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A quasi experimental study to assess the effectiveness of foot reflexology on stress among old age people residing at selected old age homes in Vadodara

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Abstract

Introduction: Old age is usually discussed in connection with the different types of problems encountered by the aged and the welfare measures associated with providing them a better quality of life. For older adults, prolonged stress can come from chronic illness, disability, or the loss of a spouse. Reflexology is one of the emerging techniques to reduce the stress. It mainly focuses on application of pressure on the certain points at specific places like fingers, toes, on foot, etc. It promotes relaxation in the body.

Objectives: To assess the existing level of stress among the old age people. To assess the effectiveness of foot reflexology among the old age people. To find out the association between stress and selected demographic variables.

Material and Methods: The research approach adopted for this study was an evaluative approach, where the research design was a quasi – experimental (non-equivalent control group) design. The sample of this research study was 60 old age people residing at selected old age homes in Vadodara city. A purposive sampling technique was used to select the sample. The sample of the study was selected using non probability convenient sampling technique. Here, the instrument used was a standard stress scale to assess the stress level of old age people. Foot reflexology was the intervention to be given to the experimental group. The data was analyzed by using descriptive and inferential statistics. Independent t-test was used for evaluate effectiveness of foot reflexology.

Result: The mean post-test stress score in experimental group was 11.83 and in control group it was 18.4, which was significantly greater. The 't' calculated value 3.04 is more than tabulated value 2.001 at 0.05 level of significance. So we accept H_1 and conclude that the mean post-test stress score of old age people in experimental group is significantly lower than the post-test stress score in control group.

Conclusion: Hence, the Foot Reflexology was effective in relieving the stress.

Keywords: Stress, old age, foot reflexology, guided imagery, disability.

1. Introduction

“You don't stop laughing because you grow old. You grow old because you stop laughing.” [1]. The world is ageing. By 2050, the population of people aged 60 and over is expected to reach 2 billion or 21% of the total global population. Today over 60% of the world's older persons 60 and over live in the developing world [2]. The theme of this age period is loss, which may be identified like loss of physical abilities, loss of intellectual processes, loss of work role and occupational identification (Retirement), loss of intimate ties, such as death of spouse, friends and other acquaintances. Changing family value system, economic compulsions of the children, neglect and abuse has caused elders to fall through the net of family care. Homes for the Aged are available for elderly people who are alone, face health problems, depression and loneliness. For older adults, prolonged stress can come from chronic illness, disability, or the loss of a spouse [3]. Various methods are available to reduce the stress like music therapy, yoga, meditation, breathing exercise, laughing therapy, guided imagery and many more. Reflexology is one of the emerging techniques to reduce the stress. It mainly focuses on application of pressure on the certain points at specific places like fingers, toes, on foot, etc. It promotes relaxation in the body. Reflexology is a powerful treatment used to stimulate the healing process, detox the body and encourage the better energy to flow throughout. It works by bringing the body back into balance by releasing blocked energy and so correcting imbalances throughout the body. It is particularly beneficial for stress related disorders and digestive disorders.

2. Need for the Study

Aging is the bitter truth of life. Nobody can escape from the aging process. Some people welcome it gracefully and make the most from it, but it is not easy for everyone to deal with such changes developing gradually in your body and mind. Ageing comes with an increased risk of developing chronic diseases and disability. Apart from physical health issues, they are more likely to suffer from mental and psychological distress. There are several causes of stress, unique to or more common in elderly. Stress is a common factor in life. The effects of stress can sometimes exacerbate health conditions from which some seniors suffer, causing additional worry. Stress can present itself in various ways.⁰⁴ Long term stress increases the risk for heart disease, high blood pressure, stroke, digestive problems, and sleep disorders. An older person is already at greater risk for these conditions. Many times, there are multiple stressors, such as illness, and the loss of a spouse. Old age homes are a great alternative, but it isn't for everyone. It's Not Family. They do focus on building community spirit among its residents. However, for elderly persons, they're still not family. Aging parents who are bed-ridden or suffering from dementia often want to be looked after by their own kith and kin. While family visits are welcome in all nursing homes, driving out on a weekend can take its toll on ordinary workers. The lack of family presence often leaves the elderly lonely and depressed ^[5]. People generally staying here are very sad. It is but natural for them to be so as they leave their well-known homes for stranger place that lacks in all memories. Main problem that one faces here is loneliness. Such conditions make them prone to stress ^[6]. Prolonged stress may lead to depression. There is a considerable population in old age homes who is suffering from stress. To relieve their stress, many options are available now days. Various therapies like music therapy, reminiscence therapy, laughing therapy etc can help in reducing this stress. Foot reflexology is one of these therapies. Various researches are carried out regarding the positive effects of foot reflexology on psychological well-being. Senior citizens may consider reflexology for overall wellness, pain management of arthritis and other conditions, constipation, fatigue, lethargy, cognitive disorders, stress, relaxation, improved balance and waling and for loving touch ^[7].

