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Original Research

A study to assess the effectiveness of structured teaching programme on knowledge and practice regarding menstrual hygiene among adolescent girls studying in selected schools at Ajmer, Rajasthan

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ABSTRACT:

Aim: A study to assess the effectiveness of structured teaching programme on knowledge and practice regarding menstrual hygiene among adolescent girls studying in selected schools at Ajmer, Rajasthan. **Material and methods:** This study was done in the department of nursing after taking the permission from the ethical committee. One group pre test and post test design was adopted for this study. The pre survey for the selected adolescents girls and had manipulated the independent variable i.e. structured teaching programme on menstrual hygiene which was administered to the same group of adolescent girls. Then the post survey was conducted after 6 months. Finally the effect of the structured teaching programme on menstrual hygiene on dependent variable i.e. the knowledge and practice belief was computed by the post test. **Results:** With regarded to scores, during pre test 300 (75%) adolescent girls had Inadequate knowledge, 76 (19%) had Moderately adequate knowledge and 24 (06%) of adolescent girls had Inadequate knowledge regarding menstrual hygiene. post-test 16 (04%) adolescent girls had below level knowledge, 56 (14%) adolescent girls had Moderately adequate knowledge and 328 (82%) adolescent girls had Adequate knowledge regarding menstrual hygiene. With regarded to scores, during pre-test 348 (87%) adolescent girls had Inadequate practice,44(11%) had Moderately adequate practice and 08 (02%) of adolescent girls had Adequate practice regarding menstrual hygiene. post-test 36 (04%) adolescent girls had Inadequate practice, 28 (07%) adolescent girls had Moderately adequate practice and 336 (84%) adolescent girls had Adequate practice regarding menstrual hygiene. **Conclusion:** Education about menstrual hygiene should be implemented in all schools. Teachers should instruct the girls to follow the regular practice of menstrual hygiene in school. Women associations and professional organizations related to women health care should promote public discussion through seminars, workshops and conferences on menstrual health issues.

Keywords: Structured Teaching Programme, Knowledge, Practice, Menstrual Hygiene Adolescent Girls

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INTRODUCTION

Reproductive health is a crucial part of general health and a central feature of human development. Reproductive health deals with the reproductive processes, functions and system at all stages of life. Reproductive health is a universal concern, but is of special importance for women particularly during the reproductive years. Personal hygiene during menstruation explored including bathing and showering, and buying and using sanitary protection products.[1] WHO has defined Adolescence as the period between 10-19 years of life. Adolescent girls constitute about 1/5th total female population in the world. Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. This period is marked with onset of menarche.[1] Menstruation is a phenomenon unique to all females. Women having a better knowledge regarding menstrual hygiene and safe menstrual practices are less vulnerable to reproductive tract infections and its consequences. The menstrual cycle, under the control of the endocrine system, is necessary for reproduction. It is commonly divided into three phases: the follicular phase, ovulation, and

the luteal phase; although some sources use a different set of phases: menstruation, proliferative phase, and secretory phase. Menstrual cycles are counted from the first day of menstrual bleeding.[3] In the menstrual cycle, changes occur in the female reproductive system as well as other systems. A woman's first menstruation is termed menarche, and occurs typically around age 12-13. The average age of menarche is about 12.5 years. But is normal anywhere between ages 8-16.

Factors such as heredity, diet and overall health can accelerate or delay menarche. The end of a woman's reproductive phase is called the menopause, which commonly occurs somewhere between the ages of 45-55.[4] In World Health Organization report is, poor menstrual hygiene in developing countries has been an insufficiently acknowledged problem. In several cultures there are taboos1concerning blood, menstruating girls and women and menstrual hygiene. Approximately 50% of the world's population knows from their own experience how important good menstrual hygiene is to be able to function optimally during the menstruation period. Yet this is hardly realized by in particular politicians, programmers and policy makers. This is also surprising in view of the explicit relation of this issue to water and sanitation and the distribution of all kinds of diseases, which can be reduced considerably by good hygiene.

