



Assessment of Knowledge and Practice of Menstrual hygiene among the Schools in rural areas of Kalaburgi North

S.S. Biradar¹, Latarani², Poojtha Karuturi³ and Rajeshwari Kumbar⁴

1, Associate Professor, Department of Pharmacy Practice, HKES MTRIPS, Kalaburagi, India

2, Department of Pharmacy Practice, HKES MTRIPS, Kalaburagi, India

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Abstract

Menstruation is phenomenon unique to all the females menstruation is generally considered as unclean in the Indian society especially in the rural settings. The study was taken to assess the status of Menstrual hygiene elicit the rituals and restrictions common problems during menstruation among adolescent School girls. A six months prospective and community based study was conducted at 10 selected high schools in the rural areas of Kalaburagi north. The pre- test knowledge of the student was assessed by means of menstrual knowledge assessment questionnaires. There after the students were given structured education by giving presentation video and leaflets. One month after the Pre- test at post- test the impact of structured education was re assessed by using the questionnaires.

The results revealed that only 43.01%, of the participants, were aware about menstruation before menarche and the most important source of information about menstruation for them who was found to be their mother 64.03%. In response to hygiene questions during pre -test 67.71% said that they were using sanitary pads and 21.03% & 10.9% said they use new cloth and old cloth respectively. After counselling significant improvement was observed where 90.4% used sanitary pads & 8.3% rest used cloth, regular hand wash was present in 94.4% subjects of which 96.0% subjects used soap and water for hand washing. Regular cleaning of external genitalia was present in 91.3% subjects. This study concludes that pharmacist intervention educating program helped adolescent girls to maintain proper menstrual hygiene and sanitation during menstruation.

Key-words: Menstrual, School, Rural Area

Introduction

The WHO identifies adolescence as the period of growth and development that occurs after childhood and before adulthood, in the age group of 10-19 years¹. The girl experiences several problems during adolescence, and menarche is one among them.² Adolescence is a significant period for mental, emotional and psychological development. The first menstruation is often terrible unknown shock to an adolescent girl because it usually occurs without the proper

knowledge about it.³ Menstruation is a normal physiological process which indicates her body is

growing as normal. Menstruation occurs with the shedding of uterine mucosa and it is one of the signs of puberty and appearance of secondary sexual characteristics. Every menstruation period is an average of 3-5 days (minimum 2 days, maximum 7 days) each month until menopause.

***Corresponding Author**

Menstruation can be light, moderate or heavy and the length of the period also varies⁴.

Menstruation is still regarded as something unclean or dirty in the Indian society. Because of various myths, misconceptions and restrictions practiced during menstruation, the adolescent girls often develop negative attitudes towards this natural phenomenon.⁵

Menstrual hygiene:

Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation. Women and girls of the reproductive age need access to clean and soft, absorbent sanitary products which can be in the long run, protect their health.⁶ There is very little awareness about menstruation among girls when they first experience it. Social prohibitions and negative attitude of parents in discussing the related issues openly has blocked the access of adolescent girls to right kind of information especially in rural and tribal communities.⁷

Because of the lack of knowledge, they end up with repeated use of unclean menstrual absorbent results in harboring of microorganisms that increases susceptibility to urinary, perineal, vaginal and pelvic infections. If these infections left untreated that will lead to several consequences like infertility, ectopic pregnancy, fetal wastage and prenatal infection, low birth weight babies, toxic shock syndrome.⁸

There is a need to educate and empower women about safe and hygienic practices during menstruation and bring them out of traditional beliefs, taboos and misconceptions.⁹

By giving more emphasis to the menstrual health, a day is being celebrated on May 28th as "Menstrual hygiene day" by WASH United.¹⁰

These younger generations are tomorrow's parents¹¹. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. With this background the present study was undertaken to

assess the knowledge, beliefs, and source of information regarding menstruation among the adolescent girls and also to identify the status of menstrual hygiene among them.⁶

Methodology

A prospective and community based study was conducted among the adolescent girls in 10 government high schools of Kalaburgi North. The study was initiated after obtaining approval from the institutional ethics committee. Later permission to conduct study was obtained from the school authorities. The informed assent was obtained from the study participants, the adolescent girls aged 12 and above who have attained menarche and willing to participate in the study were included from the schools, a structured questionnaire in Kannada and English languages were used. Before administration of questionnaires, all the terms were explained and clarified doubts.

An interactive session for two hours with audio – visual aids was conducted covering the topics of puberty hormonal changes, menstruation, hygienic practices during menstruation, pre-menstrual syndrome and myths and misconceptions were explained. A post test was conducted to assess the effectiveness of educational intervention after a gap of one month.

Data Analysis : The data is analysed using statistical method i.e. percentage method.

