



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING NON-PHARMACOLOGICAL MANAGEMENT OF DYSMENORRHOEA AMONG ADOLESCENT GIRLS IN NURSING INSTITUTE IN CITY OF LUDHIANA

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Abstract: Dysmenorrhea has affected one third adolescent girls globally. The symptoms which are observed are tiredness, depression, not able to concentrate on the work. This is one of the leading causes of the short term school absenteeism. The non pharmacological treatment management was done using self instructional module. The module was provided to 60 adolescent girls in school of Ludhiana. It was observed that 80% girls were not aware about the knowledge. Paired t test was applied to compare pre and post test knowledge scores and it was observed that $p \leq 0.05$. The self instructional module was found effective.

Index Terms – dysmenorrhoea, adolescent, knowledge.

I. INTRODUCTION

Dysmenorrhea (period pain) affects around three quarters of adolescent girls under the age of 25 worldwide. Primarily dysmenorrhea is defined as menstrual pain in the absence of underlying pathology and is the most common cause of dysmenorrhea in adolescent girls under the age of 25. In addition to painful cramps, many women with dysmenorrhea experience other menstrual related symptoms including back and thigh pain, headaches, diarrhoea, nausea and vomiting. Dysmenorrhea or its associated symptoms often result in a reduction in classroom performance and increased absenteeism at school and tertiary education. Despite this negative impact, most young women frame period pain as a normal part of being a woman, a common theme across varying geographic and ethnic boundaries.

The prevalence of dysmenorrhea in adolescent girls was found to be 79.67%. Most of them, 37.96%, suffered regularly from dysmenorrhea severity. The three most common symptoms present on both days, that is, day before and first day of menstruation were lethargy and tiredness (first), depression (second) and inability to concentrate in work (third). The home remedies for dysmenorrhea includes, hot application measures, exercise, diet, herbs and rest & sleep. Dysmenorrhea is the leading cause of short-term school absenteeism. It is associated with a negative impact on social, academic and sports activities of many 1 female adolescent.

Many research studies states that nonmedical remedies be used in pain, is best treatment for cramps. There was substantial heterogeneity in forest plots and statistic was 98%. Socio economic losses and perceived quality of life losses are more prevalent among girls in urban area than girls in rural area.

So the research was conducted to assess the existing knowledge regarding non-pharmacological management of dysmenorrhoea among adolescent girls before administration of self instructional module.

II. MATERIAL AND METHODS:

The duration of study was from February to March 2020 after obtaining ethical clearance from research committee of Sigma Health Training Institute Ludhiana, Punjab. The study was conducted on 60 adolescent girls studying in college of Nursing, Sigma Health Training Institute Ludhiana Punjab. The age group between 18-21 years adolescent girls were included. The pre- post test study design was performed to compare pre scores and post score using paired 't' test.

The tool was selected on the basis of review of literature, opinion of experts from nursing and research field. The tool was divided in to two section one Socio-demographic variables and Gynaecological profile, section two Multiple choice self-structured questions regarding non-pharmacological management of dysmenorrhea.

The scoring of tool was maximum score for the correct answer to each item was "one" and for wrong response "zero". The maximum possible score was "30" and the minimum possible score was "zero". The level of knowledge was categorized based on the percentage of scores obtained. (Table 1)

0-10	Inadequate
11-20	Moderate
21-30	Adequate

III. RESULTS

3.1 Distribution of adolescent girls as per their socio-demographic variables.

Socio-demographic Variables	Options	Frequency (f)	Percentage (%)
Age in years	18 year	04	6.7
	19 year	13	21.7
	20 year	17	28.3
	21 year	26	43.3
Religion	Sikh	24	40.0
	Muslim	26	43.3
	Hindu	06	10.0
	Christian	04	6.7
Area of residence	Home	09	15.0
	Hostel	48	80.0
	Relative House	03	5.0
Type of family	Nuclear	53	88.3
	Joint	07	11.7
Monthly family income in rupees	≤10,000	08	13.3
	10,001-15,000	05	8.3
	15,001-20,000	22	36.7
	>20,000	25	41.7
Dietary habit/pattern	Vegetarian	17	28.3
	Non Vegetarian	43	71.7

The socio-demographic variables on non-pharmacological management of dysmenorrhea among adolescent girls more than 1/3 adolescent girls 26 (43.3%) were in the age group of 21 years, followed by 17 (28.3%) were in the age group of 20 years, 13 (21.7%) were in the age group of 19 years and rest 04 (6.7%) were in the age group of 18 years. In case of religion out of 60 adolescent girls majority of subjects 26 (43.3%) were belongs to Muslim religion, followed by 24(40.0%) were belongs to Sikh religion, 06(10.0%) were belongs to Hindu religion and rest 04 (9.7%) were belongs to Christian religion. (Table 2)

