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Original Research Article

Menstrual Practices and Knowledge among Adolescent Girls: A Cross-Sectional Study in Rural Area of Haryana

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ABSTRACT

Menstrual hygiene and management is an issue that is insufficiently acknowledged and has not yet received adequate attention. We don't have much evidence about practice and knowledge of adolescent girls about menstruation in rural areas of Haryana; hence we conducted a study to assess menstrual practices (expressed) and knowledge of adolescent girls in rural area of Haryana.

Materials and methods: A total of 500 adolescent girls of age group 11-16 Years studying in 10 government schools were included using non-probability Purposive sampling technique. Data was collected using expressed practice checklist (test retest method=0.89) and structured knowledge questionnaire (KR-20=0.77).

Results of study reveals regarding the level of practice score of adolescent girls, 9.2% had healthy level (>75%) of practices, 86% had moderately healthy level (50-75%) of practices, and 4.8% had unhealthy level (<50%) of practices. Further results illustrates that 29% had very good level (>75%) of knowledge, 34% had good level (61-75%) of knowledge followed by 31% with average level (50-60%) of knowledge and 6% had below average level (<50%) of knowledge.

There was a low positive correlation between expressed practice and knowledge score of adolescent girls regarding management of Menstruation as evident by computed 'r' value of 0.49. Expressed practice & Knowledge score of adolescent girl's was having partially significant association with occupational status, religion and source of information.

Conclusion: This study concludes that adolescent girls in rural areas do not have appropriate expressed practice and knowledge regarding menstruation. Efforts should be taken to improve the practice and knowledge of adolescent rural girls regarding management of menstruation

Key words: Adolescent girls, Expressed Practices, Knowledge, Menstruation

INTRODUCTION

In Adolescence, girls prepares for womanhood so it is considered as a period of transition between childhood and adulthood. Rapid physical, mental, social, and emotional maturation occur in this time period. The exact margins of adolescence is challenging to define, but this period is viewed as commencement with the gradual appearance of secondary sexual characteristics at about 11 or 12 years of age and ending with cessation of body growth at 18 - 20 years . Adolescence which literally means, "to grow into maturity". It involves three distinct sub phases: early adolescence (age 11-14years), middle adolescence (ages 15-17 years), and late adolescence (ages18-20 years). [1] Adolescent- defined by the United Nations as those between the ages of 10 and 19 years. There were 1.2 billion adolescents in the world today and out of this adolescent girls in India constitute almost 47 percentage of the population. [2] The most dramatic changes related to

adolescence are the physical changes that occur as a part of pubertal process. [3]

The main pubertal change that occurs in girls is menstruation. This is an important landmark in the process of growth and maturation and prepares them for motherhood. Yesterday's girl is today's adolescent and tomorrow's mother. [4]

Adolescent girls undergo development of secondary sexual characteristics during this period including development of breasts, Appearance of hairs in the armpit, Widening of hips and appearance of pubic hairs, Growth spurts, and Onset of menstruation. [5]

The first period/menstruation usually begins between twelve and fifteen years of age, a point in time known as menarche. The menstrual cycle occurs due to the rise and falls of hormones. The average menstrual cycle is 28 days long. Common sign and symptoms occur during the menstruation includes acne, tender breast, bloating, feeling tired, irritability, and mood changes. [6] Survey showed that about half of the respondents (53%) had been absent in school at least once due to menstruation. Many girls though physically present in the school, were unable to perform well due to poor concentration and attention resulting from the constant worry. [7]

Although adolescence is a healthy period of life, many adolescents are often less informed, less experienced, and less comfortable accessing reproductive health information and services than adults. Many young girls lack appropriate and sufficient information regarding menstrual management. This may result incorrect and unhealthy behavior during their menstrual period. Also many mothers lack correct information and skills to communicate information about menstruation which leads to false attitudes, beliefs and practices in this regard. [6]

Many studies depicted that there is improper and inadequate care and unhygienic practices during menstruation among adolescent girls. An article in The Times of India (2011) revealed that only 12% of menstruating women use sanitary napkins and 88% of women use unsanitized cloth, ashes and husk sand. Incidence of reproductive tract infection is 70% more common among these women. Moreover, hygiene is neglected by girls especially in rural areas, due to lack of availability and inability to afford sanitary napkins. There is lack of awareness of menstrual management which is due to the lack of education related to menstruation and menstrual management. [8] Most of the survey respondents (66%) used reusable cloths to absorb menstrual flow during menstruation, the use being significantly higher among rural than urban school girls. [7]

