

A Study To Evaluate The Effectiveness of Pranayama Techniques on Depression Due to Covid 19 Among Geriatrics in A Selected Area At Tiruchirappalli.

Mrs.R.Geetha

Vice Principal

Mother Teresa College Of Nursing Pudukkottai -622102

Abstract- Pre experimental one group pretest and posttest design was conducted among geriatrics in selected rural areas at Tiruchirappalli. It aims to assess and compare the pre-test and post-test level of depression among geriatrics and to evaluate the effectiveness of pranayama techniques on depression among geriatrics. 50 samples were selected using purposive sampling technique. The data was collected using pranayama techniques. Data was used in descriptive and inferential statistics. The mean score of pre-test level of stress is 10.00 and mean score of post-test level of stress is 17.00. The reduction of depression in mean score and SD which the effectiveness of pranayama techniques. The analysis depicted that there is reduction of depression level in geriatric which indicate the effectiveness of pranayama techniques.

Keywords- Evaluate, effectiveness, pranayama techniques, Depression, COVID 19, Geriatrics

I. INTRODUCTION

“when smiles started, ageing will go on”

Ageing which is a reality of the human existence on the plane earth plays a major role in the global demographic transition. Aged is generally defined as population above 60 years of age. A man life is normally divided into five main stages namely infancy, childhood, adolescence, adulthood and old age. In old age physics strength deteriorates, mental stability diminishes; money power becomes bleak coupled with negligence from the younger generation (Patricia, G, et.al. 2005)

Developmental psychologist consider age sixty as the demarking line between middle and old age. The age group of 60 or 65, roughly equivalent to retirement ages in most developed countries is said to be the beginning of old age. (Singh A, Misra. N. 2009)

There are an estimated 727 million persons aged 65 years or over worldwide in 2020. In 2050, this estimated

number is projected to more than double, reaching over 1.5 billion persons. (United Nations)

According to world health populations, Depression as a common mental disorder associated with feeling of sadness, losing interest or pleasure, guilty feeling or low self-worth, sleep disorder, or appetite, tired feeling and poor concentration.

The mental problems arise when people realize their loneliness. The psychological problems can be developed from role changes, modernization, disintegration of joint family system, physical disability, retirement from physical activity, insecurity, social isolation, death of spouse, lack of support from family members, abuse from caregivers, when social life disrupted, or when they feel a sense of loss. Anxiety, depression, loneliness, low self-esteem and feeling of powerlessness are the psychological effects of stress. (Tilburg, 2010)

The corona virus is breakout from its primary source, situated in china to the entire world. This disease is a serious outbreak to the rest of the countries, resulting in damaging effect to the human body. This article gives broad spectrum of view for the pandemic disease.

The problems can be developed from role changes, modernization of joint family system, physical disability, retirement from physical activity, insecurity, social isolation, death of spouse, lack of support from the family members, abuse from caregivers, when social life is disrupted, or when they feel a sense of loss.

During pandemic period, the old age people are very depressed, feel loneliness, social isolation. Pranayama is very effective to get rid of physical and mental distress. Pranayama improves quality of life, not only for older people, It is very helpful for all the age group to enhance better life.

Pranayama gives an attractive option for complimentary therapy of depression. Indigenous method of pranayama is effective in the treatment of various mental and physical distresses. Practicing is not only preventive in nature but also promotive as it increases the human potentials. (Gretchen J Diefenbach,2010)

We can minimize depression in elderly by regular and periodic check-up of physical health planning of retirement, low cost health insurance schemes, encouragement of traditional values and joint family system and suggest engaging old people in religious activities and reading habits.(Nambi, S. 2002)

Yoga practitioners report that the practice of pranayama in senior citizens help to gain a steady mind, strong will power, enhances perception fosters awareness and positive changes in personality. Recent researches suggest that regular practice of pranayama techniques are proved to improve the life style, quality of life and give the mind tranquillity. The regular practice of pranayama can be quite effective in promoting mental health, in overcoming depression, which aids the old elderly to develop a sort of resilience to any kind of mental or physical illness. (Bharatwaj, K. 2011)

The investigator went for a home visit during COVID period at Trichy, observed that most of the geriatrics who are residing there looked dull and depressed. They also complained of their loss of interest, difficulty in concentrating, remembering, and making decisions. The investigator also noticed that limited studies are done regarding non-pharmacological management on depression among old age people. This initiated the investigator to help the geriatrics in reducing depression.

