

EFFECT OF MINDFULNESS MEDITATION TECHNIQUES ON PREMENSTRUAL SYMPTOMS AMONG NURSING STUDENTS OF SELECTED INSTITUTIONS IN ALAPPUZHA

Mrs. Deepika Nair, Mrs. Seena B
Kerala University of Health and Science.

ABSTRACT

The present study was intended to assess the Effect of mindfulness meditation techniques on premenstrual symptoms among nursing students of selected institutions in Alappuzha. The objectives were to assess the severity of premenstrual symptoms among nursing students, evaluate the effect of mindfulness meditation techniques on premenstrual symptoms among nursing students, find out the association between premenstrual symptoms and selected sociopersonal variables of nursing students. Theoretical framework adopted for the study was Betty-Neuman's system model. Quasi experimental one group pretest posttest design was used for the study. Tool consisted sociopersonal data sheet, premenstrual symptoms severity tool for assessing the severity of premenstrual symptoms. Mindfulness meditation techniques consisted of mindfulness meditation and mindfulness breathing, taught to nursing students with premenstrual symptoms by demonstration by the investigator. Using multistage cluster sampling the nursing students were selected for the study.

The mindfulness meditation techniques are started from 6th day of a menstrual cycle till the first day of next menstrual cycle. After completing the intervention, posttest was taken on the 1st day of next menstrual cycle. Data collected were analyzed by using suitable descriptive and inferential statistics. Effect of mindfulness meditation techniques on premenstrual symptoms was assessed by paired t test. From the present study it was found that mindfulness meditation techniques had an effect in reducing the premenstrual symptoms severity score among nursing students ($p < 0.001$).

Keywords: Mindfulness meditation techniques; premenstrual symptoms; Nursing students.

INTRODUCTION

Menarche and menstruation are important aspects of woman life.¹ There are many issues associated with menstruation like irregular cycles, premenstrual syndrome, menorrhagia and dysmenorrhoea.² Premenstrual syndrome is the most prevalent menstrual disorder, characterized by physical and emotional symptoms, experienced in varying degree by women of reproductive age group in a week before menstruation.³ In India the rate of Premenstrual symptoms is at higher level, 159,760,591 against 1,065,070,607 populations. PMS is related to high suicide and accident rates, unemployment and social absentee rates, poor academic performance and acute psychiatric problems.⁴

Mindfulness meditation has been proven effective for reducing premenstrual symptoms and it will enhance physical and psychological wellbeing of the women. Meditation has several benefits such as deeper level of relaxation, builds self-confidence, helps to control own thought, Improve learning ability and memory, increase emotional stability, increase productivity, develop will power, react more quickly and more effectively to a stressful event, more sociable behavior, increases listening skills and empathy, helps make more accurate judgments, greater tolerance, more balanced personality, develops emotional maturity. experience an inner sense of "assurance or knowingness", increases the synchronicity in life.⁵

The investigator, during her study periods observed that students being absent predominantly during menstruation and also felt that heightened mood swings and other negative symptoms which affects the academic and personal life among students which could also be attributed to Pre-menstrual symptoms. At the time of professional life too investigator felt that PMS have an impact on workplace, which leads to reduction in work efficiency. PMS symptoms have negative impact on academic and social performances of the students. Any alterations in their physical and psychological health can have a negative impact on their reproductive health and future life. Premenstrual symptoms are the leading cause of depression, anxiety and psychiatric disorders in women during the reproductive period. As nursing students are prepared to care for the society, the researcher found that giving mindfulness meditation techniques will help them to cope with the distress associated with premenstrual symptoms and enhance their physiological and psychological wellbeing and reproductive health and improve patient care.

Statement of the problem

Effect of mindfulness meditation techniques on premenstrual symptoms among nursing students of selected institutions in Alappuzha.

Objectives

1. To assess the severity of premenstrual symptoms among nursing students.
2. To evaluate the effect of mindfulness meditation techniques on premenstrual symptoms among nursing students.
3. To find out the association between premenstrual symptoms and selected sociopersonal variables of nursing students.

Operational definitions

Effect

In this study, effect refers to change in the severity score of premenstrual symptoms among Nursing students of selected institutions after mindfulness meditation techniques as measured by premenstrual symptoms severity tool.

