

Effect Of MEMT And MSRT On Psycho Physiological Variables In Elderly Persons In Old Age Home

(A Pre-Post Control Study)

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Abstract

Objective : The aim of the study is to know the effect of practice of MEMT (Mastering the Emotions Technique) and MSRT (Mind Sound Resonance Technique).on Psycho-physiological parameters in elderly persons in old age home.

Design of the study: Pre –Post control study.

Setting: The study was done at a residential Old-age home setting in Telangana.

Subjects: 60 subjects with age > 60 yrs. from the old-age home.

Intervention: Two meditation techniques namely Mastering the Emotions Technique and Mind Sound Resonance Technique for one month.

Data analysis: Within group analysis was done using Wilcoxon Sign Rank Test using R software. And between group analysis was done using Wilcoxon Sum Rank Test using R.

Results:A study was conducted in a old-age home in Telangana district which has more than 60 elderly persons residing. Out of them 30 persons are selected as per convenience for the yoga group and 30 persons for the control group. Pre-data (QOL, PHQ, GAD and PSI) was collected in all. Two relaxing meditative techniques namely MEMT (Mastering the Emotions Technique) and MSRT (Mind Sound Resonance Technique) were given as intervention for one month. Pre and post data was collected and analysed.The results indicate statistically significant improvement in Psychological health, Sociological Health, physical Health, Sleep Quality and reduction in anxiety in Yoga group.

Physical Health (PHQ) improved statistically significantly in Yoga group by 17.66%, whereas its improvement in control group does not show any statistical significance. Psychological health (PSY) improved statistically significantly in Yoga group by 8.51%, whereas control group does not show any statistical significance. Social health (SOC) improved statistically significantly in Yoga group by 17.5% whereas there is no significant change in this in control group. Generalized anxiety (GAD) decreased in yoga group statistically significantly by 20.81% whereas there is no significant change in the control group. Sleep Quality (PSI) increased in yoga group statistically significantly by 6.91% whereas there is no significant change in the control group. Between group analysis shows statistically significant result in case of Physical health, Generalised anxiety and sleep indicating improvement in psychophysiological parameters due to yoga practices namely MSRT and MEMT.

Key words : MSRT, MEMT, PHQ, PSY, SOC, GAD, PSI.

Introduction

Aging is a process that begins with life and continues throughout the life. Lot of skills are required to cope with the old age (

Warnick, 1995). India is labelled as aging nation with 7.7% of its population as aged 60yrs or more.Many elder people suffer with anxiety, loneliness because of living alone or living in old age

home(SushamaBhosale . 2016). Aging reduces efficiency in a set of physiological processes (Gibney et al., 2007).

In neuromuscular system ageing reduces mass and muscle strength and decreases resistance and articular mobility (Vale et al., 2009). This will reduce independence (Krinski et al,2008; Lojudice et al., 2008).82% of elderly suffer chronic health problems and 65% suffer multiple health problems (Wolff et al, 2002). Osteoarthritis, diabetes, Parkinson's disease, stroke, musculoskeletal disorders, cardiovascular disorders, dementia, etc. are the most common chronic problems reported by elderly (Cathleen et al, 2006; Nanette et al, 1992).

Chronic health problems, affect the physical, mental, and social life of elderly. Chronic problems in elderly are strongly associated with poor sleep quality, impairment of mental health and reduced QoL (Foley, et al, 2004). Chronic health problems in elderly, make them feel lonely, and depressed. Cross-sectional studies have shown that 9-23% of elderly people having a chronic disorder suffer from depressive disorders (Felton, et al, 2010). Suicide rate among the elderly is almost double compared to general population and 80% of the suicidal cases in elderly are due to depressive syndromes (Conwell et al, 1996).