Menstruation is a physiological phenomenon which is unique to females that begins in adolescence. Most of the girls receive their gynecological information from their mothers, religious books, older sister or a peer. However such information was generally given after menarche rather than before. The social stigma attached to menstruation causes many girls and women to carryout dangerous hygiene practices. Lacking a platform to share menstrual hygiene problems, girls and women often suffer from discomfort and infection. In the existing Indian cultural milieu, there are several traditions, myths, misconceptions, mystery and superstition prevailing about menstruation. She may be discouraged from somatic, outdoor activities, discontinue bathing, and she may be encouraged to stay at home for a day from school or the office. The menstruating woman in some religion is not allowed to pray and touch their religious materials. Due to these restrictions women often manage menstruation with methods that could be unhygienic or inconvenient, particularly in poorer settings. Without good information, young girls may be frightened at the onset of their period and may be anxious about the process**.** Hence there is a need to provide healthy family life education to the woman particularly the adolescent girls.[7,8]

The length of an average menstrual cycle lasts 3-5 days counting from the first day of one period to the first day of the next. Normal cycles can vary 23-35 days. The number of days a woman menstruates varies. Periods lasting 3-5 days are average and some are as long as 7 days and during each month that a small amount of bloody fluid flows from vagina. The flow begins slowly - it doesn't spurt or gush-and is heavier during the first few days. The flow gradually lessens and then stops. Although, it may seem like you are losing a lot of blood but you're really not. The total amount of flow over an entire period is only about 1/4 cup. A woman spends approximately 2,100 days menstruating. That's almost six years of her life. These six years spread over a productive life of 50 years and can potentially decide how healthy a woman's life will be.[9]

It's also normal that the duration of the period may vary. Sometimes a girl may bleed for 2 days and sometimes it may last a week. That's because the level of hormones the body manufactures can be different from one cycle to the next and this affects the amount and length of bleeding. Some girls' periods arrive like clockwork. Others get theirs at slightly different times each month. Many girls get regular period most of the time, but occasionally skip a period or get an extra period during times of pressure or stress. Menstruation is generally considered social stigma in Indian society. Isolation of the menstruating girls and restrictions imposed on them in the family have reinforced negative attitude among girls. Several studies have reported restrictions in daily activities such as not being allowed to take bath, change clothes, comb hair and enter holy places. Apart from these, dietary restrictions during menstrual period are also imposed.

MATERIAL AND METHODS

This study was done in the department of nursing after taking the permission from the ethical committee. One group pre test and post test design was adopted for this study. The pre survey for the selected adolescents girls and had manipulated the independent variable i.e. structured teaching programme on menstrual hygiene which was administered to the same group of adolescent girls. Then the post survey was conducted after 6 months. Finally the effect of the structured teaching programme on menstrual hygiene on dependent variable i.e. the knowledge and practice belief was computed by the post test.

The study design is represented as follows:

0_1 x 0_2

0_1- Pre - survey for the assessment of level of knowledge and practice towards menstrual hygiene.

X- structured teaching programme on menstrual hygiene.

0_2- Post survey for the assessment of level of knowledge and practice towards menstrual hygiene.

INCLUSION CRITERIA

- Adolescent girls who are having menstrual periods
- Adolescent girls who are willing to participate.
- Adolescent girls who are available during the period of data collection.
- Adolescent girls who able to write and read

English.

EXCLUSION CRITERIA

- Adolescent girls who are not having menstrual periods
- Adolescent girls who are not willing to participate.
- Adolescent girls who are unavailable during the period of data collection.
- Adolescent girls who unable to write and read English.

The data was collected within the prescribed time period in selected Adolescent girls who are studying in selected schools Ajmer, Rajasthan

METHODOLOGY

Prior to data collection permission was obtained from the schools authority. The researcher was introduced herself to the subjects. By using Non probability Convenient sampling technique subject was assigned. Informed consent was taken from all the subjects after explaining the purpose of the study. Pre test was conducted by using structured knowledge and practice questionnaire. Structured teaching was administered to the group. A post test was conducted after the pre test by using structured knowledge and practice questionnaire. The data collected was tabulated and analyzed. The investigator has developed the tool after an extensive review of literature and discussion with experts in order to select the most suitable and appropriate assessment tool for the data collection. Tool was developed in Hindi for data collection. It has 10 questions and for every correct answer 1 mark was awarded and for every incorrect answer '0' mark was awarded. Therefore the maximum mark awarded for the questions was 10 marks. Following decisions were made about the end of knowledge based on the total number of marks scored by the each sample cases.

