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Impact of Astanga Yoga and Mantra Chanting on Selected Physiological Variables Among Infertile Women

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Abstract

The purpose of the present study was to find out the Impact of Astanga Yoga Practices And Mantra Chanting on Selected Physiological variables among Infertile women. The study was conducted on 45 Infertile women. Totally three groups, namely, control & experimental group I& II, consisting of 15 Infertile women underwent six weeks of practice in Astanga Yoga Practices And Mantra Chanting whereas the control group did not under go any type of training. The Infertility related Menstrual Distress were measured before and after the experimentation using the Data obtained through Menstrual Distress Questionnaire (MEDI-Q). The data were analyzed by Analysis of Co-variance (ANCOVA) and it was concluded that the Astanga Yoga Practices And Mantra Chanting had significant ($P < 0.05$) effect on the Menstrual Distress levels.

Keywords:
Astanga Yoga Practices, Mantra Chanting, Infertility and Menstrual Distress

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Introduction

Female infertility is the inability to achieve a pregnancy after one year of regular, unprotected sexual intercourse, often rooted in ovulation issues, blocked fallopian tubes, or uterine conditions. Globally, approximately **8% to 15%** of reproductive-age couples experience infertility, with female factor issues accounting for roughly **40% to 50%** of all cases. Menstrual distress refers to the collective physical and emotional discomfort such as severe cramps, fatigue, and mood shifts experienced right before or during a period. Menstrual distress and irregularities co-occur in **20% to 50%** of women evaluated for female infertility. The root pathologies driving menstrual distress frequently disrupt ovulation, damage egg quality, or block the pathway for conception where, irregular cycles, or heavy bleeding is often an external warning sign of underlying reproductive disorder causing infertility. Traditional practices like Astanga yoga and Mantra chanting primarily aid fertility by relaxing menstrual distress. Astanga yoga helps reduce menstrual distress by improving pelvic blood circulation, releasing muscle tension, and calming the nervous system. Consistent practice of standing and opening asanas before menstrual cycle brings fresh blood flow to the reproductive organs, preventing deep pelvic congestion that leads to severe cramps. Dynamic movement stimulates the release of beta-endorphins, which act as natural pain relievers in the body. Strengthening the lower back and abdominal wall minimizes the musculoskeletal aches which happens during menstruation. Through Pranayama nervous system regulation happens, specifically deep, controlled ujjayi and bhramari pranayama down-regulates the sympathetic nervous system (fight-or-flight), lowering stress hormones that often worsen PreMenstrual Syndrome and pain Whereas in Mantra chanting a focused, rhythmic breathing and sound vibration helps calm the nervous system, reducing stress hormones like cortisol, and eases muscle tension, which inturn help lower the intensity of cramps and mood swings. The steady rhythm of repetitive mantra (Chanting) shifts the body from a stress response into a resting state, through chanting the breath is regulated automatically which relaxes the pelvic region and ease cramping. Mantra chanting as a whole helps harmonize hormonal imbalances and soothe menstrual distress. This study aims to determine the magnitude of infertility in relation to menstrual distress and the effectiveness of Astanga yoga and Mantra chanting among Infertile women. The menstrual distress is measured using Menstrual Distress Questionnaire (MEDI-Q) which is a 25-item standardized tool that measures pain, physical discomfort, emotional shifts, and gastrointestinal symptoms across menstrual cycle phases quantifying how underlying conditions like endometriosis impacts a women's menstrual cycle. On identifying underlying conditions like hormonal imbalances, or ovulatory dysfunction (such as PCOS), addressing it early through yogic intervention helps preserve and improve the reproductive potential. This Quantifying subjective menstrual morbidity and monitoring underlying cycle-related disorders tends to be helpful for addressing female infertility.

Statement of The Problem

The purpose of the study was to find out the effect of Astanga Yoga Practices And Mantra Chanting on Menstrual distress among Infertile women

Hypothesis

It was hypothesized that there will be a significant difference on Menstrual distress among Infertile women due to Astanga Yoga Practices And Mantra Chanting groups than the control group.

Methodology

The purpose of the study was to find out the effect of Astanga Yoga Practices And Mantra Chanting on Menstrual distress among Infertile women. For the purpose of this study, forty-five Infertile women were chosen on random basis from a hospital in Chennai . Their age group ranges from 30 to 35 years .

The subjects were divided into three group of fifteen each. The experimental group I would undergo Astanga Yoga Practices with Mantra Chanting and the experimental group II undergo

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Astanga Yoga Practices without Mantra Chanting and third group consider as control group not attend any practices, and the pre test and post test would be conducted before and after the training. Training would be given for six weeks. It would be found out finally the effect of Astanga Yoga Practices and Mantra Chanting on Menstrual distress among infertile women. A 25-item standardized tool Menstrual Distress Questionnaire(MEDI-Q) is used to measure Menstrual distress. The collected data were statistically analyzed by using analysis of covariance (ANCOVA).

Training Schedule

Experimental Group I : Astanga Yoga Practices with Mantra Chanting

Experimental Group II : Astanga Yoga Practices without Mantra Chanting

Group III : Control Group (No Training).

Computation of Analysis of Covariance and Post Hoc Test on Menstrual Distress

The statistical analysis comparing initial and final means of Menstrual distress due to Astanga Yoga Practices And Mantra Chanting among Infertile women is presented in Tables below.

