



EFFECT OF YOGA SESSIONS ON PREMENSTRUAL SYNDROME: AN EXPERIMENTAL STUDY

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ABSTRACT

Objectives: Women with premenstrual syndrome (PMS) show emotional, physical and behavioral symptoms regularly every month. Mild physiological symptoms of PMS appear in 95% of women at their reproductive age. We hypothesized to evaluate the effect of yoga exercise on PMS. **Materials and Methods:** A one group pretest posttest study was conducted from April to October of 2022. Eligible women for inclusion were selected conveniently from women that had randomly referred to selected private obstetrics and gynecology clinics in Tamilnadu. Thereafter, 60 subjects were selected for the study. The yoga group performed yoga for 10 weeks in 3 sessions with each session of 60 minutes duration. Subjects completed the Premenstrual Symptoms Screening Tool (PSST) questionnaire for evaluation of the effect of yoga exercise on emotional, behavioral, physical symptoms and quality of life of subjects with PMS before and after the intervention. Data were analyzed by covariance. **Results:** Data analysis revealed that there is statistically significant difference in PMS scores of subjects. **Conclusion:** Results highlight that yoga significantly relieves the PMS symptoms and can be prescribed for treatment of PMS after engaging in larger population trials.

KEYWORDS : Premenstrual syndrome, Premenstrual disorders, hatha Yoga, Yoga

INTRODUCTION

Women with premenstrual syndrome (PMS) have most of their symptoms every month, especially during the luteal phase. There are three groups for these symptoms: emotional (EM), physical (PHY), and behavioural (BE). PMS usually causes bloating, sore breasts, headaches, frequent urination, loss of appetite, trouble sleeping, irritability, depression, lack of energy, and either an increase or decrease in libido. Andrew et al. found that women with PMS do worse at work (27.5%), have worse working relationships (23.1%), argue with their husbands (8.82%), have problems with their children (6%) and have problems with their social relationships (41%). PMS affects the lives of people in two ways: directly, because it costs money to treat, and indirectly, because it causes people to work less efficiently, miss work, and be less productive. It needs to be treated and managed. Women with PMS often use both drug treatments and non-drug treatments to ease the severity of their symptoms. Medications like alprazolam, progesterone, fluoxetine, and gonadotropin-releasing hormone, on the other hand, have side effects like fatigue, trouble sleeping, headaches, problems with menstruation, less sexual ability, nausea, and vomiting. Recently, yoga has also been shown to be a safe way to treat illness.

Yoga comes from the Sanskrit language and means "connecting the mind, body, emotions, logic, and attention to action." Yoga is a set of physical (Asana), breathing (Pranayama), and mental (Pratt Hara) practises that make you healthier, more relaxed, and more aware of the good things in your life. Stretching as part of yoga, along with deep breathing and meditation, makes muscles stronger and protects the spine and joints. There is evidence that yoga is good for your body and mind because it has a negative effect on the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system (SNS). Negatively, yoga exercise controls the release of hormones (cortisol, glucose, plasma's renin, epinephrine, and norepinephrine) into the bloodstream. These hormones are responsible for how the body works. By adjusting immunoglobulin A in a good way, yoga reduces the negative effects of stress on the immune system. Also, yoga helps women with PMS feel better by reducing the amount of harmful, inflammatory secretions their bodies make. In India, researchers have found that yoga can help women with PMS by lowering their heart rate, blood pressure, and anxiety.

MATERIALS AND METHODS

Women with PMS who went to private obstetrics and gynaecology clinics in Tamilnadu were part of a one-group pre-test-post study. Ten private clinics were chosen at random. Researchers chose 100 people who had been sent to private clinics because they had PMS. The researcher chose people who were eligible for the study based on clear criteria (convenience). For PMS, the subjects were given a Premenstrual Symptoms Screening Tool (PSST) questionnaire to fill out in two consecutive months. Subjects were also asked to fill out a questionnaire about their personal information. Two months after the PSST questionnaire was used to keep track of the patients, 60 women with PMS joined the study. Eligible participants had to be between 20 and 45 years old, have PMS according to the PSST questionnaire, have regular menstrual periods, haven't played sports in the past 3 months, weren't taking any chemical/herbal medications or oral contraceptives, didn't have depression or diseases of the genital tract, didn't drink alcohol or smoke cigarettes, didn't use tobacco or illegal drugs, and didn't have joint diseases, rheumatoid arthritis, or surgeries that affected If a subject didn't want to take part in the study or had done yoga before, they were taken out of the study.

RESULTS

The mean \pm SD for age was 34.4 ± 5.3 for yoga group. Both yoga and control groups were similar in means in terms of the demographic characteristics, except employment status. The variables were compared between yoga and control groups before and after intervention. Results showed significant difference in both yoga groups before and after intervention for EM, PHY and BE variables. Furthermore, data analysis by paired t test showed significant difference before and after intervention in the yoga group.

Effect of Yoga on domains of PMS

Table 1: Mean, SD, t value and p value of pretest post test scores

Domains	Pretest (Mean and SD)	Posttest (Mean and SD)	T value	p
Emotional (EM)	58.34 \pm 16.26	50.32 \pm 19.16	11.26	0.003*
Physical	78.15 \pm 21.39	58.57 \pm 11.95	8.99	0.023*
Behavioral	61.15 \pm 22.39	48.57 \pm 11.56	9.33	0.031*
Quality of life	67.15 \pm 22.39	58.57 \pm 4.95	12.11	0.046*

*p<0.05 level

DISCUSSION

The current study showed that yoga can help women with PMS feel better. This study's results back up the fact that physical and aerobic exercises have been shown to make PMS symptoms less severe (26-30). Women with PMS can't get enough relief from western treatments or even from complementary and alternative medicines. Studies have shown that yoga makes PMS symptoms less severe, which is a good thing because yoga helps you relax and keep your nervous system in check. In a study, it was found that Hatha yoga makes the mind and body more relaxed, reduces muscle tension and stress, and helps people sleep better and worry less. This study looked at important symptoms and found that Hatha yoga reduces sympathetic activity, lowers stress pressure, and makes women with PMS feel more relaxed. In a study on women with irregular periods, Sumesh et al. found that yoga Nidra greatly reduces any pain caused by digestive, urogenital, or cardiovascular problems.

Also, a study by Rani et al. on women with irregular periods, severe anxiety, and severe depression showed that yoga exercise doesn't help with severe symptoms but does help with mild ones. Montisori et al. have shown that stress-related PMS symptoms can be helped by sedation exercise. Electromyograms were used by these researchers to measure muscle tension and stress that had been stored in muscle tension. When patients did yoga exercises, they felt less stressed, which made their muscles less tight. Yoga has been shown to help reduce stress-related problems, such as sweat glands that work too much. Also, the effects of yoga might have something to do with how it uses both the mind and the body and makes the person calm and relaxed.

In the current study, PMS symptoms like anger or irritability, anxiety or stress, crying or becoming more sensitive to bad things, feeling sad or hopeless, losing interest in work activities, losing interest in house activities, losing interest in social activities, having trouble concentrating or not being able to pay attention to the lesson all went down in the yoga group. Dvivedi et al. found that irritability symptoms got better in 80% of the people who did yoga exercises. In contrast to the current study, Naveen et al. found that PMS symptoms improved less for the exercise group than for the control group when both aerobic and physical exercises were done. These researchers said that getting in shape might help with PMS symptoms.

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