In an another study it was revealed that knowledge about pubertal changes (menstruation and secondary sexual characteristics) of majority of pre-adolescent girls was below average in both experimental (82.7%) and comparison group (94.2%) and this improved after providing pubertal preparedness programme. [9]

Girls are often reluctant to discuss this topic with their parents and often hesitate to seek help regarding their menstrual problems. Unhygienic menstrual practices may affect their health. Use of sanitary pads may be increasing but not among girls from rural and poor families. The adolescent girls often lack scientific knowledge about menstruation and puberty. Hygiene-related practices of them during menstruation are of considerable importance, as it has a health impact in term of increased vulnerability to reproductive tract infections. [10]

Different cultures view menstruation differently. Menstruation and menstrual practices are still clouded by taboos and socio-cultural restriction. Women remain ignorant of the scientific facts and hygienic health practices which sometimes results into adverse health outcome.

With this background, the study was aimed to assess the knowledge and expressed practice of adolescent girls of rural areas of Haryana so that on further

basis educational programmes can be planned and implemented.

MATERIALS AND METHODS

This quantitative study was based on Descriptive Survey Research Design to test the participants at specified time point. The study was conducted in nine government schools of rural area of Ambala District Haryana, selected by convenience sampling. Data was collected after obtaining clearance from the "institutional ethical committee" and principals of selected schools. The study participants selected by non-probability purposive sampling technique comprised of 500 adolescent girls of age group 11-16 Years of 7^{th}, 8^{th} and 9^{th} class.

Ethical consideration was taken from the MM University institutional ethical committee (under the project number 395). Written informed assent was also obtained from all the participants before starting the study.

Section 1 of tool consist of the sample characteristics, described in terms of Class, Age, Religion, residence, types of family, education status of mother, occupation status of mother, family income, age of first menstruation and source of information.

Section II & III consist of Knowledge and expressed practice that was assessed using a structured knowledge questionnaire and checklist. Areas of the multiple choice questions were based on Female reproductive system, Concept of menstruation (Definition of menstruation, menstrual cycle, menstrual problems, menstrual practices), Menstrual flow (Origin of menstrual flow, duration of menstrual flow, amount of menstrual flow, odour of menstrual flow), Exercise, rest, personal hygiene during menstrual, changing of pads, disposal of pads. This section consists of 35 items which are based on knowledge of adolescent girls regarding menstruation hygiene. Each right consist maximum 1 score and minimum score 0.

Checklist was used for assessing expressed practices regarding management of menstruation. Areas included in the checklist were Hygiene, Diet, Religion, Routine activities, Rest & exercise, Pain relieving measures during dysmenorrhoea. This section consists of 33 items which are based on practice of adolescent girls on management of menstruation. Each right question consist maximum Score1 and minimum score 0 for every wrong response.

Both were validated by 7 experts in the various nursing fields. Reliability of the tool was calculated for structured questionnaire (KR-20= 0.77) and expressed practice checklist (test retest method=0.89).

Data were entered into Microsoft Excel 2007 and analyzed using SPSS 20.0. Categorical data are presented as mean (SD) or median based on the distribution of data. Co-efficient of correlation for determining relation between knowledge & expressed practices & chi square for calculating association of sample characteristics with knowledge & expressed practices were also used.

RESULTS

Most of girls (41%) were in the age group 12-13 years, 23% were in > 13 to 14 years, 29% were in > 14 to 15 years and remaining 7% were from > 15 to 16 years.

Most of girls (58%) were from nuclear family and other 42% were from joint families. In Education status of mother, 34 % were non literate, 31%, 24% were having education up to primary and middle respectively. Majority of mothers (67%) were homemaker. Family income of majority of the families (64%) was less than 5000; others were having family income more than 5000. For most of the girls (45%) age of first menstruation was 13 years, 23% had their first menstruation in the age of 12 years. For more than half adolescent girls (55%) source of information was parents, followed by 26%, for them source of information were friends.