Results

A total of 997 adolescent girls were present at the time of enrollment out of which only 923 students completed the study. The age of participants ranged from 12-16 years. Majority of them 677(73.3%) belonged to age group of 15-16 and 246(26.6%) belonged to group between 12-14 years. In our study adolescent girls' fathers' occupation were found to be agriculturist 425(46.0%), daily workers 380(41.1%) and family income was found to be less than 10,000 for 37.1%, less than 30,000 for 45.5% and less than 50,000 for 17.3%.

Table:1 Menstrual patterns in adolescent girls n=923

Patterns	No.(%)
age at which menarche attained	
<12	274(29.6%)
12-14	326(35.3%)

>14	323(34.9%)
Duration of blood flow in days	
>2	90(9.75%)
2-5	229(24.8%)
<5	604(65.4%)
Regularity of cycle	
28 days once	475(51.46%)
Between 28-45	216(23.40%)
Before 28days	185(20.04%)
others	047 (5.09)
Quantity of blood flow	
Normal	604(65.43%)
Excessive	167(18.09%)
Scanty	152(16.46%)

Table 2: Respondents according to their knowledge about menstruation before menarche

Attributes	No.(%)
Information about menstruation before menarche	397(43.01%)
Yes	526(56.98%)
No	
Source of knowledge of menstruation cycle before menarche	
Mother	591(64.03%)
Friends	99(10.72%)
Teacher	82(8.8%)
Relatives	65(7.04%)
Do not know	86(9.3%)

Table 3: Knowledge about menstruation

Attributes	Pre interventions n(%)	Post interventions n(%)
Knowledge of organ from where bleeding occurs		
Uterus	273(29.57)	811(87.8%)
Kidney	159(17.22)	37(4.0)
Bladder	180(19.50)	52(5.6)
Stomach	121(13.10)	8(1)
Do not know	190(20.58)	15(1.6)
Knowledge of cause of menstruation		
Physiological	380(41.17%)	841(91.1)
God given	157(17)	30(3.2)
Result of sin	52(5.6)	23(2.3)
Due to some disease	84(9.1)	29(3.1)
Do not know	250(27.08)	0(0)
Any toxin in menstrual blood		
Yes	425(46.04%)	115(12.04)

No	259(28.06%)	774(83.8)
Don't know	239(25.89)	34(3.6%)

Table : 4 Distribution of respondents according to their hygienic practices

Observed parameters	Pre interventions n(%)	Post interventions n(%)
Daily bath		
Yes	785(85.04%)	873(94.5%)
No	138(14.9%)	50(5.4%)
Hand washing		
Regular	346(37.48%)	872(94.4%)
Irregular	577(62.5%)	51(5.5%)
Hand washing with		
Water	584(63.27%)	36(3.9%)
Soap and water	339(36.72)-	887(96.0%)
Cleaning of external genitalia		
Regular	528(57.20%)	843(91.3%)
Irregular	395(42.79%)	80(8.6%)

Table 5: Distribution of respondents according to their practices during menstruation

Attributes	Pre intervention	Post intervention
Types of absorbents		
Sanitary napkins	625(67.71%)	835(90.4%)
New cloth	197(21.3%)	77(8.3%)
Old cloth	101(10.9%)	11(1.1%)
No. of times changing a pad in a day		
Once a day	245(26.54%)	02(0.2%)
Twice a day	334(36.18%)	13(1.4%)
More than 2 times	344(37.26%)	908(98.3%)
Criteria for changing a pad		
Complete soaking	379(41.06%)	138(14.9%)
Based on time interval	544(58.93%)	785(85%)
Method used to dispose pads		
Throw in waste	227(24.5%)	183(19.8%)
Store for further use	113(12.2%)	0(0)
Burn it	490(53.05%)	678(73.4%)
Flush in toilets	93(10.07%)	62(6.7%)

This study reveals that the age of attainment of menarche majority found between 12-14yrs(35%) few at the age above 14yrs(34.9%).our findings are similar to studies carried out by K.A.Narayana et al¹¹.,report that majority of adolescent attained menstruation at age of 13yrs(31.5%) and 14yrs(34.4%).

Majority of girls 65.43% of the girls had menstrual flow of more than 5 days and 24.81% girls had between 2-5days.These findings were comparable with a study done by Hema priya.S et al⁸., and menstrual flow was normal among 65.4% girls and about 18.09% girls had excessive menstrual flow and findings were similar to Mahesh kumar Shukla.¹²

About 43.01% of girls were aware about menstruation before menarche and our findings are similar to the study conducted by Jagruti prajapati et al⁶ report that 35% girls were aware about menstruation before menarche.

In the present study mother was found to be the main source of information for 64.03% girls followed by friends for 10.72% girls, teacher 8.88% and 7.04 girls from relatives. Our findings are similar to study conducted by Geetanjali Kapoor et al,¹³ in which mother 66.15% were the main informant followed by friends 6.16%.Menarche is an important event in girls at the threshold of adolescence and ideally mothers should be main informants at this tender age of girls but the high level of ignorance on the part of this study subjects was due to low level of education to their mothers.

