

# Effectiveness of Foot Reflexology on Level of Depression among Old Age People

S. Selva Daphine<sup>1</sup>, Medonna Shajini<sup>2</sup>, A. Reena Evency<sup>3</sup>

<sup>1</sup>M.Sc. Nursing Student, <sup>2</sup>Associate Professor, <sup>3</sup>Principal, St. Xavier's Catholic College of Nursing, Chunkankadai

## Abstract

Depression is the most common mental disorder among old age in India and one of the most disabling condition worldwide. It is difficult to differentiate clinical symptoms of depression in old age from symptoms of normal ageing. Depression is found among 15% to 50% of residents in long term care depending on old age home. It is possible to improve mental capacities and coping skills that are affected by depression with daily activities that delay the onset of behavioural disturbances and reduce caring time. Foot reflexology would be the tool that may help to preserve mental capacity of old age people. The study was conducted to evaluate the effectiveness of foot reflexology on level of depression among old age people. Pre experimental one group pre-test post-test design was adopted to evaluate the effectiveness of foot reflexology on level of depression among old age people. 50 participants were selected using purposive sampling technique. Yesavage's Geriatric Depression scale was used to assess the level of depression among old age people. Pre-test was done among old age people with depression and foot reflexology was given to the selected participants with mild and severe depression for 20 minutes, once in every three days for 10 sessions. The post-test was done after the intervention with the same scale. Findings reveals that pre-test score of depression among old age people, none of them were normal, 38(76%) of them had mild depression, 12(24%) of them had severe depression. While analysing the post-test score of depression among old age people, 26(52%) of them were normal, 18(36%) of them had mild depression, 6(12%) of them had severe depression. The mean pre-test value was 17.94, the mean post-test value was 10.86, the standard deviation was 4.948 and the calculated 't' value was 26.2\*. The calculated 't' value was greater than the table value, so there was a significant difference between pre-test and post-test score. Hence the research hypothesis (H<sub>1</sub>) is accepted. The score represents that foot reflexology was effective in reducing the depression among old age people.

**Keywords:** Effectiveness, foot reflexology, depression, old age people.

## Introduction

Depression is a condition which can impact the entire body. It changes how we think about ourselves and other people. Depression impacts our nervous system, influences how we react to some situations, and changes our mood. Although depression can be treated and managed with traditional medicine, reflexology has promised to work wonders in terms of depression treatments<sup>4</sup>.

World's populations of old age people between 2015 and 2050 will nearly double from 12% to 22%. Mental and neurological problem among old age people may be 6.6% of the total age group. Approximately 15% of old age people will suffer from a mental disorder<sup>3</sup>.

There are issues involving in the old age are neurological disorders, substance use problem, diabetes, hearing loss, osteoarthritis. In 2050 the proportion of the world's old age population is about 22%; this is an expected increase from 900 million to 2 billion people over the age of 60. At this age people face physical and mental health problems which need to be treated. These disorders in old age people account for 17.4% of years lived with disability. In the world's old age population 7% affected with depression and dementia, 3.8% of old age population affected by anxiety disorder, 1% affected by substance use problems.

In worldwide depression is a common illness. Depression is different from mood fluctuations and emotional responses. Depression may become a serious

health condition if mood fluctuations and emotional responses long lasting. In the family depression can cause the person to suffer greatly and function poorly at work. Depression may cause suicide. Suicide results in an estimated death of 1 million per year. Depression can cause impairment in functioning of daily life. Symptoms of depression untreated due to co-occur with other problems<sup>4</sup>.

Even though there are effective treatment for depression, many of those affected in the world is not receive such treatments. Lack of resources, lack of trained health care providers, and social stigma associated with mental illness are the barriers to effective treatment. Inaccurate assessment also a barrier to effective care. Even in some high income countries, depression is not correctly diagnosed and in some occasion people are misdiagnosed by the medical professionals. The burden of depression is on the rise globally<sup>6</sup>.

Reflexology is aimed at promoting health in body organs and releasing stress from the body. Bystroking, massaging and applying pressure to such points, therapist can unblock energy flow and release stress from the nerve endings. According to ancient chinese philosophy, energy flow can be blocked in the nerve endings and cause disease like depression<sup>3</sup>.

**Statement of the Problem:** A Pre experimental Study to Evaluate the Effectiveness of Foot reflexology on Level of Depression among Old age people in Selected Old age homes at Kanyakumari district.

#### Objectives:

- To assess the pretest and posttest level of depression among old age people.
- To evaluate the effectiveness of foot reflexology on level of depression among old age people.
- To find out the association between pretest level of depression among the old age people with their selected demographic variables.

#### Hypotheses:

**H<sub>1</sub>:** There is a significant difference between pretest and posttest level of depression among old age people.

**H<sub>2</sub>:** There is a significant association between pretest level of depression among old age people with their selected demographic variables.