Levels of expressed practice of adolescent girls regarding menstruation was assessed using practice checklist as shown in Fig-1

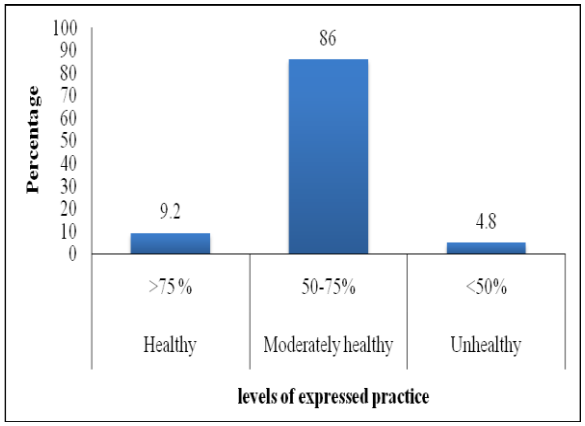

Fig -1 A bar diagram showing the levels of expressed practice of adolescent girls regarding menstruation

Area Wise Mean, Mean percentage of expressed Practice Score of Adolescent Girls was calculated. The highest mean percentage of expressed practice score was 73.87% in the area "menstrual hygiene which is followed by 70.75% in area of "routine activities, rest and exercise", 66.2% was in the area of pain relieving measures & 54.66% was in area of 'diet' and the lowest 48.4% was in the area of 'myths and taboos. Level of knowledge of adolescent girls regarding menstruation was calculated as shown in bar diagram in Fig-2

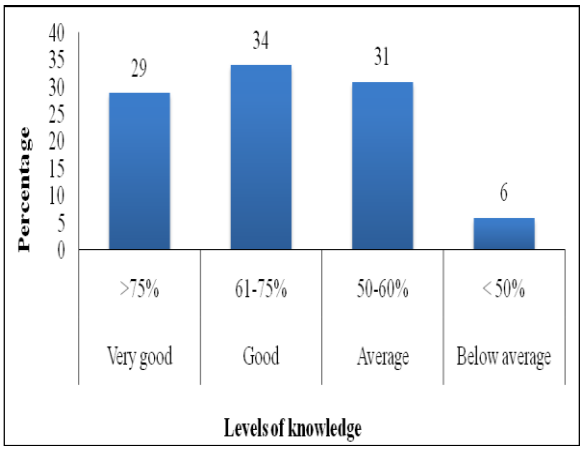

Fig- 2 .A bar diagram showing the level of knowledge of adolescent girls regarding menstruation

Table : 1 Item Wise Analysis of Frequency and Percentage of expressed Practices of Adolescents Girl Regarding Management of Menstruation N=500

		Frequency			
During menstruation, do you:-		Yes	Yes %	No	No %
1.	Bath regularly.	483	96.6	17	3.4
2.	Take hair wash.	294	58.8	206	41.2
3.	Used to play and do exercise.	227	45.4	273	54.6
4.	Face the male persons.	236	47.2	264	52.8
5.	Enter the temple.	131	26.2	369	73.8
6.	Attend puja and religious occasions.	154	30.8	346	69.2
7.	Enters the kitchen.	122	24.4	378	75.6
8.	Remain in bed most of the time.	283	56.6	217	43.4
9.	Go to school.	469	93.8	29	5.8
10.	Help family members in household works.	427	85.4	73	14.6
11.	Use old clean cotton cloths made into pad.	261	52.2	238	47.6
12.	Use the same cloth after washing with soap and water & Keep the same cloth in sunlight for drying	93	18.6	406	81.2
13.	Use commercial pads.	391	78.2	108	21.6
14.	Change pads once a day.	170	34.0	330	66.0
15.	Change pads when soiled or after every 5-6 hours.	423	84.6	77	15.4
16.	Change pad whenever soaked.	463	92.6	36	7.2
17.	Carry extra panties and pads when go out.	447	89.4	53	10.6
18.	Use of cotton panties.	349	69.8	151	30.2
19.	Perform cleaning of perineal area after urination	460	92.0	40	8.0
20.	Dispose use sanitary pads in open area without covering.	58	11.6	442	88.4
21.	Flush used sanitary pads in toilets.	51	10.2	449	89.8
22.	Wash hands after disposing pads.	478	95.6	22	4.4
23.	Take rest, if get pain in the abdomen.	435	87.0	65	13.0
24.	Take hot water bottle, if get pain in the abdomen.	320	64.0	180	36.0
25.	Take analgesics, if get pain in the abdomen.	234	46.8	266	53.2
26.	Use diversional activities like listening music.	366	73.2	134	26.8
27.	Consult doctor, if get irregularities in menstruation.	301	60.2	199	39.8
28.	Use of antiseptics to wash perineal area.	345	69.0	155	31.0
29.	Take plenty of hot water during menstruation	234	46.8	266	53.2

