



EFFECT OF YOGA THERAPY WITH VARMA THERAPY PRACTICES ON ADJUSTMENT AND STRESS VARIABLES AMONG HYPERTENSIVE MIDDLE AGED MEN

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ABSTRACT The present random group experimental study was designed to find out the effect of yoga therapy with Varma therapy practices on Adjustment and Stress variables among hypertensive middle aged men. It was hypothesized that there would be significant difference in yoga therapy with Varma therapy practices than the control group on Adjustment and Stress variables among hypertensive middle aged men. To achieve the purpose of the study, thirty (30) hypertensive middle aged men residing in Chennai age between 40 to 50 years were selected randomly into two groups, namely experimental group and control group of fifteen (15) subjects each. Training period of this study was twelve weeks. Experimental group underwent yoga therapy with Varma therapy practices for twelve (12) weeks, six days a week for a maximum of one hour in the morning. The control group was kept in active rest. The pre test and post test were conducted before and after the training for all two groups. To analyse the data (ANCOVA) test was used to find out the significant difference between experimental group and the control group. The test of significance was fixed as 0.05 level of confidence. It was concluded that Yoga therapy with Varma therapy practices significantly improved on Adjustment and Stress (decreased) than the Control group among hypertensive middle aged men.

KEYWORDS :

INTRODUCTION

Hypertension is in the main arteries which carries oxygenated blood from the heart to the body causes the heart to work too hard and is known as Hypertension (Swami Karmananda (2010). Over secretion of vasopressin hormone in the brain causes HBP. It is the leading disease in the world. It is one of the best barometers of overall health and one of the best predictors of risk of illness. Metabolically healthy obese persons are also at higher risk of high blood pressure. Under and over activity of the genes FGf23, APOC3, TRS1, 9p21 are other cause of HBP. Improper biological clock and insufficient electrical activity are the main causes (American Heart Association's Council on Hypertension-2017). More than 18 percentages of the Indian men between fifteen years and forty nine years are suffering from hypertension. Salt intake is double and dangerous of Hypertension risk in India (Delhi – 14.13gm/day, Kolkata – 9.81 gm/day, Mumbai – 10.21 mm/day, Bangalore and Chennai 9.38 gm/day) (Times of India – Dec-17-2016 Sat). Sitting and standing for long periods of time leads to high blood pressure. Yoga therapy and Varma therapy practices dilate the blood vessels thus reducing pressure, remove excess water and salt from the body, set right sympathetic nervous system to overcome stress, give massaging effect on the arteries, restore elasticity of the nerves, restore bio-rhythm of the body, balance endocrine systems, yoga therapy reduce the risk of HBP by 70%. More than four among 10 middle aged people have HBP. Salt intake is double and dangerous of Hypertension risk in India (Delhi – 14.13gm/day, Kolkata – 9.81 gm/day, Mumbai – 10.21 mm/day, Bangalore and Chennai 9.38 gm/day) (Times of India – Dec-17-2016 Sat). Prevents stress by inhibiting the activity of sympathetic nerves. It is responsible for 60% of strokes and 40% of heart attacks Yoga therapy and Varma therapy practices helps to promote a balanced development of physical, mental and spiritual well-being (www.yoga-point.com).

STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of yoga therapy with Varma therapy practices on Adjustment and Stress variables among hypertensive middle aged men.

HYPOTHESIS

It was hypothesized that there would be significant difference in yoga therapy with Varma therapy practices than the control group on Adjustment and Stress variables among hypertensive middle aged men.