Mindfulness Meditation Techniques

Mindfulness meditation techniques are designed to increase awareness of the present moment, which comprises of mindfulness meditation and mindfulness breathing, taught to nursing students with premenstrual symptoms by demonstration by the investigator.

Mindfulness meditation is noticing the sights, smells, sounds, tastes, thought and feeling that occur from one moment to the next. it is practiced in the evening for a duration of 10 minutes.

Mindfulness breathing refers to a sitting breathing exercise in which the patient is asked to deeply inhale through nostrils for a duration of 3 seconds, then hold breath for a duration of 6 seconds and a long exhale through mouth for a duration of 9 seconds. It is practiced in the evening for a duration of 10 minutes. The mindfulness meditation techniques are started from 6th day of a menstrual cycle till the first day of next menstrual cycle.

Premenstrual symptoms

In this study, premenstrual symptoms refers to series of physical, psychological and emotional symptoms with periodic changes in the mood and general feeling pertaining to menstrual period in women as measured by premenstrual symptoms severity tool.

Nursing students:

In this study, nursing students refers to those students who are studying in the selected nursing schools and colleges in Alappuzha.

Hypotheses

H₁: There is a significant difference in the severity score of premenstrual symptoms among nursing students before and after mindfulness meditation techniques.

H₂: There is significant association between the severity score of premenstrual symptoms and selected sociopersonal variables.

Theoretical frame work

A theoretical framework used in the present study is based on Betty Neuman's system model

REVIEW OF LITERATURE

The related literature are presented under the following sub headings: Knowledge about menstrual health and problems among adolescent girls, Definition and diagnosis of PMS, Prevalence and impact of PMS, Anxiety and depression experienced among women with PMS, Treatment and complementary therapies for premenstrual syndrome, Effect of meditation techniques on PMS

METHODOLOGY

Research approach

Quantitative experimental approach.

Research design

Quasi experimental one group pretest posttest design.

O₁ X O₂

O₁: Pretest to assess the severity of premenstrual symptoms

X: mindfulness meditation techniques for 20 minutes per day in the evening starting from the 6th day of a menstrual cycle till the first day of next menstrual cycle.

O₂: Post test to assess the severity of premenstrual symptoms on the first day of next menstrual cycle.

Variables

Independent variable: Mindfulness meditation techniques.

Dependent variable: Severity of premenstrual symptoms.

Setting of the study

Study was conducted in Govt. College of Nursing, Alappuzha and Govt. School of Nursing, Alappuzha.

Population: All Nursing students studying in Alappuzha district.

Sample: Nursing students with premenstrual symptoms severity score between 1-120 studying in selected institutions in Alappuzha.

Sample size: Sample consisted of 150 female nursing students of selected institutions in Alappuzha

Sampling technique: Multistage cluster sampling was used in the study

Sampling criteria

Inclusion criteria

Female nursing students who are

1. with regular menstrual periods (on 28±7 days cycles)
2. with premenstrual symptoms severity score between 1-120
3. not using any complimentary therapies such as yoga and meditation.
4. without any spinal or respiratory problems
5. not undergone any recent surgery on chest or abdomen
6. willing to participate in the intervention.

Tools and techniques

The tools used in the present study were

Tool 1: Sociopersonal data sheet

Technique: self-report

Tool 2: Premenstrual symptoms severity tool for assessing the severity of premenstrual symptoms.

