



“EFFECTS OF YOGIC PRACTICES WITH AND WITHOUT THERAPEUTIC EXERCISES ON PERCEIVED STRESS LEVEL AMONG ANTENATAL MIDDLE AGED WOMEN”

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ABSTRACT

The purpose of the random group experimental study was to find out the Effect of Yogic Practices with and without Therapeutic Exercises on selected Psychological Variable, Perceived stress level among Antenatal Middle Aged Women. It was hypothesized that there would be significant differences on selected psychological variable in yogic practices with and without therapeutic exercises group than the control group. It was hypothesized that there would be significant differences in psychological variable between the experimental groups. To achieve the purpose of study, 45 antenatal middle aged women with increased stress level were selected from in and around Gobichettipalayam city, aged between 25 to 37 yrs and assigned randomly to each experimental groups and control group consisting of 15 subjects each. Experimental Group 1 underwent only yogic practices for 12 weeks, five days per week for maximum period of 1 hour in the evening. Experimental Group 2 underwent yogic practices with therapeutic exercises for same period of time and duration. The Control Group was kept in active rest period. The pre and post test were conducted before and after the training for all three groups. Stress levels were measured using perceived Stress Assessment Scale. The obtained data were statistically analyzed by using analysis of co-variance (ANCOVA) and scheffe's post hoc test was carried out to determine the significant difference and tested at 0.05 level of confidence. The result of the study showed that the stress level was significantly reduced due the practices of yoga and therapeutic exercises (EXP 2) better than the yogic practice group (EXP1). And both experimental group showed significant improvement in stress levels i.e., reduction due to the influences of combined effects of yogic and therapeutic exercises than the control group. Hence both the hypothesis was accepted at 0.05 level of confidence. Thus the conclusion was that the yogic practices with and without therapeutic exercises helped in improvement on stress level among antenatal middle aged women than the control group.

Key Words: *Yogic Practices, Therapeutic Exercises, Antenatal, Perceived stress, Perceived Stress Assessment Scale.*

1. INTRODUCTION

In Pregnancy, Antenatal or prenatal is the period starting from the conception till the delivery of the fetus. Pregnancy is generally divided into three periods or trimesters, each of about three month's durations. Even women who were healthy before getting pregnant can experience complications. These complications may make the pregnancy a high-risk pregnancy. Getting early and regular prenatal care can help decrease the risk for problems by enabling health care providers to diagnose, treat, or manage conditions before they become serious. Physical, physiological, psychological and other complications can affect the well being of both the maternal and fetal health.

In the present scenario, studies shows that women with increased stress level detected during pregnancy are at greater risk of adverse pregnancy outcomes, including macrosomia, pre-eclampsia, hypertensive disorders in pregnancy, and shoulder dystonia. Treatment of perceived stress, which usually involves a stepped approach of lifestyle changes, proper breathing, relaxation, yoga, exercises, etc. This may be effective in reducing these poor outcomes. However, approximately 303 000 women and adolescent girls died as a result of pregnancy and childbirth-related complications in 2015. The recent data on prevalence in India was 16.55% to 38.5% .

Yoga regulates the flow of prana, calms mind, gives physical and mental stability and gives betterment of the health by activation and awakening of higher centers of mother which reflects in utero also. Therapeutic exercise improves the strength, endurance, flexibility; to cope with throughout pregnancy and child birth .On regular practice of yoga with therapeutic exercise, one can lead a healthy wellbeing and complications free pregnancy, ensuring both fetal and maternal health at optimal levels in all dimensions.

2. Purpose of Study

The purpose of the study was to find out the Effect of Yogic Practices with and without Therapeutic Exercises on selected Psychological Variable, perceived stress Level among Antenatal Middle Aged Women.

3. Hypothesis

It was hypothesized that there would be significant differences on perceived stress level among antenatal middle aged women due to yogic practices with and without therapeutic exercises of experimental groups than the control group.

It was hypothesized that there would be significant differences on perceived stress level among antenatal middle aged women due to yogic practices with and without therapeutic exercises between the experimental groups.

4. Review of Related Literature

Shobitha Et Al (2019) Studied on the Effect of Mindfulness Meditation on Perceived Stress Scores and Autonomic Function Tests of Pregnant Indian Pregnant Indian women of 12 weeks gestation were randomized to two treatment groups: Test group with Mindfulness meditation and control group with their usual obstetric care. The effect of Mindfulness meditation on perceived stress scores and cardiac sympathetic functions and parasympathetic functions (Heart rate variation with respiration, lying to standing ratio, standing to lying ratio and respiratory rate) were evaluated on pregnant Indian women. There was a significant decrease in perceived stress scores, a significant decrease of blood pressure response to cold pressor test and a significant increase in heart rate variability in the test group ($p < 0.05$, significant) which indicates that mindfulness meditation is a powerful modulator of the sympathetic nervous system and can thereby reduce the day-to-day perceived stress in pregnant women. The results of this study suggest that mindfulness meditation improves parasympathetic functions in pregnant women and is a powerful modulator of the sympathetic nervous system during pregnancy.

Yugging guon et al., Experimented on the effects of exercise and stress in at-risk women during pregnancy and postpartum to understand the relationship between exercise and stress among socioeconomically at-risk women. A mixed-methods design was used to support and supplement quantitative data using qualitative data. Convenience sampling was used to collect data from at-risk women via questionnaires and follow-up interviews. The Perceived Stress Scale was used to assess stress. Frequency and duration of exercise were assessed based on the American College of Obstetricians and Gynecologists exercise guidelines.. N = 114 women completed the questionnaire and a subgroup of 11 received follow-up interviews. Greater frequency of exercise was significantly associated with lower levels of stress. Approximately one-third of women reported experiencing significant stress.. Many women recognized the importance of managing stress and benefits of exercise, but were hindered by barriers such as feeling tired, preventing them from exercising.

