RESEARCH ARTICLE

MENSTRUAL HYGIENE AND EDUCATIONAL INTERVENTION ON ADOLESCENT RURAL GIRLS OF NADIA DISTRICT, WEST BENGAL

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Introduction:
Adolescence is a period when so many physical, emotional, cognitive changes areoccur, menstruation is one of the major changes that happen in a female body but it is surrounded by so many social taboos and supernatural societal belief. The main focus of the present study was to measure the effectiveness of planned teaching on menstrual hygiene and input the knowledge among them.

Materials and method:
A study was conducted from September, 2020 to December, 2020 in rural area of Nadia district, West Bengal among 120 adolescent school girls in the age group of 14–17 years. Data were collected by the self-made and pretested questionnaires.

Results:
After analysis it was found that, better practice was adopted after post-test as compared to that of pre-tests planned teaching become effective on adolescence rural girls, and there is a significant relationship between pre-test and post-test regarding attitude about menstrual hygiene. It also shows that, there is a significant positive relationship at 0.05 level between planned teaching and Practice, planned teaching and Attitude at 0.01 level.

Conclusion:
Menstrual hygiene practices and attitude among rural adolescence girls of Nadia district is not satisfactory before planned teaching programme, so girls should be educated properly regarding menstrual hygiene and it may bring them out of misconception and better practiced attitude in future life.

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Introduction:
In human’s life, adolescence period plays a crucial role in their future life. Humans must go through different stages of his or her life, among them adolescence period is one of the most essential and remarkable period of human’s life. This time period plays most important part of our life and we make peer groups at this stage and affected very much by our peer groups as well as by our family members. This is the transitional period from girlhood to womanhood. In this crucial and transitional period apart from the academic achievement, the girls undergo many kinds of physical changes, psychological changes and emotional development during these school years. In girls life puberty is a major milestone which is historically and biologically associated with adolescents. Menstruation is one of the most exceptional case acquire by nature for woman body. Menstruation looks like a small term, but woman body undergo so many changes from the onset of menstruation till menopause.¹

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Adolescence is the stage when people face so many changes occur in their body, not only body but changes occur also in their emotional and psychological perspectives. More than anything else, teenagers have a remarkable builtin resiliency, seen in their exceptional ability to overcome prices and very special features that they can find something positive in negative events also. At the stage of adolescence some important biological changes occur, like changes of sex organs, height, weight, muscles mass. It also seems that major changes occur in brain structure and organisation. At the age of menarche all the female’s body get biologically mature and get ready for their reproduction to some extent. Though menstruation is a normal physiological process, but we are surrounded with some social taboos and supernatural belief on menstruation because lack of proper knowledge and miss understanding of this biological process. The knowledge may lead to hygienic practices and in turn it also decreases the risk of unwanted pregnancy and genital urinary tract infections, cervical cancer, school dropout rate, poor academic performance and moreover, poor quality of life style. Majority of adolescence school girls had improper knowledge about menstruation and that's why their hygienic practices are also incorrect. So, the time comes, by which we can create a good awareness program to advise them and this kind of programme may improve the knowledge regarding menstruation process and promote the safe hygienic practices among adolescent girls.

**Objective Of The Study:**
1. The following objectives are formulated for the present study.
2. To assess the pre-test and post-test of attitude and practice of menstrual hygiene among adolescence rural girls of Nadia district.
3. To find out weather, there is a relationship between planned teachings with the attitude towards menstrual hygiene.
4. To find out weather, there is a relationship between planned teachings with the practice regarding menstrual hygiene.

**Statement Of The Hypotheses**
- \( H_1 \): There is a significant difference between the pre-test and post-test of planned teaching on menstrual hygiene programme regarding practice.
- \( H_2 \): There is a significant difference between the pre-test and post-test of planned teaching on menstrual hygiene programme regarding attitude.
- \( H_3 \): There is a significant relationship between planned teaching programme and practice towards menstrual hygiene.
- \( H_4 \): There is a significant relationship between planned teaching and attitude on menstrual hygiene.

**Methodology:**
**Population and Sampling**
Purposive sampling method was employed for the present study. From the population of all adolescent rural girls in Nadia district 60 samples were chosen from 18 blocks and they aged between 14 years to 17 years. These selected respondents were conveniently available to the researcher to include them in the sample these girls are studying at the Girls Higher Secondary Schools at their locality and they have attained menarche and they are able to read and write Bengali and English. The total time duration of data collection is from September, 2020 to December, 2020.

**Tools**
Self-made and standardized tools used to assess knowledge, attitude and practice of adolescent girls about menstrual hygiene having reliability 0.08. The tool is divided into 3 sections and all the sections have 10 questions each, all total 30 questions. Section A and B are used to assess the knowledge and attitude of adolescent girls, 1 mark was awarded for correct answer and 0 mark was for every wrong answer. 5-Point rating scale was used to assess the practice of menstrual hygiene among the adolescent girls. Each item was awarded maximum of 5 marks and minimum of 1 mark, with 5 alternative responses viz. never, rarely, sometimes, often, very often.

