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A study to assess the effectiveness of self-instructional module (SIM) on knowledge regarding selected menstrual disorders and its management among adolescent girls studying in Degree college at Bangalore.

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Abstract: BACKGROUND*: Menstrual disorders are physical or emotional problems that affect the normal menstrual cycle and bring about pain, unusually heavy or light bleeding and missed periods. They are one of the most occurring gynaecologic issues that affect women of child bearing age with a global prevalence of 30-70% and one of the frequent reasons women consult physicians worldwide. In order to evaluate any disorders of menstrual cycle. Different menstrual Disorders are based on Disorders of cycle length and Flow: Oligomenorrhea, Amenorrhea, Hypomenorrhea, Menorrhagia Metrorrhagia, Menometrorrhagia, Dysmenorrhea.* ***METHOD****: The present study designed Quasi Experimental to assess the effectiveness of self-instructional module (SIM) on knowledge by pre and post-test score. The sample size comprises of 60 adolescent girls. Non randomized purposive sampling technique was used as sampling techniques in this study.* ***RESULTS****: In the pre-test knowledge result; 41(68.3%) of respondents had inadequate knowledge, 19(31.7%) of them found to be with moderate knowledge and none of respondents had adequate knowledge regarding. In the post-test knowledge result; 51(85.0%) of respondents had adequate knowledge, 9(15.0%) of them found to be with moderate knowledge and none of respondents had inadequate knowledge regarding menstruation, menstrual disorders and its management.* ***INTERPRETATION AND CONCLUSION:*** *The study concluded that the post-test knowledge of adolescent girls was improved after administering self-instructional module. The overall findings of the study showed that the self-instructional module was effective in improving knowledge level of on adolescent girls regarding menstruation, menstrual disorders and its management.*

Key Words*: Effectiveness, Self-instructional module, Menstrual disorders, Adolescent girls,*

1. INTRODUCTION:

Adolescents may have difficulty raising issues of menstruation with their doctors (Malusetal 1987) and may present with complaints of minor symptoms rather than their primary concerns (Patton, 1999). Treatment must be directed at the specific cause but has often wider implications for life long wellbeing like herbal management, weight management, hormone replacement, sexual health and fertility

2. LITERATURE REVIEW:

A cross-sectional study was conducted on 536 healthy menstruating females aged 10–19 years. A study on menstruation among Indian adolescent girls about different pattern of menstruation in the urban areas of a major city in South India. Standardized self-reporting questionnaires were used to obtain relevant data.

A cross-sectional study was carried out among 100 adolescent girls who attended gynaecological OPD to know menstrual pattern and various menstrual problems. Data was collected by using pre-designed structured questionnaire. Dysmenorrhea was the most common menstrual problem (56%) followed by Oligomenorrhea (48%). Dysmenorrhea

was also the most common reason for absenteeism from school (14%) followed by menorrhagia and dysmenorrhea (8%).

The study was conducted to evaluate causes of menstrual disorders in adolescent girls, who visited the outpatient clinic of the Department of Endocrinology and Diabetology for Children and Adolescents, Wroclaw Medical University, between 2001-2005.The study comprised 76 patients, who visited the outpatient endocrinological clinic because of menstrual disorders.

The descriptive exploratory study design was utilized to determine the herbal remedy used by rural adolescent girls with menstrual disorders. The study comprised 900 adolescent students (aged 12-18years old) from preparatory and secondary schools in rural village in Elbehira governorate, Egypt.

An institutional case–control study was conducted on herbal-tea . Thyme tea, locally known as "tossign tea" aimed to assess the effect of thyme tea-drinking and other dietary factors of school girls on primary dysmenorrhea from December 2019 to March 2020 in the suburbs of Debre Berhan town, Ethiopia., Data were collected through a face-to-face interview using a pre-tested semi-structured questionnaire on 252 (86 cases and 166 controls) study participants.

3. OBJECTIVES:

- To assess the existing level of knowledge regarding selected menstrual disorders and its management among adolescent girls in degree colleges at Bangalore.
- To prepare and administer SIM regarding selected menstrual disorders and its management among adolescent girls in degree colleges at Bangalore.
- To assess the effectiveness of SIM regarding selected menstrual disorders and its management among adolescent girls in degree colleges at Bangalore by comparing pre-test & post-test knowledge scores.
- To determine the association between the pre-test or post-test knowledge scores with their selected demographic variables among adolescent girls regarding selected menstrual disorders and its management.

