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"Effectiveness of Jacobson's Progressive Muscle Relaxation exercise on premenstrual syndrome among early adult women in the selected college."

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ABSTRACT:

Background: Premenstrual syndrome is a common problem among early adult women that appears during the week before menstruation and resolves within one to two days after the onset of menstruation. Millions of women are suffering from premenstrual syndrome during their reproductive age. Approximately 40% of women reported experiencing this syndrome in their lifespan. The premenstrual syndrome was more likely to trouble women in their age 15 to 30 years and they tend to relive in a predictable pattern.
Objectives: The present study was a quantitative approach to evaluate the effectiveness of Jacobson's progressive muscle relaxation exercise on premenstrual syndrome among early adult women in the selected college at Jalna.
Methods: The research design used for this study was a quasi-experimental pre-test and post-test control group design. The samples were selected by using a non-probability convenience sampling technique. The study was performed on 40 study subjects, 20 each in the experimental and control group at Vasantrao Naik Institute of Nursing at Jalna, in Maharashtra state. The tools were a structured questionnaire and a premenstrual syndrome rating scale was used to record premenstrual syndrome from the study subjects. A pre-test was conducted among both the experimental and control groups. An intervention of Jacobson's Progressive Muscle Relaxation Exercise was demonstrated by the student researchers among study subjects in the experimental group for 14th consecutive days for 30 minutes, followed by a post-test conducted among both groups in which, the results showed a significant effectiveness in pre-test and post-test in the experimental group. The data was analysed using SPSS 24.0 and Graph Pad Prism 7.0 version.
Results: The results of the paired 't' test of the premenstrual syndrome in the experimental group were compared to the control group, before and after the intervention. The calculated 'p' value was 0.0001 with a mean difference 21.60±9.51 in pre and post-test among the study subjects in the experimental group, which was a statistically acceptable level of significance.
Conclusion: The study finding showed significant reduction in the level of premenstrual syndrome among the early adult women in the experimental group. Therefore, Jacobson's progressive muscle relaxation exercise can be used as one of the ways to reduce premenstrual syndrome among early adult women.
Keywords: Premenstrual Syndrome, Jacobson's progressive muscle relaxation exercise.

INTRODUCTION:

Menstruation is a series of events, occurring regularly in females every 26 to 30 days throughout the childbearing period between menarche and menopause. The average length of a cycle is about 28 days. The menstrual phase usually lasts about 4 days. The menstrual phase is followed by 4 stages the 1st phase of menstruation 2nd phase is the proliferative phase, 3rd phase is ovulation and the last phase of menstruation is the secretory phase. Heavy and painful menstruation is a common premenstrual syndrome in early adult women.

Edmund Jacobson (1920), proposed progressive muscle relaxation exercises for reducing pain. Jacobson offers treatments that help clients relax both their muscles and their minds. It is recommended to relax your body and mind before bed so that you can fall asleep more easily and sleep better at night. A relaxation technique that alternately stretches and relaxes 14 muscle groups.

Jacobson's Progressive Muscle Relaxation exercise is one relaxation exercise that actively relieves premenstrual syndrome. This type of exercise primarily focuses on stretching and relaxing specific muscles.

BACKGROUND OF STUDY:

Aditya Prasad Sarkar (2016) conducted a study on premenstrual syndrome among 244 adolescent girl students. Data were collected with the help of off-the-shelf and pre-test, self-administered questionnaires. The results showed that 61% of girls was premenstrual syndrome, 62.7% was depression, 70.5% girl anger, irritability was 84.8%, and presence of dysmenorrhea 0.008. **Chintan Madhusudan Raval (2016)** conducted a study on the prevalence of premenstrual syndrome among 489 female students. The results showed that prevalence of premenstrual syndrome was 18.4%. Moderate to severe premenstrual syndrome was 14.7%, and the premenstrual dysphoric disorder was 3.7%. The Premenstrual symptoms screening tool has a sensitivity of 90.9%, a specificity of 57.01%, and 97.01% predictive value of negative test.

