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Original Research Article

Assessing the impact of information, education and communication activities regarding menstrual hygiene practices among adolescent girls 13-17 years in the rural area of Amritsar

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ABSTRACT

Background: Adolescence period (10-19 years) is a transitional stage. Adolescents constitute 20% of the total population in India. Menarche marks the beginning of a multitude of physical, physiological, and psychological changes in the lives of the girls. During menstruation, hygiene-related practices are of considerable importance because lack of knowledge and poor menstrual hygiene practices makes them prone to reproductive tract infections.
Methods: The study was carried out among 13-17 years adolescent girls studying in the Government Senior Secondary Schools at Nagkalan and Sohian Kalan and out of school adolescent girls of the same age group who were residents of these two villages. Base line information was collected from eligible girls and then IEC activities were conducted on menstrual hygiene practices. After three months the impact of IEC activities was assessed and valid conclusions were drawn.
Results: 81.13% have attained menarche. 40.6% were using both sanitary pads and cloth, only 7.4% were using only cloth as menstrual absorbent. Almost 3/4th (72.27%) respondents used dumping into open space and pond as method of disposal for used absorbent and after intervention this percentage was decreased to 44.9%.
Conclusions: After IEC activities a greater number of adolescent girls were aware regarding safe menstrual hygiene practices.

Keywords: Adolescent, Rural, Menstrual hygiene

INTRODUCTION

Adolescence is an important period of development that follows the onset of puberty during which a young person develops from a child into an adult.[1] The term adolescence is derived from Latin word 'Adolescere' meaning thereby to growup.[2] During this transitional stage that extends from 10-19 years, there occurs physical and psychological development that follows the period of puberty leading to adulthood. Adolescents accounts for nearly one fifth of the world's population. They constitute 20% of the total population in India. Menarche marks the beginning of a multitude of physical, physiological, and psychological changes in the lives of the adolescent girls.

Menstruation is a normal physiological process that females experience every month.[3] Menstruation begins between the ages of 9-16 years and stops around 45-55 years. Normally menarche starts at the age less than 16 years. It occurs about two and a half years after the onset of puberty, at an average age of 12.8 years.[5] Perception about menstruation is different in different regions and cultures, there are many taboos and misconceptions related to menstruation and limited knowledge leads them to unsanitary practices, anxiety and fear. Some cultures

and religions believed that blood coming out during menstruation is impure and menses is related to purity of women. Perceptions are also there that if a menstruating woman touches a cow, cow will become infertile.[6] During menstruation hygiene-related practices of girls are of considerable importance, as it results in increased number of reproductive tract infections (RTI). Poor knowledge and awareness regarding menstrual hygiene practices make them prone to reproductive tract infections, so menstrual hygiene is important to prevent infections and bad odour.[7] Use of clean, dry, soft sanitary pads and adequate washing of external genitalia is important during menstruation. For the promotion of menstrual hygiene and to increase the awareness and accesses of quality sanitary napkins, NRHM has started a scheme "free days" to provide a pack of 6 napkins at the cost of 6 Rs by ASHA.[8] Awareness about menstrual hygiene practices is one of the component of RMNCH+A but despite of all these efforts by the government of India, the knowledge regarding menstrual hygiene practices was poor among the adolescent girls, especially among rural adolescent girls and very few interventional studies was conducted in rural areas to assess the impact of IEC activities on adolescent girls. That's why this interventional study was conducted among the rural adolescent girls regarding menstrual hygiene practices.

METHODS

An interventional study. They included those between the age group 13-17 years and willing to participate. And they excluded 'Not willing to participate'. Predesigned semi-structured questionnaire.