0-50 percent- Inadequate knowledge
51-75 percent - Moderately adequate knowledge
76-100 percent - Adequate knowledge

RESULTS

Table 1 show that 68.50% of the respondents have attained menarche between 11-12 years; 27.75% of the respondents attained menarche in the age of 12-13 years and only 3.75% have attained menarche between 13-14 years. It is found from the above data that most of the girls attained menarche between 11-13 years (96.25%). 81.75% of the girls were Hindu; 11.25% were Christians and only 7% were Muslims. It is seen from the above data that girls belong to Hinduism and Islam constitute majority of the respondents (88.75%). 79.25% of the respondents lived in nuclear families and only 20.75% were living in joint family system. The result reveals that the majority of the girls (79.25%) belong to nuclear families which clearly indicate that most of the adolescent girls may lack in knowledge about menstruation and its hygienic practices. The monthly income of 55.25% of the respondents was less than Rs.3000; 35.25% of the respondents' monthly income was less than Rs.5000 and only 9.50% of the respondents' monthly income was greater than Rs.5000. 33.25% of the respondents' mothers were literate; 26.25% of the respondents' mothers have studied up to 8th standard and 24.25% were illiterate. Only, a small percent of the mothers have studied up to 10th standard and above (12% and 4.25%).

Table 1 Demographic profile of the participant

Menarche Age	Number	%
11 -12	274	68.50
12 – 13	111	27.75
13 – 14	15	3.75
Religion		
Muslims	28	7.00
Hindus	327	81.75
Christians	45	11.25
Family Type		
Joint Family	83	20.75
Nuclear Family	317	79.25
Family Income		
Below 3000	221	55.25
3001- 5000	141	35.25
Above 5001	38	9.50
Status of the Mothers Education		
Illiterate	97	24.25
Primary	133	33.25
Middle	105	26.25
High School	48	12.0
HSc	17	4.25

Table 2 Sources of Knowledge of the Respondents

Source of Knowledge	Frequency	Percentage
Mother	192	48
Friends	82	20.5
Teachers	86	21.5
All the above	40	10
Total	400	100.0

Table 2 shows that mothers were the main sources of knowledge about menses (48 percent); teachers (21.5 percent); friends (20.5 percent) and all the three were the sources (10 percent) of knowledge about the menses.

Table 3 Type of Sanitary Materials used by the Respondents during Menstruation

Sanitary Pads	Frequency	Percentage
New Cloth Pieces	73	18.25
Readymade Sanitary Pads	297	74.25
Not use anything	12	3.0
Re-using cloth piece	18	4.5
Total	400	100.0

The above table 4.8 shows that 74.25 percent of the respondents' were using the readymade disposable sanitary pads; 18.25 percent of the girls were using new cloth pieces and only 4.5 percent of the girls reused the cloth pieces. The above findings reveal that though many of the respondents (74.25 percent) preferred to use readymade sanitary pads, a good number of girls used traditional type of materials such as new and old cloth pieces.

Table 4 Type of Sanitation Facilities available in the House of the Respondents

Type of Sanitation Facilities	Frequency	Percentage
Own toilets	261	65.25
Public toilets	139	34.75
Total	400	100.0

Table 4 show that 65.25 percent of the respondents used own toilets and the public toilets were used by 34.75 percent of the girls.