Technique: self -report

RESULTS

The study concluded that, among 150 nursing students with premenstrual symptoms, 83.3% of nursing students were in the age group between 18- 20 and 16.7% were in the age group between 21-23. The findings revealed that 46 % of nursing students had monthly family income above Rs .20000, 44 % had monthly family income between Rs 10001 – 20000. The study depicted that 95.4% of nursing students were belonged to nuclear family and the remaining 4.6% were belonged to joint family. It was revealed that 68 % of nursing students were residing in rural area and 32 % in urban area. It was evident from the study that 90% of nursing students were taking mixed diet. It was clear from the study that 87.4 % nursing students attained their menarche between the age group of 12-14 years, 9.9 % attained menarche between the age group of 15-17 years of age and only 2% of nursing students attained menarche before 11 years of age. It was evident that all nursing students were having menstrual flow for a duration of 3-7 days. The study showed that 28 % of nursing students had mild, 66 % of nursing students had moderate and only 6% of nursing students had experienced severe premenstrual symptoms. The mean of premenstrual symptoms severity score of nursing students was 67.98 with a standard deviation of 22.3 . The minimum score obtained was 25 and maximum score was 105. The study concluded that the common psychological and emotional symptoms experienced during premenstrual period were anger (88 %) , irritability (90 %), anxiety (86 %) , tearfulness (72%), depression (68 %) , and decreased interest in studying (74 %). The study illustrated that the neurological symptoms experienced during premenstrual period were hypersomnia (72 %), insomnia (68 %) , fainting (54 %), and headache (50%). It was evident from the study that musculoskeletal symptoms experienced by the nursing students were fatigue (72%), backpain (68%), muscle pain (66%), and joint pain (50%). It was clearly evident that the most common gastrointestinal symptoms experienced by the nursing students during premenstrual period were bloating (68 %), loss of appetite (66%), constipation (56 %), vomiting (54%) , nausea (52 %), diarrhea (52%) , increased appetite (50%) and increased thirst (36 %). The study illustrated that the other physical symptoms experienced during the premenstrual period were acne flare ups (64 %), breast tenderness (56 %), abdominal pain (54 %) , increased frequency of micturition (48 %), palpitation (44%), swollen extremities (44 %), puffy face (42 %) , increased sweating (40 %) , blurred vision (36%) and weight gain (6%). The study revealed that there was a significant reduction in the psychological and emotional symptoms experienced by the nursing students after mindfulness meditation techniques. 88% of nursing students were experienced anger before the intervention and it was reduced to 28% after the intervention. 90% of nursing students had irritability during their premenstrual period but after the mindfulness meditation techniques only 32% had irritability. All other psychological and emotional symptoms were shown a marked reduction after the intervention. The study concluded that there was a significant reduction in the neurological symptoms experienced by the nursing students after mindfulness meditation techniques. After the intervention there was a sharp decline in the percentage of nursing students experiencing fainting (20%) , hypersomnia (20%), insomnia (23%) and headache (19%). It was evident that there was a significant reduction in the musculoskeletal symptoms experienced by the nursing students after mindfulness meditation techniques. After the intervention there was a sharp decline in the percentage of nursing students experiencing fatigue (30%), muscle pain (20%) , joint pain (24%) and back pain (26%). It showed that there was a significant reduction in the percentage of nursing students experiencing gastrointestinal symptoms after mindfulness meditation techniques. Paired t test was used to find out the effect of mindfulness meditation techniques on premenstrual symptoms among nursing students. The study revealed that there was a significant difference in the premenstrual symptoms severity score before and after mindfulness meditation techniques. The mean pretest score of 67.98 ± 22.3 was reduced to 27.58 ± 12.39 after mindfulness meditation techniques. The difference in the pretest and post test scores was found to be statistically significant at 0.001 level. Thus null hypotheses was not accepted. Thus it can be concluded that mindfulness meditation had a significant effect in reducing premenstrual symptoms among nursing students.

The study indicated that there was a statistically significant association between age, monthly family income, place of residence, dietary habits , age at menarche and severity score of premenstrual symptoms

of nursing students . It was observed that there was no statistically significant association between premenstrual symptoms and other selected sociopersonal variables.

Table 1

Mean, standard deviation and “t” value of premenstrual symptoms severity score among nursing students before and after mindfulness meditation techniques.

(n=150)

Premenstrual symptoms severity score	Mean	S.D	t
Pretest score	67.98	22.3	
			32.740***
Post test score	27.58	12.39	

**significant at 0.001 level.

Table 1 reveals that there was a significant difference in the premenstrual symptom severity score before and after mindfulness meditation techniques. The difference in the pretest and post test scores was found to be statistically significant at 0.001 level. Thus null hypotheses is not accepted. Thus it can be concluded that mindfulness meditation techniques had a significant effect in reducing premenstrual symptoms among nursing students.