In response to question regarding knowledge of menstruation 41.17 answered menstruation is a physiological process in pre-test were as that in post test it is 91.1%.A few of them attributed it as a result of sin 05.63% and 17% attributed as god given and 27.08% girls did not know the cause of menstruation.It is similar to study carried out by Syed Hasan Nawaz Zaidi et al,¹⁴ report that 42% girls believed menstruation is a physiological process. It was very sad to observe that only in the present study 29.57% answered menstrual blood comes from uterus in pre-test and in post-test it is 87.8%.our results are similar to studies carried out by Jagruti Prajapati et al⁶ and post test results are similar to study conducted by by Aarohi Mitra et al¹⁵ where 96% of girls answered as uterus.

The hygiene related practices of women during menstruation are of considerable importance,as they affect their health by increasing vulnerability to infections especially UTI.Our study showed that 67.71% of girls used sanitary pad during their menstrual cycle while 21.34% use new cloth and 10.94% used old cloth,our findings are similar to study conducted by Kamaljit K et al¹⁶, report where 69% girls used sanitary pad,21% girls used new cloth and 10% girls used any cloth/rag. In the post test 90.4%girls used sanitary pad and remaining 8.3%used new cloth.

And for the question how often do you wash your hands during menstruation 37.48% girls said regular where as 62.51% answered irregular and on our counselling the results in the post test where raised to 94.4% regularly washed hands and few about 5.4% girls washed irregularly.It is similar to study conducted by Uzma Eram et al.¹⁷ Similarly we asked with what do you wash your hands 63.27% girls said with only water and 36.72% girls said soap and water and on our counselling we found significant improvement in result where 96.0% answered as soap and water and only 3.6%still answered only water.our results are similar to study conducted by Uzma Eram et al.¹⁷

Cleanliness of the external genitalia was unsatisfactory due to lack of knowledge about hygiene and privacy thus only 57.20% girls cleaned regularly and 42.79% cleaned irregularly in our study.our findings are similar to the study conducted by Mahesh kumar Shukla et al,¹² and after our session of counselling many girls changed their perception about maintenance of personal hygiene and percentage of cleaning of external genitalia regularly increased to 91.3% and our findings are similar to report by kamaljit k et al.¹⁶

For the question how many times do they change napkins 26.54% of respondents had habit of changing pad once ,36.18% twice and 37.36% more than two times and criteria for changing the pad was 41.06% girls changed on basis of complete soaking and 58.93% changed based on time interval.In the post test after our session of counselling data shows that about 98.3% girls started changing napkins more than two times a day and only 1.4% girls changed two times a day.

This data is similar to study conducted by Reda Ibrahim El-Mowafy.¹⁸

While coming to disposing method of sanitary napkins /cloth our study showed that 53.08% of girls choose the method of burning, 24.59% choose to throw in waste and 12.24% choose to store the napkins for further use. Similar to study conducted by Subhash B Thakre *et al*¹⁹ showed that majority of girls about 60.96% choose to burn the pads, But in follow up study, it has been changed 73% girls choose to burn the pads after use and 19.8% girls disposed by throwing the waste, it is similar to study conducted by Aarohi Mitra *et al*¹⁵ where 97.2% choosed throwing in dustbin and burning.

Different restrictions were practiced by most of girls in the present study possibly due to different rituals in their communities the same were running in their families for years long, being practiced by their mothers or their grandmothers due to lack of knowledge about menstruation. In our study we found that 60.78% students faced restrictions attending religious place/temple, 12.02% for routine household work 10.07% for playing and 7.11% for attending school. Similar study conducted by Geetanjali Kapoor *et al*¹³, report shows that students faced restrictions for attending religious functions 51.54%, routine household work 34.62%, playing 10%, attending school 28.46%, certain types of food 23.8%.

In this study although only 10.94% used old cloths, 21.66% faced problem of shortage of water, 40% girls faced lack of privacy and 38.24% girls faced problems during washing and drying.

This is really cause of concern because shortage of water leads to improper washing of cloth and lack of place and privacy leads to storage of these in unhygienic places which is invitation to infectious organisms.

The main reason for not using pads in present study was difficult to discard 23.04% followed by cost 8.55%, don't know about sanitary pads 10.29% and not feel comfortable to use 7.36% which is similar to study by Sheena manoj patel *et al*²⁰.

It is important to educate girls regarding the need for bathing and general hygiene during this time. Government of India has also released national guidelines in 2015 on the menstrual hygiene

management which aims at providing the basic factual information on menstruation to adolescent girls. Through awareness programs girls should be educated about irregular cycles, premenstrual syndrome, and other issues approaching health care systems for such problems should be encouraged especially in rural settings.

Conclusion

Our study concluded that, adolescent girls lacked appropriate knowledge about menstruation and menstrual hygiene in the pre test. After post educating session, the satisfactory improvement in the practice of menstrual hygiene was observed. Some of the myths and misconceptions were cleared. This study concludes that our education program helped adolescent girls to maintain proper menstrual hygiene and sanitation during menstruation.

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