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EFFECT OF PELVIC ROCKING EXERCISE ON DYSMENORRHEA AMONG YOUNG ADULTS: A QUASI EXPERIMENTAL STUDY

Nursing

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ABSTRACT

An experimental study was conducted on effect of pelvic rocking exercise on dysmenorrhea among young adults. Quasi experimental pre test, post test control group design was used as research design. Purposive sampling technique was adopted to select sixty subjects with dysmenorrhea in the age group between 17 – 22 years, thirty in each experimental and control group, from Sree Gokulam Nursing College and Sree Gokulam Medical College respectively. The tools used for the data collections were, socio-personal proforma, numerical pain rating scale and verbal multidimensional scoring system. The experimental group performed Pelvic rocking exercise daily for 15 minutes for two consecutive menstrual cycles starting from 7th day of cycle and the control group continued with their daily activities. Result showed that pelvic rocking exercise had significant effect on dysmenorrhea (pain; mann whitney U test 0.000,($p<0.001$), and associated symptoms; mann whitney U test 15 ,$p<0.001$.

KEYWORDS

dysmenorrhea, pelvic rocking exercise, young adults.

INTRODUCTION

Puberty is initiated by hormone signals from the brain to the gonads. In response, the gonads produce a variety of hormones that stimulate the growth. The menstrual cycle begins at puberty. The first cycle known as menarche, naturally occurs between the ages of 11-12 years. It continues until 45-50 years of age and then last period or menopause will occur.

Dysmenorrhea is an impact clinical as well as social problem affecting more than 50% of menstruating women. Dysmenorrhea is the most common menstrual problem among female adolescent with a prevalence of 60% to 93% in United States. The prevalence of dysmenorrhea in India was reported as 33.5% among adolescent girls. In Kerala it is about 48.8%; in that dysmenorrhea is the most common discomfort reported as 71.5%.

A cross-sectional study was conducted to determine incidence and non pharmacological management of dysmenorrhea. In this study participated 320 female students of the faculty of Technical Medical Sciences, University of Medicine, Tirana, Albania. The result revealed that the prevalence of primary dysmenorrhea was 85%. The severity of pain referred by students was: 50% moderate pain, 34% severe pain, and 16% mild pain. 51% of students do not use drugs to relieve the menstrual pain, while 49% use painkiller. The medications used to treat or reduce the symptoms of dysmenorrhea were: 43% Acetaminophen, 41% Ibuprofen, 9% Mefenamic acid, 6% Aspirin and 2% Naproxen. Over 86% females included in this study, use self-management strategies for menstrual pain. Among the most used non-pharmacological strategies of self-management to reduce the pain were: sleeping 54 %, resting 47.4%, lie on stomach 37.1 %, wearing loose garments 34.5 %, etc. The most affected activity by the dysmenorrhea were: concentration during classes 76.8%, daily activity 75.7%, and relations with friends 51.8%, social activity 50%, the family relationship 47.8%, test results 45.9%, school attendance 41.5% and participation in exams 23.5%.

An evaluative study was conducted to determine effectiveness of exercise on dysmenorrhea. Sample of this study was 50 junior high school girls. The method of selection was simple random sampling. All samples divided into exercise and non exercise group. Both Groups recorded the character, severity and duration of bleeding. Visual analogue scale was used to measure the severity of pain. The samples four cycles were observed for severity of pain. After 2 cycle's observation, exercise group was educated about 4 activities including pelvic rocking exercises .The result of this study showed that severity of pain was lower in exercise group. The intensity of pain in exercise groups declined from 8.59 to 4.63 in the third period and 2.84 in the fourth period. The exercise will decrease duration and severity of pain and also decrease the use of analgesics.

MATERIALS AND METHODS

The study was based on the Ernestin Widenbach prescriptive theory. Quasi experimental pre test, post test control group design was used as research design. Purposive sampling technique was adopted to select sixty subjects with dysmenorrhea in the age group between 17 – 22 years, thirty in each experimental and control group, from Sree Gokulam Nursing College and Sree Gokulam Medical College respectively. The tools used for the data collections were, socio-personal proforma, numerical pain rating scale and verbal multidimensional scoring system .The experimental group performed. Pelvic rocking exercise daily for 15 minutes for two consecutive menstrual cycles starting from 7th day of cycle and the control group continued with their daily activities. Posttest was done for both the groups during second month of menstruation.

Sixty four subjects , 32 in each experimental and control group satisfying the inclusion criteria were selected by purposive sampling from Sree Gokulam Nursing College and Sree Gokulam Medical College respectively. Informed consent was obtained after explaining the nature and purpose of the study confidentiality were maintained for each subjects.

