



ORIGINAL RESEARCH PAPER

Nursing

A STUDY TO ASSESS THE EFFECTIVENESS OF PROGRESSIVE RELAXATION TECHNIQUE ON IMPROVING QUALITY OF SLEEP AMONG GERIATRIC PEOPLE IN SELECTED OLD AGE HOMES.

KEY WORDS: Progressive muscular relaxation technique; nursing interventions; sleep; geriatric people

Prof. Shihabudeen M H

Research scholar, Malwanchal University, Indore, M.P.

Dr. Payal Sharma

Research Guide, Department of Nursing, Malwanchal University, Indore, M.P.

ABSTRACT

This study investigated the effectiveness of progressive relaxation technique on improving sleep among geriatric people in selected old age home. The research design selected in this study for phase I was descriptive in nature and for phase II pre-test and post-test design was adopted. 150 elderly people were selected by using non-probability convenient sampling from selected old age homes, Bhopal District. The sleep assessment questionnaire and checklist tools were used to assess the quality of improving sleep among geriatric people. After that, Jacobson's progressive muscular relaxation therapy was administered and practiced to test their sleep quality. After 7 days, the quality of improving sleep among geriatric people was assessed with the same tool. The results revealed that post-test score on quality of sleep is higher than (12.04) the pre-test score (10.44) in experimental group. In control group, after 7 days without any intervention the score (8.96) remained the same as pre-test score which was statistically found significant at $P < 0.001$ level. Hence it is proved that there is significant change in their quality sleep after progressive muscular relaxation technique.

INTRODUCTION

According to Hansberg (2008) "Ageing is defined to mean periodic change in human life which means man and the conditions, he is subjected to are constantly changing as time passes". The elderly are finding themselves vulnerable. Aging is a natural and gradual process except under extreme circumstances such as stress or grief. Stress factors may be responsible for reducing sleep. (Indian council of medical research-2006)

Ageing is a physiological process that begins at birth. This biological inevitable process has health related, social, cultural and economic dimension. Ageing is not an illness but the increasing number and severity of the health problems and declining functional abilities are among the potentiality life changing problems of ageing. People experience many changes in physical, mental and social aspects as they age.

Old age population suffers both physical as well as mental changes in life. Biological or bodily changes, loss of partner, change in family structure and role, economic dependency, all which contributes to the mental health problems and insomnia. Relaxation therapy is the need of the hour. -Manju Nandhi (2010).

Demographic ageing is a global phenomenon. By the year 2025, the population of elderly is expected to exceed 830 million. As per the 1951 census, the population of the elderly people in India was 20 million and increased to 57 million in 1991, and in 2001 it was 77 million. The population of the elderly is expected to increase by 177 million by the year 2025. The number of elderly people may exceed 324 million by the year 2050 (O.P. Sharma, National Conference in Geriatrics and Gerontology, 2005).

As the age progresses towards senility, they experience a number of psycho-physiological problems. As a consequence of these problems, they often suffer from sleeplessness. According to the National Sleep Foundation (2018), 44% of aged persons do not sleep well and they experience at least one or more symptoms of sleep disturbances. There is need to improve the sleeping pattern starting itself. Here progressive muscular relaxation therapy is more effective in balancing body mind mechanism and improve the quality of sleep. (Wikipedia 2019)

The difficulty of falling asleep, maintaining sleep, sleep fragmentation, Getting up too early in the morning and more day sleeps are the other changes that occur in elderly with

ageing.01 Elderly needs about 7 to 8 hours of sleep normally. Shantham Lillypet (2016) conducted a study that most of the elderly persons use medications for their physical illness. Certain medications may impair their ability to sleep and are even proved to stimulate wakefulness at night. Based on this problem and stated that 52.5% of the elderly perceived sleep as their third important need.

Progressive muscular relaxation technique can adjust the reaction of the hypothalamus to the sympathetic nerves, which allow the body to decrease the heart rate, metabolism and respiration rate as well as reduce oxygen consumption and muscle tension. This allows the body to maintain a healthier and improve sleep quality. (Rogers Poppeu, 2000).

The investigator from his experience have observed and come across the elderly people associated with sleep problems, but they were given medication and routine care only. They were so ignorant in use of Jacobson muscle relaxation therapy in management of sleep problems. These concepts enlighten the researcher to do this study and give information on Jacobson's muscle relaxation therapy.

Therefore the investigator felt that there should be a scientific study to investigate the effect of Jacobson muscle relaxation therapy on improving sleep quality among elderly people. Progressive muscle relaxation therapy is proven to be effective in improving quality of sleep in various disorders among elderly groups.

MATERIALS AND METHODS

PURPOSE: - To assess the effectiveness of progressive muscular relaxation technique on improving quality of sleep among elderly people.

POPULATION: -Population comprised of elderly people in selected old age homes at Bhopal District.

SAMPLE: - Elderly people in the age group of 60 and above years residing in selected old age homes at Bhopal District.

SAMPLING TECHNIQUE: - non-probability convenient sampling.

RESEARCH APPROACH: - Evaluative approach

RESEARCH DESIGN: - Pre-experimental, one group pre-test post-test design.

TOOL: - Demographic Performa, sleep pattern assessment questionnaire and checklist.