There is strong association of ageing with sleep problems (Haimov et al, 1994). Sleep problem includes the symptoms such as difficulty in falling asleep; waking up; awaking too early; needing to nap; and not feeling rested. A longitudinal study among 9000 elderly persons after three years of follow up, reported a more than 50% of elderly subjects had at least one of the symptoms of sleep problem frequently (Foley et al, 1995). Chronic health problem is considered to be one of the contributing factors for sleep problems in elderly (Foley, 1995). A Longitudinal study has reported the association of sleep problem and increased mortality rate among elderly persons (Pollak et al, 1990).

Yoga intervention significantly improves QOL, sleep quality, mental health in elderly with chronic ailments(AshwinHegde, 2017). As alternative medicines such as yoga proved its efficacy in effectively handling problems of sleep, depression, anxiety, Osteoarthritis, diabetes, Parkinson's disease, stroke, musculoskeletal disorders, cardiovascular disorders, dementia and in general QOL (Quality Of Sleep).

Yoga practice improved spinal flexibility in chronic back pain (PadminiTekur, 2008). CM (Cyclic Meditation) improved Memory scores and decreased state anxiety (pailoorSubramanya, 2009). Yoga practices increased hand grip strength in rheumatoid arthritis (Manoj Dash, 2001). Yoga reduced depression (G. H. Naveen, 2013).

Hence in the present study Yoga is chosen as an intervention for old aged. Root cause being stress and deep rooted packed up emotions leading to sleeplessness and hence reduced QOL. Practices are chosen to reduce stress and induce deep rest to each and every cell in the body as well as mind and also to reduce the conscious and unconscious emotional burdens and gain mastery over the emotions. Hence the present study is chosen with an intervention of MEMT (Mastering the Emotions Technique) (Naresh Kumar Patel, 2018) and MSRT (Mind Sound Resonance Technique)(YuniWang, 2018)(HemantBhargav, 2015). Both the practices does not need any physical abilities in specific. Even lying in bed they can be practiced. The aim of the study is to study the effect of MEMT and MSRT on elderly in old age home. The Hypothesis is a combination of MEMT and MSRT affects QOL, QOS, anxiety and Depression levels in elderly staying in Old age home.

Methodology:

The study design was as follows, the subjects were divided in two groups as control and experimental, gave MSRT and

MEMT to experimental group for the period of 1 month 1 hour per day from 7 to 8 in the morning control group did not receive any intervention and continued their normal routine work. Collected pre data before starting the intervention (MSRT and MEMT) and after the 1 month of intervention to the experimental group post data was collected. Subjects are taken from Old age home named anandanilayam, located at kondapaka in siddipet, Telangana. 60 elderly persons (above 60Yrs of age). Yoga group 30 members and control group 30 members.

All the participants were well informed about the study purpose and assured keeping their personal information confidential. Participants had a brief introduction before starting of actual intervention. Two groups Pre-post study with convenience sampling.

PHY: Physical Health Domain in QOL

PSY: Psychological Domain in QOL

SOC: Social Relationships Domain in QOL

ENVI: Environment Domain in QOL

PHQ: Physical Health Questionnaire

GAD: Generalised Anxiety Disorder

PSI: Pittsburgh Sleep Index

Table 1: -Within group analysis wilcoxon sign rank test

Table 2: Between group analysis wilcoxon sum rank test

Result of the study:

Within group analysis was done. PSY (Psychological domain of QOL), SOC (Social relationship Domain of QOL) increased statistically significantly and PHQ (Physical health), GAD (Generalised Anxiety Disorder) and PSI (Pittsburgh Sleep Index) decreased statistically significantly in experimental (yoga) group where as there is no statistically significant change in any of these among the control group who have not received yoga. This indicates that surely yoga has effectively improved the dimensions of psychological health, Social relations, physical health and sleep quality in elderly compared to control group. Also Yoga has

effectively reduced Generalised anxiety in elderly compared to control group.

Between group analysis wilcoxon sum rank test

More over the reduction in PHQ, GAD, PSI when compared to that in control group was also found statistically significant. Hence we can conclude that Yoga effectively contributed to improve Physical health and sleep quality and reduced generalised anxiety in elderly.

