Effectiveness of Laughter Therapy Versus Reminiscence Therapy on Quality of Sleep, Among Senior Citizens Living in Old Age Homes in Coimbatore, Tamilnadu

Medical Science

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ABSTRACT

Aging and its social-biological process naturally impair the functions of different body organs and cause progressive disabilities in managing personal affairs and performing social roles. Such impairments are more evident in social and psychological dimensions of the elderly people's life. For health promotion in older adults, various strategies have been recommended by experts, among which laughter therapy and reminiscence therapy are more important. This study aims to assess the effectiveness of laughter therapy versus reminiscence therapy on quality of sleep. PSQI Scale was used to measure the quality of sleep before and after the therapy. The results showed that laughter therapy was more effective in improving quality of sleep when compared with reminiscence therapy among senior citizens who are residing at old age home..

INTRODUCTION:

The ageing process is of course a biological reality which has its own dynamic, largely beyond human control. However, it is also subject to the constructions by which each society makes sense of old age.. For statistical and public administrative purposes, however, old age is frequently defined as 60 or 65 years of age or older.

There has been a progressive increase in both the number and proportion of the aged in India overtime, particularly after 1951. between 1901 and 1951, the proportion of population over age 60 increased marginally from 5 percent to 5.4 percent, while by 2001 this had increased to 7.0 percent when changes in the decadal growth rate in the general population are compared with those for the elderly population, The size of the elderly rose in absolute terms during the last century from 12 million in 1901 to approximately 71 million in 2001 and is likely to reach 113 in 2016. As per provisional census of Indian population 2011, the age group of 60⁺years is 7.5% and age above 65 years is 5.0% from the total population. As per the statistical department in Coimbatore 6.2 % of old age population comprises the total population. There are 40 recognized old age homes run by different NGO'S are available in Coimbatore, Tamil Nadu. Yet another feature of ageing in India is the fact that the proportion of elderly is much higher in the rural areas than in the urban areas.

Review of literature:

Ko HJ, Youn CH (**2011**) conducted a study on effects of laughter therapy on depression, cognitive function, quality of life, and sleep of the elderly in a community. study sample consisted of 109 subjects aged over 65 divided into two groups; 48 subjects in the laughter therapy group and 61 subjects in the control group. Geriatric Depression Scale (GDS), Mini-Mental State Examination (MMSE), Short-Form Health Survey-36 (SF-36), Insomnia Severity Index (ISI) and Pittsburgh Sleep Quality Index (PSQI) were used between the two groups before and after laughter therapy. After laughter therapy, the GDS scores were 6.94 ± 3.19 (P=0.027) and 8.43 ± 3.44 (P=0.422); the MMSE scores were 24.63 ± 3.53 (P=0.168) and 23.70 ± 3.85 (P=0.068); total scores of SF-36 were 52.24 ± 17.63 (P=0.347) and 50.32 ± 19.66 (P=0.392); the ISI scores were 7.58 ± 5.38 (P=0.327) and 9.31 ± 6.35 (P=0.019); the PSQI scores were 6.04 ± 2.35 (P=0.019) and 7.30 ± 3.74 (P=0.847) in both groups, it clearly says Laughter therapy is considered to be useful, cost-effective and easily-accessible intervention that has positive effects on depression, insomnia, and sleep quality in the elderly.

Kim KB [2009] examined the effects of individual reminiscence therapy on older adults' depression, morale, and the quality of sleep. The design was a single-group pre-test and post-test study. Subjects consisted of 31 older adults from two senior centers and a welfare center in Seoul. Individual reminiscence therapy was applied to study subjects four times, once a week for an hour at each time. Measurement tools were the Geriatric Depression Scale Short Form Korea (GDSSF-K) for depression, Mun Ae-ri's (1996) scale for morale, and PSQI SCALE for the quality of sleep. Findings of the study suggested that individual reminiscence therapy may be applied as a nursing intervention that contributes to the improvement of older adults' quality of life, reduces their depression, and enhances their morale.

AIMS & OBJECTIVES:

- To find out the effectiveness of laughter therapy on quality of sleep among senior citizen in group - I.
- To find out the effectiveness of reminiscence therapy on quality of sleep among senior citizen in group - II.
- To compare quality of sleep among senior citizen in laughter therapy and reminiscence therapy in groups.
- To associate the effectiveness of quality of sleep with selected variable among senior citizens in laughter therapy group.
- To associate the effectiveness of quality of sleep among senior citizens in reminiscence therapy group.

Methodology:

Study settings:

The study was conducted in two different old age homes at Coimbatore, Tamil Nadu **Sample Size:**

Laughter therapy for 100 senior citizens and Reminiscence therapy for 100 senior citizens from two different old age homes, Podanur, Coimbatore.

Sampling Technique:

Convenient sampling technique

Research Design

The design adopted for this study was Factorial design with time series.

Group	Pre test	Treatment	Post test – I	Treatment	Post test -II
RE1	O1	X 1	O'1	X 1	O"1
RE2	O2	X 2	O '2	X 2	O"2

RE_1 =Laughter Therapy

O_1 =Pretest of Quality of sleep, in experimental group –I

X_1 =Treatment – Laughter Therapy

O'_1 = Post test (1) of Quality of sleep in experimental group –I

O''_1 =Post test (2) of Quality of sleep in experimental group -I

RE_2 =Reminiscence Therapy

O_2, =Pre test of Quality of sleep, in experimental group -II

X_2 =Treatment – Reminiscence Therapy

O'_2 =Post test (1) of Quality of sleep, in experimental Group –II

O''_2 =Post test (2) of Quality of sleep in experimental Group –II

Research tool:
The reliability of the tool was established by interrater method for quality of sleep of senior citizen and it was found that, the reliability of quality of sleep scale was 0.7.