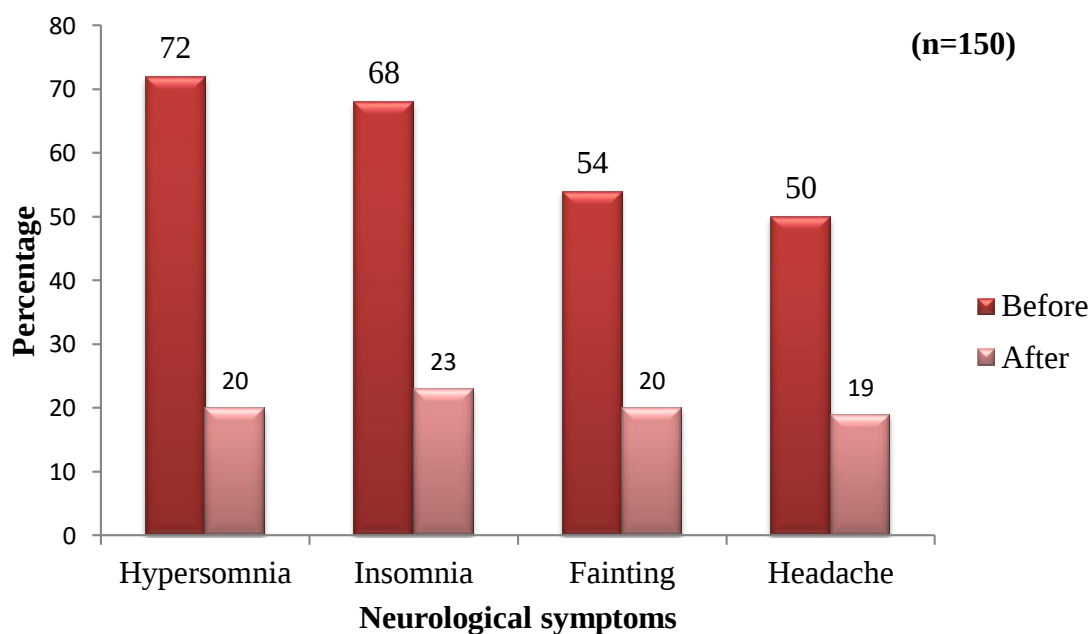


Figure 1: Percentage distribution of nursing students based on neurological symptoms experienced before and after mindfulness meditation techniques.

Figure 1 depicts that there was a reduction in the neurological symptoms experienced by the nursing students after mindfulness meditation techniques.

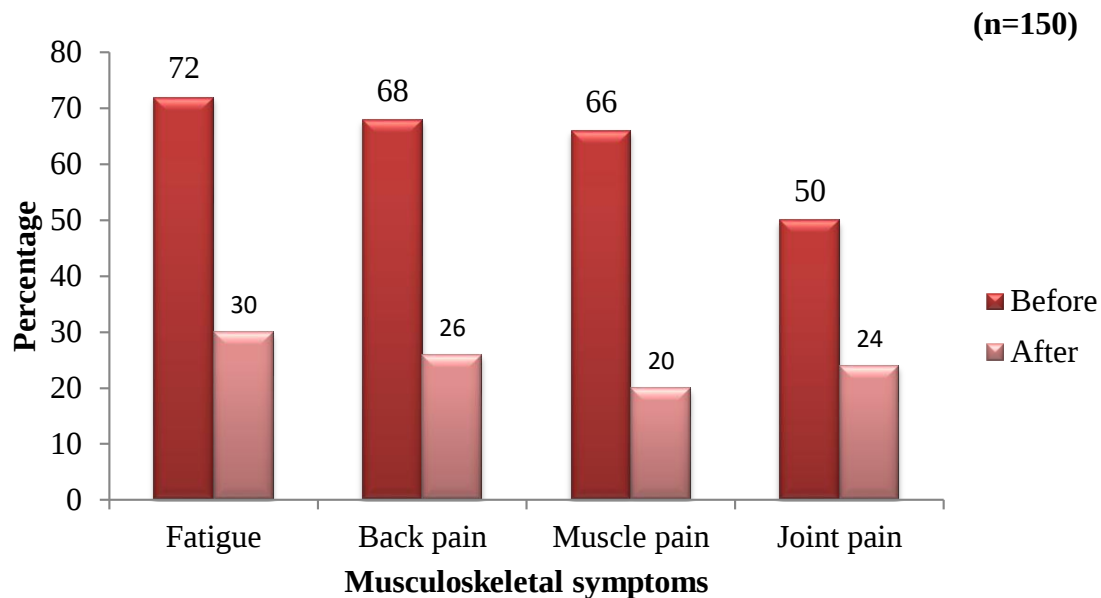


Figure 2: Percentage distribution of nursing students based on musculoskeletal symptoms experienced before and after mindfulness meditation techniques.

Figure 2 depicts that there was a significant reduction in the musculoskeletal symptoms experienced by the nursing students after mindfulness meditation techniques.