3. Statement of the Study

A quasi experimental study to assess the effectiveness of foot reflexology on stress among old age people residing at selected old age homes in Vadodara

Objectives

1. To assess the existing level of stress among the old age people.
2. To assess the effectiveness of foot reflexology among the old age people.
3. To find out the association between stress and selected demographic variables

Hypotheses

H1: There will be a significant difference in STRESS among the old age people in control and experimental group.

Assumptions

- The old age people residing at old age home may have more stress.
- The foot reflexology may reduce stress among the old age people.

Operational Definition

Assess

It is an act of measuring stress of elderly people with the help of Stress Assessment Scale.

Stress

A state of mental or emotional strain or tension resulting from loneliness and perceived distance from loved ones.

Old age people

A group of people ageing 60 and more than irrespective of their gender.

Old age home

A selected institution named “Jalaram old age home” where food, shelter and other basic facilities are provided to the old people in Vadodara city.

4. Research Methodology

Research Approach: - A quantitative research approach is adopted for the study.

Research Design: - A quasi-experimental design chosen for the study.

Table 1: Systematic representation of research design schematic representation of research design

Group	Pre-Test	Intervention	Post-Test
Old Age People Residing At Selected Old Age Homes In Vadodara	Level Of Stress Among Old Age People Before Administration Of Foot Reflexology	Foot Reflexology	Level Of Stress After The Administration Of Foot Reflexology
	O ₁	X	O ₂

Key:

- O1= Stress score of elderly using Perceived Stress Scale i.e. pre-test
- X = Provision of the treatment i.e. foot reflexology
- O2= Stress score after the administration of foot reflexology i.e. post test score

Variables under Study

Independent Variables

Foot reflexology which is going to be administered on old age people in the experimental group.

Dependent Variables

Level of stress among old age people residing at old age homes.

Extraneous Variable

It includes the base line information of old age people like age, gender, education, previous occupation, number of children, mode of entry in the old age home, duration of stay in old age home and number of visits taken by caretakers.

Setting

The study was conducted in the selected old age homes in Vadodara city.

Population

In this study population consists of old age people residing at old age homes in Vadodara.

Sample

In this study population consists of old age people residing at selected old age homes in Vadodara.

Sample Size

In this study the sample size constitute of 60 old age people.

Sampling Technique

The sample of the study was selected using non probability convenient sampling technique.

Criteria for the Selection of Subject**Inclusion Criteria**

- **Old age persons**
- 1. Who are 60 years of age or above it.
- 2. Who can speak and understand Gujarati / English.
- 3. Who were willing to participate in the study?

Exclusion Criteria

- **Old age persons**
- 1. Who were very sick and taking treatment?
- 2. Who were having severe mental illness?
- 3. Who were having sensory impairments

Description of the Tool

The structured questionnaire consisted of 2 sections covering the following areas.

Section A

This section consists of ten items seeking information on demographic data which includes age, gender, education, previous occupation, marital status, duration of stay in old age home, mode of entry in old age home, number of children and number of visits taken by caretakers.

