



Original Article

Knowledge and practices regarding menarche and menstrual hygiene among the adolescent girls

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Abstract

An adolescent undergoes an important physical and sexual change and faces several psychological pressures associated with growth and maturity. **Methodology:** The investigator used the non probability-sampling method by using convenient and quota sampling technique. The participants were the 180 adolescent girls of 13 to 15 years of age from selected schools of Sangli city and determining it statistically. **Results:** The demographic characteristics of the adolescent girls shows that majority 80 (44.44%) of samples were in the age of 13 years, 123 (68.33%) belonged to nuclear family, 140 (77.77%) are having 3-6 members at home, the majority of samples 127 (70.55%), age at menarche was 14 years and mother's education 94 (52.22%), had completed upto secondary education. As well finding shows highly significant association between knowledge and practice scores with the standards of study among adolescent girls, as well as mother's education. It was found adolescent girls who are in 9th standard have more knowledge than girls studying in 8th standard. This may be possible because with more experience the girls haven't to handle it well. **Discussion:** The adolescent girls in research show that adolescent girls have average knowledge about menarche and menstrual hygiene in all aspects. This indicates the need for imparting necessary education and information on the anatomy & physiology, interval and duration, meaning and fact related to menarche as well as education to the mother regarding menarche and menstrual hygiene. So that she will contribute to help the adolescent girls to handle the bodily changes during adolescent period in adaptive and participative manner.

Keywords: Effervescent tablet, diclofenac Sodium, FTIR, PVP-K 30, wet granulation.

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1. Introduction

Abioyc-Kutcyi E.A. 2000 observed that the subject of menstruation does not permit itself to be widely studied in traditional Indian society where mere mention of the word can cause

embarrassment. He further said that even students from urban background have an apparent lack of knowledge about menstruation and that many young girls would not admit that

they attained menarche, when approached for an interview to study this process [1].

Adolescent Girls in their teenage have many questions and many uncertainties regarding their physical maturation. In many cases, menstrual hygiene is insufficient, resulting from lack of information and education in the family. The onset of menarche introduces a new dimension of life. To cope with it competent advice, is essential in these habit-forming years. This can correct misconception and lead to proper health care [2].

Sivagam, (2004), Nurses are the appropriate personnel for teaching adolescent girls, about menarche, menstruation, and sexual health and other concepts related to female reproductive health, because their training and knowledge promote a more positive outlook on physiological process associated with sex. So the investigator decided to assess existing level of the knowledge and practices on menarche and menstrual hygiene for adolescent girls in view to develop the information booklet [7].

Objectives of the Study:

- To assess knowledge & practices of adolescent girls regarding menarche and menstrual hygiene.
- To associate the knowledge and practice scores of adolescent girls with selected demographic variables.

Materials and Methods:

The research method adopted for the study was exploratory- descriptive approach. The study was carried out at schools of Sangli City, Maharashtra, India. In this study, the investigator used the Non probability-sampling approach. Using Convenient and quota sampling technique. The participants were the 180 adolescent girls of 13 to 15 years of age, who fit the inclusion criteria, from selected schools of Sangli city and determining it statistically. The study was conducted in the selected eighth and ninth standards of Marathi medium schools of Sangli City. The tool used was self reported structured

questionnaire, which included two sections. Section I consisted items on demographic data of adolescent girl, such as age in years, standard of study, type of family, no. of family members, age at menarche & mother's education. Section II was for the assessment of knowledge and practices regarding menarche and menstrual hygiene, which was divided in the 5 broad aspects. Total 26 items were selected for questionnaire. A blue print was prepared. Every correct answer was given a score of one. The total knowledge was plotted on the scale of three: 1-12 poor. 13-20 average. 21-26 good.

Reliability report

After establishing the validity of the tool, to be used for the study, the final tool was made and then the reliability of the tool was done. The reliability was done in Marathi medium school of Warnali high school & Jr. College Sangli .In this study, the reliability was determined by administering structured questionnaire to twenty adolescent girls. Items of the tool were coded and the reliability co- efficient of correlation was calculated using 'test retest method'. The method of 'test retest' is used to test internal consistency of the tool as well as correlation of the item with the test as a whole. The reliability co-efficient was found to be '0.8'. The tool was accepted as reliable with changes in first section of questionnaires that is open ended to close ended.

Pilot study

The pilot study was conducted from 26\8\12 to assess the feasibility of the study and to decide data analysis plan. Administrative permission was procured formally from the Principal of Wanlesswadi high school & Jr. College Sangli. The pilot study was conducted on 20 adolescent girls from 8th and 9th standard school girls. Data was analyzed by statistical tests. The pilot study did not show any major flaw in the design of questionnaire developed by the researcher.