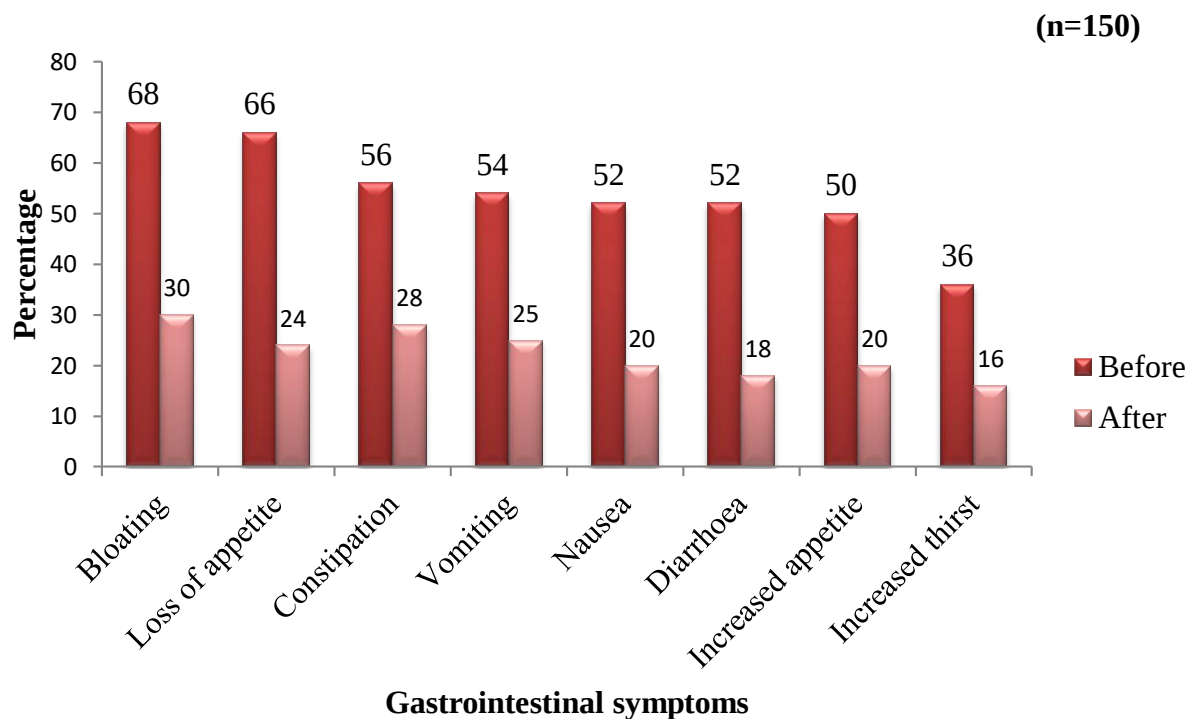
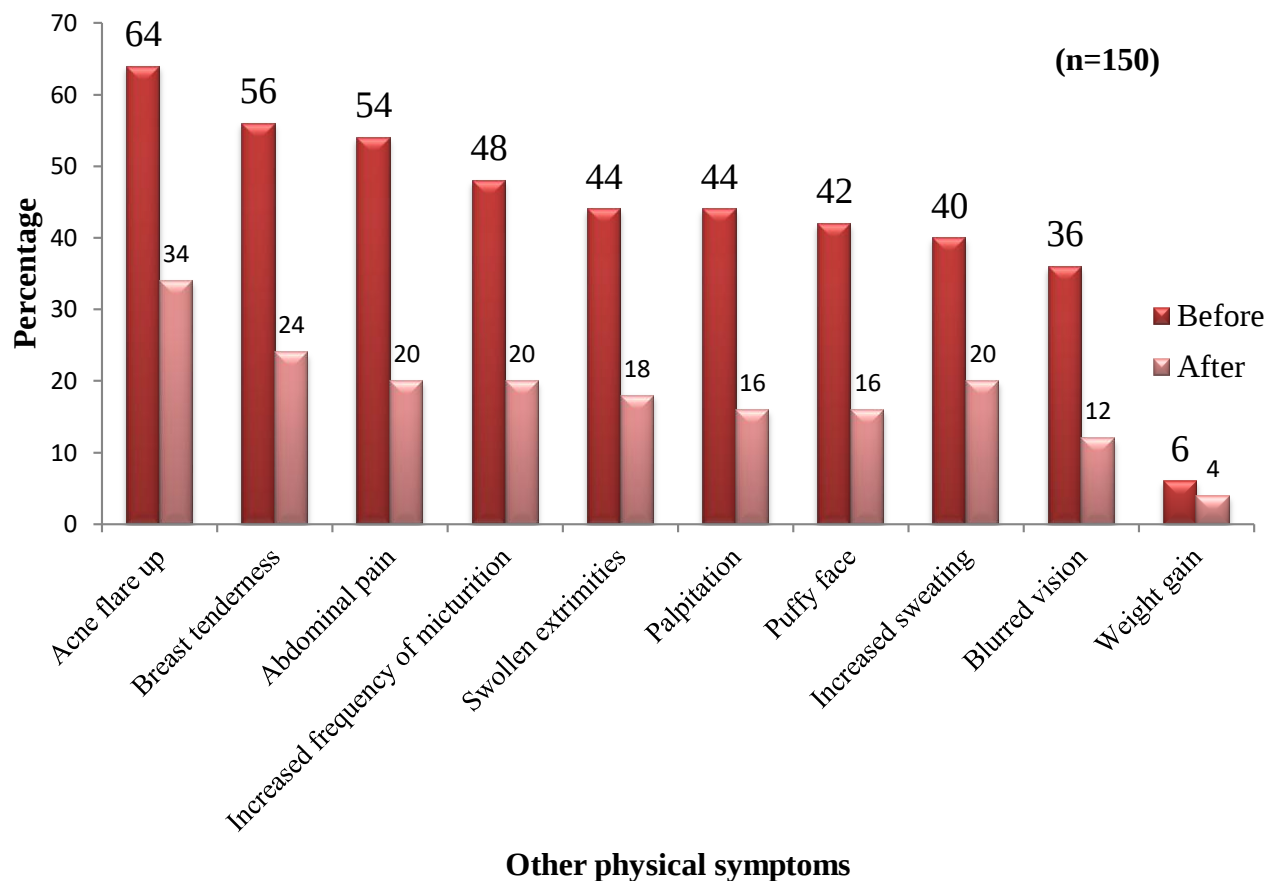


