



Effectiveness of Mindful Breathing Exercise on Stress among older Adults in Selected Old Age Homes, Puducherry

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 11 Sept 2023	<p>Aging is the physiological and dynamics process with ongoing on time. Stress is an important issue associated with ageing also and make person under stress and lead to development of Mental health disharmony in daily life and the older person more than 60 years age over 60 % were foresee to lift up at 85% in 2050. Effectiveness of Mindful Breathing Exercise on Stress older Adults in Selected Old Age Homes, Puducherry. Aim: Evaluate effectiveness of mindful Breathing Exercise on stress among older Adults in Selected Old Age Homes. Methodology: Quantitative Research approach with Quasi Experimental Research design of one group pre and post-test was adapted among 60 elderly and selected by using Consecutive Sampling Technique who fulfilled Sampling Criteria. Demographic characteristic and the pretest and post-test level of stress was measured by with Cohen's Perceived stress scale and Mindful breathing Exercise given for 15 days for 10-15 min daily. Results: The study findings showed that during pre-test majority out of 60 older Adults, 37 (61.66%) have moderate perceived stress, 14(23.33%) have high perceived stress and 9 (15%) have low perceived Stress, and whereas during post-test majority 31 (51.66%) have low perceived stress, 22(36.66%) have moderate perceived stress and 7(11.66%) have high perceived stress. The level of stress score in Post-test (25.070 ± 3.658) is lower than the pretest level of stress (19.612 ± 4.863) in older Adults. Hence Mindful Breathing Exercise has highly significant at $p < 0.001$ on reducing the Stress among Elderly. Conclusion: The study findings concluded that the stresses among older adults were high and mindful breathing exercise was effective in decreasing the level of stress among older adults.</p>
CC License CC-BY-NC-SA 4.0	Keywords: Mindful Breathing Exercise, Stress and Elderly

1. Introduction

Aging is connected with dynamic alteration in biological, physiological, environmental, psychological, behavioural, and social processes¹. Stress is an important issue associated with ageing also and make person under stress and lead to development of mental health disharmony in daily life³ and the older person more than 60 years age over 60 % were foresee to lift up at 85% in 2050. United Nations Population Fund and Help Age India stated that there would be 173 million elderly people worldwide by 2026. In India 138 million older adults in years of 2011 and 67 million men and 71 million women in the year 2036 and its further expected to increase 108 million by 2025 and 240 million by 2050^{2,9}.

Older Adults undergoes several rapid alterations in anatomical and physiological system in body tends to increase physical Morbidities, functional loss and psychological morbidities. In India 4 million of older persons are reported to have Psychological symptoms/ distress like sadness, nervousness, uneasiness, worry, stress, isolation, despair and seclusion due to experiencing of life stressors⁴. Stress is the body's reaction to situations. The Older Adults are prone to experience stress due to the common problems experienced by the older adults related to physical health i.e. susceptibility to

various diseases due to reduced endurance in the face of outside influences^{5,10} National Mental Health Survey (NMHS) in India in 2015 to 16 reported the lifetime prevalence of common mental disorders (CMDs), which include depression, anxiety, and stress-related disorders as 12.3%¹. Older adults often experiencing struggle with stress, and stress is the root cause of the majority of health issues. Bio-psycho-social changes brought on by aging cause stress in the aged population. Stress has a detrimental impact on both physical and mental health, which lowers overall quality of life⁴.

Need for the study

Living good and maintenance of physically and psychologically health is significant in older age and biggest challenges in all over the world by managing the stress in day to day life and most of the older adult experience stress due to psychological, financial, occupational, family dysfunctions leads to development of depression and predisposing certain mental disorders^{4,5}.

Older Adults over 60 years of age experience 15% mental illness and 6.6% of older adults have mental and neurological of all disabilities. One significant mental health issue that affects a large number of the elderly population (10–55%) is stress and the prevalence of stress, depression, and anxiety among the elderly population is projected to more than twice in upcoming decade⁵.

Stress in older individuals living in old age homes of Uttar Pradesh in India experiencing (46.7%) moderate, (30%) high and (23.3%) have low levels of stress.³ In Tamilnadu stress in older individual were account of (63.3%) mild (31.7%), and 5% have moderate stress⁶. In Luck now study finding showed that stress in older adults (75%) moderate, (16.7%) low and (8.3%) high level⁷.

Older individuals experience discrete mental and physical issues that must be focussed. Mental health is an important indicator in achieving good health. There are several complementary and alternative therapies were available to manage stress. One of the most effective practices is mind breathing exercise to help elderly to cope with Stress and lead a holistic life by cultivating the daily practices to achieve in order to prevent stress and strain in life

Research Statement

Effectiveness of Mindful breathing Exercise on Stress among Older Adults in selected old age home, Puducherry

Objectives

To assess Stress among Older Adults

To evaluate the effectiveness of Mindful breathing Exercise on Stress among Older Adults

To find out association exists between Stress and selected demographic variables among Older Adults

Hypothesis

H1 – Level of Stress differs before and after Mindful Breathing Exercise among Older Adults

Delimitations

- Older Adults 60 were living in selected old age homes
- Mindful Breathing Exercise only for 4 weeks

2. Materials and Methods

Quantitative Research approach with Quasi Experimental Research design of one group pre and post-test was adapted among 60 elderly and selected by using Consecutive Sampling Technique who fulfilled Sampling Criteria. Demographic characteristic and The pretest and post-test level of stress was measured by with Cohen's Perceived stress scale and Mindful breathing Exercise given for 15 days for 10-15 min daily. The descriptive and inferential statistics were used for analysis of data were frequency, percentage, mean, standard deviation, paired t-test and Chi-Square test.