## Research Methodology

**Research approach:** The investigator utilized Quantitative Research approach.

**Research Design:** Preexperimental one group pretest posttest research design was used in this study.

**Research Setting:** The study was conducted at old age home, Kanyakumari District.

**Population:** Old age people with depression.

**Sample:** The investigator selected old age people with mild and severe depression between the age group of 61 to 80 years.

**Sample size:** Sample size consisted of 50 old age people with mild and severe depression.

**Sampling technique:** Purposive sampling technique was used to select the old age people.

**Description of Tool:** The tool used in this study consisted of two parts.

#### Part-1:

**Demographic Data:** A Structured Interview schedule was used to collect the demographic variables like age, sex, religion, education, previous occupation, previous income, present income, previous type of family, marital status, number of children, duration of stay at old age home, reason for joining in old age home, medical illness.

**Part-2:** Yesavage's Geriatric depression scale (1983) Assessment

J.A. Yesavage's Geriatric depression scale (1983) consisted of 30 items, scores ranged from 0 to 30, the Yesavage's geriatric depression scale questions are answered as "yes" or "no". One point was assigned to each answer and the total score was rated on scoring grid.

Scoring interpretation of Yesavage's Geriatric Depression Scale (1983)

Score	Level of depression
0-9	Normal
10-19	Mild depression
20-30	Severe depression

**Description of Intervention:** Foot reflexology is a therapeutic method of relieving pain by stimulating pre-defined pressure points on the feet and hand. Explain procedure to the old age people. Provide comfortable position to the old age person. Provide warmth to the left foot by simply massaging the foot. Start from the left foot. Provide massage to the solar flexes for 5 times. Massage upward for 5 times from the solar flexes. Massage downwards toward the foot for 5 times from the solar flexes. Rotate each toe 5 times in clockwise likewise in anticlockwise motion. Massage the upper part of the foot and then ankle of foot. Give pressure in the base of big toe. Do the same for the right foot.

#### **Method of Data Collection:**

**Phase -I: Selection of old age people:** After obtaining formal permission from the Principal of St. Xavier's catholic college of nursing, Chankankadai and Administrator of old age home, Old age people were selected based on the criteria of sample selection. The investigator obtained oral consent from each participant and proceeded with data collection.

**Phase-II: Pre test:** The data was collected from the selected old age people and the Yesavage's Geriatric Depression Scale was used to assess the level of depression. Among them 50 old age people had mild and severe depression were selected for the study.

**Phase-III: Intervention:** Foot reflexology was given to selected old age people who were mild and severe depression. The intervention was given for the duration of 20 minutes once in every three days for 10 sessions. 50 old age people were divided into three groups. Foot reflexology was given to the 1<sup>st</sup> group for 1<sup>st</sup> day, 2<sup>nd</sup> group for 2<sup>nd</sup> day, 3<sup>rd</sup> group for 3<sup>rd</sup> day. Accordingly the foot reflexology was given for 10 following sessions.

**Phase-IV: Post test:** The post test was conducted at the end of fourth week by using Yesavage's Geriatric Depression Scale.

**Findings:** The distribution of demographic variables of the participants of 50 old age people with mild and severe depression. Regarding age, 16(32%) of them were 61- 65 years old, 5(10%) of them were 76-80 years old. Regarding sex, 21(42%) of them were males, 29(58%) of them were females. Analysing religion, 36 (72%) of them were christians, 14 (28%) of them were hindu. According to education, 21 (42%) of them were illiterate, 1 (2%) of them did higher secondary education. With regard to the previous occupation, 26(52%) of them were self-employed, 1 (2%) of them was private employed. Regarding to previous income, 20 (40%) of them got Rs.1000-5000, 2 (4%) of them got above Rs.20000. According to present income, 1(2%) of them were getting Rs.1000-5000, 48 (96%) of them were not getting any income. Regarding to previous type of family, 35 (70%) of them belongs to nuclear family, 1 (2%) of them belong to extended family. Analysing marital status, 6 (12%) of them were separated, 24(48%) of them were widower. According to number of children, 14 (28%) of them don't have children, 8 (16%) of them had more than 3 children. With regard to duration of stay in old age home, 8 (16%) of them were staying for 1-3 years, 22 (44%) of them were staying for more than 3years. Analysing reason for joining old age home, 6 (12%) of them were joined due to poor economic status, 19 (38%) of them were joined due to family conflicts. According to medical illness, 16 (32%) of them had illness, 34 (68%) of them had no illness.

Figure 1 shows that during pre-test, 38 (76%) were had mild depression, 14 (24%) were had severe depression. During post-test 26 (52%) of them were normal, 18 (36%) of them were mild depressive, 6 (12%) of them were severe depression.