II. OBJECTIVES

1. To assess and compare the pre-test and post-test level of Depression among geriatrics
2. To evaluate the effectiveness of pranayama techniques on Depression among geriatrics
3. To find out the association between the post-test level of depression Among geriatrics with selected demographic variables

HYPOTHESIS:

H1- There is a significant difference between Pre and Post-test knowledge Of depression among geriatrics before and after pranayama Technique

H2- There is a significant effective of pranayama technique on Depression among geriatrics

H3 -There is a significant association between post-test levels of Depression among geriatrics with their selected demographic Variables.

ASSUMPTION:

- May suffer from depression
- Will be ready for pranayama techniques
- Will enhance coping ability and emotional wellbeing using pranayama technique

III. RESEARCH METHODOLOGY

Pre experimental one group pretest and posttest design was conducted among geriatrics in selected areas at Tiruchirappalli. 50 samples were selected using purposive sampling technique. The data were collected after obtaining the institutional ethical clearance and formal administrative permission. Informed consent from the subjects was obtained and the confidentiality has been assured.

A pranayama technique was used to evaluate the depression on covid 19 among geriatrics. The questionnaire was translated in to the vernacular language: Tamil, the appropriateness of the translation was verified by back translation. The setting was chosen on the basis of the availability of samples and the cooperation extended by geriatrics. The study is planned to be conducted in Gundur, Trichy. This place is 7 km from Trichy central bus stand. The reliability of the questionnaire was established using test retest method ($r = 0.9$). There were 20 multiple choice questions related to general information on depression due to covid 19, Consequences and its prevention. Each correct response had been given the score of one. Majority of geriatrics 23% of them had moderate depression, 16 % had mild depression, and 11% of them had severe depression where as in the post-test about 21% of the students had only mild depression, 15% of them had moderate depression and 10% had severe depression

Pre-test on Assessment of level of depression on covid 19 using Yes avage geriatric depression scale before intervention. Time taken by the geriatrics to complete geriatric depression scale was approximately 30 minutes. After the pre-test, geriatrics was divided in to five groups of having 10 subjects in each. Pranayama technique was demonstrated

for 30 minutes for each group. The post-test was conducted after fourteen days of intervention.

Table 1: shows that pre-test, intervention and post test

GROUPS	PRE TEST	INTERVENTION	POST TEST
One group	O ₁	X	O ₂

O₁ - Pre-test (Assessment of level of depression using Yesavage geriatric Depression scale before intervention.)

X - Intervention (Demonstration of Pranayama techniques)

O₂ - Post-test (Assessment of level of depression using Yesavage geriatric Depression scale after intervention.)

IV. RESULTS AND DISCUSSION

Majority of the geriatrics (36%) were in the age group of 70 years and 54 % of females are involving in this study. Most of them belonged to Hindu and had been studied primary school level. Most of them belonged to unemployed. Around 54% of them, not having any sources of income. And 44% of them belonged to widower. Majority of them (78%) eat non vegetarian. 46% of them had a habits of watching Television. Majority of them (64%) got information from the electronic media such television in this study 20% of them undergone for the treatment of covid 19 and 80% of family never undergone for the treatment of covid19.

Table 2: Distribution of demographic variable

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY(n)	PERCENTAGE(%)
1.	Age in years		
(a)	60-65 years	17	34.0
(b)	66-70 years	15	30.0
(c)	Above 70 years	18	36.0
2.	Sex		
(a)	Male	23	46.0
(b)	Female	27	54.0
3.	Religion		
(a)	Hindu	26	52.0
(b)	Muslim	09	18.0
(c)	Christian	15	30.0
(d)	Others (specify)	00	00.0
4.	Education		
a)	Illiterate	4	08
b)	Primary school	22	44
c)	Higher secondary school		42
d)	Diploma / degree	21	6
		3	
5.	Previous occupation		
(a)	Self employed	11.0	22.0
(b)	Government employed	09.0	18.0
(c)	Private employee	10.0	20.0
(d)	Unemployed	20.0	40.0
6.	Source of income		
(a)	Pension	13.0	26.0
(b)	Government employed	10.0	20.0
(c)	Private employee	00.0	00.0
(d)	No source	27.0	54.0