The study was carried out in the rural field practice area of Department of Community Medicine, Government Medical College, Amritsar which is under Primary Health Centre Threawal (Majitha Block) from 1st January 2018 to 31st December 2018. After taking permission from the District Education Officer, the list of Government senior secondary schools in the block was obtained. From the enlisted seven government senior secondary schools, two schools were selected randomly (Government Senior Secondary school Nagkalan and Government Senior Secondary school Sohian Kalan). In these schools' adolescent girls of the age group 13 to 17 years were included and out of school adolescent girls of the same age group who were residents of these two villages were also included in the study. The age limit of 13 years was fixed because the average age of menarche is 12.5 years. The upper age 17 years was fixed as nearly 17% of all the girls are married by the age of 18 years in India.[9] The heads of these institutions and class in-charges were explained about the importance and the purpose of study to elicit their full co-operation. Schedule of the visits were made and intimated to the school authorities taking into consideration the holidays and examination of the students, so as not to disturb their study schedule. List of out of school adolescent girls was obtained with the help of health workers of these areas. The study was conducted in three phases.

Pre-intervention phase

For school going girls those who were willing to participate, informed assent was taken from the class in-charge. Eligible out of school girls were also enrolled in pre-intervention with the help of ASHAs, by giving prior information regarding date and time of the visit they were asked to assemble at Anganwadi center and sub center near their homes and informed assent was taken from elderly female in the family. The questionnaire prepared in vernacular language was explained to them and were asked to fill it. Privacy and confidentiality were maintained and it was also conveyed that information collected will be used for study purpose only.

Intervention phase

IEC sessions were conducted among those who were enrolled in pre intervention phase in a batch of 25 girls each for 20-25 minutes in their vernacular language, regarding normal menstrual pattern, menstrual hygiene practices and related problems for which flipbook on menstrual hygiene in their vernacular language that contain pictures was used for their easy understanding (Issued by Department Of Health And Family Welfare Punjab Under National Health Mission), Queries related to the topic were also explained.

Post intervention phase

After 3 months, impact of IEC activities was assessed by administering them same questionnaire.

Information obtained from the participants in pre and post intervention phase was compiled, analyzed and by using appropriate statistical methods (chi square test) valid conclusions were drawn. The socio-economic status was assessed by using modified Kuppuswamy Scale 2017.

RESULTS

There were 250 eligible adolescent girls in the pre intervention test (214 were in both the schools and 36 were out of school adolescent girls in both the villages) but subsequently 14 in school girls and 6 out of school adolescent girls were absent in either intervention sessions or in post-intervention test, so they were not included in the study sample. The sample therefore consisted of 230 adolescent girls. Out of total 230 respondents more than half of the adolescents 141 (61.30%) were in mid adolescence period, followed by 54 (23.47%) in early and 35 (15.21%) were in late adolescence period (Table 1). Out of total 230 respondents, 187 (81.13%) attained menarche and the rest who have not attained menarche were in the age group 13 to 15 years. Almost half (48.12%) attained menarche at the age of 13 followed by 41 (21.92%) of respondents attained menarche at the age of 14 and after attaining

menarche according to 3/4th of the respondents (74.33%) out of total 187, menstruation is a normal process and after intervention 162 (86.63%) had knowledge that menstruation is a normal process (Table 2)and more than half of the respondents (51.8%) were in practice of using only sanitary pads as menstrual absorbent, 76(40.6%) respondents were using both cloth and sanitary pads, and only cloth was used by 14 (7.4%) of the respondents (Table 3).

Table 1: Distribution of respondents according to their age group (n=230).

Age group	Number of respondents	Percentage
Early adolescence	54	23.47
Mid adolescence	141	61.30
Late adolescence	35	15.21
Total	230	100

Table 2: Distribution of respondents according to their perception about menstruation after attaining menarche (n=187).

Perception	Pre intervention number	%	Post intervention number	%
Normal process	139	74.33	162	86.63
Disease	38	20.32	18	9.62
Curse	10	5.34	7	3.74
Total	187	100	187	100

Table 3: Distribution of respondents according to absorbent used during menstruation (n=187).

Absorbent	Number of respondents	Percentage
Sanitary pads	97	51.8
Cloth	14	7.4
Both	76	40.6
Total	187	100

Almost 3/4th (72.27%) respondents used dumping as method of disposal for used absorbent and only 16.57% and 10.69 % used burning and burial as method of disposal and after intervention 63(33.68%), 40 (21.39%) respondents used burning, burial as a method of disposal (Table 4). Out of total 187 respondents before intervention 158 (84.49%) were in habit of washing external genitalia and after intervention this percentage increased to 93.58%.in pre intervention phase , change observed was statistically significant at p value less than 0.05 (Table 5) and majority (90.9%) used to take bath during menstruation and after intervention this percentage increased to 96.79%,change observed was statistically significant at p value less than 0.05 (Table 6).

