Research Article

EFFECTIVENESS OF CALISTHENICS ON DEPRESSION AMONG SENIOR CITIZENS

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ABSTRACT
A comprehensive review of literature was collected for the study. The Conceptual framework was based on widen bach's helping art of clinical nursing theory. The research design used for this study was true experimental pre-test post-test control group design samples were selected by using simple random sampling technique. The treatment and comparison group had 30 participants each. The instrument used for judging the depression was geriatric depression scale. Content validity of the tool was outlined by 9 experts in the field of psychiatry, psychiatric nursing, physiotherapy, geriatrics and psychology. The split half technique was used to assess the reliability of the tools ('r'=0.8). A pilot study was done among 6 subjects to check the feasibility of conducting the study. The data collection period was 6 weeks. The experimental group received calisthenics for 30-45mts per day for 4 weeks. The post test was done using the same tool after the intervention. Descriptive and inferential statistics were used to analyze the data. The following were the findings of the study. The mean post-test level of depression (8.03) in experimental group was lesser than the mean post-test level of depression in the control group. The obtained 't' value was (22.7). There was a significant association between level of depression and demographic variables such as age, number of children, willingness to stay in old age home. The study findings imply that the calisthenics was effective is reducing depression among senior citizens.

KEYWORDS
Calisthenics, Depression and Senior citizens.

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INTRODUCTION
In our modernized life people are engaged with many works so they have no time to share their love, affection and caring for their older generations at home. This gradually leads to early institutionalization, where they experience loneliness, social withdrawal due to lack of

communication, poor ventilation of their feelings which causes depression. The objective of the study is to assess the pre-test level of depression among senior citizens before and after administering calisthenics, to evaluate the effectiveness of calisthenics on depression and

to find out the association between level of depression and their selected demographic variables.

Significance and need for the study

The World Health Organization estimated that the overall prevalence rate of depressive disorders among the elderly that one in every four among India's elderly population is depressed years, when the population of those over 65 will double. The community-based mental health studies in India have revealed that the point prevalence of depressive disorders in elderly Indian population varies between 13% and 25%. Calisthenics refers to exercises that are done in a rhythmic, systematic way using the body weight for resistance. The benefits associated with regular exercise and physical activity contribute to a more healthy and independent lifestyle, greatly improving the functional capacity and quality of life in the older population.

Statement of the problem

An experimental study to evaluate the effectiveness of calisthenics on depression among senior citizens in selected old age homes at Madurai.

Objectives

To assess the pre-test and post-test level of depression among senior citizens in experimental group.

To assess the pre-test and post-test level of depression among senior citizens in control group.

To evaluate the effectiveness of calisthenics on depression among senior citizens

To find out the association between pre-test level of depression and their selected demographic variables such as age, gender, religion, education, marital status, number of children, source of income, mode of admission, supportive system, duration of stay in old age home, willingness to stay in old age home, hobbies and co morbid medical illness.

Hypothesis
H1
The mean post-test level of depression of senior citizens will be significantly lower than the mean pre-test level of depression of senior citizens in experimental group who had under gone calisthenics.
H2
The mean post-test level of depression score of experimental group who had under gone calisthenics will be significantly lower than the mean post- test level of depression in control group
H3
There will be a significant association between pre-test level of depression among geriatric residents in experimental group and their selected demographic variables such age, gender, sex, religion, educational status, previous occupation, source of income, supportive system, co morbid medical illness, mode of admission, marital status, number of children, duration of stay in old age home, hobbies and willingness to stay.

METHODOLOGY
Approach: Quantitative approach

Design: True experimental pre- test, post- test control group design.

Samples: Senior citizens from 60-74 years of age group in selected old age homes at Madurai.

Sample technique: Simple random sampling technique

Sample size: 60

Experimental group- 30

Control group- 30

Setting
Experimental group - Inbaillam, Pasumalai.

Control group- Tamilnadu Cultural Academy Center, Bikkara, Madurai.

Inclusion Criteria
Senior citizens with mild and severe depression according to the Geriatric Depression scale.

Who were willing to participate in this study.

Senior citizens who comes in the category of young old age (60-74 yrs).

Exclusion Criteria

Who are having chronic illness such as cardiac diseases, degenerative disorders, auto immune disorders, arthritis.

Who are practicing any other physical exercises like walking, jogging etc.

Who are having mental illness with psychotic features

Who is on anti-depressant.

Description of the Tool: The research tool has two parts.

Part I

It consists of demographic variables of senior citizens such as age, gender, religion, education, marital status, number of children, source of income, mode of admission, supportive system, duration of stay in old age home, willingness to stay in old age home, hobbies and co morbid medical illness.

Part II

It consists of Geriatric Depression Scale (GDS), is a 30-item self-report long version used to identify depression in the elderly. The scale was first developed in 1982 by J.A. Yesavage and others.

METHODS OF DATA COLLECTION

The data collection was done for 6 weeks in two selected old age homes at Madurai. Approximately 15 minutes was taken for interviewing and completing the assessment on each individual during the first week of data collection procedure. Each day 10-12 samples were taken. During the second week, all 30 samples in the experimental group were undergone calisthenics.