Table 5 Comparison knowledge score regarding menstrual hygiene among adolescent girls

Level of Knowledge	Pre-Test		Posttest	
	F	%	F	%
Inadequate knowledge (0-50%)	300	75	16	4
Moderately adequate knowledge (51- 75%)	76	19	56	14
Adequate knowledge. (76-100%)	24	06	328	82

The table 5 showed the association of pre and post test level of knowledge regarding menstrual hygiene. With regarded to scores, during pre test 300 (75%) adolescent girls had Inadequate knowledge, 76 (19%) had Moderately adequate knowledge and 24 (06%) of adolescent girls had Inadequate knowledge regarding menstrual hygiene. post-test 16 (04%) adolescent girls had below level knowledge, 56 (14%) adolescent girls had Moderately adequate knowledge and 328 (82%) adolescent girls had Adequate knowledge regarding menstrual hygiene.

Table 6: Comparison of practice score regarding menstrual hygiene among adolescent girls

Level of Practice	Pre-Test		Posttest	
	F	%	F	%
Inadequate practice (0-50%)	348	87	36	4
Moderately adequate practice (51- 75%)	44	11	28	7
Adequate practice (76-100%)	08	2	336	84

The table 6 showed the association of pre and post-test level of practice regarding menstrual hygiene. With regarded to scores, during pre-test 348 (87%) adolescent girls had Inadequate practice,44(11%) had Moderately adequate practice and 08 (02%) of adolescent girls had Adequate practice regarding menstrual hygiene. post-test 36 (04%) adolescent girls had Inadequate practice, 28 (07%) adolescent girls had Moderately adequate practice and 336 (84%) adolescent girls had Adequate practice regarding menstrual hygiene.

Table 7 Knowledge pre-test and post-test mean and score of the Respondents on Menstrual Hygiene

Knowledge	Mean	SD
Pre Test	6.01	2.11

Post Test	9.39	1.98

The data in the table 7 show that the mean score on knowledge on menstrual hygiene of the respondents is 6.01 with standard deviation of 2.11 before the planned teaching program. After the planned teaching program the mean score is 9.39 with standard deviation of 1.98.

Table 8 Practice Mean and SD of Menstrual Hygiene of the Respondents

Practice	Mean	SD
Pre Test	7.48	2.02
Post Test	10.31	1.04

Table 8 shows that the mean score of practice on menstrual hygiene of the respondents is 7.48 with SD of 2.02 before the structured teaching programme and after the structured teaching programme the mean score is 10.31 with SD of 1.04.

Table 9 Significant difference between Pre-test and Post-test and Knowledge and Practice of the Respondents on Menstrual Hygiene

Knowledge and Practice	Pre test		Post test		t value	P value
	Mean	SD	Mean	SD		
Knowledge	6.11	2.36	9.47	2.06	51.93	0.000**
Practice	8.03	2.61	10.84	0.77	35.96	0.000**
Overall Score	14.14	4.97	20.31	2.83	87.89	0.000**

It is concluded that there is a significant difference between the pretest and post test and KP gained on menstrual hygiene.

Table 10 ‘t’ test for Significant difference between Type of Family of the Respondents and Gain score on Knowledge and Practice

Gain Score on Knowledge and Practice	Type of family	Mean	SD	t value	P value
Knowledge	Nuclear family	3.11	2.09	1.667	0.21
	Joint family	3.97	2.27		
Practice	Nuclear family	3.44	2.36	1.711	0.21
	Joint family	3.71	2.29		
Overall Score	Nuclear family	6.55	4.45	0.043	0.42
	Joint family	7.68	4.56		

We can assume that there is no significant difference between nuclear type of family and joint type of family and gain score of KP.

Table 11 Significant difference between Type of Toilet usage and Gain Score on Knowledge and Practice

Gain Score	Type of toilet usage	Mean	SD	t value	P value
Knowledge	Own toilets	3.69	1.01	0.031	0.88
	Public toilets	3.72	1.47		
Practice	Own toilets	1.77	1.41	0.511	0.57
	Public toilets	1.91	1.49		
Overall Score	Own toilets	5.46	2.42	0.542	0.22
	Public toilets	5.63	2.96		

There is no significant difference between the usage of own toilets and public toilets and gain score of KP.