Table 1 Computation Of Analysis Of Covariance of Ex.Gr.I & Ex>Gr.Ii & C.G. on Menstrual Distress (Scores)

Test	Ex.Gr.I Group	Ex.Gr.II Group	Control Group	Source Of Variance	Sum Of Squares	Df	Mean Squares	Obtained F Ratio
Pre Test Mean	27.73	26.80	26.13	between	19.38	2	9.689	0.43
				within	953.07	42	22.69	
Post Test Mean	20.66	23.27	27.40	between	345.91	2	172.96	14.71*
				within	493.87	42	11.76	
Adjusted Post Test Mean	20.42	23.29	27.62	between	387.59	2	193.80	19.41*
				within	409.437	41	9.99	
Mean Different	7.066	3.53	-1.27					

Significant at 0.05 level of confidence

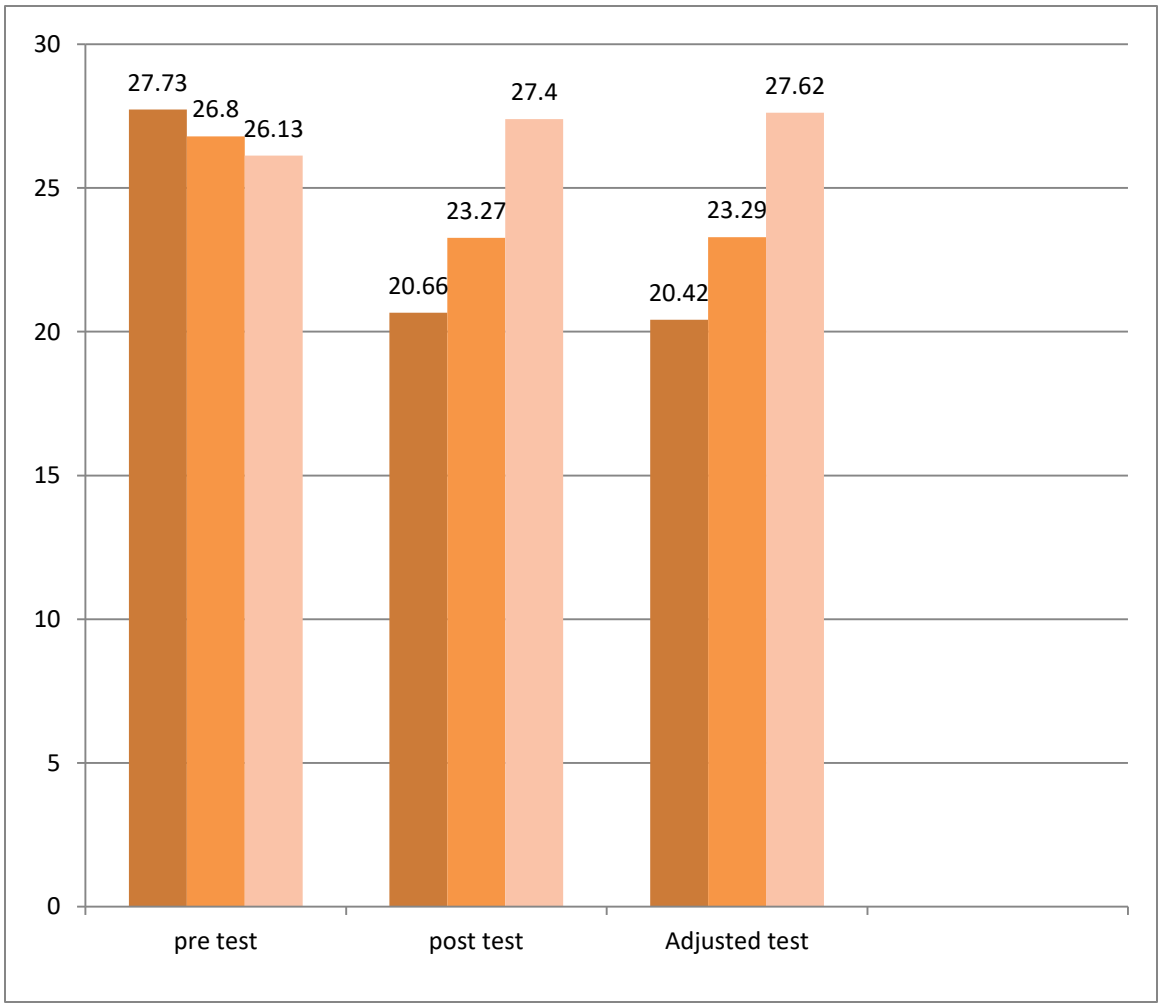
Table 2 Scheffe's Confidence Interval Score Test on

MEANS			Mean Difference	Required CI
Control Group	**Ex.Gr.I. Group**	**Ex.Gr.II. group**		
27.62	20.42	-	7.21*	2.87
27.62	-	23.29	4.33*	
-	20.42	23.29	2.88*	

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Figure 1 Bar Diagram Showing The Mean Difference Among Ex.Gr.I, Ex.Gr.Ii And Control Group (C.G) Of Menstrual Distress



Discussion on the Findings of Menstrual Distress

The Analysis of Co-variance of Menstrual distress indicated that experimental group I (Astanga Yoga Practices with Mantra Chanting), experimental group II (Astanga Yoga Practices without Mantra Chanting), were significantly improved than the control group on Menstrual distress. It may be due to the effect of Astanga Yoga Practices with Mantra Chanting and Astanga Yoga Practices without Mantra Chanting practices.

The findings of the study showed that the experimental group I (Astanga Yoga Practices with Mantra Chanting) had improvement in Menstrual distress than the experimental group II (Astanga Yoga Practices without Mantra Chanting Practices).

Conclusion

There was a significant improvement in Menstrual distress of experimental groups when compared to the control group. Astanga Yoga Practices with Mantra Chanting group has shown improvement than the Astanga yoga practices without Mantra Chanting

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