5. Methodology

To fulfill the goal of this random group experimental study, Random sampling design was followed for selecting the samples. 45 middle aged pregnant women ranging from 25 to 35, with moderate to higher stress level were selected in and around Gobichettipalayam city. The subjects were assigned randomly into two experimental groups and one control group with 15 subjects each. EXP1 were involved in yogic practices for 12 weeks, EXP2, were involved in yogic practices with therapeutic exercises and the control group kept n active rest. Pretest and post test were taken for all three groups 1, 2, and 3 on selected dependent variables before and after the training.

The yogic practices given were **Prayer, Pawanamuktasana Series, Baddhakonasana, Tad asana, Triyaktadasan Katichakrasana, Vakrasana, Shavasana, Bhramahari Pranayama, Nadisodhana pranayama, Yoga Nidra**. Therapeutic exercises given were **Warm Up Exercises, Neck Stretching, Upper Arm Free Exercises, Lower Arm Free Exercises, Calf Stretching, Static Quadriceps, Calf Raise, Wall Squat, Upper And Lower Body Exercises, Keigels, Cooling Down Exercises, Diaphragmatic Breathing, Pursed Lip Breathing, Sectional Breathing**.

All techniques were made according to the individual limitations with necessary modifications, support and rest intervals. Individuals were in their comfortable zone throughout the training program.

6. Data Analysis

The data pertaining to the variables collected from the groups as pre and post test were statistically analyzed by using Analysis of Co-Variance (ANCOVA) to determine the significant differences between the experimental groups and the control group. Paired mean were analyzed by Sheffe's Post hoc test at 0.05 level of confidence.

7. Results and Discussion

The pre and post test scores of perceived stress was measured and subjected to statistical treatment. The results n the effect of training of yogic practices with and without therapeutic exercises is presented in the **Table 1**.

The obtained f value on the score of the pretest means 0.657 is less than the required f value of 3.1. which proves that the random assignment of the subject were successful and their scores before training were equal and there was no significant differences. The analysis of post test means proved that the obtained f value 40.16 was greater than the required f value of 3.1 to be significant at 0.05 levels .taking into consideration of the pretest and post test means the adjusted post test means were done and the obtained f value of 39.17 was greater than the required f value of 3.1 .Hence it was accepted that the yogic practices with therapeutic exercises and yogic practices group significantly decreases stress level than the control group.

Since the significant differences were recorded, the results were subject to post hoc analysis using scheff's confidence Interval test. The results are presented in **Table 2**.

the adjusted post – test difference in perceived stress score between Ex.G 1 and CG and between Ex.G 2 and CG are 7.85 and 11.36 respectively which were statistically significant at 0.05 level of confidence. The adjusted post – test mean difference in prenatal depression between Ex.G 1 and Ex.G 2 was 3.51 which were greater than the confidence interval value at 0.05 levels. The ordered adjusted means presented through bar diagram on ordered adjust means of the result of this study in **Figure 1**.

8. Discussion on the Findings of Perceived stress

The result of the study on stress level indicates that all the experimental groups namely Ex. 1 and Ex. 2 brought about significant control after the training than the control group. The analysis of the data indicates that there was a significant difference on stress levels between Ex. 1 and Ex. 2. Based on the mean value, the yogic practice with therapeutic exercises Ex G. 1 was found to be better in reduction of stress levels than the yogic practices group. Systematic yogic practices training and therapeutic exercises decreasing the stress level.

9. Discussion on Findings and Hypothesis

The results of the study indicated that there were significant difference on the selected psychological dependent variable due to the effect of yogic practices with therapeutic exercises and yogic practice without therapeutic exercises than the control group.

Hence the first hypothesis was completely accepted at 0.05 level of confidence with respect to perceived stress.

The results of the study indicated that there were significant difference between the yogic practices with therapeutic exercises group and yogic practices group on selected psychological variable among antenatal middle aged women.

Hence second hypothesis was accepted at 0.05 level of confidence with respect to the selected psychological variable perceived stress.

10. Conclusion

From the analysis and discussion of this study the following conclusions were drawn

- Only Yogic Practice Group (Exp 1) and Yogic Practice with Therapeutic Exercises Group (Ex 2) helped to Control Levels of perceived stress in Middle Aged Antenatal Women than that of Control Group (Rest Group).
- Yogic practices with Therapeutic Exercises program were a suitable training system to control perceived stress level among the Antenatal Middle Aged Women than Yogic Practice without Therapeutic Exercises program.

11. Conflict of interests

Author declares that there is no conflict of interest

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Table 1

ANALYSIS OF COVARIANCE OF THE PRETEST AND POST TEST MEANS OF THE TWO EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN PRENATAL DEPRESSION. (SCORES IN POINTS)

TEST	EXP1	EXP2	CTR GR	SV	SS	DF	MS	F
PRETEST	19.27	20.93	19.93	B	21.11	2	10.55	0.657*
				W	674	42	16.07	
POSTTEST	12.93	9.47	20.08	B	1107.73	2	505.82	40.16*
				W	529.07	42	12.60	
ADJUSTED	12.95	9.44	20.08	B	1009.85	2	504.30	39.17*
				W	528.56	41	12.89	

Table2

POST HOC ANALYSIS USING SCHEFF'S CONFIDENCE INTERVAL TEST

Ex.G 1	Ex.G 2	Con.G	MD	CI
12.95		20.80	7.85	3.26
	9.44	20.8.	11.36	3.26
12.95	9.44		3.51	3.26

Figure 1

