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### RESEARCH ARTICLE

## A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE OF ADOLESCENT GIRLS REGARDING MANAGEMENT OF MENSTRUAL DISORDERS & NUTRITIONAL ANEMIA IN SELECTED HIGH SCHOOL OF RURAL KOLAR.

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#### Manuscript Info

##### Manuscript History

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Menstruation, Nutritional anemia, Adolescent Girls, Menarche, Menstrual disorders.

#### Abstract

**Background:** Menstrual disorders such as amenorrhea, dysmenorrhea and premenstrual syndrome are particularly common among adolescent girls. The knowledge on normal menstrual cycle and managing these disorders properly is very essential for adolescent girls. Hence the present study was undertaken with an aim to assess the knowledge on management of menstrual disorders & nutritional anemia among adolescent girls and to evaluate effectiveness of planned teaching programme on management of menstrual disorders and nutritional anemia. **Material and methods:** with quasi experimental design, using random sampling technique, 40 adolescent girls were assessed for their knowledge on management of menstrual disorders & nutritional anemia followed by planned teaching programme was administered. After 15 days post test was conducted. **Results:** Majority of adolescent girls were in age group of 14 years, 82.50% of them were having inadequate knowledge in the pretest, and 75% of them had moderately adequate knowledge in post test. **Conclusion:** The study concluded that planned teaching programme was effective in improving the knowledge level among adolescent girls.

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#### Background:-

India is the one of the fastest growing youth populations in the world with an estimate 190 millions adolescent in which 22% are girls. This is vulnerable period in the human life cycle for the development of nutritional anemia which affects both sexes and all age group.<sup>1</sup> Adolescence itself is a period of growth and development and requires special attention to maintain and promote health and wellbeing.<sup>2</sup> A vast majority of adolescent girls in India are suffering from reproductive health morbidities which may affect normal life of adolescent and young adult women.<sup>3</sup>

A cross-sectional study was conducted to assess the prevalence menstrual problems and nutrition deficiency among adolescent girls studying in senior secondary schools at Shimla in India. For the study 870 students aged 10-19 years were included. The results showed that 53.6% of adolescent girls had anemia with menstrual problems like menorrhagia, polymenorrhea, or irregular menstrual cycle cycles as compared to (46.40%) non-anemic due to nutrition deficiency. The study concluded the adolescent girls need to be educated on management of menstrual problems and nutrition deficiency.<sup>4</sup> In India there is no specific adolescent development programme. Their healthcare needs are served through school health services. Here the community health nurse plays a vital role. She has a major responsibility towards health promotion and development of adolescent girl's health. Hence the present study was undertaken with following objectives.

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**Aims:-**

1. Assess the Knowledge of Adolescent Girls on Management of Menstrual Disorders & Nutritional Anemia using Structured Knowledge Questionnaire
2. Evaluate the Effectiveness of Planned Teaching Programme on Level of Knowledge of Adolescent Girls on Management of Menstrual Disorders & Nutritional Anemia by comparing Pre & Post test Knowledge Scores.
3. Determine the Association between Level of Knowledge of Adolescent Girls on Management of Menstrual Disorders & Nutritional Anemia with selected Socio demographic Variable after implementation of Planned Teaching Programme.

**Settings and Design:-**

Kembodi Janaths High school high of rural Kolar Taluk and the study design is quasi experimental with one group pre test post test design.

**Methods and Material:-**

A quasi experimental with one group pre and post test design was adopted for the study. Based on the objectives of the study a structured knowledge questionnaire and content on Menstrual disorders and Nutritional Anemia was prepared in English then it was translated to Kannada. The tool and content was sent to research and subject experts for its content validity. Structured Knowledge questionnaire had six sub sections on menstrual disorders and its management & 03 sub sections on nutritional anemia and its management. The ethical clearance was obtained from SDUCON ethics committee. Then the list of rural govt high schools (Kembodi Janatha high school Uthnur high school, Devarayasamudhra high school and Hanumanahalli high school) were selected. Through lottery method Kembodi Janatha high school was selected for the study. After obtaining permission from head master of the school, the researchers approached 9<sup>th</sup> & 10<sup>th</sup> standard girl students then explained them about statement of problem and objectives of the study. After obtaining confidentiality from adolescent girls, 40 members who met the inclusion criteria were selected for the study and administered pre test on management of menstrual disorder and nutritional anemia followed by a planned teaching was administered by using charts, LCD and black board for about 45 min. after the completion of 15<sup>th</sup> day of planned teaching program, a post test was conducted by using same tool. The data was collected from 25/11/2016 to 20/12/2016. Then the collected data was analysis by using Descriptive statistics & inferential statistics.