The nurses working in the field of maternity nursing have an important role in identifying the undiagnosed cases in the population and encouraging such non-pharmacological measures to help the client develop self-care. Potential in controlling premenstrual syndrome, the nurses can very well plan and organize lifestyle measures like Yoga, Exercise and Stress management, and diet management, and Jacobson's progressive muscle relaxation exercise for women who have minor and transient physiological and emotional changes associated with mild degrees of premenstrual syndrome.

STATEMENT OF PROBLEM

Effectiveness of Jacobson's progressive muscle relaxation exercise on premenstrual syndrome among early adult women in the selected college at Jalna.

OBJECTIVES

1. To evaluate the effectiveness of Jacobson's progressive muscle relaxation exercise among study subjects in the experimental group.
2. To Compare the pre-test and post-test score of premenstrual syndrome among the study subjects in the experimental and in control group.

HYPOTHESES

- **H_0:** There is no significant difference between pre–test and post-test level of premenstrual syndrome among early adult women in the experimental and in control group.
- **H_1:** There is a significant difference between pre-test and post-test level of premenstrual syndrome among the early adult women in the experimental and in control group.

METHODS AND MATERIALS

Study Design

The research design adopted for the present study was Quasi Experimental pre-test, post-test control group design.

Research Setting

The study was conducted in selected college at Jalna in Maharashtra State.

Sample

The sample size selected for this study were 40 samples in which 20 samples were randomly selected in each experimental group and in the control group. The sampling technique adopted for this study was Non probability convenience sampling method.

Ethical Consideration

The ethical clearance was obtained from the Vasantrao Naik Nursing College, Jalna ethical committee. Prior to the pilot study and main study. Permission to conduct the study was obtained from the Principal of Vasantrao Naik College of Nursing, Jalna. The subjects were informed by the researcher regarding the purpose of the study. Informed written consent was obtained individually from the study subjects participated in this research study. The dignity and confidentiality of data concerned to each subject were maintained and it was assured to all the study subjects.

Data Collection

The study was conducted to determine effectiveness of Jacobson's progressive muscle relaxation exercise on premenstrual syndrome among early adult women in the selected college at Jalna. 40 samples were selected by using non probability convenience sampling technique. 20 study subjects each in experimental and control groups. The research design used for this study was quasi experimental pre-test, post-test control group design. The Structured questionnaire was used to collect the demographic variables. Data collection was done in Vasantrao Naik Institute of Nursing, Jalna in Maharashtra state. The approach was made to the samples and was explained regarding the benefits of Jacobson's progressive muscle relaxation exercise. On the 1st day informed consent was obtained from the study subjects. On the 2nd day pretest was conducted among both experimental and control groups. The intervention Jacobson Progressive Muscle Relaxation exercise was start on the study subjects from the 3rd day onwards. Jacobson's progressive muscle relaxation exercise was provided for 30 minutes in a day. The study subjects received intervention for about 2 weeks. On the 14th day a post-test was conducted, in which results showed significant reduction in premenstrual syndrome among the early adult women in experimental group. Health education was given for the control group.

Data Analysis

The data were analyzed on the basis of objectives and hypotheses. The following plan of analysis was made with opinion of experts. Demographic variables in study subjects were given in frequency with their percentage. Premenstrual syndrome rating scale were given in mean and standard deviation. The mean difference between the pre-test and post-test was analyzed using students paired 't' test. The association between premenstrual syndrome rating scale and the demographic variables were analyzed using paired 't' test the difference between the pre-test and the post-test was analyzed. Premenstrual syndrome rating scale was used for analysis mean difference between the pre-test and post-test. The 'p' value <0.05 was considered statistically significant.

