

EFFECT OF YOGA NIDRA AND TRANSCENDENTAL MEDITATION ON ANXIETY LEVEL OF POST MENOPAUSAL WOMEN

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ABSTRACT

The aim of this study was to analyze the effect of Yoga Nidra and Transcendental Meditation on anxiety level of postmenopausal woman. For the purpose of the present investigation 60 postmenopausal women were selected from Vaniyambadi town, Tamilnadu, India and gave them Yoga Nidra relaxation technique and transcendental meditation. The age of the subjects ranged from 50-55 years. The subjects were divided into 4 groups of 15 subjects each of which one control and three experimental groups. Group I -Yoga Nidra group (YNG) underwent Yoga Nidra practice, Group-II - Transcendental Meditation Group (TMG) underwent Transcendental Meditation practice, Group-III underwent combined Yoga Nidra and Transcendental Meditation (CTG) and Group IV acted as Control (CG) they did not undergo any kind of Yogic practices. The data on anxiety was collected prior to and immediately after 12 weeks of training from the experimental and control groups. The data collected from the experimental and control groups on anxiety was statistically analyzed by paired 't' test. Further, percentage of changes was calculated. In addition analysis of covariance (ANCOVA) was applied to find out the significant difference between groups. Whenever the adjusted 'F' ratio value was found to be significant, the Scheffe's test was applied. The post menopausal women's anxiety level was decreased greatly due to regular practices (12 weeks) of yoga nidra (YNG=17.58%), transcendental meditation (TMG=8.24%) and combined practices(CT=28.53%).

Key Words: *Yoga Nidra, Transcendental Meditation, anxiety and Postmenopausal woman*

INTRODUCTION

The link between physical activity and mental well-being during the menopause transition is complex and may involve several mechanisms, ranging from positive social interaction and improving personal resources to alleviating menopausal symptoms that contribute to enhancing affective state. Habitual physical activity may help the accumulation over time of positive affective states, which have been highlighted as an important psychological resource (Hobfoll, 1989) and which may be beneficial for a woman's ability to cope well and to feel in control of her menopausal symptoms (Kishida & Elavsky, 2015). Thus, physical activity programs can be viewed as an alternative to hormonal therapy as they help to alleviate various psychological symptoms (Nelson et al., 2008). Almost all public health researchers and clinicians agree that prevention could be the key strategy for

controlling the current epidemic of psychological problems. Until now, most approaches have focused on changing the behavior of individuals exercise and it seems that these strategies have had little impact on the growing increase of psychological disorders. Numerous scientific studies have reported beneficial psychological changes after short and long term yoga training.

Yoga is an ancient Indian way of life, which includes changes in mental attitude, diet, and the practice of specific techniques such as yoga asanas breathing practices, and meditation to attain the highest level of consciousness. Since a decade, there has been a surge in the research on yoga, but the investigator found very few reviews regarding Yoga Nidra and Transcendental meditation practices in health and disease. Keeping this in view, an investigation was done to examine the effects of Yoga Nidra and Transcendental meditation on psychological problems of postmenopausal woman.

Although there are a number of reports on the effect of Yoga Nidra and Transcendental meditation on pulmonary functions, very few studies have been undertaken on the effect of Yoga Nidra and Transcendental meditation on psychological variables. Most studies have several limitations like lack of adequate controls, small sample size, inconsistencies in baseline and different methodologies, etc. and therefore large trials with improved methodologies are required to confirm these findings. Hence, this study was performed to evaluate whether programmed Yoga Nidra and Transcendental meditation are effective in altering psychological profiles among postmenopausal woman. As there are few studies on Yoga meditation is concern, the investigator selected Yoga Nidra and Transcendental meditation as independent variable in order to determine its possible beneficial effect on anxiety level of postmenopausal woman.

METHODOLOGY

Subjects and Variables

For the purpose of the present investigation 60 postmenopausal women were selected from Vaniyambadi town, Tamilnadu, India and gave them Yoga Nidra relaxation technique and transcendental meditation. The age of the subjects ranged from 50-55 years. The subjects were divided into 4 groups of 15 subjects each of which one control and three experimental groups. Group I -Yoga Nidra group (YNG) underwent Yoga Nidra practice, Group-II - Transcendental Meditation Group (TMG) underwent Transcendental Meditation

practice, Group-III underwent combined Yoga Nidra and Transcendental Meditation (CTG) and Group IV acted as Control (CG) they did not undergo any kind of Yogic practices. The data on anxiety was assessed by using Taylor's Manifest Anxiety Scale.