DATA ANALYSIS: - Descriptive and Inferential statistics

RESULTS

Section 1: Description of sample characteristics

The salient findings from the background information are:

- Based on the age, 51(34%) of the subjects were aged above 75 years, 26(17.33) were between 65-70 years, 27 (18%) were between 70-75 years and 46(30.67%) of the subjects were between 60-65 years.
- Based on gender, most of the subjects 109(72.67%) were females and the remaining 41(27.33%) of the subjects were males.
- Based on marital status 55(36.67%) of the subjects were unmarried, 48(32%) of the subjects were married, and 47(31.33%) of the subjects were widowed and separated from their family.
- Based on religion, majority 97(64.67%) of them were Hindus. Nearly 51(34%) of the subjects were Christians and 2(1.33%) of the subjects were Muslims.
- Based on place of residence, majority 63(42%) of the subjects were from semi urban area, 56(37.33%) of the subjects were from urban area before joining the old age homes. Only 31(20.67%) of the subjects were from the rural area.
- Based on the type of family, it was found that majority 99(66%) of the subjects were from Nuclear families and the rest of them 51(34%) were from the joint families.
- Based on present financial support, 131(87.33%) of them were dependent on old age home. About 12(8%) subjects receive their old age pension and very few 7(4.67%) received their financial assistance from their children during their stay in old age homes.

Section 2: Comparison of the demographic variables of the subjects in experimental group and control group before intervention.

Distribution of the Subjects According to Sleep Quality

Sleep Quality	Experimental Group (75)		Control Group	
	F	%	F	%
Good	9	12.00	1	1.3
Adequate	20	26.67	8	10.67
Fair	18	24.00	12	16
Poor	28	37.33	54	72

Chi-square results revealed that there were no significant difference while comparing the three groups with regard to the age, gender, religion and place of residence. While comparing the present financial support as there was insignificant difference among the experimental group and the control group. Therefore all the two groups were found to be comparable to participate in the study.

Section 3: Describes the effectiveness of Progressive Muscle Relaxation technique on improving quality of sleep.

The mean post-test sleep quality score of the subjects in experimental group was (12.04) which was higher than the mean pre-test score (10.44) after giving progressive muscular relaxation therapy. Paired 't' test results showed significant difference between the two mean scores which was statistically proved to be significant at P < 0.01 level. Hence it is concluded that progressive muscle relaxation therapy was effective in promoting sleep among the subjects residing in old age homes.

Section 4: Comparative effectiveness of the specific interventions such as progressive muscular relaxation technique among the experimental group and control group (without any interventions).

Paired 't' test was used to find the different between the two mean scores. It indicated that there is no statistically significant difference between the two score. Hence it is proved that the sleep disturbance remained the same in the control group without any intervention.

The mean pre-test sleep quality scores were found to be (10.44) and (12.04) in experimental group and (8.96) remain

same in pre- test and post-test of control group. Paired' test was used to compare the two mean scores. It indicated that the sleep quality differ among the two groups even before administering the interventions. The results indicated that all the two groups differ significantly at P < 0.01 level. Even before the progressive muscular intervention the experimental group had higher mean score which had indicated less sleep disturbances comparing with the control group.

Analysis of paired't' test was applied to find out if there is any significant difference exists among the two groups on sleep quality after the intervention. As there were differences in pre-test sleep quality score among the two groups before progressive muscular relaxation therapy. Chi square result indicated that after the intervention of progressive muscular relaxation technique, there was a difference in the post-test sleep quality scores of the subjects among the two groups. It was found that the experimental group, who practiced progressive muscle relaxation, had adequate quality in sleep when compared with control group. The chi square was applied to find the comparison between the experimental group and control group. The study were found to be significant at P < 0.001 level.

REFERENCES

1. Bhumi Reddy Chetan Kumar Effectiveness of progressive muscles relaxation on inducing sleep among cancer patients in selected hospital of Pune city. International Journal of Science and Healthcare Research, 2017 July-sept.
2. Senthikumar Ramasamy, Progressive muscle relaxation technique on anxiety and depression among persons affected by leprosy, Journal of Exercise Rehabilitation, 2018, Volume - 14, 3375- 381.
3. Martin-Herrero C, Rodrigues de Souza DP, Alburquerque-Sendin F, Ortega-Santiago R, Fernandez-de-Las-Penas C. [Quality of sleep in elderly people - pilot study].
4. Paiva T, Farinha A, Martins A, Batista A, Guillemainault C. Chronic headaches and sleep disorders. Archives of internal medicine 1997; 157(15):1701-5
5. Ray 2014, Effect of progressive muscle relaxation in female health care professionals, Available from: <https://www.researchgate.net>
6. Francis, Neethu, D'silva, Fatima effectiveness of progressive muscle relaxation therapy on quality of sleep among patient, admitted in medical ward of a selected hospital in Mangalore, International Journal of Nursing Education, 4(2), 2012 July, 137.
7. Gulseren Daglar, Sleep quality in the elderly either living at home or in a nursing home, Australian Journal of Advanced Nursing, 2016 April-July, 31(4), 6-13
8. Ancoli-Isreal, S., Kripke, D.F (1991). Prevalent Sleep Problems in the Aged. Biofeedback Self Regul, (1694):349-359.
9. Bliwise, N.G. (2017). Factors Related to Sleep Quality in Health Elderly Women, Psychol Aging, 7, 83-8.
10. Bephage, G. (2015). Promoting Quality Sleep in Older People the Nursing Care Role. Br J Nurs, 14(4), 205-210.
11. Sreevani, R. (2009). A Guide to Psychiatric and Mental Health Nursing. (3rd ed.) New Delhi: Jaypee Brothers Publishers.