RESULTS

The paired 't' test was applied compare difference between average scoring of before and after Jacobson's progressive muscle relaxation exercise. Since it is found that, the paired 't' test value is 10.15 and the 'p' value was 0.0001 at the level of 'p' <0.05. Difference in scores was statistically significant. The mean difference was 21.60±9.51 and standard deviation is 9.20. Researcher concluded at 5% level of significant and 19 degrees of freedom that the above data gives significant evidence to conclude that, after receiving Jacobson's progressive muscle relaxation exercise among the study subjects in the experimental group there was significant reduction in premenstrual syndrome.

This result shows the experimental group reducing premenstrual syndrome among study subjects receiving Jacobson's progressive muscle relaxation exercise after intervention. The comparison of post-test

premenstrual syndrome among study subjects in experimental and control group. Mean, standard deviation and mean difference values were compared and student's unpaired 't' test was applied at 5% level of significance. The tabulated value for n=20+20-2 i.e. 38 degrees of freedom was 2.02. The calculated 't' value i.e. 2.83 was much higher than the tabulated value at 5% level of significance for overall premenstrual syndrome score of study subjects which was statistically acceptable level of significance. Hence it was statistically interpreted that the Jacobson's progressive muscle relaxation exercise on premenstrual syndrome among study subjects in the experimental group was effective.

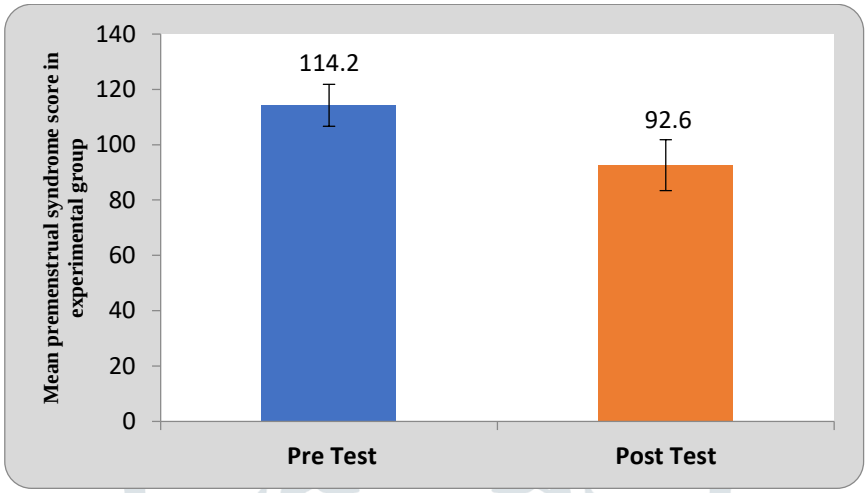

Figure shows mean difference between Premenstrual syndrome in pre-test and post-test among the study subjects in the experimental group.

Figure shows mean difference between Premenstrual syndrome in pre-test and post-test among the study subjects in the control group.

CONCLUSION

The study was conducted to assess the effectiveness of Jacobson's progressive muscle relaxation exercise on level of premenstrual syndrome among the early adult women in the selected college at Jalna. The study finding shows, there was a significant reduction in the level of premenstrual syndrome among the early adult women in the experimental group in selected college at Jalna. Therefore, Jacobson's progressive muscle relaxation exercise can be used as one of the ways to reduce of level of premenstrual syndrome among the early adult women.

IMPLICATIONS FOR NURSING

- Nurses play an important role in primary health care by early detection and prevention of premenstrual syndrome. Jacobson's progressive muscle relaxation can used as a means of health promotion on level of premenstrual syndrome among the early adult women.
- Nursing students could learn the assessment of premenstrual syndrome and provide Jacobson's progressive muscle relaxation exercise for reducing premenstrual syndrome among early adult women as an independent nursing intervention.
- Nursing students could be taught about Jacobson's progressive muscle relaxation exercise that they can help early adult women.
- The study findings encourage, further research studies on the effectiveness of Jacobson's progressive muscle relaxation exercise on level of premenstrual syndrome. among the early adult women.

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