4. METHODOLOGY:

The present study designed Quasi Experimental to assess the effectiveness of self-instructional module (SIM) on knowledge regarding selected menstrual disorders and its management among adolescent girls studying in degree college at Bangalore. The study selected with one group pre-test and post-test followed by interventional programme: self-instructional module.

Setting: Degree college, Bangalore
Target population: Adolescent girls at the age of 18-21 years.
Accessible population: Adolescent girls studying in degree college, Bangalore
Sampling technique: Non randomized purposive Sampling technique
Sample and sample size: 60 adolescent girls Tools,
Sampling criteria: a) Inclusion criteria: • The adolescent girls- - Who are studying in degree colleges, Bangalore. - Who are willing to participate in the study. - Who are in age of 18-21 years. b) Exclusion criteria: • The adolescent girls- - who are not available at the time of data collection
Data collection procedure: Self-administered structured knowledge questionnaire
Tools:
Section A:
ϖ Socio-demographic data This part consist of 13 items about their Age, religion, education, residence, family, family's income, frequently taking food, menarche age, menstruation interval, menstrual flow, pain during menstruation, knowledge on menstrual disorders, source of knowledge.
Section B:
ϖ Part I: Anatomy & Physiology of female reproductive system- consist of 04 items
ϖ Part II: General information on menstruation - consist of 08 items.
ϖ Part III: Menstrual disorders- consist of 04 items.
ϖ Part IV: Causes and risk factors of menstrual disorders - consist of 04 items
ϖ Part V: Signs and Symptoms of menstrual disorders - consist of 04 items
ϖ Part VI: Diagnosis of menstrual disorders - consist of 04 items.
ϖ Part VII: Medical Management of menstrual disorders - consist of 03 items.
ϖ Part VIII: Surgical Management of menstrual disorders - consist of 04 items.
ϖ Part IX: Herbal Management of menstrual disorders - consist of 06 items

PLAN FOR DATA ANALYSIS: The obtained data was planned to analyse on the basis of objectives of the study using descriptive and inferential statistics.

Descriptive statistics:

- Frequency and percentage distribution of demographic variables were done.
- Mean and standard deviation and mean square percentage were used to determine pretest and post-test.

Inferential statistics:

- 't' test will be used to compare pre-test and post-test.
- Chi-square test will be used to find the association between post-test knowledge and demographic variables.
- Paired 't' test will be calculated to assess the effectiveness of self-instructional module.

Over all Pre-test and Post-test Mean Knowledge scores on Menstrual disorders and its Management

N=6 ***Significant at 5%level, t (0.05,59 df) = 1.96**

Aspects	Max. Score	Knowledge Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	40	17.27	3.15	43.2	7.9	**42.04***
Post test	40	35.08	2.53	87.7	6.3	
Enhancement	40	17.82	3.30	44.5	8.2	

Association between Demographic variables and Pre-test Knowledge level on Menstrual disorders and its Management.

Demographic Variables	Category	Sample	Knowledge Level				X^2 Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Frequency of taking junk food	Junk food	25	17	68.0	08	32.0	**13.84***	P<0.05 (7.815)
	Fruits	10	10	100	00	00.0		
	Vegetables	11	03	27.3	08	72.7		
	Meats	14	11	78.6	03	21.4		
Religion	Hindu	35	24	68.6	11	31.4	**6.98***	P<0.05 (5.991)
	Muslim	12	11	91.7	01	8.3		
	Christian	13	06	46.2	07	53.8		
Area of Residence	Urban	26	19	73.1	07	26.9	**6.73***	P<0.05 (5.991)
	Sub-urban	20	16	80.0	04	20.0		
	Rural	14	06	42.9	08	57.1		
Type of Family	Nuclear	30	25	83.3	05	16.7	**6.24***	P<0.05 (3.841)
	Joint	30	16	53.3	14	46.7		
Age at Menarche (years)	13-14	28	23	82.1	05	17.9	**4.63***	P<0.05 (3.841)

	15-16	32	18	56.3	14	43.8		
Menstruation occur	Regular	39	31	79.5	08	20.5	6.41*	P<0.05 (3.841)
	Irregular	21	10	47.6	11	52.4		

5. RESULTS:

H1 -There will be significant difference between pre-test and post-test knowledge regarding selected menstrual disorders and its management. H0 - There will be no significant variation betwixt pre-test and post-test sense of concept regarding selected menstrual disorders and its management.