Table 12 significant difference between the Age (in years) and gain score ofKnowledge and Practiceon menstrual hygiene

Gain score on Knowledge and Practice	Age (in years)	Mean	SD	F value	P value
Knowledge	11 -12	3.23	2.01	0.713	0.61
	12 – 13	2.99	1.11		
	13 – 14	2.71	1.02		
Practice	11 -12	3.01	2.41	5.21	0.003**
	12 – 13	2.83[ab]	2.01		
	13 – 14	2.63[a]	1.77		
Overall Score	11 -12	6.24	4.42	5.31	0.000**
	12 – 13	5.82	3.12		

	13 – 14	5.34	2.79		

Table 13 Significant difference between the Age of Menarche and Gain Score of Knowledge and Practice on Menstrual Hygiene

Variables	Age of Menarche	Mean	SD	F value	P value
Knowledge	11 -12	3.71	2.11	1.45	0.36
	12 – 13	3.41	2.63		
	13 – 14	2.88	2.76		
Practice	11 -12	1.99[a]	2.26	8.63	0.001**
	12 – 13	2.17[b]	2.21		
	13 – 14	2.11[ab]	2.19		
Overall Score	11 -12	5.70	4.37	10.08	0.000**
	12 – 13	5.58	4.84		
	13 – 14	4.99	4.95		

Hence there is a significant difference between Age of Menarche and to gain score of attitude, practice and overall score on menstrual hygiene. Based on Duncan Multiple Range Test (DMRT), the age group of 13-14 years and 15-16 years are significantly different in knowledge and practice of menstrual hygiene than the age of adolescents girls.

Table 14: ANOVA for Significant difference between the Sources of Information and Gain Score of Knowledge and Practice on Menstrual Hygiene

Gain score of Knowledge and Practice	Source of Information	Mean	SD	F value	P value
Knowledge	Mother	3.13	2.16	0.761	0.42
	Friends	3.05	2.24		
	Teachers	4.12	2.17		
	All the above	3.61	2.65		
Practice	Mother	3.40	2.35	0.472	0.63
	Friends	3.94	2.52		
	Teachers	3.02	2.35		
	All the above	3.71	2.86		
Overall Score	Mother	6.53	4.51	0.813	0.35
	Friends	6.99	4.76		
	Teachers	7.14	4.52		
	All the above	7.32	5.51		

There is no statistically significant difference between the sources of information and the gain score of knowledge practice and overall score on menstrual hygiene.

Table 15 Significant difference between the Use of Sanitary Materials and Gain Score of Knowledge and Practice on Menstrual Hygiene

Gain score of Knowledge and Practice	Sanitary pads	Mean	Std. Deviation	F value	P value
Knowledge	New Cloth Piece	1.98	2.01	2.34	0.08
	Cotton Wool	2.82	2.83		
	Readymade Sanitary Pads	3.01	2.07		
	Not use anything	2.32	2.49		
	Re-using cloth piece	3.06	2.18		
Practice	New Cloth Piece	1.94[a]	2.83	2.49	0.05*
	Cotton Wool	1.99[b]	2.42		
	Readymade Sanitary Pads	1.82[a]	2.84		
	Not use anything	2.88[b]	2.15		
	Re-using cloth piece	1.92[b]	2.19		
Overall Score	New Cloth Piece	3.92	4.84	1.13	0.45
	Cotton Wool	4.81	5.25		
	Readymade Sanitary Pads	4.83	4.91		
	Not use anything	5.20	4.64		
	Re-using cloth piece	4.98	4.37		

Among the girls who used sanitary pad, new cloth, cotton wool or readymade pads than with the girls who were reusing the cloth pieces for practice of menstrual hygiene.
There is a significant difference Further the above table shows that there is no significant difference between the usage of sanitary pads and gain score of Knowledge and overall since P value is greater than 0.05.

Table 16 Correlation Coefficient between KP of Gain Score on Menstrual Hygiene

	Knowledge	Practice
Knowledge	1.000	0.151**
Practice	0.152**	1.000

The above table shows the relationship between the planned teaching programme on menstrual hygiene (X) and knowledge and practice gained on hygienic menstrual practices (Y). To establish the relationship between these two, correlation coefficient is used. According to the statistical calculation of correlation co- efficient of X on Y is 0.089 which means a strong positive relationship between X and Y. That is, the planned teaching programme on menstrual hygienic practices influenced the Knowledge and Practice gain score on menstrual practices.

