International Journal of Advanced Scientific Research
www.allscientificjournal.com
ISSN: 2456-0421
Received: 24-07-2022; Accepted: 09-08-2022; Published: 26-08-2022
Volume 7, Issue 2, 2022, Page No. 28-32

A study to assess the effectiveness of structured teaching program (STP) on level of knowledge regarding aerobic exercise to prevent dysmenorrhea among adolescent girls in selected school at selected city

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Abstract
Statement: A study to assess the effectiveness of structured teaching program (stp) on level of knowledge regarding aerobic exercise to prevent dysmenorrhea among adolescent girls in selected school at selected city**.**
Objectives: 1.To assess the existing level of knowledge regarding aerobic exercise to prevent dysmenorrhea among the adolescent girls. 2. To assess the effectiveness of structured teaching program on level of Knowledge regarding aerobic exercise to prevent dysmenorrhea among the adolescent girls. 3. To find out the association between post-test level of knowledge score with their selected demographic variables.
Research Methodology: Evaluative research approach was used with pre experimental one group pre test post test design population was 50 adolescent girls, non- Probability purposive sampling technique was used for data collection.
Result: In the present study the pre-test- 12 (24%) had Poor knowledge, maximum 38 (76%) had Average knowledge and no one adolescent girls had Good knowledge regarding aerobic exercise to prevent dysmenorrhea. In the Present study the post test – maximum 48 (96%) adolescent girls were having adequate knowledge and no one adolescent girls were having poor knowledge and remaining 2 (4%) of adolescent girls were having Average knowledge regarding aerobic exercise to prevent dysmenorrhea.
Conclusion: The study was drawn Percentage distribution of adolescent girl according to their level of knowledge showed they had average knowledge on aerobic exercise to prevent dysmenorrheal.

Keywords: assess, structure teaching program, knowledge, aerobic exercise, dysmenorrhea, adolescent girls

Introduction

Menstruation can be defined as the periodic physiologic discharge of blood, mucous and other cellular debris from the uterine mucosa [1]. This problem not only causes fear in approximately one-fifth of the female population, but also causes many social, physical, psychological, and economic problems for women around the world. Primary dysmenorrhea caused by the prostaglandin- induced uterine contraction. The prostaglandin- medical symptoms such as nausea, vomiting, diarrhea & dizziness. The pain is sharp and cramps & is located in the lower midline. It is also known as painful period or menstrual cramps. The pelvis examinations in a non-menstruating client with dysmenorrhea should not demonstrate tenderness or other pathological changes. The gynecologist suggests that regular aerobic exercise will be done prevention and treatment of dysmenorrhea [2]. Dysmenorrhea means painful menstruation and it is one of the most common gynecological disorders among girls. At least 75% of women experience this problem throughout their reproductive years [3]. Menstruation is an important part of female reproductive cycle. The young adult female students are more exposed to stress as compared to any other age group. The different types of stress and its gravity are related to their jobs, studies, social and economic factors. Therefore, they are more prone to develop menstrual problems. Dysmenorrhea is a common condition that occurs in 52%, 72% or even 90% of women [4]. But according to the reviewers, the researches in this field are insufficient particularly in assessment processes and methodology [5]. Menarche is the first menstrual period. The most common physiological change that takes place in girls of adolescent age is the onset of menarche, which is often accompanied with problems of excessive bleeding, irregular menstruation and dysmenorrhea [6]. Dysmenorrhea, painful menstruation, is one of the most common gynecologic disorders. It is the greatest single cause of lost work and school days among young and adolescent girls [7]. Dysmenorrhea is one of the most common medical conditions and complaints voiced by adolescent girls during their adolescent period life. Dysmenorrhea may be primary with no associated organic pathology or secondary with demon's ratable pathology [8]. A wide range of issues and concerns face adolescents in India, including reproductive health problems, nutritional deficiencies, sexually transmitted diseases, and mental and physical stress-related problems. Stress often results in the abuse of tobacco and other habit-forming drugs. Nutrition, reproductive health, pregnancy, sexuality, and mental and social concerns are also related to adolescents [9]. Adolescence is regarded as the unique phase of human development and the parents of near future. Though WHO considers

adolescence as period between 10-20 years, the physical and emotional changes that are supposed to take place at this time, start much earlier and continue to a much later age. At this age, girls will be confused, afraid to share about the changes that occur, may wonder about the changes, and completely unaware of the sources of information, guidance and advice, especially in India, where there exist all cultural taboos [10]. Aerobic exercise increases the release of several neurotransmitters including natural endorphins (the brain natural painkillers), estrogen, progesterone, dopamine and endogenous opiate peptides, as well as altering the reproduction of hormone secretion, suppressing prostaglandin from being released and raising the estrone-estradiol ratio which acts to decrease endometrial proliferation and shunts blood flow away from the uterus [11]. The idea that exercise is effective in preventing, and reducing symptoms has been dominant for many years [12].

Review of Literature

Review of literature has been divided under the following.

