https://doi.org/ 10.33472/AFJBS.6.9.2024.78-84

African Journal of Biological Sciences

Journal homepage: http://www.afjbs.com

Research Paper Open Access

A study to assess the effectiveness of self-instructional module on knowledge regarding menstrual irregularities among adolescent girls in selected schools of Kathua, Jammu & Kashmir

Jaswinder Kaur[1], Salina Pathak[2], Priyanka Chaudary[3]

[1]Ph.D Scholar, Desh Bhagat Univeristy, Mandigobindgarh, Punjab, India

[2]Desh Bhagat Univeristy, Mandigobingarh, Punjab, India

[3]Associate professor, Medical Surgical Nursing, Akal College of Nursing, Eternal University Baru Sahib, Himachal Pradesh, India

Corresponding author: Mrs. Jaswinder Kaur, Ph.D Scholar, Desh Bhagat Univeristy, Mandigobindgarh, Punjab, India, Email- jkaur4883@gmail.com

Article History

Volume 6,Issue 9, 2024

Received:10 Mar 2024

Accepted : 03 Apr 2024

doi: 10.33472/AFJBS.6.9.2024.78-84

Abstract

Background: Menstruation, commonly referred to as a period or a monthly occurrence, is the regular passage of blood and mucosal tissues through the vaginal opening from the inner lining of the uterus but menstrual irregularities among adolescent may affect the normal life of adolescent girls. Some adolescent girls were suffering by menstrual irregularities like dysmenorrhea, Premenstrual syndrome, Hypomenorrhea, Amenorrhea, Oligomenorrhoea, Menorrhagia, Prolonged menstrual bleeding, Intermenstrual bleeding. The study intended to assess the pretest and posttest on knowledge of menstrual irregularities among adolescent girls in experimental and control group. The study was conducted to evaluate the effectiveness of self-instructional module on knowledge of menstrual irregularities among adolescent girls and determine the association between the level of knowledge with selected demographic variables. **Methods:** using quantitative research approach, the study was used quasi-experimental research (non-randomized control group design), In pilot phase 20 samples were selected by using convenient sampling technique. **Result:** The result showed that in the overall knowledge level of adolescent girls regarding menstrual irregularities, in pretest in experimental group 1(5%) with Moderately adequate knowledge and 19(95%) with Inadequate knowledge ,none of them in adequate knowledge ,in pretest control group, 2(10%) with Moderately adequate knowledge and 18(90%) with Inadequate knowledge whereas in posttest in experimental group14 (70 %) girls had adequate knowledge 6(30 %) had Moderately adequate knowledge ,in control group 1(5%) had Moderately adequate knowledge 19(95%) had with Inadequate knowledge . In pretest in experimental group with mean SD score 14.30±1.49 whereas in control group mean SD score 13.35±2.34. In posttest in experimental group with mean SD score 25.70±2.17 with paired 't' Value 19.14 whereas in control group mean SD score 14.90±1.94 with paired 't' Value 2.09

Conclusion: The study's overall findings showed that knowledge mean score was enhancement in posttest in experimental group as compared to control group thus, self-structured module significantly improved the knowledge regarding menstrual irregularities

Keywords: adolescent girls, Menstruation, Menorrhagia, menstrual irregularities.

INTRODUCTION

Menstruation, commonly referred to as a period or a monthly occurrence, is the regular passage of blood and mucosal tissues through the vaginal opening from the inner lining of the uterus. [1] Adolescent girls constitute vulnerable group particularly in India where female child is neglected one. Menstruation is still regarded as something unclean or dirty in Indian society. The reaction to menstruation depends upon awareness and knowledge about the subject [2].