Training Protocol

Subject were divided in to four groups namely yoga nidra and transcendental meditation, combined practices and control group. Fifteen subjects had undergone yoga nidra, fifteen subjects had undergone transcendental meditation and same number of subjects had undergone combined yoga nidra and transcendental meditation six days in a week for 12 weeks. The Yoga Nidra meditation was performed in six different stages and these stages were changed once in two weeks. The first stage was physical preparation stage, the second stage was chanting the resolve or sankalpa, the third stage was Rotation of awareness through the body part systematically, the fourth stage was Breath awareness, the fifth stage was mental awareness and the sixth stage was ending the practice. Similarly, the Transcendental Meditation was performed in six different stages and these stages were changed once in two weeks. The first stage was physical preparation stage, the second stage was meditation on the breath, the third stage was mediation on the mind, the fourth stage was Visualize the breath, the fifth stage was chanting the mandra and the sixth stage was ending the practice.

Experimental Design and Statistical Technique

The experimental design used in this study was random group design involving 60 subjects, who were divided at random into four groups of fifteen subjects each. The data collected from the four groups prior to and post experimentation on anxiety was statistically analyzed to find out the significant difference if any, by applying the analysis of covariance (ANCOVA). Since four groups were involved, whenever the obtained 'F' ratio value was found to be significant for adjusted post test means, the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases the level of confidence was fixed at 0.05 for significance.

RESULTS

The result derived by paired 't' test as well as the improvement found (percentage) on post menopausal women's anxiety level of the chosen Yoga Nidra, Transcendental meditation, combined and control (YNG, TMG, CTG & CG) groups are in table--I.

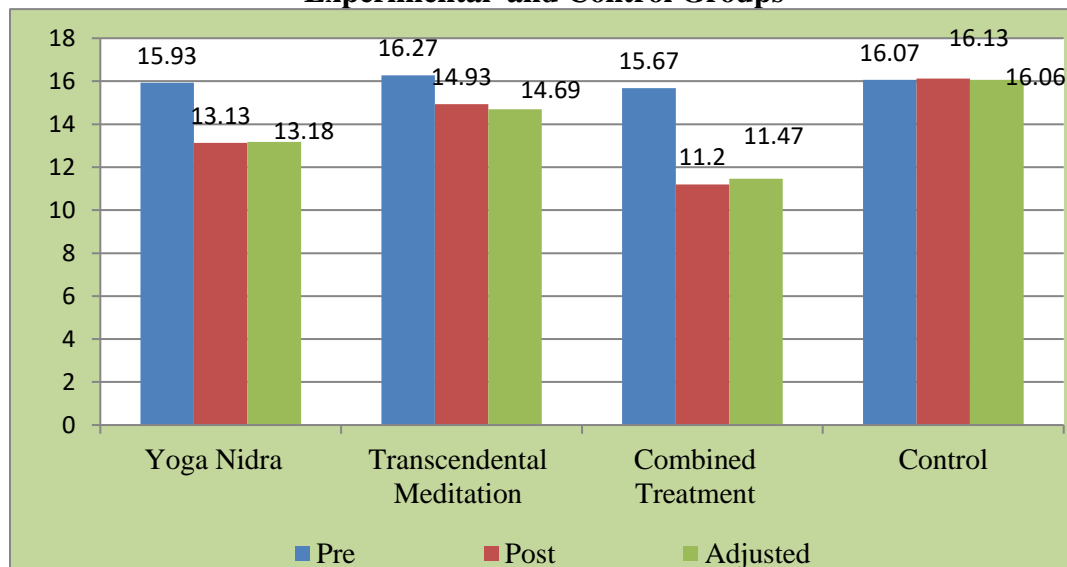
Table—I: Paired ‘T’ Test Results on Post Menopausal Women’s Anxiety Level of Experimental and Control Groups

Group	Test	N	Mean	SD	DM	‘t’ - ratio	%
Yoga Nidra Group (YNG)	Pre	15	15.93	2.60	2.80	11.52*	17.58
	Final		13.13	2.77			
Transcendental Meditation Group (TMG)	Pre	15	16.27	2.19	1.34	5.74*	8.24
	Final		14.93	2.12			
Yoga Nidra & Transcendental Meditation Groups (CTG)	Pre	15	15.67	3.22	4.47	18.90*	28.53
	Final		11.20	2.73			
Control Groups (CG)	Pre	15	16.07	3.45	0.06	0.11	0.37
	Final		16.13	3.40			

Table value for df 14 is 2.14(*significant)

The yoga nidra(YNG), transcendental meditation (TMG), combined treatment (CTG) and control (CG) group’s two different testing period (pre&post) data on anxiety level vary to a great extent since the yoga nidra (YNG=11.52), transcendental meditation (TMG=5.74) as well as combined treatment (CTG=18.90) group’s derivative ‘t’ values are better than table value (df 14 =2.14).

The post menopausal women’s anxiety level was decreased greatly due to regular practices (12 weeks) of yoga nidra (YNG=17.58%), transcendental meditation (TMG=8.24%) and combined practices(CT=28.53%). The figure-I shows the anxiety level of Yoga Nidra, Transcendental meditation, combined and control groups.

Figure – I: Graph Showing the Post Menopausal Women’s Anxiety Level of Experimental and Control Groups

By using ANCOVA statistics, the post menopausal women's anxiety level of yoga nidra(YNG), transcendental meditation (TMG), combined treatment (CTG) and control (CG) group's were analyzed and put on view in table –II.