- Literature related to aerobic exercise to prevent dysmenorrhea.
- Literature related to Knowledge of aerobic exercise to prevent dysmenorrhea Among Adolescent girls.

Research Methodology

Research Approach

Quantitative evaluatory approach.

Research Design

Pre- experimental, one group pretest posttest design.

Setting of the Study

Study was conducted in selected school at selected city.

Sample Size

50 Adolescent Girls as per inclusive criteria.

Sampling Technique

Non probability purposive sampling technique was used.

Setting

In Selected school at selected city.

Inclusion Criteria

Adolescent Girls who were:

- Willing to participate in the study.
- Age between 13 to 15 years
- Able to understand and speak Marathi and English.

Exclusion Criteria

Adolescent Girls who were:

- Not present at the time of data collection.

Tool and technique

Tool was divided into two section, section A and section B

Section I: demographic data of adolescent girls which consisted of 8 questions.

Section II: The structured Knowledge Questionnaire was prepared consisting of 21 of knowledge aerobic exercises to prevent dysmenorrhea.

The scale was translated into Marathi language for data collection.

Validity

The content validity of structured questionnaire was found by submitting the tool to the experts in the field of community health nursing (Gynecologist and lectures of nursing college and community health nursing).

Pilot Study

It was conducted on 10 adolescents' girls in the selected school at selected city.

Reliability

It was established by Karl Pearson's Correlation coefficient. The reliability of tool was calculated and it was r = 0.72.

Findings of the Study

Section I: To find out demographic variables of adolescent girls.

Table 1: Frequency and percentage distribution of adolescent girls in relation to demographic variable.

N=50

Sr. No	Characteristic	Frequency (f)	Percentage (%)
Age- Group			
1	13 to 14 Years	41	82
2	15 to 16 Years	09	18
3	17 to 18 Years	0	0
Religion			
1	Hindu	20	40
2	Muslim	13	26
3	Christian	17	34
Educational Status			
1	Primary	0	0
2	Secondary	40	80
3	Higher Secondary and above	10	20
Type of Family			
1	Joint family	27	54
2	Nuclear family	23	46
Educational Status of Mother			
1	Up to SSC	10	20
2	Up to HSC	17	34
3	Graduate	16	32
4	Post graduate	7	14
Age of Menarche			
1	Before 12 Years	5	10
2	12 to 14 Years	30	60
3	After 14 Years	15	30
Monthly Income			
1	Below 10,000	16	32
2	10,000- 15,000	20	40
3	Above 20,000	14	28
Source of Information			
1	Elders in the family	15	30
2	Teachers or friends	30	60
3	Printed aids	2	4
4	Mass media and social media	3	6

Section II: To find out knowledge regarding aerobic exercise to prevent dysmenorrhea among adolescent girls during pre-test and post-test.

1. Frequency and percentage wise Distribution of adolescent girls according to level of knowledge among adolescent girls.