Menstrual irregularities are common disorders of a woman's reproductive organs, including the uterus and the ovaries. Menstrual irregularities include a variety of condition in which menstruation is irregular, heavy and painful or does not occur at all. The health problems of adolescents are very special [3]. The incidence of menstrual disorders is such as abnormal excessive uterine bleeding was (27.39%), dysmenorrhea was (49.13%), pre-menstrual syndrome was (46.52%), hypo-menorrhea was (59.56%), menorrhagia was (17.82%) and oligomenorrhea was (16.8%). Among these the common menstrual irregularities we were selecting premenstrual syndrome, dysmenorrhea and metrorrhagia.[4]
Dysmenorrhea is one of the most frequently encountered gynaecological disorder, refers to painful menstruation. Usually starting in the lower abdomen, the pain can also extend to the back and inner thighs.[5]Amenorrhea: The absence of menstruation during the reproductive ages of approximately 12 to 49 years is known as amenorrhea.[6]Premenstrual syndrome: Premenstrual syndrome (PMS) is a combination of symptoms that many women get about a week or two before their period. Most women, over 90%, say they get some premenstrual symptoms, such as bloating, headaches, and moodiness. Hypomenorrhea: The term hypomenorrhea refers to abnormally low bleeding, which is significantly less than 30 millilitres every menstrual cycle.[7]

Need of the study:

20% of women in the general population encounter various gynaecological problems, with monthly irregularities worldwide accounting for 75% of these problems. The teenager requires a clear, thorough explanation of their physical changes as puberty draws near Overall 284 (80.7%) of the students reported suffering from one or more types of menstrual dysfunction. [8] .Amenorrhea (absence of menstrual periods) affects around **3-4%** of women of reproductive age. Oligomenorrhea can vary widely, with estimates ranging from **5% - 25%** of women. Menorrhagia affects approximately **10-15%** of women. Dysmenorrhea, estimates that about **50% to 90%** of menstruating women experience some degree of Dysmenorrhea during their reproductive years. Irregular menstrual cycles, affect around **10-25%** of women. Premenstrual Syndrome (PMS) has a prevalence estimated at around **20% to 40%** of menstruating women.[9]

OBJECTIVES:

- To assess the pretest and posttest on knowledge of menstrual irregularities among adolescent girls in experimental and control group.
- To assess the effectiveness of self-instructional module on knowledge of menstrual irregularities among adolescent girls.
- To find the association between menstrual irregularities with selected demographic variables among adolescent girls

HYPOTHESIS:

- H_0-there will be no significant difference between pre and post-test knowledge score and practice regarding menstrual irregularities among adolescent girls at $P< 0.05$ level of significance

- H_1- there will be significant difference between pre and posttest knowledge score and practice regarding menstrual irregularities among adolescent girls at $p<0.05$ level significance
- H_1- there will be a significant association between the pretest levels of knowledge with their selected demographic variables among adolescent girls

METHODOLOGY

- **RESEARCH DESIGN**
  Research design chosen for the present study was quasi experimental design
- **Variables:**

Independent variable: self-instructional module on menstrual irregularities.
Dependent variable: knowledge of adolescent girls regarding menstrual irregularities

SAMPLE SIZE

The sample comprise of 20 adolescent girls in kathua, Jammu & Kashmir
(10 for experimental group and 10 for control group).

SAMPLING TECHNIQUE

In this study non probability sampling (convenient sampling) technique was used to select the samples.

Inclusion and exclusion criteria for sample selection

Inclusion criteria:

- Adolescent girls between the age group of 10-19 years.
- Adolescent girls who are willing to take part in the study.

Exclusion criteria:

- Adolescent girls who are not present at the time of data collection.
- Adolescent girls who are suffering from any menstrual irregularities.

DESCRIPTION OF THE TOOL

The tool was divided into two parts. Section A: It is related to sociodemographic data. Section B: The self-structured knowledge questionnaire of adolescent girls regarding menstrual irregularities. Scoring interpretation - Scoring is done according to Bloom's cut-off point to assess the knowledge score. Minimum score: 1, Maximum score: 0, Total score is – 30 respectively. Scoring key to assess the level of knowledge regarding menstrual irregularities.

CONTENT VALIDITY

The degree to which a research tool is reliable is described as TEN experts—Associate Professors/ professor from the department of Obstetrics and Gynaecological Nursing, one from the English lecturer, and a criterion checklist—determined the tool's content validity. The experts were asked for their thoughts and recommendations on the tool's applicability for revision in order to enhance the items' content and clarity. There were suggestions to modify the selections and to simplify the technical language. On the basis of the suggestions, changes were made.

RELIABILITY OF TOOL-

Internal consistency was assessed by Split Half (odd even) method The value was r=0.709626 for knowledge Questionnaire. Hence, the structured tool was found highly reliable.