DISCUSSION

In the present study frequency distribution of age group of adolescent girls shows that 56.75% of the respondents were in the age group of 12-13 years; 25.25% of the respondents were in the age group of 11 -12 years and 17% of the respondents were in the age group of 13 - 14 years. It is found that more number (56.75%) of girls attained menses at the age of 16. This also means that there are more number of girls in the economically active and socially reproductive categories. These challenges include lack of awareness about reproductive system and reproductive related diseases. 68.50% of the respondents have attained menarche between 11 -12 years; 27.75% of the respondents attained menarche in the age of 12 - 13 years and only 3.75% have attained menarche between 13 - 14 years. It is found from the above data that most of the girls attained menarche between 11 - 13 years (96.25%). Thus, it is suggested that girls in the age group of 12 - 13 years should be sensitized on menstrual hygiene. Moreover, they need a special medical care as they are very important human resource of our country. Acharya et al [10] has identified that the nutritional status has an important role in the attainment of menarche as the nutritional status improves, the age at menarche is lowered. He also explained that as Body Mass Index(BMI) increased, the number of girl staining menarche also increased. This trend was statistically proved. There was also a significant difference between the mean BMI of the girls who had attained menarche and the girls who had not attained menarche. Delayed menarche was seen as a sign of malnutrition and it was shown that nutritional status was strongly and positively associated with age at menarche. Chumlea et al.[11] have analysed the distribution of age at menarche among non-Hispanic white, black and Mexicans American girls in the United States. Menstrual status data were collected from2,510 girls aged 8 - 20 years. Age at menarche were estimated by prob it analysis. The findings show that 90 percent of the girls in the UnitedStatesaremenstruatingbetween11-13yearsofage.

In the present study, 33.25% of the respondents' mothers were literate; 26.25% of the respondents' mothers have studied up to 8th standard and 24.25% were illiterate. Only, a small percent of the mothers have studied up to 10th standard and above (12% and 4.25%). Adhikari et al.[12] reported that many girls get knowledge from mothers. Many studies show that mothers were uneducated and they hesitated to express their views on menses. Socio - economic status was one of the most influencing factors of the behavior of girls. Houston A. et al[13] statedin his study that parent occupation and mean menarche age of the daughters were strongly associated and found that when the parent income increased, the mean menarcheal age also increased.

74.25 percent of the respondents' were using the readymade disposable sanitary pads; 18.25 percent of the girls were using new cloth pieces and only 4.5 percent of the girls reused the cloth pieces. The above findings reveal that though many of the respondents (74.25 percent) preferred to use readymade sanitary pads, a good number of girls used traditional type of materials such as new and old cloth pieces. Gilanyetal who studied Egyptian girls were also of the similar opinion. However, there was an inverse relation between Socio - economic status and need for more information about menstrual practices. A case study was conducted on menstrual hygiene among the adolescent girls at Nemmeli School, Kanchipuram district by Sanjeetha R et al[14] and found that the girls belong to low income group cannot afford to buy sanitary napkins and so adolescent girls used the age old cloth method.Other studies have also shown close relation between the low socio-economic status and lack of access to information about menstruation and to sanitary products for maintaining menstrual hygiene. All these factors are affecting the menstrual behavior. Poverty is more than just the lack of income. It includes lack of access to services, resources, skills, vulnerability, insecurity and powerlessness.[14]

Rewatkar K et al [15] of WATER AID India mentioned that 20 percent of the respondents did not use toilets during their menstrual cycle. The main reasons stated for not using toilets were fear of staining the toilets

and non availability of disposable and water facilities.[15]

The hygienic practices were different among girls of 19 years and above age as compared to younger ages.[16] The present research underlines a significant association between the type of napkin/ pads used and the age (p=0.001) of the participants and higher proportion of older girls used disposable pads than the young girls. There was statically a significant association between socio- economic status and practices such as used disposable pads, storage behaviour, wearing stained dresses and expressing the need for information about menstruation.[16]

George M et al [17] Has found low literacy level among mothers of the girls. Her study shows that 46.87 percent of the girls belonged to middle socio-economicclass. The findings of the present research reveal a significant difference between the Age and the gain score level of Knowledge, and Practice and the f values were calculated as 0.717, and 5.21.Since P value is less than 0.001, null hypothesis is rejected at 0.05 level of significance with respect to attitude and practice. Hence, there is a significant difference between the age group and the gain score of practice.