Area Wise Mean, Mean percentage of Knowledge Score of Adolescent girls regarding Management of Menstruation was calculated. The highest mean percentage knowledge score was 79% in the area "diet" which is followed by 65.2% in area of

"concept of menstruation",54.75% was in the area of dysmenorrhea and menstrual irregularities & 54.6% was in area of 'menstrual hygiene' and the lowest (53.1%) was in the area of 'female reproductive system.

Item Wise Analysis of Frequency and Percentage of expressed Practices of rural Adolescent Girl Regarding Management of Menstruation was done to assess their expressed practices on various points as shown in Table -1

Findings regarding the relationship between knowledge score and expressed practice score regarding the management of menstruation among the adolescent girls was calculated. Computed Correlation value (r=0.49) was found to be statistically significant at 0.05 level of significance indicating a low positive correlation between knowledge and practice of adolescent girls as shown in scatter diagram in fig-3

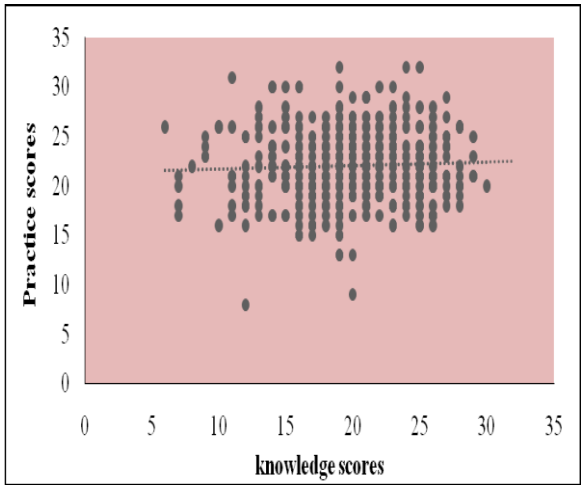

Figure 3: Scatter diagram showing the relationship of knowledge and practice score

The computed chi square value of knowledge score showing association with occupational status of mother (22.78), and the computed chi square value of practice score was found to be associated with religion and source of information, these were found to be significant at 0.05 level of significance.

DISCUSSION

Findings regarding the assessment of level of knowledge regarding management of menstruation among adolescent girls:-

Study results shows that, less than half of adolescent girls 34% had good level of knowledge followed by 31% had average level of knowledge and 29% had very good level of knowledge. Only 6% had below average level of knowledge.

The findings of the study were consistent with study held in Nigeria in 2010 about menstruation and menstrual hygiene on 400 adolescent school going female. In these results shows that 87.5% girls had fair knowledge, 8.5 % had poor knowledge and only 4% girls had good knowledge. [11]

Findings related the assessment of level of practice regarding management of menstruation among adolescent girls:-

Results indicate that the most of adolescent girls 86% had moderately healthy level of practice, 9.2% had healthy level of practice and 4.8% had unhealthy level of practice.

These findings were found to be supported by findings of previously mentioned study in which 88.7 % girls had good level of practice and 11.3 % had bad level of practices. [11]

CONCLUSION

The research of the study revealed that the adolescent girls do not have adequate level of knowledge and healthy expressed practice regarding management of menstruation. So, education programs are required to improve their knowledge and expressed practices up to the level. The finding of present study has implication in various areas of nursing namely: nursing practice, nursing administration, community health nursing and mass media. Regular health education program conducted by the nursing personnel in the community areas helps pre-adolescent girls to deal with management of menstruation. Nursing administration could provide the necessary facilities like educational material, pamphlet, hording and opportunities etc. for

nursing staff to equip themselves with knowledge related to menstruation. The school nurse has a crucial role in the seamless provision of comprehensive health services to adolescent girls. She serves in providing preventive services, early identification and interventions for adolescent reproductive and sexual health problems to foster good health. The basic functions of media are surveillance, interpretation, linkage, transmission of values and entertainment. Media, therefore, plays a major role in shaping the attitudes, perception and beliefs of pre-adolescent girls. It also has power to create and change stereotype. If mass media messages are delivered by strong role models, behavior change can be dramatic.

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