

## EFFECTIVENESS OF POSITIVE REMINISCENCE GROUP THERAPY ON DEPRESSION, SELF-ESTEEM AND LONELINESS AMONG ELDERS

Lingaraju AR<sup>1</sup>, Milind M Kale<sup>2</sup>, Shivaprasad Halemani<sup>3</sup>, Bindu Bharathi<sup>4</sup>, Anu Sam Jacob<sup>5</sup>, Nageshwar Venkatesh Reddy<sup>6\*</sup>, Sunil Kumar Ravi<sup>7</sup>, Sabah Hassan El-Amrosy<sup>8</sup>, Vasantha Gurusamy<sup>9</sup>

<sup>1</sup>Professor, MES College of Nursing, Department of community health Nursing, Ghanekhunt-Lote, Khed Taluk, Dist. Ratnagiri, Maharashtra.

<sup>2</sup>Principal, MES College of Nursing, Department of Medical Surgical Nursing Ghanekhunt-Lote, Khed Taluk, Dist. Ratnagiri, Maharashtra.

<sup>3</sup>Professor, MES College of Nursing, Department of Mental health Nursing Ghanekhunt-Lote, Khed Taluk, Dist. Ratnagiri, Maharashtra.

<sup>4</sup>Assistant Professor, Department of Public Health Nursing, College of Nursing, Northern Border University, Arar, Kingdom of Saudi Arabia

<sup>5</sup>Lecturer, Public Health Nursing Department, Northern Border University, Arar, Saudi Arabia

<sup>6</sup>Asst Professor and Head, Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, Al Baha University, Al Baha, Kingdom of Saudi Arabia.

<sup>7</sup>Assistant Professor in Speech Pathology, Department of Medical Rehabilitation Sciences, College of Applied Medical Sciences, King Khalid University, Abha, Saudi Arabia

<sup>8</sup>Assistant Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing, Al-Baha University, Saudi Arabia

<sup>9</sup>Assistant Professor, Department of Acute and Tertiary Care Nursing, School of Nursing, University of Pittsburgh, Pittsburgh, Pennsylvania, USA.

### KEYWORDS

Reminiscence therapy  
, Depression,  
Loneliness, Self  
Esteem, Elderly

### ABSTRACT

Background of the study

The increase in the relative and absolute number of older people in our society has posed a major challenge for both individual and collective levels in the study of aging. It had appeared various contributions, at the individual level, extending the biological perspective of disease and disability with a more positive and comprehensive one, covering the social and behavioral sciences to reduce the risk of adverse events and improve the resilience of the seniors and make changes in their immediate surroundings.

At the population level, aging is seen as a challenge that involves, in addition, challenges such as the double burden of disease, increased risk of disability, having to provide adequate care for the aging population, addressing inequalities, economic challenges, and having a different view of aging and old age.

Methodology:

The study method included quantitative research, Quasi experimental design where Pre and post-test with equivalent control group design, a population comprises all elderly people residing in the selected old age homes, 400 samples chosen for the study, and a purposive sampling methodology was utilized for the study. Three tools were used to evaluate depression, loneliness and self-esteem among elders. Before data collection, the tool was tested and certified by seven professionals. Permission was taken from concern old age homes and consent was taken from elders. Elderly were asked to rate items against depression, self-esteem and loneliness questions followed by positive reminiscence group therapy went on for a month and post was conducted after one month.

Results

Elderly from experimental group in depression score pretest 14.45 and posttest mean 9.58 and mean difference was 3.304. The obtained t- test value was 21.576 which shows statistical significance at  $p < 0.05$ . in self esteem score pretest 22.6 and posttest mean 30.26 and mean difference was 7.66. The obtained t- test value was 28.247 which shows statistical significance at  $p < 0.05$ . in loneliness score pretest 30.73 and posttest mean 20.86 and mean difference was 9.87. The obtained t- test value was 24.717 which shows statistical significance at  $p < 0.05$ .

In experimental group, in depression in post test maximum were 110 (55) mild depression, in self esteem maximum 164 (52) moderate self esteem, in loneliness maximum were 105 (52.5) moderate loneliness. In correlation there is weak positive correlation found between depression and self-esteem, Strong Positive

correlation found between depression and loneliness and similarly Very strong positive correlation found between self-esteem and Loneliness.

**Conclusion**

Reminiscence group therapy is an effective therapy for reduction of depression and loneliness and elevation of self-esteem in elderly. Further research and an improvement in methodological quality, such as using qualitative and mixed methods approaches, is recommended to help establish an evidence base and provide better understanding of the effectiveness of group reminiscence therapy. The ventilation period of the patients hospitalized in the ICU had a positive effect on physiological responses.