H2 -There will be significant alliance betwixt mean pre-test knowledge score with used demographic variables. H0 - There will be no significant association between mean pre-test knowledge score with used demographic variables. The paired 't' test was carried out and it was found invariable significant at P<0.005 level. Hence the null hypothesis H_0 is rejected and the research hypothesis H_1 was accepted. It shows that the evidence that the SIM sound in improving knowledge regarding the menstrual disorder and its management among adolescent girls. ***Significant at 5%level, t (0.05,59 df) = 1.96**

According to association between Demographic variables**;** frequency of taking food**,** Religion, area of residence, type of family, age of menarche, occurrence of menstruation is associated with pre-test knowledge level by Chi-square value is 13.84; 6.98; 6.73; 6.24; 4.63; 6.41. It was found statically significant at P<0.005 level at 2 df

6. DISCUSSION:

The present study conducted among 60 adolescent girls regarding menstruation, menstrual disorders and its management, in Triveni institute of commerce and management, Bangalore. It shows that, the pre-test knowledge result; 41(68.3%) of respondents processes inadequate knowledge, 19(31.7%) of them found to be with moderate 74 knowledge and no respondents process adequate knowledge. In the post-test knowledge result; 51(85.0%) of respondents had adequate knowledge, 9(15.0%) of them found to be with moderate knowledge and none of respondents had inadequate knowledge regarding menstruation, menstrual disorders and its management.

A structured knowledge questionnaire was prescribed to collect the data on knowledge of adolescent girls. The tools were open-ended multiple-choice questionnaire. The questionnaire was prepared in English that consist of 2 sections - Section A-13 items and Section B- 40 items.

The paired 't' test was carried out and it was found invariable significant at P<0.005 level. Hence the null hypothesis (H0) is rejected and the research hypothesis (H1) was accepted. It shows that the evidence that the self-instructional module was effective in improving knowledge regarding the menstrual disorder and its management among adolescent girls.

The Chi-square analysis was carried out to determine the association between pre-test knowledge scores with their selected demographic variables and it found statistically significant at P< 0.05level at 2 df. The research hypothesis (H1) was accepted and the null hypothesis (H0) is rejected. It shows that the evidence that there is significant association between knowledge score with selected demographic variables of adolescent girls.

7. CONCLUSION:

The adolescent girls had some knowledge regarding selected menstrual disorders and its management. The study based on the general system model of bertalanffy's theory. It provides a comprehensive systemic framework for effectiveness of self-instructional module (SIM) to evaluate the knowledge on selected menstrual disorders and its management.

8. LIMITATIONS:

The study is limited to: ♣ Adolescent girls between 18-21 years. ♣ 60 samples ♣ Data collection period is 4 weeks ♣ Knowledge is assessing through closed-ended self-administered questionnaire.

9. RECOMMENDATIONS:

* Similar study can be undertaken in large group

* Can be done with different interventional programme
* Can be done in rural setting
* An experimental study can be undertaken

REFERENCES:

1. DiClemente, R. J., Hansen, W. B., & Ponton, L. E. (1996). Adolescents at risk: A generation in jeopardy. In *Handbook of adolescent health risk behavior* (pp. 1-4). Boston, MA: Springer US.
2. Critchley, H. O., Kelly, R. W., Brenner, R. M., & Baird, D. T. (2001). The endocrinology of menstruation–a role for the immune system. *Clinical endocrinology*, *55*(6).
3. Bieniasz, J., Zak, T., Laskowska-Zietek, A., & Noczyńska, A. (2006). Causes of menstrual disorders in adolescent girls--a retrospective study. *Endokrynologia, diabetologia i choroby przemiany materii wieku rozwojowego: organ Polskiego Towarzystwa Endokrynologow Dzieciecych*, *12*(3), 205-210.
4. Yassin, S. A. (2012). Herbal remedy used by rural adolescent girls with menstrual disorders.
5. Zeru, A. B., & Muluneh, M. A. (2020). Thyme tea and primary dysmenorrhea among young female students. *Adolescent health, medicine and therapeutics*, 147-155.