Socio personal data of the subjects were collected by using socio personal proforma, the level of pelvic pain assessed by using standardized numerical pain rating scale and severity of dysmenorrhea assessed by using verbal multi dimensional scoring system from both the groups. Subjects in experimental group were demonstrated pelvic rocking exercise on the seventh day of their menstrual period and made them to do return demonstration to make sure the accuracy. The exercise begins with ten subjects and increased the number day by day (31.12.2018 to 05.01.2019). The researcher gathered the experimental group of young adults in the common hall and made them to do the pelvic rocking exercise every day for 10 to 15 minutes between 4.30pm and 5.00pm until the next menstrual period and restarted the PRE seventh day of next menstrual period the control group were doing their routine daily activities. The post test were done during the second month menstrual period in both the groups to determine the effect of PRE on dysmenorrhea. The data collected were compiled for data analysis. The details of PRE enclosed in the appendix. Data were tabulated and analyzed by using descriptive and inferential statistics by using SPSS version 20.

RESULTS

Sample characteristics

- In the present study majority (80%) of subjects belongs to the age group of 20-22 yrs. All the subjects were unmarried in experimental group and in control group 96.7% were unmarried and only 3.3% were married. In experimental group 46.7% of subjects had normal BMI, 30% of subjects had underweight, 23.3% of subjects had over weight. In experimental group more than half (60%) of subjects had the habit of fast food intake 2-3 times in a week and 40% of subject had no habit of fast food intake. 53.3% of subject had no habit of coffee intake, 36.7% of subjects

had the habit of coffee intake ≤3 cup/ day, 10% of subjects had the habit of coffee intake >3 cup/ day

- In experimental group majority (73.3%) of the subjects attained were menarche at 13-15 years of age and 26.7% of subjects attained menarche at ≤12 years. In control group 63.3% of subject attained menarche at 13-15 years of age and 36.7% of subjects attained menarche at ≤12 years. Majority of subjects (80%) had 26-30 days interval in experimental group and 70% of subjects had 26-30 days interval in control group. In experimental group duration of menstrual flow 76.7% had 3-5 days, 23.3% had >5 days. In control group duration of menstrual flow 70% had 3-5 days, 30% had >5 days.
- In experimental group and control group 93.3% of subjects were used 4 pads / day. In experimental group 60% of subjects had no family history of dysmenorrhea, 13.3% of subjects had the family history of dysmenorrhea in their siblings (sister), 23.3% of subject's mother had the history of dysmenorrhea, 3.3% of subject's grandmother had the history of dysmenorrhea, In control group 56.7% of subjects had no family of dysmenorrhea, 10% of subjects had the history of dysmenorrhea in their siblings (sister), 33.3% of subject's mother had the history of dysmenorrhea.

Effect of pelvic rocking exercise on dysmenorrhea

It was noticed that after 2 month of pelvic rocking exercise, there was a significant reduction [mann whitney U test ($z = 0.000$, $P<0.001$)] in pain during menstruation in experimental group at the same time there is no significant reduction in control group. It also noticed that after 2 month of pelvic rocking exercise, there was significant reduction [mann whitney U test ($z = 15$, $P<0.001$)] in associated symptoms of dysmenorrhea in experimental group at the same time there is no significant reduction in control group.

Association between dysmenorrhea among young adults with selected socio personal variables

There was no association between selected socio personal variables and dysmenorrhea at p value >0.05.

DISCUSSION

The present study reported that during pre-test in experimental group 83.3% of subjects had severe pain and 16.7% of subjects had moderate pain during menstruation. In control group 63.3% of subjects had severe pain and 36.7% of subjects had moderate pain during menstruation.

The findings of the present study were consistent with the result of previous study which was done by Ms. S. Catherin (2012) on effectiveness of pelvic rocking exercise on dysmenorrhea among adolescent girls aged 15-20 years of age. The study result showed that in experimental group 26.8% of subjects had severe pain, 63.2% had moderate pain and 10% of subjects had mild pain during menstruation. In control group 20% of subjects had severe pain, 53.3% had moderate pain and 26.7% of subjects had mild pain during menstruation.

The findings of the present study were consistent with the result of previous study which was done byMs. Amal Suzanne (2018), an experimental study to evaluate the effectiveness of pelvic rocking exercises versus aerobic exercises on primary dysmenorrhea among adolescent girls in a selected college at Puducherry. The study result showed that during pre test in experimental group 50% of subjects had severe and 50% had moderate pain . In control group 66.7% of subjects had severe pain, 33.3% had moderate pain.

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