RESULTS:

Table 1. showing frequency percentage distribution of socio demographic data

Sr no.	Variables	Exp. F	%	Control F	%
1	**Age (in Years)**				
	10-12	0	0.0	0	0.0%
	13-14	11	55.0	15	75.0%
	15-16	9	45.0	5	25.0%
	16 Above	0	0.0	0	0.0%
2	**Residency**				
	Rural	9	45.0	11	55.0
	Urban	11	55.0	9	45.0
	Semi urban	0	0.0	0	0
3	**Type of family**				
	nuclear family	10	50.0	8	40.0
	joint family	10	50.0	12	60.0
	extended family	0		0	
4	**Total income of Parents**				
	<5000	0.0	0.0	0	0.0
	5000-10,000	13	65.0	12	60.0
	10,000-20,000	7	35.0	6	30.0
	>20,000	0.0	0.0	2	10.0
5	**Education**				
	7^{th} class	10	50.0	9	45.0
	8^{th} class	10	50.0	11	55.0
	9^{th} class	0.0	0.0		
	10^{th} class	0.0	0.0		
6	**Knowledge about menstrual** irregularities				
	Yes	13	65.0	10	50.0
	No	7	35.0	10	50.0
7	**Sources of knowledge**	10	50.0	8	40.0
	At school	10	50.0	12	60.0
	At home	0		0	
	Mass media	0		0	
	Peers & others				
8	**Dietary pattern**				
	Vegetarian	3	15.0	7	35.0
	Non vegetarian	10	50.0	12	60.0
	Eggetarian	7	35.0	1	5.0

Table 2: Showing Frequency & Percentage distribution of Pre& post Experimental and Control Group of Knowledge Scores.

Level of knowledge	**Pre experimental**	**Pre control**	**Post experimental**	**Post control**
Adequate (24-30)	0(0%)	0(0%)	14(70%)	0(0%)
Moderate adequate (18-23)	1(5%)	2(10%)	6(30%)	1(5%)
Inadequate (0-18)	19 (95%)	18(90%)	0(0%)	19 (95%)

Table No 3: To evaluate the effectiveness of the self-instructional module by comparing mean and SD Paired & Unpaired T Test of pre and post-test knowledge of adolescent girls regarding menstrual irregularities in both groups.

		Knowledge score				**Paired**		
		Pretest		**Postest**				
Groups	**N**	**Mean**	**SD**	**Mean**	**SD**	**Df**	**T**	**P valve**
Experimental	20	14.30	1.490	25.70	2.179	19	19.140	<0.001S
Control	20	13.350	2.346	14.90	1.944	19	2.090	0.05NS
Unpaired T test	Df	38		38				
	T	1.529		16.541				
	P value	0.135NS		<0.001 S				

Frequency percentage distribution of socio demographic data - Age: Both groups have participants across different age categories, with the majority falling in the 13-14 age group for the experimental group and the 13-14 and 15-16 age groups for the control group. **Residency**: There is a fairly balanced distribution of participants between rural and urban areas in both groups. **Type of Family**: The distribution between nuclear and joint families varies slightly between the experimental and control groups. **Total Income of Parents**: The majority of participants in both groups belong to the 5000-10000 income category, with fewer participants in the higher income categories. **Education** : The experimental group fairly balanced distribution belongs to 7^{th} class and 8^{th} class, while the control group majority of participants belongs to 8^{th} class and fewer to 7^{th} class. .**Knowledge on Menstruation** : The experimental group most of girls having knowledge . and fewer has not knowledge on it. In control group All participants have 50 % having knowledge and 50% have not knowledge of menstruation. **Source of Knowledge**: The experimental group primarily gains knowledge from both home and school, while the control group predominantly relies on knowledge from home. **Dietary Pattern**: There is variation in dietary patterns between the two groups, with different proportions of vegetarian, non-vegetarian, and eggetarian participants.

Knowledge in pre test in both groups - Adequate (24-30): Neither the experimental nor control group had any participants falling into this category, indicating that none of them demonstrated a high level of knowledge before the experiment. **Moderately Adequate (18-23):** 5% of participants in the experimental group and 10% of participants in the control group had a moderate level of knowledge. **Inadequate (0-18):** The majority of participants fell into this category, with 95% in the experimental group and 90% in the control group having inadequate knowledge levels.