Table—II: ANCOVA Results on Post Menopausal Women's Anxiety Level of Experimental and Control Groups

Mean	Yoga Nidra Group (YNG)	Transcendental Meditation Group (TMG)	Yoga Nidra & Transcendental Meditation Groups(CTG)	Control Group (CG)	S o V	SS	df	Mean squares	'F' ratio
Adjusted Post test	13.18	14.69	11.47	16.06	B	175.44	3	58.48	32.52*
					W	98.89	55	1.80	

(Table value for $df\ 3\ \&\ 55 = 2.77$) *Significant(.05 level)

The derived ANCOVA statistics results established that the yoga nidra(YNG), transcendental meditation (TMG), combined treatment (CTG) and control (CG) group's adjusted (posttest) mean (13.18, 14.69, 11.47 & 16.06) data on anxiety level vary to a great extent because the found 'F' value [$F=32.52(df\ 3\ \&\ 55 = 2.77)$] is higher.

The derived post hoc (Scheffe's) test result on anxiety level of yoga nidra(YNG), transcendental meditation (TMG), combined treatment (CTG) and control (CG) groups are displayed in table-III.

Table-III: Scheffe's Test Results on Post Menopausal Women's Anxiety Level of Experimental and Control Groups

Adjusted Post Test Means				DM	CI
Yoga Nidra Group (YNG)	Transcendental Meditation Group (TMG)	Combined Treatment Group(CTG)	Control Group (CG)		
13.18	14.69			1.51*	1.41
13.18		11.47		1.71*	1.41
13.18			16.06	2.88*	1.41
	14.69	11.47		3.22*	1.41
	14.69		16.06	1.37*	1.41
		11.47	16.06	4.59*	1.41

*Significant

The post hoc (Scheffe's) test result proved that, because of yoga nidra(YNG), transcendental meditation (TMG) and combined treatment (CTG) the post menopausal

women's anxiety level decreased to a great extent, since the observed differences in means (2.88, 1.37 & 4.59) are greater to CI (1.41) value. However, combined treatment (CTG) was better than isolated yoga nidra(YNG) and transcendental meditation (TMG) groups. Further, yoga nidra(YNG) practice was better than transcendental meditation (TMG) in decreasing anxiety level of post menopausal women.

DISCUSSION

Research studies have been concluded that Yoga Nidra can induce Alfa and Theta Rhythm in the brain which is associated with deep relaxation. Yoga Nidra is effective for reducing stress and anxiety (Kumar 2008). Yoga nidra can bring significant decrease in both State and Trait Anxiety levels and positive change in the Subjective Wellbeing (Jadhav, 2009). Previous studies have also shown significant reduction in the trait anxiety scores following meditation (Eppley, Abrams & Shear, 1989). During anxiety, there is an increased response of hypothalamus and heightened sympathetic activity. Yoga Nidra appears to regulate hypothalamus, in a way resulting in decreased sympathetic (excitatory) nervous activity and increased parasympathetic (inhibitory) function (Satyananda, 2009). Yoga nidra aims at releasing the suppressed and repressed conflicts from the unconscious, thereby relaxing the mind. When the potent cause (tense mind) of psychosomatic disorders is managed, the disease could also be cured. In this way, researches show that the practice of yoga nidra effectively manages various psychosomatic diseases.

Regular practice of transcendental meditation would help to decrease anxiety (Nidich, 1973). Two meta-analyses found that the TM technique was more effective than other meditation and relaxation techniques for reducing trait anxiety (Eppley, Abrams & Shear, 1989; Sedlmeier et al., 2012). Another study (Chen et al., 2012) found that all meditation techniques produce similar effects, but it did not include randomized controlled trials (RCTs) on the TM technique that were identified as early as 1989 (Eppley, Abrams & Shear, 1989) or others published since then. TM technique produces greater reductions in trait anxiety than mindfulness or other meditation and relaxation practices (Eppley, Abrams & Shear, 1989; Sedlmeier et al., 2012). Given the enormous toll anxiety places on the national health care bill, not to mention the widespread human suffering it causes, it would appear that the TM would be a valuable and cost-effective option.

CONCLUSIONS

The post menopausal women's anxiety level was decreased greatly due to regular practices (12 weeks) of yoga nidra (YNG=17.58%), transcendental meditation (TMG=8.24%) and combined practices(CT=28.53%). However, combined treatment (CTG) was better than isolated yoga nidra (YNG) and transcendental meditation (TMG) groups. Further, yoga nidra(YNG) practice was better than transcendental meditation (TMG) in decreasing anxiety level of post menopausal women. Researches also indicate that combined yoga nidra and Transcendental Meditation practices can be used as a therapeutic technique to cure psychological disorders. In our present modern lifestyle, where psychological problems are on the rise, the technique of yoga nidra and Transcendental Meditation may serve as a real boon for mankind.

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