REVIEW OF RELATED LITERATURE

Rao M et.al., (2017) studied effects of Mind Sound Resonance Technique (Yogic Relaxation) on Psychological States, Sleep Quality, and Cognitive Functions in Female Teachers: A Randomized, Controlled Trial. Several studies have revealed a high rate of physical and psychological problems from stress among schoolteachers. Yoga is one of the mind-body interventions known to alleviate stress and

effects. The mind sound resonance technique (MSRT), a yoga-based, mindfulness relaxation is recognized as having a positive influence on physical and psychological health. The study intended to examine the effects of an MSRT intervention for 1 mo on perceived stress, quality of sleep, cognitive function, state and trait anxiety, psychological distress, and fatigue among female teachers. The study was a randomized, controlled trial. The study occurred at 2 primary schools in Bangalore City, India. 60 female teachers, aged between 30 and 55 y, from the 2 schools were enrolled in the study. The participants were randomly divided into an MSRT group (n = 30) and a control group (n = 30). Participants in the MSRT group participated in MSRT for 30 min/d, 5 d/wk, for the duration of 1 mo. The participants in the control group followed their normal daily routines. Perceived stress, sleep quality, cognitive function, anxiety, psychological distress, fatigue, and self-esteem were assessed using standardized assessment tools at baseline and after 1 mo of the intervention. In the current study, the practice of MSRT facilitated a reduction in the levels of stress, anxiety, fatigue, and psychological distress. The relaxation technique also enhanced the levels of self-esteem and quality of sleep among female teachers working in primary schools.

Wolff M et.al., (2016) studied to evaluate yoga's impact on blood pressure (BP) and quality of life (QOL) and on stress, depression and anxiety in patients with hypertension in a primary care setting and conducted a multi-centre randomized controlled trial with follow-up after 12-week intervention completion. Adult primary care patients diagnosed with hypertension were randomly allocated to yoga. The intervention group performed a short home-based Kundalini yoga programmed 15 min twice-daily during the 12-week intervention period. Data obtained from 191 patients (mean age 64.7 years, s.d. 8.4) allocated to yoga intervention (n=96) and control group (n=95), with a total proportion of 52% women, showed a significant reduction in systolic and diastolic BP for both groups (-3.8/-1.7mmHg for yoga and -4.5/-3.0mmHg for control groups, respectively). However, the BP reduction for the yoga group was not significantly different from control. There were small but significant improvements for the yoga group in some of the QOL and depression measures (P<0.05, Hospital Anxiety and Depression scale, HADS-D) compared with control. The findings of our study, which is the largest study from an OECD country (Organization for Economic Co-operation and Development) to date, do not support the suggestion from previous smaller studies that yoga lowers the BP.

METHODOLOGY

For the purpose of this random group experimental study, thirty (30) hypertensive middle aged men in Chennai were selected at random as subjects based on their Adjustment and Stress and their age was ranged from 40 to 50 years. Yoga therapy with Varma therapy practices were given six days (Monday to Saturday) per week for twelve weeks. All the subjects were randomly assigned to experimental group and control group each consisted of 15 subjects. Experimental group was

involved in yoga therapy with Varma therapy practices for twelve weeks, and the control group kept in active rest. The Yoga therapy with Varma therapy practices includes opening prayer, loosening exercises: pawanamuktasana part 1, suryanamaskar, Asanas: Shavasana, Vrksahasana, Padahasthasana, Adhomukha Svanasana, Ardha Halasana, Vipareeta Karani, Shashangasana, Vakrasana, Janu Sirsasana, Paschimottasana, Ananda Madirasana, Makarasana, Pranayama: Nadhisodhana, Bhramari, Ujjayi, Yoga Nidra, End prayer; Varma points ; Pitari varmam, Tilarta varmam, murti kalam, Patchi varmam, Sundi varmam, Kannadi Varmam, Viththu varmam, Aamai varmam, Manibandha varmam, Thuthikai Varmam, Naithalai varmam and kaikotti varmam Techniques. Initially pre-test was taken and after the experimental period of twelve weeks, post-test was taken from all the two groups. The differences between initial and final Adjustment and Stress variables were considered as the effect of yoga therapy with Varma therapy practices on selected subjects. Analysis of covariance (ANCOVA) test was used to find out the difference among the experimental group and control groups. The test of significance was fixed as 0.05 level of confidence.

RESULTS AND DISCUSSION

The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of significance.

RESULTS ON ADJUSTMENT

The Analysis of Covariance (ANCOVA) on yoga therapy with Varma therapy practices and control group was analyzed and are presented in table-I.