Results

The Analysis of data was computed in three sections. Section I were shown the data through frequency and percentage. Section II were shown the data on area wise scores knowledge and practices regarding menarche and menstrual hygiene and section III were shown the data of association between the knowledge and practice scores of adolescent girls with selected demographic variables.

Section-I:

Table No-1 shows the demographic data on frequency and percentage of Adolescent girls by their demographic characteristics.

Demographic Characteristics	Frequency	Percentage (%)
Age in years		
13years	80	44.44
14 years	70	38.89
15 years	30	16.67
Standard of study:		
Eighth	90	50
Ninth	90	50
Type of family: -		
Extended	07	03.89
Joint	50	27.78
Nuclear	123	68.33
Number of family Members		
>9	-	-
6-9	40	22.22
3-6	140	77.78
Age at menarche:		
13 years	40	22.22
14 year	127	70.56
15 years	13	7.22
Mother's education:		
Graduate / P.G.	36	20
Secondary	94	52.22
Primary	41	22.78
Illiterate	09	5

The above table shows that majority 80 (44.44%) of samples were in the age of 13 years, 123 (68.33%) belonged to nuclear family, 140

(77.78%) are having 3-6 members at home, the majority of samples 127 (70.56%), age at menarche was 14 years and mother's education 94 (52.22%), had completed upto secondary education.

Section II:

Description of Knowledge of adolescent girls related menstruation and menstrual hygiene. The knowledge score of adolescent girls' related menstruation and menstrual hygiene is divided into three categories: 0% - 35% - Poor(1-12) ,35% -70% - Average(13-20) ,>70%- Good (21-26).

Table-2: Frequency and percentage of knowledge score of adolescent girls' related menstruation and menstrual hygiene.

N=180

knowledge score	Frequency	Percentage (%)
Poor	41	22.78
Average	89	49.44
Good	50	27.78
Total	180	100

Tables shows that majority 49.44 %(89) of adolescent girls' had average knowledge related to menstruation and menstrual hygiene, 27.78% (50) of adolescent girls' had good knowledge.

Area wise score of knowledge about menarche and menstrual hygiene:

In the analysis, mean knowledge and practice score was high in the area of premenstrual manifestation and menstrual hygiene which clearly indicates that there has been a need in the knowledge level of adolescent girls regarding, anatomy & physiology of reproductive system menarche, facts related to the menstruation. So In future researcher can conduct the longitudinal study on information booklet, planned teaching programme on such

issues to improve the level of understanding among adolescent girls.

Mean standard deviation and mean percentage of knowledge of adolescent girls. n=180

Sr. No	Knowledge Items	Max Score	Mean	S.D	Mean %
1.	Anatomy and physiology of female reproductive system	3	1.97	0.423	47.61
2.	Meaning of menstruation	5	3.610	0.448	72.22
3.	Premenstrual manifestation	9	4.900	0.498	54.44
4.	Fact related to menstruation	1	0.678	0.470	67.78
5.	Practices of Menstrual hygiene	15	9.180	0.487	61.26

Table shows that Mean, Standard deviation and Mean Difference of aspects of knowledge of adolescent girls related to related menstruation and menstrual hygiene.

It reveals that maximum mean 4.900 with a standard deviation of 0.498 and mean percentage of 54.44% regarding Premenstrual manifestation also maximum mean 9.180 with a standard deviation of 0.487 and mean percentage of 61.26% regarding Practices of Menstrual hygiene. The mean score of 3.610 with standard deviation 0.448 and mean percentage of 72.22% regarding Meaning of menstruation. The subject obtained minimum score of 0.678 with standard deviation 0.470 with mean percentage of 67.78% regarding Fact related to menstruation.

Section III:

This section finds association between the knowledge and practice scores of adolescent girls with selected demographic variables such as age in years, standard of study, type of family, no. of family members, age at menarche & mother’s education. The associations between the knowledge and practice scores & the

demographic variables were computed using the chi-square test for association.

Table No. 5 Association between knowledge and practice scores and selected demographic variables.

Demographic variables	Knowledge scores				Chi ²	p-value
	Ave.	%	Good	%		
Standards of study:					9.976	.00862**
Ninth	61	33.88	41	22.77		
Eighth	58	32.22	20	11.11		
Mothers Education:					9.890	0.423**
Graduate / P.G.	45	25	15	8.33		
Secondary	70	38.88	10	5.55		
Primary	21	11.66	9	5		
Illiterate	7	3.8	3	1.66		

Ave: Average. **=P<0.01 *=P <0.05

Above table shows highly significant association between knowledge and practice scores with the standards of study among adolescent girls, as well as mother’s education. It was found adolescent girls who are in 9th standard have more knowledge than girls studying in 8th standard. This may be possible because with more experience the girls haven to handle it well. Very poor knowledge is observed among children of illiterate mothers. So it is necessary to educate the familys members especially mothers of adolescent girls regarding menarche and menstrual hygiene.