Knowledge in post test in both groups - Adequate (24-30): In the **post-experimental** group, **70%** of participants achieved scores within this range, indicating a substantial grasp of knowledge post-intervention. However, in the **post-control** group, none of the participants reached this level, suggesting a lack of significant improvement in knowledge.**Moderately Adequate (18-23)**: **30%** of participants in the **post-experimental** group fell within this range, indicating a moderate level of knowledge acquisition. In contrast, only **5%** of participants in the **post-control** group achieved scores within this range. **Inadequate (0-18)**: Interestingly, none of the participants in the **post-experimental** group scored within this range, indicating a complete absence of inadequate knowledge levels. Conversely, a significant majority (**95%**) of participants in the **post-control** group demonstrated inadequate knowledge levels.

Effectiveness-The paired t-test results indicate a statistically significant improvement in knowledge scores within the experimental group from pretest (mean = 14.30, SD = 1.490) to post test (mean = 25.70, SD = 2.179) with a t-value of 19.140 and p-value less than 0.001. Conversely, in the control group, there was no significant difference in knowledge scores from pretest (mean = 13.350, SD = 2.346) to post test (mean = 14.90, SD = 1.944) with a t-value of 2.090 and a p-value of 0.05, indicating non- significance.
In the unpaired t-test comparing the post test scores between the experimental and control groups, the results show a significant difference, with the experimental group having higher scores (mean = 25.70) compared to the control group (mean = 14.90), with a t-value of 16.541 and a p-value less than 0.001. However, there was no significant difference between the groups in the pretest scores, indicating that the groups were initially comparable.
In summary, the experimental intervention led to a significant improvement in knowledge scores compared to the control group, demonstrating the effectiveness of the intervention.

CONCLUSION:

The findings of study supported that effectiveness of self-instructional module in increasing the knowledge regarding menstrual irregularities among adolescent girls studying in selected schools. The actual gain score in experimental group was consistently high in all the area included in the study compared to control group. The paired t,' test computed between mean and SD for comparison of knowledge score of pre and post-test in experimental and control group. It indicated significant gain knowledge in all area of experimental group as compared to control group. The unpaired t' test was used for pre and post knowledge score experimental vs control group. It showed increase the knowledge in experimental group compared to control group. Thus, it is concluded that self-instructional module regarding menstrual irregularities is effective.

References

1. WHO statement on menstrual health and rights [Internet]. Who.int. [cited 2024 Apr 3]. Available from: https://www.who.int/news/item/22-06-2022-who-statement-on-menstrual-health-and-rights
2. International journal of reproduction, contraception, obstetric gynecology raven RC etc. All in report contracept object gynecol 2016 Nov; 5 (11)3978-3982 www.ijrcog.org
3. International journal of research in medical science,3(5),1252-1256.retrived from; http://www.msjonline.org/index.php/ijrms/article/view/1477/0
4. Dashrath Kale, Pandurang Karhale, Akash Bembde, Ankita Jogale, Nikita Bakle, Shilpa Kulkarni. Effectiveness of Structured Teaching Programme on Knowledge Regarding Common Menstrual Irregularities Among Adolescent Girls. International Journal of Nursing Education and Research. 2022; 10(1):1-4.

5. Nagy H, Carlson K, Khan MAB. Dysmenorrhea. Stat Pearls Publishing; 2023.
6. Nawaz G, Rogol AD. Amenorrhea. StatPearls Publishing; 2023.
7. Kistner RE, ed. Gynecology principles and practice. 3rd ed. Chicago: Year Book Medical Publishers, 1979
8. Flickr F us on. What are menstrual irregularities? [Internet]. https://www.nichd.nih.gov/. [cited 2023Oct27].Available from: https://www.nichd.nih.gov/health/topics/menstruation/conditioninfo/irregularities
9. Odongo E, Byamugisha J, Ajeani J, Mukisa J. Prevalence and effects of menstrual disorders on quality of life of female undergraduate students in Makerere University College of health sciences, a cross sectional survey. BMC Women Health [Internet]. 2023;23(1). Available from: http://dx.doi.org/10.1186/s12905-023-02290-7