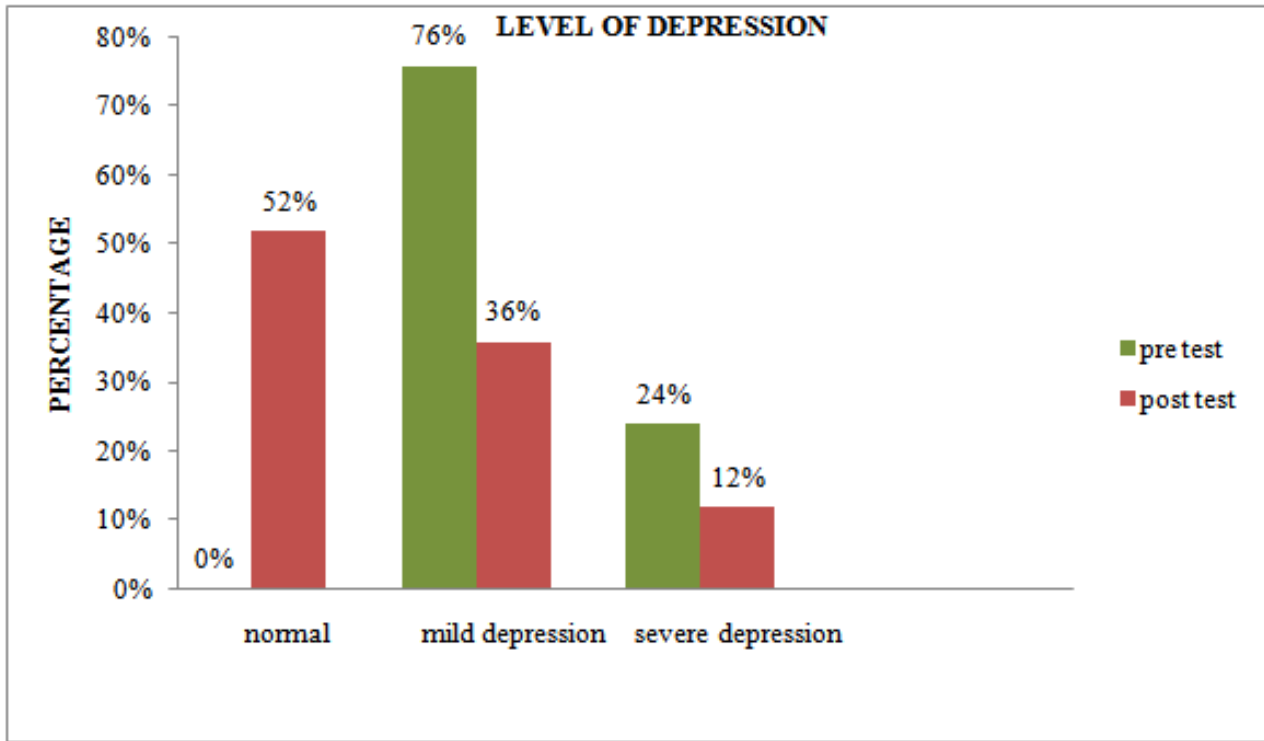


Figure 1: Pre-test and post-test percentage distribution of level of depression among old age people.

Table 1: Comparison of mean, standard deviation, and paired ‘t’ test value of pre-test and post-test level of depression among old age people. n=50

S.No.	Variables	Mean	Standard Deviation	‘t’ value	Table value
1.	Pre-test	17.94	4.637	26.2*	2.02
2.	Post-test	10.86	4.948		

\*Significant at p<0.05

Table 1 shows that the pre-test mean score of depression was 17.94 and standard deviation was 4.637. In post-test mean score was 10.86 and standard deviation score was 4.948. The ‘t’ value between pre-test and post-test score was 26.2\*. The calculated ‘t’ value was greater than the table value which was significant at p < 0.05. Hence the foot reflexology was effective in reducing depression.

**Discussion**

The prevalence of level of depression among old age people, 28(31.1%) were normal, 38(42.2%) were mild depressive, 24(26.6%) were severe depressive. During pre-test, 38 (76%) were had mild depression, 14 (24%) were had severe depression. During post-test 26 (52%) of them were normal, 18 (36%) of them were mild depressive, 6 (12%) of them were severe depression.

The pre-test mean score of depression was 17.94 and standard deviation was 4.637. In post-test mean score of depression was 10.86 and standard deviation score was 4.948. The ‘t’ value between pre-test and post-test score was 26.2\*which was significant at p<0.05. The calculated ‘t’ value was greater than the table value so there was significant difference between pre-test and post-test score. It shows that foot reflexology was effective in reducing depression among old age people.

**Conclusion**

The study concluded that providing foot reflexology was effective in reduce depression among old age people.

**Conflict of Interest:** Nil

**Source of Funding:** The study was self funded.

**Ethical Clearance:** Obtained permission from institutional ethical clearance committee. Confidentiality of subjects was ensured.

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