Sampling Criteria

Inclusion Criteria

Older Adults who are

- 60 years & above

- Male and female inmates of old age home
- Who exhibits signs and symptoms of Stress
- Agree to take part in the study
- present at time of data collection
- understand Tamil
- Able to adequately follow the instructions

Exclusion Criteria

Older Adults who are

- Severe Psychiatric Conditions which will Impair data collection (psychosis Dementia, etc)
- Severe physical limitation, visual a hearing impairment
- Current or past experience of mindful breathing

Characteristics of the tool

Section A: Demographic Characteristics of Elderly include age, gender, religion, residential area, educational status, marital status, food habits, habits of doing exercise and history of medical illness.

Section B: Assessment of Stress by Perceived Stress Scale (PSS)¹²

Description of Intervention

The 60 Elderly practiced Mindful breathing exercise for 4 weeks for 10-15minutes daily. The researcher explained and demonstrated each step of performing Mindful breathing exercise to each Elderly individually till the individual can perform by themselves. Mind Breathing exercise is concentrated focussed attention on breathing that promote awareness of one's sensation of breathing by daily practice to cultivate physical and mental well being^{8,13}.

3. Results and Discussion

Distribution of Demographic Variables of Older Adults

- In regards the majority of older adult aged 60-70 years were 47(78.33%) and more than 60-75 years were 11(21.66%).
- With regards to the gender 44(73.33%) were male and 16(26.66%) were female.
- With regards to the religion majority of elderly 38(63.6) are hindu, 14(23.3) were Christian and 6(10) were Muslim.
- With respect to the residential area 37(61.66%) belongs to Urban, 23(63.3%) belongs to rural.
- Concerning about educational status 22(73.3%) were completed upto 5th standard, 17(28.33%) were completed upto 12th standard and 21(35%) were collegiate level of educational status.
- With regards to marital status 60(100.0%) were married.
- Regarding to food habits 52(86.66%) were Non-vegetarian and 8(13.33%) were vegetarian.
- With regards to habits of exercise 7(11.66%) were does exercise daily once, 17(28.33%) were does occasionally 36(60%) have no habits of doing exercise.
- With regards to any other medical illness 47(78.33%) had history of Diabetes and Hypertension and 13 had no history of any medical illness.

Table 1: Assessment of stress among Older Adults N=60

Level of Stress	Pretest		Post test	
	n	%	n	%
Low stress	9	15	31	51.66
Moderate Stress	37	61.66	22	36.66
High perceived stress	14	23.33	7	11.66

In Pretest majority out of 60 older Adults, 37(61.66%) have moderate perceived stress, 14 (23.33%) have high perceived stress and 9 (15%) have low perceived stress, and whereas during post-test majority 31 (51.66%) have low perceived stress, 22 (36.66%) have moderate perceived stress and 7(11.66%) have high perceived stress.

Table2: Effectiveness of Mindful Breathing Exercise on Stress among Older Adults N=60

Level of stress	Mean	Std. Deviation	Difference in means	t-test	p-value
Pre-test	25.070	4.863			
Post-test	19.612	3.658	5.458	7.34	<0.001

The level of stress score in Post-test (19.612±3.658) is lower than the pretest level of Stress Score (25.070±4.863).The post-test mean score of stress was lower than the pre-test mean score of stress and there is significant at p<0.001 after the mindful breathing exercise reduce the level of stress among older Adults.

Association Exists between Stress and selected demographic variables of Older Adults.

There was an association was existing between the demographic variable of habit of doing exercise occasionally were significant at p<0.005 and Educational status who completed collegiate level of education were significant at p<0.001.

4. Conclusion

The present study assessed the Mindful Breathing Exercise was decreasing the impact of stress in Older Adults. The Findings showed that out of 60 Older Adults, each patient had an reduction in level of stress after the implementation of Mindful Breathing Exercise when compared to their pretest score. This shows that the regular practice of Mindful Breathing Exercise can reduce the level of stress to a better part. Hence, the Mindful Breathing Exercise was found to be effective and appropriate in older adults and it is very comfort and easy to practice in daily practice to alleviate the stress

Larger sample size drawn from the community with experimental design should be considered. Comparative study on Mindful Breathing Exercise can be conducted in rural and urban areas. It can be replicated larger group sample with control group, application of Mindful breathing exercise in community-based setting, it can be inculcated in curriculum in nursing for more awareness, conduction of training programs for nurses to aware about the Mindful breathing exercise.

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