**Statistical analysis used:-**

Descriptive Statistics:

1. Sociodemographic data was analysed by using frequency and percentage.
2. Knowledge was assessed by using mean and Standard deviation
3. Effectiveness of planned teaching programmes was analysed by paired t test
4. Association of knowledge score with socio-demographic data was analysed by using chi square test.

**Results:-****Socio demographic variables of adolescent girls:-**

The socio demographic variables of adolescent girls revealed that majority (62.5%) were with 14 years of age group, 52.5% were from nuclear family, 50% of fathers and 82.5% of mothers of adolescent girls were self employed, 70% each of fathers and mothers of adolescent girls were with below SSLC qualification and the same is presented in table 1.

**Table 1:-**Distribution of adolescent girls based on their socio demographic variables N=40

SI No	Socio demographic variables		Frequency	%
1	Age	14 years	25	62.5%
		15 years	15	37.5%
2	Type of family	Nuclear	21	52.5%
		Joint	19	47.5%
3	Type of food	Vegetarian	12	30%
		Mixed	28	70%
4	Occupational status of	Self employed	20	50%

	father	Employed	20	50%
5	Occupational status of mother	Self employed/house wife	33	82.5%
		Employed	07	17.5%
6	Educational status of father	<SSLC	28	70%
		>SSLC	12	30%
7	Educational status of mother	<SSLC	28	70%
		>SSLC	12	30%
8	Source of information	Family & friends	27	67.5%
		Mass media	13	32.5%

#### Assessment of adolescent girls' knowledge score on management of menstrual disorders and nutritional anemia:-

Based on area wise pretest mean knowledge score on management of menstrual disorders among adolescent girls revealed that the highest mean score (5.68 with SD of 1.07 and 5.12 with SD of 2.38) was seen in the area of anatomy and physiology of reproductive system and management of menstrual disorders respectively. Related to nutritional anemia among adolescent girls revealed that the highest mean score (3.50 with SD of 1.32) was seen in the area of management of nutritional anemia and presented in table 2.

**Table 2:-**Area wise pre test knowledge score among adolescent girls N=40

Sl.No	Area wise knowledge	Mean	SD
1	Anatomy & physiology of female Reproductive System	5.68	1.07
2	Premenstrual syndrome.	1.50	1.21
3	Dysmenorrhea	1.72	0.59
4	Prolonged periods	1.63	0.62
5	Frequent & delayed periods	1.97	0.62
6	Management of menstrual disorders	5.12	2.38
7.	Physiology of blood	1.93	0.57
8.	Nutritional anemia	1.93	0.82
9.	Management of nutritional anemia	3.50	1.32

Based on overall pretest knowledge score obtained by the adolescent girls on management of menstrual disorders and nutritional anemia, they were grouped under inadequate knowledge (who scored below 50%), moderately adequate knowledge (who scored between 50-75%) and adequate knowledge (who scored 76% and above) and presented in Fig.1.