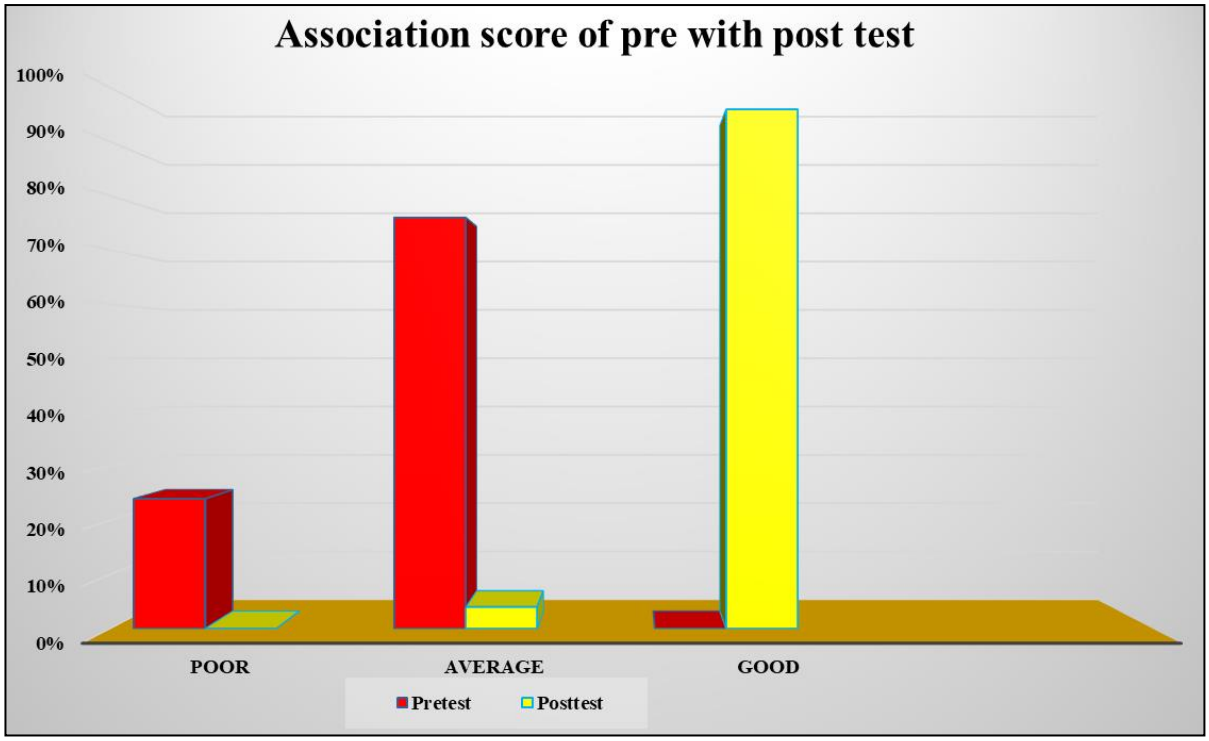

Fig 1

Reveals the frequency and percentage distribution of pre-test and post-test level of knowledge regarding aerobic exercise to prevent dysmenorrhea among adolescent girls.
In the pre-test- 12(24%) had Poor knowledge, maximum 38(76%) had Average knowledge and no one adolescent girls had Good knowledge regarding aerobic exercise to prevent dysmenorrhea.
In the post test – maximum 48 (96%) adolescent girls were having adequate knowledge and no one adolescent girls were having poor knowledge and remaining 2(4%) of adolescent girls were having Average knowledge regarding aerobic exercise to prevent dysmenorrhea.

Section III: To evaluate the effectiveness of structured teaching program on level of knowledge regarding aerobic exercise to prevent dysmenorrhea among adolescent girls by comparing pre-test and post-test.

Table 2: Comparison of Mean Score in Pre-test and Post- test

N=50

	Mean	SD	t-test	Table value	P value
Pre test	9.82	2.67	7.06	2.02	P<0.05 (S)*
Post test	17.84	2.22			

Table No. 2: -. Reveals that obtained value =7.06 is more than table value 2 at 0.05 level of significance. The observed mean post-test knowledge score 17.84 (SD- 2.22) was higher than the mean pre-test knowledge score 9.82 (SD-2.67).

Section IV: To find out association post-test knowledge score with selected demographic variables.

Table 3: To associate the post-test knowledge score with the selected demographic variables

N=50

Sr. No	Demographic Variables	Calculated X^2 values	Level of significance
1.	Age	0.00000128	P=7.82NS
2.	Religion	11.849728	P=7.82S*
3.	Educational status of girls	21.16	P=7.82S*
4.	Type of family	0.001152	P = 5.99 NS
5.	Educational status of mother	160.11984	P= 9.49 S*
6.	Age of menarche in years	10.273536	P=7.82 S*
7.	Monthly family income.	3.557214	P=7.82NS
8.	Sources of information	0.006708	P= 9.49NS

Table No. 3:- reveals the data on associate the post-test knowledge score with the selected demographic variables. The obtained chi square Calculated X^2 values and P values Age = 0.00000128 and P=7.82NS,Religion=11.849728 and P=7.82 S*,Educational status of girls= 21.16 and P=7.82 S*,Type of family = 0.001152 and P = 5.99 NS, Educational status of mother=160.11984 and P= 9.49 S*, Age of menarche in years=10.273536and P=7.82 S*,Monthly family income =3.557214 and P=7.82 NS, Sources of information=0.006708 and P= 9.49NS.The association of post-test knowledge score with the selected demographic four variables are significant and remaining four demographic variables are non-significant.
Therefore, the null hypothesis (H_{01} and H_{02}) was rejected and the research (H_1 and H_2) was accepted.

Implications

Nursing Education

The nursing education is developing rapidly in India. Knowledge and awareness about aerobic exercise to prevent dysmenorrhea among the adolescent girl. The nurse educators can use the study finding in nursing education. The awareness resource material will help the nursing personnel to educate the adolescent girls, mothers, school teachers and community area help in preventing effects of aerobic exercise to prevent dysmenorrhea.

Nursing Administation

Nurse administrator can utilize findings of study to create awareness among adolescent girls to improve knowledge about aerobic exercise to prevent dysmenorrhea, by arranging teaching program in schools among the adolescent girls regarding dysmenorrhea in order to prevent complications and improve good physical wellbeing.

Nursing Practice

The finding of the study will help investigator to know the level of knowledge related to aerobic exercise to prevent dysmenorrhea. The adolescent girls will apply this knowledge of aerobic exercise to prevent dysmenorrhea. This study hopes to assess the knowledge of adolescent girls' aerobic exercise to prevent dysmenorrhea.

Nursing Research

The study finding would help to expand the scientific body of knowledge up on further researchers can be conducted. This research design and the tool can be used for future research. This research design will help the nurses in finding new ways of invention in further studies of research. Research should be continuous to find new technologies to identify the other gynecological disorders and their treatment.

Recommendations

On the basis of the findings of the study following recommendations have been made for further study.

1. The study can be repeated on a large sample to generalize findings.
2. The study can be under taken with prevention and control of dysmenorrhea.

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