**Results:**
Table 1 shows the comparison between base line knowledge, practice and attitude of adolescent rural girls with that of post-test (the score obtained after educational intervention). Analysis of the raw scores were done to make them meaningful interpretation. Descriptive and correlation statistics were done using SPSS statistics, version 20.
It is evident from Table 1 that there is a significant difference at 0.01 levels between the pre-test and post-test in practice of adolescent rural girls of Nadia district as the p-value of 0.000 is less than 0.01. As the mean of post-test is 7.20 which is higher than the pre-test mean i.e. 2.40. Therefore, it indicates that better practice was adopted after post-test as compared to that of pre-tests planned teaching become effective on adolescence rural girls. So, the hypothesis $H_1$ is accepted at 0.01 levels of significance and has a significant relationship between pre-test and post-test regarding practice about menstrual hygiene. In a survey at Bangladesh, it was shown that, among all participants, 45.4% reported that, they did not visit even their relatives, friends or neighbours’ house during the time of menstruation and 7.7% reported that they did not attained school during that time. In lower economic contexts it was found that, knowledge of adolescent girls regarding menstruation is very poor and their hygienic practices also inappropriate or incorrect. Similar type of research was conducted on slum adolescents where after educational input, the increase of menstrual hygiene practice was observed in both intervention and non-intervention group, as the observed change in intervention group was 5.5 times compared to the non-intervention group. There is a significant difference at 0.01 levels between the pre-test and post-test in attitude of adolescent rural girls of Nadia district as the p-value of 0.002 is less than 0.01. As the post-test mean of 35.60 is higher than the pre-test mean of 25.10, it indicates that better attitude was followed after post-test as compared to that of pre-test. So, the hypothesis $H_2$ is accepted at 0.01 levels and there is a significant relationship between pre-test and post-test regarding attitude towards menstrual hygiene. A study conducted at Jammu and Kashmir reported that, only 36.6% of girls have knowledge about the normal duration and flow of menstrual bleeding and 90% considered menstrual blood as unhygienic. One study showed that, the attitude of girl students was improved after teaching, as they thought about the social misnomer that menstrual blood is impure blood, only 31.5% disagreed and after the teaching, almost 73.5% disagreed, and this was again considered as significant improvement with a P < 0.001.

Table 2 shows that, there is a significant positive relationship at 0.05 level between planned teaching and practice as the p-value of 0.02 is less than 0.05. Therefore, it reveals that as knowledge of adolescent rural girls of Nadia district increases, the practice of menstrual hygiene also increases significantly. So, hypothesis $H_3$ is accepted and proves that significant positive relationship between knowledge and practice regarding menstrual hygiene. Therefore, it reveals that as knowledge of adolescent rural girls of Nadia district increases, the practice of menstrual hygiene also increases significantly. A study showed that, as the adolescent girls move to higher levels of their study, their knowledge increased gradually and so their menstrual hygiene practice had also increased. Similar findings were reported, that, as knowledge imputed on girls, their menstrual hygienic practices also improved, as they had already known the causes and processes of menstruation. A study conducted on adolescent girls also showed that, after planned and structured teaching on menstrual hygiene, it became beneficial to increase the knowledge and practice among the samples. So, planned teaching became very much effective to improve menstrual practice, as the investigator was available for clarifying the all doubt of the samples arises during planned teaching and help them to understand any difficulties. At Uganda a study was conducted on school girls after educational intervention and they were able to manage their practice more effectively. A research work was done on reproductive morbidity among adolescent girls, found that, proper menstrual hygiene practices which could be imparted through appropriate interventions at earlier stages of life can prevent them from suffering reproductive morbidities.

It is evident from Table 2 that, there is significant positive relationship at 0.01 levels between planned teaching and attitude as the p-value is equal to 0.01. The positive relationship signifies that as knowledge of adolescent rural girls of Nadia district increases, the attitude towards menstrual hygiene increases significantly. So, the hypothesis $H_4$ is
accepted at 0.01 levels of significance. Therefore, we can conclude that, there is a positive relationship between planned teaching as well as knowledge with attitude regarding menstrual hygiene. A systematic review reported that, in majority of cases, the menstrual hygiene attitude had improved after teaching as total mean score increased than earlier(after teaching). Research shows that, menstrual hygienic attitude can be highly improved after imputing of knowledge. 90% positive attitude was obtained after planned teaching. 

**Conclusion:-**

One of the most important objectives is to input the knowledge about menstruation, to develop a good attitude and maintenance of healthy practice among the adolescent rural girls of Nadia district. From the present study, we found some innovative ways to enrich our young health. We should look for some innovative ways, for making pads available at geographically separated areas and make affordable or budget friendly to all adolescent school girls as government can set up vending machine to provide sanitary pads nearby belonging to all sections of society. The knowledge of menstruation could be incorporated into health education. The output of good menstrual hygiene knowledge also plays an important role in family planning and in antenatal clinics. With the help of these life skills education pupil can have the minimum menstrual hygiene knowledge, which helps them to prepare good hygienic practices and to take necessary steps. Many pupil should know about proper menstrual waste disposal facilities and need of the bin for management of waste materials. Female Teachers should create an environment in the school that open discussion about menstrual issues in the class rooms or in the school environment must be encouraged. Therefore, health education should be planned when the girls are in the pre-pubertal stage (this is the stage when primary sexual characteristics appears before menstruation), when they are in secondary school. Different types of initiatives like video or virtual teaching program on menstrual hygiene and mass media education also can be used for betterment of the cognitive aspect of adolescent girls and enrich the knowledge of menstruation because most of the information on menses, menarche, menstrual hygiene remains personal and abstract and it is difficult for girls and their mothers to assimilate. In rural areas of our country health education and proper hygienic practices are very much neglected, so some appropriate and suitable health policies may help the pupil to address and solve the problems of them, who are very active in social reproduction due to lack of proper knowledge and for the girls who have lived in rural areas, where every facilities are not available yet.

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