Structured interview schedule was used. The data collection tool consisted of the following.

Section A: Demographic variables: These include information regarding the study participant's personal, physical, physiological and socio-economical components.

Section B: interview schedule on quality of sleep: PSQI Scale was adopted for this study to measure the quality of Sleep of senior citizen which measures seven domains namely, subjective sleep, quality, sleep latency, sleep duration, habitual sleep efficiency, and sleep disturbances, use of sleep medications, and day time dysfunction over the last month.

Scoring:
Pittsburgh sleep quality index scale {**PSQI**}: it contains 19 self rated questions. They are combined to form seven components score each of which has a range of 0 -3 points. A score of 0 indicates no difficulty and a score of 3 indicates severe difficulty. The component scores are summed to produce a global score (range of 0 -21). A PSQI global score >5 is considered to be suggestive of significant sleep disturbance.

Data collection procedure:
Consent was obtained from the samples. Purpose and procedure of Laughter therapy and Reminiscence therapy were explained. Pretest was done with the interview schedule for quality of sleep among senior citizen of both old age homes. Demonstrated the laughter therapy and Reminiscence therapy in each old age home. Laughter therapy and Reminiscence therapy were given weekly 3 sessions for 4 weeks. Post test was conducted with the same interview schedule which was done after 12 weeks and second post test was done after 12 weeks. Statistical analysis was done by spss 19.0 software

Reliability:
The reliability of the tool was established by interrater method for quality of sleep of senior citizen. 15 numbers of samples were used to analyze the reliability of the tool and it was found that, the reliability of quality of sleep scale was 0.7

Data analysis:
The baseline Performa of the senior citizens was analyzed in terms of frequency and percentage. In laughter therapy majority (50%) senior citizens were in the age group of 68-70 years, living with their spouse (61%) they are females (61%), staying in old age home less than five years (66%) and (32%) getting economic support from their children where as in the reminiscence therapy majority (34%) senior citizens were in the age group of 65-67 years, living with their spouse (60%) they are females (50%), staying in old age home less than five years (71%) and (51%) getting economic support from their old age pension.

TableNo.1: Distribution of mean and SD of pre test   post test-I, II   scores   regarding quality of sleep on effectiveness of laughter therapy
n=100

QUALITY OF SLEEP	Pre test		Post test -1		Post test -II	
	Mean	SD	Mean	SD	Mean	SD
OVER ALL	12.97	4.01	9.88	2.83	5.95	2.93

TableNo.2: Distribution of mean and SD of pre test   post test-I, II   scores   regarding quality of sleep on effectiveness of Reminiscence therapy
n=100

QUALITY OF SLEEP	Pre test		Post test -1		Post test -II	
	Mean	SD	Mean	SD	Mean	SD
Over all	13.88	3.18	10.19	2.78	6.17	2.35

Table 1 and 2 revealed that quality of sleep was increased after giving both laughter therapy and reminiscence therapy

TableNo.3: unpaired t-test of 2nd post test   and 2nd post test scores   regarding quality of sleep on effectiveness of laughter therapy and Reminiscence therapy among senior citizens living in old age homes in Coimbatore, Tamilnadu (n=100)

Quality of sleep	Laughter therapy 2nd post test)		Reminiscence therapy (2nd post test)		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
	5.95	2.93	6.17	2.36	0.22	0.585	0.55

Table 3 revealed that laughter therapy was more effective in improving quality of sleep when compared with reminiscence therapy   among senior citizens.

Table: 4: Association between mean difference of pre test and 2nd post test for level of quality of sleep and selected demographic data.
(n=100+100)

Demographic variables	Laughter therapy (n=100)			t/F value (p-value)	Reminiscence therapy (n=100)			t/F value (p-value)
	No's	Mean	SD		No's	Mean	SD	
Marital status Living with spouse ever married Divorced Widow Widower	61 5 14 17 3	6.98 5 9.14 7.88 4.67	4.28 2.92 3.97 4.32 2.89	1.53 (0.2004)	60 14 12 13 1	7.11 7.92 8.08 10 14	3.37 3.77 3.42 3.52 0	2.73 (0.03*)
When do you feel fresh? Feel fresh in the morning Feel fresh in the night	64 36	7.5 6.86	4.24 4.20	0.73 (0.46)	65 35	7.25 8.8	3.63 3.28	2.105 (0.037*)

*-P<0.05 ,significant

Table 4.5.5 revealed that in Reminiscence therapy group, there was a significant association between mean difference of pre test and 2nd post test for level of quality of life in psychological health domain with marital status feels fresh**.**

Discussion:

The present study revealed that 50 % of senior citizens were living with poor quality of life and this study proved that laughter therapy was more effective in improving quality of life when compared with reminiscence therapy among senior citizens who are residing at old age home.

Conclusion:

In general this study proves that senior citizens those who are residing in old age homes need this type of therapies in order to improve their quality of sleep.

Recommendations

This study can be done in different setting like beggars home, destitute homes.

Different therapies can be adopted in order to improve their quality of sleep.

These therapies can be done to assess the effectiveness not only on quality of sleep but also for self care activities.

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