**INTRODUCTION:**

Senior persons' health differs from that of other societal segments or age groups. The health of said elderly is connected to all of these factors since wellbeing is a blend of bodily, mind, plus communal wellness.<sup>1</sup>

Elderly individuals face a number of issues, including financial insecurity, a lack of access to healthcare, issues with their homes and facilities, abuse through family members, loneliness, and more.<sup>2</sup>

The experience of ageing results in mental changes. Older men and women have acted like children rather than the mature adults they once were. They often anticipate greater attention given to the family's small child. Elderly people sometimes have a tendency to downplay their symptoms, thus even minor concerns should be taken seriously.<sup>4</sup>

One of the most prevalent mental illnesses among older people is depression. Between 1 and 4% (or roughly 3%) - 10 and 15%, respectively, are reported as the frequency of depression & sub syndromal depressive symptoms. As the depression associated with ageing may be a symptom of unipolar depression, it may initially manifest during this time. The term "late life depression" refers to a serious depressive condition that initially manifests itself around age 60 or beyond in several studies.<sup>1</sup>

Depression, emotional alterations are commonplace. However, excessive sorrow or pessimism may be a sign of sickness. Life stress and job stress, interpersonal issues, maladaptive stress, poor coping mechanisms etc are all factors that contribute to depression in older people. Sometimes elderly persons with depression look exhausted, have problems falling or staying asleep, or are grouchy and agitated. Depression-related confusion or attention issues can occasionally resemble Hypertension or other brain illnesses.<sup>2</sup> Depression often results from older people's loneliness. Depression is exacerbated when senior members of the family are given less respect. Emotional, behavioral, somatic, and cognitive indicators of depression are all common.<sup>9</sup>

Self-esteem, as a control over one's own worth, is crucial at every stage of life, but it's especially crucial for seniors. Self-esteem is a sign of a person's maturity, flexibility, and mental wellness. Low self-esteem is also directly linked to low subjective wellbeing, loneliness, depressive disorders, and anxiety. Behavioral content, sadness, lack of pleasure, fatigue, guilt or a lack of self-worth, insomnia, decreased appetite, poor concentration, softening of life energy, lower levels of physical activity, and even cancer and thyroid disease are all characteristics of depression, which is a multi - dimensional theory of social, psychological, as well as genetic factors. For many elderly people, ageing and poor self-esteem go hand in hand. While some older persons suffer with self-esteem as a result of health issues, mobility issues, or loss of independence, others feel a reduction in confidence as a result of physical changes in their appearance. Seniors might have poor self-esteem at times because they feel cut off from the outside world.

Physical and psychological issues among the community's senior citizens are brought on

by social isolation, which has been identified as a prevalent issue affecting 10–43% of the population. Social isolation among aging in society is a serious and pervasive issue that contributes to numerous unhealthy health issues.<sup>8</sup> It is common for seniors to experience social isolation, which have a negative crash on their physical condition, wellbeing, plus excellence of existence. It is anticipated that this risk will rise as the world's senior population rises. Seniors who are socially isolated are more likely to die, be readmitted to the hospital, and experience frequent falls.<sup>11</sup>

Reminiscence therapy is a technique for harnessing memory to enhance quality of life and safeguard mental health. Not only remembering past experiences or incidents counts as reminiscing. It is a methodical, planned process of self-reflection with an emphasis on life re-assessment, previous conflict resolution, life meaning, and appraisal of prior adaptive coping mechanisms.<sup>12</sup>

#### **Statement of the Problem:**

#### **Effectiveness of positive reminiscence group therapy on depression, self-esteem and loneliness among elders.**

#### **Objectives:**

1. To assess the pre-test level of depression, self-esteem and loneliness among elders.
2. To determine the effectiveness of positive reminiscence group therapy on level of depression self-esteem and loneliness among elders.
3. To find out the correlation between depression, self-esteem and loneliness among elders.
4. To find association between the pretest levels of depression, self-esteem and loneliness among elders.

#### **METHODS AND MATERIALS:**

#### **Hypotheses:**

**H01:** The mean pretest depression, self-esteem and loneliness scores of elderly will not be significantly higher than their post test scores among experimental and control group.

**H02:** There will not be positive correlation between depression scores and self-esteem scores.

**H03:** There will not be positive correlation between depression scores and loneliness scores

**H04:** There will not be positive correlation between self-esteem scores and loneliness scores

**H05:** There will not be significant association between depression, self-esteem and loneliness scores of elders with their selected demographic variables.