Ingrid S et al[18] defined adolescence as a period of personal development during which young person must establish a personal sense of individual identity and feelings of self - worth which include an alteration of his or her body image, adaptation to mature intellectual abilities, adjustment to societal demands for behavioral maturity, internalizing a personal value system and preparing for adult roles.[18]

Suchitra et al [19] has studied reaction of girls to menarche and found that the reaction of the girls varied from shock to neutral feelings-bearing a direct correlation with prior knowledge. Mother, friends and schools were the key sources of information. The findings of the present study show no difference between usage of toilets and gain score with the level of Knowledge and Practice and the t values were calculated as 0.031 and 0.511.Since the calculated value is greater than the p value, null hypothesis is accepted at 0.05 level of significance with respect to attitude, practice and overall scoreon KP. Hence there is no significant difference between the usages of toilets andgain score of KP.

Anuradha et al [20] in a study related to menstrual hygiene practice found a statistically significant association between menstrual hygiene maintenance and education, socio economic status, knowledge prior to menarche, type of protection, accessibility to water, bathroom facility and menstrual disorder. Further, the study revealed that majority of the girls (60.8percent) dealt with menstruation unhygienically.

Before the planned teaching programme, the mean score of knowledge was 6.01 and the Standard deviation was 2.11, attitude means core was 15.21 and the standard deviation was 2.98 and the mean score of practice was 7.48 and standard deviation was 2.02. After the planned teaching programme, the mean score of knowledge was9.39 and standard deviation was 1.98; attitude mean score was 31.47 and standard deviation was 2.45 and the practice mean score was 10.30 and standard deviation was 1.04. the above results shows that after the planned teaching programme there was an increase in knowledge, and practice of the menstrual hygiene among the adolescents girls.

To test this objective, the researcher had assessed the knowledge and practice of the adolescent girls after six month. There was a significant difference between the pretest and post test and the t values were calculated as 51.93, 87.88 and 35.96 and P value is less than 0.01. There is a significance difference in pre test and post test with respect to KP and Menstrual Hygiene. Based on the test, the mean scores of the posttest are higher than the pretest scores because of the effectiveness of planned teaching programme.

Pokhrel S et al [8] has done a study on menstruation among young girls and recommended that the initial visit to an obestrician-gynecologist for health guidance screening and preventive service should take place around the age of 13 - 15 years. The anticipatory guidance and information to young girls and their parents can help to Ease the transition from childhood to puberty and to healthy adolescence.

Kissling E. A.[21] had under taken a study to assess the Knowledge and practice of menstrual hygiene among tribal (gujar)adolescent girls. The result revealed that girls lacked conceptual clarity about the process of menstruation. Several cultural taboos related to menstruation were practiced among the tribes. The study shows that thelevel of personal hygiene and management of menstruation was found tobe quite unsatisfactory. 98 percent of the girls believe that there should be regular bath during menstrual cycle.

Singh S P et al[22] studied 250 students in suburban district of Tehranand found that a vast majority of students (98.5 percent) viewed that young girls should receive more information about menstrual period and61 percent stated that their mothers were best information source and thus educating the mother could be the main source of information to the young girls.

CONCLUSION

Education about menstrual hygiene should be implemented in all schools. Teachers should instruct the girls to follow the regular practice of menstrual hygiene in school. Women associations and professional organizations related to women health care should promote public discussion through seminars, workshops and conferences on menstrual health issues. Inclusion of pre- menarcheal training in secondary school curriculum would enable the teachers to address the practical aspect of the management of menses in formal school environment.

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