Figure 3: Percentage distribution of nursing students based on gastrointestinal symptoms experienced before and after the mindfulness meditation techniques.

Figure 3 shows that there was a reduction in the percentage of gastrointestinal symptoms experienced by the nursing students after mindfulness meditation techniques .



Other physical symptoms

Figure 4: Percentage distribution of nursing students based on other physical symptoms experienced before and after mindfulness meditation techniques.

Figure 4 depicts that there was a reduction in the other physical symptoms experienced by the nursing students after mindfulness meditation techniques

Discussion

The present study revealed that there was a significant reduction in the psychological and emotional symptoms experienced by the nursing students after mindfulness meditation techniques. All other psychological and emotional symptoms were shown a significant reduction after the intervention. The present study concluded that there was a significant reduction in the neurological, musculoskeletal, gastrointestinal symptoms experienced by the nursing students after mindfulness meditation techniques.

The present study reveals that there was a significant difference in the premenstrual symptoms severity score before and after mindfulness meditation techniques. The mean pretest score of 67.98 ± 22.3 was reduced to 27.58 ± 12.39 after mindfulness meditation techniques. The difference in the pretest and post test scores was found to be statistically significant at 0.001 level. Thus it is concluded that mindfulness meditation had a significant effect in reducing premenstrual symptoms among nursing students. The present study revealed that, there was a statistically significant association between age, type of family, place of residence, dietary habits and premenstrual symptoms severity score of nursing students.

Conclusion

The objectives of the study was to assess the severity of premenstrual symptoms among nursing students, to evaluate the effect of mindfulness meditation techniques on premenstrual symptoms among nursing students and to find out the association between premenstrual symptoms and selected sociopersonal variables of nursing students. The present study concluded that 28 % of nursing students had mild, 66 % of nursing students had moderate and only 6% of nursing students had experienced severe premenstrual symptoms. The present study concluded that there was a significant reduction in the neurological, musculoskeletal, gastrointestinal symptoms experienced by the nursing students after mindfulness meditation techniques. The study also concluded that there was a statistically significant association between age, type of family, place of residence, dietary habits and premenstrual symptoms severity score of nursing students

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