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The effectiveness of TIPER (Tailor Made Interventional Package to Enhance Relaxation) on depression, anxiety and stress among elders at old age homes, Puducherry

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ABSTRACT

A Quasi-experimental study was conducted to explore the effectiveness of Tailor Made Interventional Package (TIPER) among the elders at Voluntrait, POINCARE (Pondicherry Society Care for the Aged), Clunny Home for aged and Anbu Nilayam in Puducherry. TIPER consists of Jacobson Progressive Muscle Relaxation, Guided Imagery and Mindfulness Meditation Total enumerative sampling technique was adopted with 211 samples in phase one, and 90 samples were obtained in phase two was randomized into study and control group of 45 each. Control group samples were administered with physical exercises. A tool used in this study was Socio-demographic Variables, Mini-Mental Status Examination, Modified Kuppusamy Socio-Economic Scale, Depression Anxiety Stress Scale(DASS-21), ICD-10 Criteria for Depression & General Anxiety, State and Trait Anxiety Scale. Results reveal that analysis of pre-test and post-test score in study group using paired 't' test shows the 'p' value was <0.01 level were as in control group was not less than 0.01 level. Hence, TIPER was found effective in reducing the level of depression, anxiety and stress among elders at old age homes.



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INTRODUCTION

Elderly or Old age refers to the end part of the human life cycle. World Health Organization recognized that developed countries define the old age not by years rather than the loss of previous roles, adaption to the new roles and inability to contribute to society. The Indian Census classifies people in the age range 60 years and above as "Old". The population of those aged 60 years and above in In-

dia has increased from 24.71 million to 55.3 million. By the year 2020, life expectancy at birth in India will be as close to 70 years (Visaria, 2008).

The World population constitutes 524 million people aged 65 years and above. The Indian Population is 1.039 billion. United Nations Population Fund and Help Age India presents a report that a number of elders are expected to increase to 173 million by 2026.

In 2007, the Ministry of Health and Family welfare and World Health Organization carried a comparative analysis among elders to rule out the cause of raising old age homes. Results revealed that nuclear families are unable to cope up with the elders in rendering nursing and so they put the elders in old age homes.

Most elders commonly suffer from depression and dementia. These psychological dysfunctions might occur due to long-standing stress that affects elders. The level of Stress, Depression and Anxiety

was more among the elders and can be reduced with a relaxation package to the elders.

MATERIALS AND METHODS

Study Design: Randomized Control Design

Study Setting: Voluntary, POINCARE, Clunny Home for aged and Anbu Nilayam

Population

Target Population - Elders 60 years of age and above.

Accessible Population - Elders residing at Voluntrait, POINCARE, Clunny Home for aged and Anbu Nilayam (211 Samples in total)

Sampling Technique

Stage I: Total Enumerative Sampling technique to select samples.

Stage II: Simple random sampling technique for allocation into study and control group by multistage sampling.

Sample Size: 211 samples in Phase one and 90 samples in phase two were randomized into the study group and control group of 45 each.

Tool Used: Modified Kuppusswamy Socio-Economic Scale, Mini-Mental Status Examination, Depression Anxiety Stress Scale (DASS-21), State and Trait Anxiety Inventory and ICD-10 criteria for depression and general anxiety disorder.

Sampling criteria

a. Inclusion Criteria

1. Elders who were 60 years and above.
2. Both male and female elders.
3. Elders who were willing to participate in the study.

b. Exclusion Criteria

1. Elders who have complete sensory impairments (Hearing and visual defects)
2. Elders who have very severe depression, anxiety and stress as per DASS-21 scale.
3. Elders who have panic anxiety as per ICD-10 criteria.
4. Elders who have cognitive impairment ≤ 17 as per MMSE score.
5. Elders who have complications of diabetes mellitus such as retinopathy, nephropathy and neuropathy.
6. Elders who have any neurological dysfunctions such as severe meningitis, uncontrolled convulsions, Brain neoplasm, paralysis and multiple sclerosis

7. Elders who were on psychiatric medications.
8. Elders who have recent cardiac diseases and malignant hypertension.
9. Elders who are under influence or treatment or withdrawal state of substance abuse.
10. Elders who were practising yoga presently.

Data Analysis

Data were analysed using SPSS-16. Paired and Unpaired 't' test was applied to observe the significance of the difference in the values of pre and posttest. $P < 0.01$ was considered significant.

RESULTS

As per Modified Kuppussamy scale, majorly (73%) belongs to the upper lower socio-economic class in the study group and the majority (66%) belongs to the upper middle socio-economic class in control group. In Multistage sampling, 143 samples were assessed with Mini-Mental Status Examination, 91% of them presented with no cognitive impairment were recruited into the study. The analysis of Pre-test and Post-test scores in Study group using Paired 't' test of Depression, Anxiety and Stress was 4.452, 3.538 and 4.810 respectively. 'P' value was < 0.01 . Analysis of Pre-test and Post-test scores in the control group using paired 't' test of Depression, Anxiety and Stress was 1.757, 1.098 and 1.851 respectively. 'P' value was > 0.01 . Analysis of pre-test and post-test scores in the study group using paired 't' test of state and trait anxiety. 'p' value of state anxiety is < 0.01 which was statistically significant, and the 'p' value of trait anxiety was 0.610 not considered as statistically significant.

Hence, TIPER was found effective in reducing the level of depression, anxiety and stress among elders at old age homes.

DISCUSSION

Progressive muscle relaxation therapy was a component of Tailor made Intervention Package to Enhance the Relaxation (TIPER) was examined to explore the effectiveness of an intervention on stress anxiety and depression. Depression Anxiety Stress Scale, Mini-mental status examination, State and Trait anxiety scale, ICD-10 was used as a screening tool. The sample size was 90 randomised into the study group and control group with 4 different old age homes. Pre-test and Post-test scores of Depression, Anxiety and Stress in the study group and the control group were analyzed using Paired 't' test. Results reveal that's the value of depression, stress,

anxiety in the study group is 4.452, 3.538, 4.810 respectively and 't' value of depression, stress, anxiety in control group is 1.757, 1.098, 1.851. 'p' value of depression, stress, anxiety in the study group is <0.01 considerably significant in the study group and 'p' value of depression, stress, anxiety in control group is 0.086, 0.278, 0.071 respectively. Hence, TIPER was found effective among elders in reducing the level of depression, anxiety and stress.

A similar study was conducted by Diana and Nagarajaiah (2017) to examine the effectiveness of Progressive muscle relaxation therapy on anxiety and stress among elders in old age homes run by the Catholic congregation in Kanyakumari district. The research design is two group pre-test post-test control group design. Sampling technique is Non-probability convenience sampling technique. The sample size was 100 in each group. A tool used were Zung self-rating anxiety scale and modified Perceived stress scale. Results reveal that, mean stress score was 76.6 ± 5.2 before the intervention and 67.8 ± 4.7 after the intervention, stress reduction was 8.8 ± 5.2 which is statistically significant at 0.01 level. Mean anxiety score was 57.2 ± 5.6 before the intervention and it was reduced 46.3 ± 4.1 after the intervention. Mean reduction of anxiety was 10.9 ± 5.8 which is statistically significant at 0.01 level. Hence Progressive muscle relaxation therapy was effective in decreasing anxiety and stress.

Recommendations

A similar study can be performed with the assessment in regard to Quality of Sleep among elders after administration of TIPER.

A similar study can be performed with recreational therapy or occupational therapy in the control group.

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