There were 3 sessions (each session one single group was involved in Calisthenics), which consists of seven activities among them first four activities were given for 2nd and 3rd week and remaining three activities for 4th and 5th week of data collection period. Nearly 50 minutes had been taken for the completion of each session. After 5 weeks of intervention post test was conducted for both experimental group and control group.

RESULTS AND DISCUSSION

The present study reveals that the mean post-test level of depression of senior citizens in experimental group (8.03) was lesser than the mean post-test level of depression of senior citizens in control group (22.7). The obtained 't' value (5.603) was statistically highly significant at 0.05 level which illustrates highly significant at 0.05 level which illustrates that the mean difference of (14.67) was a true difference and has not occurred by chance. This is due to the effect of calisthenics.

Discussion

Among the experimental group in pre-test, majority 20(66.7%) had experienced severe depression and 10(33.3%) had experienced mild depression. After the intervention, the number of senior citizens in severe depression decreased to 2(6.6%), the mild depression had decreased to 7(23.4%), 21(70%) had experienced no depression. This shows that, the intervention is effective in reducing the depression of senior citizens

Among control group in pre-test, majority 18(60%) had mild depression and 12(40%) with severe depression. In the post test, the depression remain same, it may due to no intervention to the control group.

The study shows that mean post-test level of depression (8.03) was lesser than the mean pre test level of depression (21.36) in the experimental group. The obtained 't' value (23.17) was statistically highly significant at 0.05 level which illustrates that the mean difference of (13.33) was a true difference and has not occurred by chance. This may due to the effect of calisthenics.

It illustrates that the demographic variable like age , Number of children , willingness to stay in old age home (24.61) have significant association with the level of depression and the other demographic variables like gender, religion, education, marital status, source of income, duration of stay in old age home, co-morbid medical illness, supportive system, mode of admission and hobbies have no significant association with the pre-test level of depression among senior citizens.

| Pre-test	Week I	Pre-test for the experimental and control group		
		Group	Phases	Time duration
Calisthenics (physical exercise for the experimental group)	Week II – III	All 30 samples	1. Warm up phase 2. Comprehensive phase- calf raising, armcircles, stepping and side bending. 3. Coolingdown phase	50 mts
	Week IV-V		1. Warm up phase 2. Comprehensive phase- Neck stretch, Elbow to knee, Inner thigh stretch. 3. Coolingdown phase	50 mts
Post-Test	Week VI	Post-test for experimental and control group		
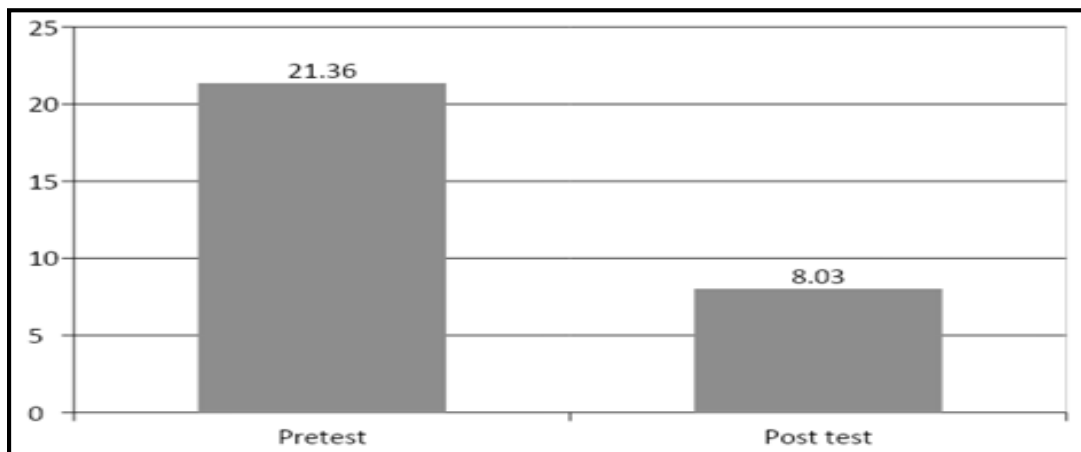
Figure No.1: Comparison of mean pre test and post-test level of depression among senior citizens in experimental group

IMPLICATION
Nursing practice
The result of the study can create awareness and motivate the nurses to practice calisthenics as a technique of relaxation and as an adjacent to pharmacological methods to depression.

Nursing education
The results of the study will be used as informative illustration to student nurses by their nursing teachers to adapt calisthenics as a non-pharmacological intervention to reduce the level of depression.

Nursing research
The findings of the study have added knowledge to the already existing literature and implications for the nursing research are given in the form of recommendations

Nursing administrations
The graduate nurse should be accountable while executing the protocol of exercises/ complementary therapies - calisthenics as an intervention for depression.

RECOMMENDATION

A comparative study can be performed to evaluate the effectiveness of calisthenics on depression among institutional and non-institutionalized senior citizens.

A similar study can be conducted with case study approach on depression.

CONCLUSION

Most of the senior citizens in the experimental and control group had depression.

Calisthenics was successful in bringing down the level of depression among senior citizens in old age homes.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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