Section B**Perceived stress scale**

The following questions ask about your feelings and thoughts during The Past Month. In each question, you will be asked How Often you felt or thought a certain way. Although some of the questions are similar, there are small differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the exact number of times you felt a particular way, but tell me the answer that in general seems the best. For each statement, please tell me if you have had these thoughts or feelings: never, almost never, sometimes, fairly often, or very often.

Table 2: Scoring Key

Grade	Score
Low Stress	0 -13
Moderate Stress	14 -26
High Stress	27-40

5. Result**Section A.**

Frequency and Percentage Distribution of Demographic Variable in Experimental and Control Group

Table 3: Frequency and percentage distribution of demographic variable in experimental and control group

Si. No.	Variable	Experimental Group		Control Group		
		F	%	F	%	
1	Age (Years)	A. 60 - 69	12	40	4	13.3
		B. 70 – 79	15	50	21	70
		C. 80 And Above	3	10	5	16.7
2	Gender	A. Male	13	43.33	15	50
		B. Female	17	56.67	15	50
3	Education	A. Illiterate	6	20	2	6.67
		B. Primary	11	36.67	6	20
		C. Secondary	5	16.67	6	20
		D. Higher Secondary	6	20	6	20
		E. Graduate Or Post Graduate	2	6.67	10	33.3
4	Previous Occupation	A. Unemployed	16	53.33	8	26.7
		B. Private	6	20	8	26.7
		C. Government	0	0	10	33.3
		D. Self-Employment	8	26.67	4	13.3
5	Marital Status	A. Unmarried	5	16.67	0	0
		B. Married	7	23.33	13	43.3
		C. Divorced	2	6.67	0	0
		D. Widow/ Widower	16	53.33	17	56.7
6	Duration Of Stay In Old Age Home	A. 0 - 2 Years	7	23.33	6	20
		B. 3 - 5 Years	12	40	5	16.7
		C. 6 - 8 Years	9	30	11	36.7
		D. More Than 8 Years	2	6.67	8	26.7
7	Mode Of Entry In Old Age Home	A. Voluntary	13	43.33	11	36.7
		B. By Force	17	56.67	19	63.3
8	Number Of Children	A. No Children	6	20	0	0
		B. 1 Child	4	13.33	1	3.33

		C. 2 Children	4	13.33	15	50
		D. 3 Or More Children	16	53.33	14	46.7
9	Number Of Visits By Care Takers	A. Once A Month	4	13.33	3	10
		B. Once In 6 Months	6	20	6	20
		C. Once A Year	12	40	11	36.7
		D. More Than 1 Year	8	26.67	10	33.3

Section B.

Part I: Stress Score among Old Age People in Pre- Test and Post- Test among Experimental And Control Group

Table 4: Score Interpretation of Pre Test Score of Experimental Group and Control Group

N=60

Grade	Score	Pre Test			
		Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
Low Stress	0 - 13	7	23.33	11	36.67
Moderate Stress	14 - 26	13	43.33	14	46.67
High Stress	27 - 40	10	33.33	5	16.67

Table 5: Score Interpretation of Post Test Score of Experimental Group and Control Group

N=60

Grade	Score	Post Test			
		Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
Low Stress	0 - 13	18	60	11	36.67
Moderate Stress	14 - 26	5	16.67	14	46.67
High Stress	27 - 40	7	23.33	5	16.67

Part II: Comparison of Mean Post Test Stress Score Of Old Age People among Experimental and Control Group

H1 - There will be significant difference between post-test stress score among the experimental group and control group.

Table 6: Analysis of Observational Scores in Experimental Group and Control Group

	Group	N	Mean	Standard deviation	Standard error mean	Mean difference	t value
Post Test	Experimental	30	11.83	9.43	2.008	6.6	3.004
	Control	30	18.4	7.23			

Section C.