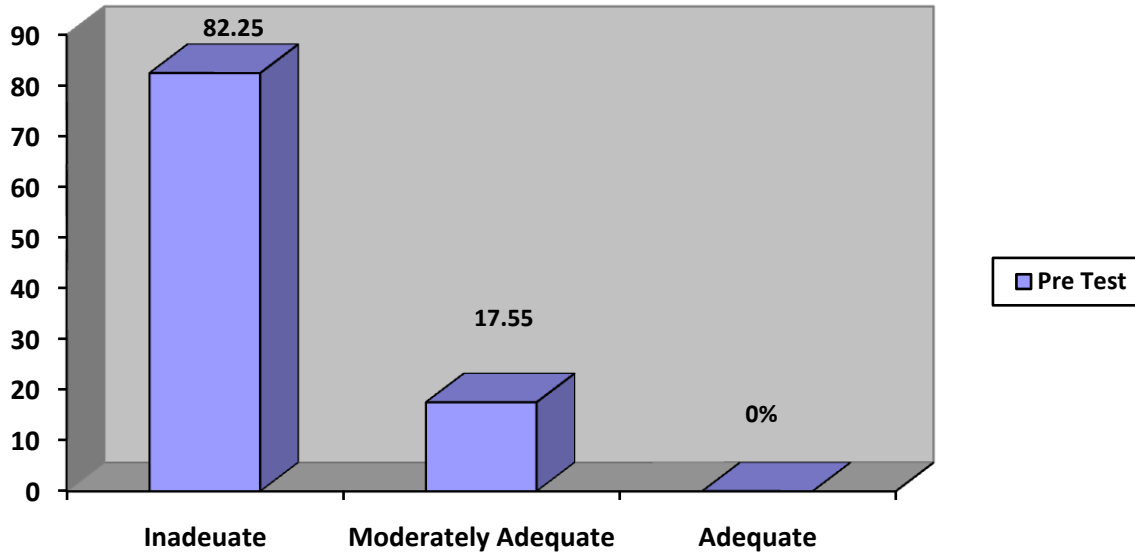


Fig 1:-Distribution of Adolescent Girls Based on Overall Knowledge Scores

#### Effectiveness of planned teaching programme on knowledge regarding management of menstrual disorders & nutritional anemia:-

After planned teaching programme, the adolescent girl's knowledge scores were compared with mean pre and post test scores to assess its effectiveness. The mean pretest knowledge score was 17.63 with SD of 4.12 where as the mean post test knowledge score was 28.30 with SD of 1.24 showing the planned teaching programme was effective in improving the knowledge score of 10.67 which was statistically significant at 0.05 level and the same is presented in table 3.

Table 3:-Comparison of pre and post test knowledge scores N=40

Group	Mean	SD	Paired -t-test	df	P value <0.05%
Pre test	17.63	4.12	15.64	39	.000
Post test	28.30	1.24			

#### Association of knowledge score of adolescent girls with selected socio demographic variables:-

The association of post test knowledge score of adolescent girls with selected socio demographic variables revealed that there was no association between age ( $\chi^2=0.29$ ), type of family ( $\chi^2=0.32$ ), type of food ( $\chi^2=0.07$ ), occupation of father ( $\chi^2=0.34$ ), occupation of mother (fisher exact test = 0.43), education of father ( $\chi^2=0.00$ ) and source of information ( $\chi^2=1.16$ ) except education of the mother ( $\chi^2=4.10$ ) which was significant at  $p<0.05$  level

#### Discussion:-

The present study was undertaken among adolescent girls at Kembodi Janatha high school Kolar. The results related to socio-demographic variables revealed that, out of 40 adolescent girls 62.5% adolescent girls were in the age group of 14 years, 92.5% of them were belongs to Hindu religion, 52.5% of them were from nuclear family, 70% of them were taking mixed diet, 70% of adolescent girls parents, educational status was less then SSLC and their main occupation was agriculture (75%). This study was supported by the study conducted by **Dhara J Prajapati etl (2015)** on knowledge and practice of menstrual irregularities among selected school girls at Kheda district Gujarat<sup>5</sup>

Related to overall knowledge score of adolescent girls on management of menstrual disorders & nutritional anemia revealed that in the pretest majority (82.50%) had inadequate knowledge, 17.55% had moderately adequate knowledge where as in post test majority (75%) of them had moderately adequate knowledge and 25% of them had adequate knowledge and none of them had inadequate knowledge. This study was supported by the study conducted

by **E Premila ela (2015)** on knowledge on menstruation and menstrual hygiene practice and **Mrs. Minakshi Rai etl(2015)** on knowledge on prevention of iron deficiency anemia among early adolescent girls<sup>6</sup>.

Related to the association of post test knowledge score of adolescent girls with selected socio demographic variables revealed that there was no association between age( $\chi^2=0.29$ ), type of family( $\chi^2=0.32$ ), type of food ( $\chi^2=0.07$ ), occupation of father ( $\chi^2=0.34$ ), occupation of mother (fisher exact test = 0.43), education of father( $\chi^2=0.00$ ) and source of information ( $\chi^2=1.16$ ) except education of the mother ( $\chi^2=4.10$ ) which was significant at  $p<0.05$  level. This study was supported by the study conducted by **Minakshi Rai etl(2015)** on knowledge on prevention of iron deficiency anemia among early adolescent girls<sup>6</sup>.

### Conclusions:-

The study has shown that the planned teaching programme was effective in improving knowledge score among adolescent girls on management of menstrual disorders & nutritional anemia.

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