7.	Marital status		
(a)	Married	20.0	40.0
(b)	Unmarried	03.0	06.0
(c)	Separated / divorced	05.0	10.0
(d)	Widow/ widower	22.0	44.0
9.	Types of Diet		
a)	Vegetarian	11	22.0
b)	Non vegetarian	39	78.0
10.	Hobbies during free time		
(a)	Reading news paper	10.0	20.0
(b)	Watching Television	23.0	46.0
(c)	Listening to music	13.0	26.0
d)	Doing yoga	00.0	00.0
11.	Sources of information of corona virus		
(a)	News paper	8	16
(b)	Electronic media	32	64
(c)	Friends / relatives	5	10
d)	Health personnel	5	10
12.	Any one from the family undergone for the treatment of corona		
a)	Yes	10	20
b)	No	40	80

The above table reveals that majority of the geriatrics (36%) were in the age group of 70 years and 54 % of females are involving in this study. Most of them belonged to Hindu and had been studied primary school level. The distribution of geriatrics based on the previous occupation shows that in the majority of geriatrics 40% belong to unemployed, 22% belong to self-employed, 20% belong to private employee and 18% belong to government employed. Around 54% of them, not having any sources of income. And 44% of them belonged to widower. Majority of them (78%) eat non vegetarian. 46% of them had a habits of watching Television. Majority of them (64%) got information from the electronic media. In this study 20% of them undergone for the treatment of corona and 80% of family never undergone for the treatment of corona.

Table 3: Distribution of geriatrics on level of Depression during pre-test and post test (n = 50)

S.no	Levels of depression	Pre test		Post test	
		F	%	F	%
1.	Normal (00-04)	00	00.0	09	18.0
2.	Mild depression (05-08)	16	32.0	21	42.0
3.	Moderate depression (09-11)	23	46.0	15	30.0
4.	Severe depression (12-15)	11	22.0	05	10.0

df = 49

The above table confirms that majority of 46% belong to moderate depression, 32% belong to mild depression and 22% belong to severe depression. Hence it can be interpreted that most of the geriatrics were having moderate

depression in pre-test. And then in post-test, majority of 42% belong to mild depression, 30% belong to moderate depression, (18%) belong to normal depression and 10% belong to severe depression. Hence it can be interpreted that most of the geriatrics were having mild depression in post-test. This shows the effectiveness of Pranayama techniques on reducing the level of depression on covid19 among geriatrics.

Table 4.: Comparisons of Mean and standard deviation of pre-test and post-test level of depression among geriatrics. (n=50)

Depression score	Mean	Standard Deviation	Mean difference	Student 't' value	Table value	Inference
Pre test	10.00	2.71	07.00	15.59	2.00	Significant
Post test	17.00	3.05				<0.001

df = 49 P<0.001 level.

Further, the mean post-test level of depression scores among the geriatrics(17+ 3.05)was significantly higher (P<0.001) than mean pre-test knowledge score (10.00 +2.71). The statistically significant association (P<0.001) was found that effectiveness of pranayama technique.

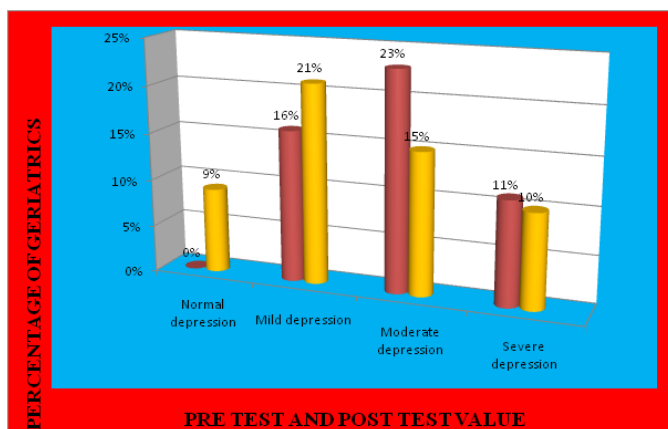


Figure 1:Level of depression regarding COVID 19 among Geriatrics during pre and post test