Association between Mean Pre-Test Stress Score among Old Age People with Their Selected Demographic Variables

Table 7: Association of the Pre-Test Stress Score among the old Age People with Their Demographical Variables

SI. No.	Variable		Level of Stress			X2	df	level of significance at 0.05 level
			Low	Moderate	High			
1	Age (Years)	a. 60 - 69	4	6	6	6.696	4	9.49 NS*
		b. 70 – 79	17	9	10			
		c. 80 and above	4	4	0			
2	Gender	a. Male	13	8	8	0.595	2	5.99 NS*
		b. Female	11	10	10			
3	Education	a. Illiterate	2	4	3	20.038	8	15.5 S**
		b. Primary	8	4	5			
		c. Secondary	5	2	2			
		d. Higher secondary	3	3	6			
		e. Graduate or post graduate	5	5	3			
4	Previous Occupation	a. Unemployed	9	8	7	5.475	6	12.6 NS*
		b. Private	9	3	2			
		c. Government	4	2	4			
		d. Self-employment	3	5	4			
5	Marital Status	a. Unmarried	2	2	1	1.174	6	12.6 NS*
		b. Married	8	5	6			
		c. Divorced	1	1	2			
		d. Widow/ widower	13	9	10			
6		a. 0 - 2 years	3	4	7	16.344	6	12.6

	Duration Of Stay In Old Age Home	b. 3 - 5 years	4	7	6			S**
		c. 6 - 8 years	14	4	2			
		d. More than 8 years	3	3	3			
7	Mode Of Entry In Old Age Home	a. Voluntary	7	9	8	5.941	2	5.99 NS*
		b. By force	18	9	9			
8	Number Of Children	a. No children	3	2	3	9.086	6	12.6 NS*
		b. 1 child	0	1	2			
		c. 2 children	11	8	2			
		d. 3 or more children	10	8	10			
9	Number Of Visits By Care Takers	a. Once a month	6	2	1	9.356	6	12.6 NS*
		b. Once in 6 months	3	4	4			
		c. Once a year	10	7	6			
		d. More than 1 year	5	6	6			

**Significant, *Non – Significant (at $p < 0.05$ level)

The calculated X^2 value (for education and duration of stay in old age home) was higher than the table value which indicates that there is significant association between the mean pre-test level of stress score among the old age people and their education and duration of stay in old age home.

6. Conclusion

The main aim of this study was to evaluate the effectiveness of foot reflexology in reducing the level of stress among old age people. The mean post-test stress score in experimental group was 11.83 and in control group it was 18.4, which was significantly greater. The 't' calculated value 3.04 is more than tabulated value 2.001 at 0.05 level of significance. So we accept H_1 and conclude that the mean post-test stress score of old age people in experimental group is significantly lower than the post-test stress score in control group.

A study was conducted to evaluate the effectiveness of foot reflexology in reducing the level of stress among old age people. The results indicate that foot reflexology is effective to reduce the stress. This study indicates that stress level reduces with the administration of foot reflexology.

7. References

- Available from:
<http://www.goodreads.com/quotes/102627-you-don-t-stop-laughing-because-you-grow-old-you-grow>
- World health organization. Active ageing: towards age-friendly primary health care. (Active ageing series). Printed in France. WHO; 2004.p.6
- Available from:
<https://www.elcaminohospital.org/library/stress-and-older-adults>
- Available from:
<http://www.medicineonline.com/articles/s/2/Stress-and-the-Elderly/Stress-and-Seniors.html>
- Taste J. Pros and Cons of Putting Your Aging Parents in Nursing Homes [Internet]. InterestingArticles.com; 2013 [cited 2015 Oct 26].
- Available from:
<http://www.interestingarticles.com/elderly-care/pros-and-cons-of-putting-your-aging-parents-in-nursing-homes-4658.html#ixzz3pZAzZ7ie>
- Disadvantages of Old Age Homes [Internet]. [cited 2015 Oct 26].
- Available from:
<http://www.oldagehomes.org.in/disadvantages-of-old-age-homes.html>
- Conclusion on Foot Reflexology Health and Social Care Essay [Internet]. UKEssays; [cited 2015 Oct 26].

- Available from:
<http://www.ukessays.com/essays/health-and-social-care/conclusion-on-foot-reflexology-health-and-social-care-essay.php>