Discussion

The findings of this study have been discussed with reference to the objectives. The adolescent girls in research show that adolescent girls have less knowledge about menarche and menstrual hygiene in all aspects. This indicates the need for imparting necessary education and information on the anatomy & physiology, interval and duration, meaning and fact related to menarche as well as education to the mother regarding menarche and menstrual hygiene so that she will contribute to help the adolescent girls to handle the bodily changes during adolescent period in adaptive and participative manner.

Area wise analysis of the knowledge score

The adolescent girls usually are shy and timid for discussing about menstruation. So to understand their views to what extent they have knowledge and their practices about menarche and menstrual hygiene area wise assessment part was performed, so thrust area of research will be written educative material to be very effective in educating them on subjects like adolescent health. It can be effective in their health practices in future.

In the present study the sample had 50% knowledge on reproductive system. This indicates that the girl student's knowledge regarding structure and functions of reproductive system was not adequate. These findings are supported by the study conducted by Koff (1995), in which he found that the girls could not interrelate the structure and function of the reproductive system [6].

Similarly, in the present study the girl's knowledge regarding premenstrual manifestation (mean score 54.44%) is high. The reason could be that the girls were sensitive to the changes that occur during premenstrual period. These findings are supported the study conducted by Irinoye OO(2003), in which he reported that the most frequently met somatic symptom were headache (39%), psychological irritability (46%) but some respondents had no complaints about physiological symptoms [3].

The study revealed that the majority of (72.22%mean score) girls had knowledge about menstruation, duration and interval in menstrual cycle. These findings are supported by Fakeye's (1994), study on characteristics of the menstrual cycle. The finding of this study indicates that the girls who received premenstrual counseling had better knowledge regarding interval and duration of menstruation. The correct response on facts related to menstruation revealed that majority of sample had knowledge regarding carrying out the

activities and minority of the sample had answered correctly to the items on blood loss during menstruation. The 61.26% mean score of the sample that correctly responded to items related to practices of menstrual hygiene shows that majority of subjects' responded correctly [2].

Relationship of level of knowledge and practice of subjects with selected variables

The last objective of the study was to associate the knowledge and practice scores of adolescent girls with selected demographics variables. In order to find the relationship between knowledge and selected variable chi-square test was used. X^2 calculated value shows that there was statistically significant association between the education of mother, class in which adolescent girls are studying and the level of knowledge and practice of girls regarding menstruation and menstrual hygiene. It was found that adolescent girls who are in 9th standard have more knowledge than girls studying in 8th standard. This may be possible because with more experience the girls haven to handle it well. These finding are contradictory to a study conducted by James (1997) that "the adolescent and menstrual hygiene". The objective of the study was to find out knowledge and practice of adolescent girls regarding menstrual hygiene and its relationship with selected factors i.e. socioeconomic status, mother's education and years of menstrual experience. A descriptive survey approach was used and a questionnaire was constructed. Convenient and quota sampling was used to select 180 adolescent girls from IX and X standard. Major finding of the study was that adolescent schoolgirls generally did not have adequate knowledge of menstrual hygiene [4].

The finding of study shows that there was no significant association between the knowledge of adolescent girls regarding menstrual hygiene and mothers' education. These findings are supported by the study conducted by Drakshyani

devi (1994) on “menstrual hygiene among rural adolescent girls” This shows that the mothers of these girls did not have the right knowledge and the same thing was transferred to their off springs. Before bringing any change in menstrual practices they should be educated about the facts of menstruation and its physiological implication’s. The girls should be educated about the significance of menstruation and development of secondary sexual characteristics, selection of a sanitary menstrual absorbent and its proper disposal [5].

Another study conducted by Narayan KA (2001), on “Menstrual preparation for adolescent girls living apart from their mothers” menarche is a significant yet anxiety-producing event. Preparation for menarche combats this anxiety. When adolescent girls reach menarche they often seek information about menstruation from their mothers. This study shows the importance of mothers during this period. This study concluded that if mothers have knowledge regarding reproductive health, it would be very helpful for adolescent girls [8].

Conclusion

With reference to findings of the studies indicate that each and every individual is seeking correct information related to the event of their day-to-day life. Some events or processes are personal or embarrassing to discuss in detail. In these cases information booklets and planed teaching programmes are very helpful and handy. Moreover they can read or refer to them at their own pace.

Recommendations:

- A similar study can be done on larger samples.
- A similar study can be done to know the ‘attitudes’ of adolescent girls about menstruation.
- A study also can be done in professional students.

- A comparative study can be done using different educational material.
- A comparative study can do between urban and rural adolescent girls.

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