Out of total 187 respondents almost 2/3rd (63%) were aware about the problems related to unhygienic menstrual practices and after intervention this percentage was increased to 86.63%.

Table 4: Distribution of respondents according to method of disposal of used menstrual absorbent (n=187).

Methods	Pre intervention number	Percentage	Post intervention number	Percentage
Dumping (open space and pond)	136	72.72	84	44.91
Burning	31	16.57	63	33.68
Pit (burial)	20	10.69	40	21.39
Total	187	100	187	100

Table 5: Distribution of respondents regarding washing of external genitalia at the time of changing menstrual absorbent (n=187).

Washing	Pre intervention Number	Percentage	Post intervention Number	Percentage
Yes	158	84.49	175	93.58
No	29	15.50	12	6.41
Total	187	100	187	100

Table 6: Distribution of respondents according to their practice of taking daily bath during menstruation (n=187).

Daily bath	Pre intervention number	Percentage	Post intervention number	Percentage
Yes	170	90.9	181	96.79
No	17	9.09	6	3.20
Total	187	100	187	100

DISCUSSION

In present study out of total 230 respondents, majority were in mid adolescence period and 187 (81.13%) have attained menarche. A study conducted by Bachloo et al among adolescent girls of Ambala district Haryana showed that 92.5% of adolescents attained menarche at the time of interview.[10] The results are not similar, the reason might be that in present most of the girls were in mid adolescent period and in that study most of the respondents were in late adolescent period.

In our study out of total 187 respondents who have attained menarche 3/4th of them (74.33%) knew that menstruation is a normal process and after intervention 162 (86.63%) had knowledge that menstruation is a normal process. A study conducted by Shrivastva and Chandra among the school going adolescent girls of Bhopal showed that 87% knew that menstruation is a normal process.[11] The reason of more number of respondents had knowledge that menstruation is a normal process could be that, they have conducted their study in the areas where family life education program was started as a part of school education curriculum.

In present study out of total 187 respondents, more than half of the respondents (51.8%) were in practice of using only sanitary pads as menstrual absorbent, 76(40.6%) respondents were using both cloth and sanitary pads, and only cloth was used by 14 (7.4%) of the respondents. A study conducted by Sowmya et al among adolescent girls in rural area of Bangalore showed that 51.5% of respondents were using sanitary pads which is in concordance with present study.[12]

In our study out of total 187 respondents, almost 3/4th (72.27%) respondents used dumping as method of disposal for used absorbent and only 16.57% and 10.69 % used burning and burial as method of disposal and after intervention 63 (33.68%), 40 (21.39%) respondents used burning, burial as a method of disposal. A study conducted by Thakre et al in Nagpur showed that 60.9% of the adolescent girls were using burning as a method of disposal.[13] The reason of more percentage as compare to present study might be that, majority of the girls in that study were using cloth as menstrual absorbent and it is easy to burn cloth as compare to sanitary pads.

In present study out of total 187 respondents before intervention 158 (84.49%) were in habit of washing external genitalia and after intervention this percentage increased to 93.58%. A study conducted by Chauhan et

al in rural area of Telangana showed that 93.3% of the respondents were in habit of washing external genitalia.[14] The probable reason of lesser number of respondents were in practice of washing external genitalia in present study could be that, this was conducted in government schools and most of the girls were in mid adolescence and that study was conducted in both government and private schools and most of the respondents were in late adolescence in pre intervention phase.

CONCLUSION

More than half of the adolescents 141 (61.30%) were in mid adolescence period. Only 29.41% were aware about the menstruation before menarche. Majority of respondents used dumping as method of disposal for used absorbent before intervention and after intervention majority of respondents used burning or burial as a method of disposal. Percentage of respondents having knowledge regarding the harmful effects of unhygienic menstrual practices increased from 63% to 86.63% after intervention. After IEC activities a greater number of respondents had knowledge regarding menstrual hygiene practices.

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