Discussions:

Yoga group improved in Psychological, Physical, Social health statistically significantly whereas control group has not improved statistically significantly. In addition in Yoga group anxieties reduced and sleep quality increased statistically significantly.

PHQ: Physical Health improved statistically significantly in Yoga group by 17.66%, whereas its improvement in control group does not show any statistical significance.

PSY: Psychological health improved statistically significantly in Yoga group by 8.51%, whereas control group is 5.45% and it does not show any statistical significance.

SOC: Social health improved statistically significantly in Yoga group by 17.5% whereas there is no significant change in this in control group.

ENVI: There is no significant change in the Environmental health either in yoga group or in control group.

GAD: Generalized anxiety decreased in yoga group statistically significantly by 20.81% whereas there is no significant change in the control group.

PSI: Sleep Quality increased in yoga group statistically significantly by 6.91% whereas there is no significant change in the control group.

Between group analysis shows statistically significant result in case of Physical health, Generalized anxiety and sleep

indicating improvement in psychophysiological parameters due to yoga practices namely MSRT and MEMT.

Suggestions for future study and Implication of the study:

Random allocation of participants to control and experimental groups increases the strength of the study. Since MEMT works on unconscious emotions, a long term (6 months to 1yr) study would have been more significant in improving the psychophysiological condition in elderly.

Conclusions:

Yoga practices (MSRT and MEMT) improved physical health, psychological health, social health and sleep quality and reduced generalized anxiety statistically significantly. This indicates that simple yoga practices (which can be done in lying condition also) like MSRT and MEMT are effective in improving the psychophysiological parameters in elderly persons in old-age home

Table 1: -Within group analysis wilcoxon sign rank test

Variable	Yoga				Control			
	Mean ± SD		%change	p-value	Mean ±SD		%change	P-value
	Pre	Post			pre	Post		
PHY	72.93±17.75	77.46±17.17	6.21	0.34	61.57±11.26	61.57±13.02	0	0.7453
PSY	63.46±9.10	68.8±9.60	8.51	0.05473*	59.39±9.50	61.45±11.43	3.46	0.3953
SOC	33.73±7.77	39.6±7.61	17.50	0.0519*	32.12±8.66	32.36±8.02	0.74	0.7439
ENVI	89.33±18.07	88.66±17.43	0.75	0.8453	79.51±12.32	82.54±11.60	3.81	0.2068
PHQ	13.36±2.50	11±4.5	17.66	0.04295*	13.40±3.05	12.67±4.21	5.45	0.8104
GAD	11.53±2.88	9.13±3.27	20.81	0.01701*	11.18±2.98	11.12±2.48	0.53	0.8888
PSI	20.26±2.50	18.86±1.58	6.91	0.02823*	19.84±3.14	16.18±2.13	18.44	9.053

Table 2: Between group analysis wilcoxon sum rank test

Variable	Yoga		Control		p-value
	mean±sd		mean±sd		
	Pre	post	Pre	Post	
PHY	72.93±17.75	77.46±17.17	61.57±11.26	61.57±13.02	0.2512
PSY	63.46±9.10	68.8±9.60	59.39±9.50	61.45±11.43	0.2588
SOC	33.73±7.77	39.6±7.61	32.12±8.66	32.36±8.02	0.119
ENVI	89.33±18.07	88.66±17.43	79.51±12.32	82.54±11.60	0.3354
PHQ	13.36±2.50	11±4.5	13.40±3.05	12.67±4.21	0.009**
GAD	11.53±2.88	9.13±3.27	11.18±2.98	11.12±2.48	0.025*
PSI	20.26±2.50	18.86±1.58	19.84±3.14	16.18±2.13	0.003*

Between group analysis wilcoxon sum rank test

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Between group analysis Wilcoxon sum rank test

Moreover the reduction in PHQ, GAD, PSI when compared to that in control group was also found statistically significant. Hence we can conclude that Yoga effectively contributed to improve Physical health and sleep quality and reduced generalised anxiety in elderly.

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