It was observed that majority of adolescent girls 48 (80.0%) live in hostel, followed by 09(15.0%) live in their homes and rest 03 (5.0%) lives with their relatives. Majority of subjects 53 (88.3%) live in nuclear family and rest 07 (11.7%) live in joint family. (Table 2)

Out of 60 adolescent less than half 25 (41.7%) were having monthly family income of Rs > 20,000 per month, followed by 22(36.7%) were having monthly family income of Rs15, 001-20,000 per month, 08 (13.3%) were having monthly income of Rs.≤10,000 per month and rest 05(8.3%) were having monthly income of Rs 10,001-15,000 per month. Majority of subjects 43 (71.7%) were non-vegetarian and rest 17(28.3%) were vegetarian. (Table 2)

3.2 Distribution of adolescent girls as per Variables for menstruation/menstrual abnormalities

Variables for menstruation/menstrual abnormalities	Options	Frequency	Percentage (%)
Previous knowledge	Yes	12	20
	No	48	80
source of knowledge	Parents	21	43.8
	Friends	13	27.1
	Teachers	8	16.7
	Health Personnel	4	8.2
	Mass media	2	4.2
Duration of menstrual flow	2-3 days	1	1.7
	4-5 days	19	31.7
	6-7 days	35	58.3
	>8 days	5	8.3

The majority of adolescent girls 48(80%) were not having previous knowledge of menstruation/menstruation abnormalities and more than 1/3 of the adolescent girls 21(48.8%) had got knowledge from their parents. It was Observed that more than half 35(58.35) adolescent girls had their flow for 6 to 7 days.

3.3: Frequency and Percentage Distribution of adolescent girls as per their Gynaecological Profile.

Socio-demographic Variables	Opts	Frequency (f)	Percentage (%)
Age at menarche	≤12 year	11	18.3
	13 year	24	40.0
	14 year	18	30.0
	>15 year	07	11.7
Do you have regular Menstrual Flow	Yes	43	88.3
	No	17	11.7
Duration of pain during menstruation	One day	25	41.7
	Two days	16	26.7
	Three days	08	13.3
	Throughout the menstruation	11	18.3
Family History of dysmenorrhea	Yes	44	73.3
	Mothers	31	70.5
	Siblings	13	29.5
	No	16	26.7

The 24(40.05) of adolescent girls attained menarche at the age of 13 years. Majority of adolescent girls 43(88.3%) were having regular menstrual flow, less than half 25(41.7%) were having pain for only one day and majority of 44(73.3%) adolescent girls had family history of dysmenorrhoea. (Table 3)

3.4 Comparison of pre and post scores using Paired t test.

Level of knowledge	Grade	Pre-test score f(%)	Pos-test score f(%)
Inadequate Knowledge	0-10	28(46.8%)	00(0.0%)
Moderate Knowledge	11-20	32 (53.2%)	07 (11.6%)
Adequate Knowledge	21-30	00(0.0%)	53(88.4%)
Mean±S.D.		10.233±2.367	24.967±2.333
P value		0.05	

The pre-test the mean score was 10.233; standard deviation was 2.367 and mean percentage was 34.11% whereas in post-test the mean score was 24.967, standard deviation was 2.333 and mean percentage was 83.22%. The paired 't' test was used to compare the pre and post test knowledge, which was found highly significant at $p \leq 0.05$. It indicates the effectiveness of self instructional module on knowledge regarding non pharmacological management of dysmenorrhea among adolescent girls. (Table 4)

IV. Discussion

Now-a-days many adolescent girls have their activity restricted due to dysmenorrhea. Research studies shows that various home remedies can reduce the dysmenorrhea.

Kalabarathi S, et [10]., conducted study it was found that out of 60 adolescent girls 20 girls (33.33%) had inadequate knowledge, 38 (63.63%) of them had moderate knowledge and 2 (3.33%) had adequate knowledge and in our study it was observed pre test score were found that out of 60 adolescent girls 28 girls (46.8%) had inadequate knowledge, 32 (53.2%) of them had moderate knowledge and no girl had adequate knowledge. But in post test it was observed no girl had inadequate knowledge, 7 (11.6%) of them had moderate knowledge and 53 (88.4%) had adequate.

The study conducted by Nongmeikapam M, et al [13]., on 60 adolescent girls to check effectiveness of self instructional module on knowledge regarding management of dysmenorrhoea among adolescent girls it was observed that they found the p value < 0.05 and the same result were seen in our study where the p value < 0.05 was observed. The study had showed the significant change when pre test compared with post test.

V. ACKNOWLEDGMENT

We would like to thank you to the Principal and the girls participated in the study to complete this article.

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