Results On Adjustment

Table-I

Computation Of Analysis Of Covariance Of Training Group And Control Group On Adjustment (in Scores)

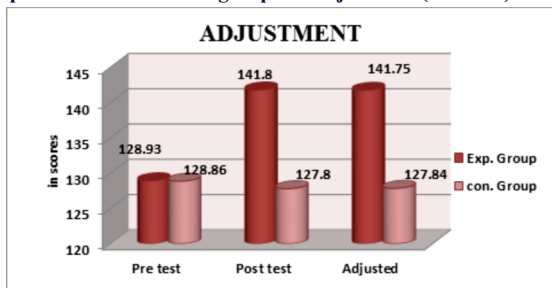
Test	EXP GROUP	CON GROUP	SV	SS	Df	MS	F
Pre test Mean	128.93	128.86	Between	0.03	1	0.03	0.03
			Within	26.66	28	0.95	
Post test Mean	141.8	127.8	Between	1470	1	735	82.05*
			Within	250.8	28	8.95	
Adjusted test Mean	141.75	127.84	Between	1449.66	1	724.83	96.02*
			Within	203.80	27	7.54	
mean difference	12.86	1.06					

* Significant at 0.05 level of confidence (Table F ratio at 0.05 level of confidence for df 1 and 28 = 4.20, 1 and 27 = 4.21).

The obtained F-ratio value for the Adjustment were greater than the table value, it indicates that there was a significant difference among post test and adjusted post-test means of the yoga therapy with Varma therapy practices group than the control group.

the pre-test, post-test and adjusted post-test mean values of yoga therapy with Varma therapy practices and the control group on Adjustment were graphically presented in Figure 1.

Figure 1 bar diagram showing the adjusted post test means of experimental and control groups on adjustment (in scores)



RESULTS ON STRESS

The Analysis of Covariance (ANCOVA) on Stress yoga therapy with Varma therapy practices and control group was analyzed and is presented in table-II.

Table-II Computation Of Analysis Of Covariance Of Training Group And Control Groups On Stress (in Scores)

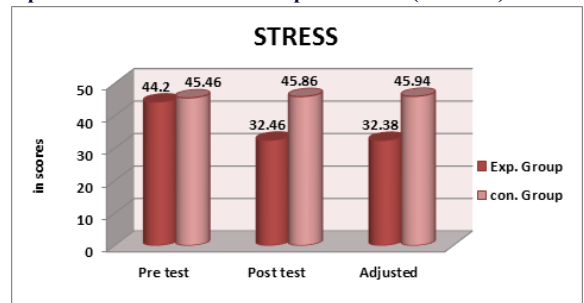
Test	EXP GROUP	CON GROUP	SV	SS	Df	MS	F
Pre test Mean	45.2	45.46	Between	0.53	1	0.53	0.46
			Within	32.13	28	1.14	
Post test Mean	32.46	45.86	Between	1346.7	1	673.35	145.62*
			Within	129.46	28	4.62	
Adjusted test Mean	32.38	45.94	Between	1356.84	1	678.42	155.66*
			Within	117.67	27	4.35	
mean difference	12.73	0.4					

* Significant at 0.05 level of confidence (Table F ratio at 0.05 level of confidence for df 1 and 28 = 4.20, 1 and 27 = 4.21).

The obtained F-ratio value for the Stress were greater than the table value, it indicate that there was a significant difference among post test and adjusted post-test means of the yoga therapy with Varma therapy practices group than the control group.

the pre-test, post-test and adjusted post-test mean values of yoga therapy with Varma therapy practices and the control group on Stress were graphically presented in Figure 2.

Figure 2 Bar Diagram Showing The Adjusted Post Test Means Of Experimental And Control Groups On Stress (in Scores)



CONCLUSIONS

It was concluded that Yoga therapy with Varma therapy practices significantly Improved on Adjustment and Stress (decreased) than the Control group among hypertensive middle aged men.

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