysis of data, such kind of methodology may oversimply the complex problem and may lead to poor internal validity. We did not perform triangulation due to monetary constrain.

Conclusion:

The prevalence of sanitary pad usage among women residing field practice area of Madhubani medical college was 32%. Majority of women were of opinion that non availability of low-cost good quality sanitary pad was the major bottle neck which prevented usage among them.

Recommendation

We recommend that we should ensure that adolescent girls and women be encouraged through IEC and BCC methods for adoption of hygienic mensural practices. We at out medical college have decided to engage with various NGOs and Government of Bihar to promote sanitary pad usage and have help in providing good quality low cost sanitary pad in our field practice area.

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