The above figure revealed that majority of geriatrics 23% of them had moderate depression, 16 % had mild depression, and 11% of them had severe depression where as in the post test about 21% of the students had only mild depression, 15% of them had moderate depression and 10% hand severe depression

The present study revealed that pranayama techniques regarding depression is significantly effective (P< 0.001) in reducing the depression e (pre-test mean (10.00 +2.71) Vs post-test mean 17+3.05) of the geriatrics. They

found a significant (P<0.001) reducing the depression of the subjects after the pranayama techniques

The findings of this study have significant implications for the nursing practice. The nurses involved in geriatrics nursing should actively participate in planning and implementation of strategies to reduce the depression. Pranayama techniques can be used as a tool to demonstrate the geriatrics on various topics related to the depression.

V. CONCLUSION

This study revealed that Pranayama techniques regarding covid19 among geriatrics were very effective. This confirms that Pranayama techniques as a tool could be utilized effectively to create awareness on various topics.

The study concluded that the geriatrics had depression at different levels. The difference in the level of stress by the paired ‘t’ value 15.59 which was found significant at p<0.001 with the table value of 2.00 shows the effectiveness of Pranayama techniques on depression level among geriatrics.

Source of funding - Self
Conflict of Interest - Nil

REFERENCES

- [1] Baldwin, R. “An oxford textbook of old age psychiatry”. 5th edition. New York: Oxford University press.(2008)P.529-556.
- [2] Balyogi, B. A. “A yogic approach to Depression”.1st Edition. Pondicherry: Kalaimamani yogacharini publication. (2007)P.207 - 240.
- [3] Barua, N. (2011). “Complementary and alternative medicine”. 3 rd. edition. Evidenced based complement Alternative medicine.2, (2011)P. 47.
- [4] Buvaneshkumar, M. “Prevalence of depression”. 4th edition. New delhi: Kumar publishing house.1(3), (2014) P.46-52.
- [5] Carnival, D. L. Nursing management for the elderly”. 3rd Edition. USA Lippincott (p) Ltd. (1993)P50-72.
- [6] Doug all, M. “Prevalence of Depression in older people in England andwales”. 2nd edition. Psychological medicine. 37(12), (2007)P.1787-1795.
- [7] Field, T. “Complementary Therapies in Clinical Practice”. 4 th edition. Book of complementary medicine.12 (2),(2010).P.151-160.
- [8] Hope, R. “National Service framework for older people”. 2 nd edition. Indian Academy of Applied psychology.(2001),P.142–188..

- [9] Mahajan, B.K. "Methods in Bio-Statistics". 7th edition. St. Louis: Jaypee Brothers Medical Publishers. (2010). P.56 – 58.
- [10] Nagendra, B. A. "New perspective in Depression Management". 3rd Edition. Bangalore: Vivekananda Kendra publication. (1994). P.403-452.
- [11] Park, J.E. "Preventive and Social Medicine". 4th Edition. Bangalore: Vivekananda Kendra publication. (1997) P. 403-452.
- [12] Pilkington, N. et al., "Complementary medicine for depression". 6, (2006). P.1741-1751.
- [13] Polit, D.F. & Beck, C.T. "Nursing Research generating and assessing evidence for nursing practice". 8th edition. New Delhi: Lippincott Williams and Wilkins. (2008). P.45 -50.
- [14] Sandra, C. "Brain morphological abnormalities in geriatric depression". Medical physiology. 57(5), (2002). P. 56-66.
- [15] Sivananda, R.S. "Hathayoga". 1st Edition. Bombay: Ashwin publication. (1993). P.490-523.
- [16] Townsend, M. "Psychiatric Mental Health Nursing". 2nd Edition. Philadelphia: Davis. Co. (1996). P.245-284.
- [17] Young Ju Jee, "Essentials of psychiatry". 6th edition. New Delhi: CBS publishers and distributors (2011). P.53.