Research approach: Quantitative approach. Research design: Quasi experimental design where Pre and post-test with equivalent control group design. Setting: selected old age homes, target population: elders from selected old age homes, sample size: total: 400, exptl group: 200 and control group: 200, sampling technique: purposive sampling, methods of data collection: structured interview technique.

Variables under study: dependent variable: depression, self-esteem and loneliness, independent variable: reminiscence group therapy, Socio-Demographic Variable: age, gender, marital history, spouse status, education, nature of previous occupation, duration of stay, average sleep per day, sources of income, frequency of visitors, activities done presently in a day, reason for stay in old age home, Admitted to old age home and Co morbid disease.

Tool used for data collection: Socio-demographic data, Modified Depression scale- 20 dichotomous type questions with yes or no options. Modified Self-esteem scale: Likert scale with 10 statements- Strongly agree-1 mark, Agree- 2 Marks, Disagree-3 Marks, Strongly disagree - 4 Marks. Modified loneliness scale- 20 items, Often-3 Marks, Sometimes - 2 Marks, Rarely- 1 Mark, Never- 0 Mark.

**Table 1: Schematic Representation of Research Design**

Group	Pre test	Intervention	Post test
Experimental	O <sub>1</sub>	X	O <sub>2</sub>
Control	O <sub>1</sub>	-	O <sub>2</sub>

**Results:**

Section – I Socio Demographic variables of the studied old age people

Section – II Analysis of depression level of elders

Section – III Analysis of self-esteem level of elders

Section – IV Analysis of loneliness level of elders

Section – V Impact of reminiscence group therapy on depression, self-esteem and loneliness by comparing pre and posttest depression, self esteem and loneliness scores in experimental group.

Section – VI: Assessment of correlation between depression, self esteem and loneliness scores among elders in experimental group.

Section – VII: Association between the depression, self-esteem and loneliness scores of Elders with their selected demographic variables in experimental group.

**Section I: Socio-Demographic characteristics**

**Table 2: Socio-Demographic variables of old age people**

**N=400 (E=200, C=200)**

Variable	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
<b>Age in years</b>				
61-65 years	52	26.0	55	27.5
66-70 years	50	25.0	48	24.0
71-75 years	38	19.0	38	19.0
76 years and above	60	30.0	59	29.5
<b>Gender</b>				
Male	125	62.5	127	63.5
Female	75	37.5	73	36.5
<b>Marital History</b>				
Married	107	53.5	106	53.0
Unmarried	37	18.5	39	19.5
Divorce	26	13.0	25	12.5
Separated	12	6.0	13	6.5
Widow/Widower	18	9.0	17	8.5
<b>Spouse status</b>				
Alive	92	46.0	91	45.5
Dead	108	54.0	109	54.5
<b>Number of Children</b>				
None	53	26.5	53	26.5

One	111	55.5	110	55.0
Two	18	9.0	17	8.5
Three and above	18	9.0	20	10.0
<b>Education</b>				
Collegiate & above	135	67.5	134	67.0
High School	21	10.5	22	11.0
Middle school	14	7.0	13	6.5
Primary School	15	7.5	15	7.5
Illiterate	15	7.5	16	8.0
<b>Nature of previous occupation</b>				
Skilled	75	37.5	73	36.5
Unskilled	26	13.0	25	12.5
Unemployed	58	29.0	59	29.5
Professional	41	20.5	43	21.5
<b>Average Sleep per day</b>				
< 8 hours	142	71.0	141	70.5
8 hours	35	17.5	32	16.0
> 8 hours	23	11.5	27	13.5
<b>Source of Income</b>				
Children	46	23.0	48	24.0
Pension	39	19.5	39	19.5
Old age pension	58	29.0	58	29.0
Nil	57	28.5	55	27.5
<b>Duration of stay</b>				
1-2 years	102	51.0	103	51.5
3-4 years	52	26.0	53	26.5
5 years and above	46	23.0	44	22.0
<b>Source of income</b>				
Children	46	23.0	48	24.0
Pension	39	19.5	39	19.5
Old age pension	58	29.0	58	29.0
Nil	57	28.5	55	27.5
<b>Frequency of visitors</b>				
Once in a week	84	42.0	89	44.5
Twice a week	28	14.0	27	13.5

Once a month	30	15.0	29	14.5
Once a year	38	19.0	34	17.0
Never	20	10.0	21	10.5
<b>Activities done at old age home</b>				
Exercises	7	3.5	8	4.0
Gardening	62	31.0	62	31.0
Reading books	75	37.5	71	35.5
Watching TV	56	28.0	59	29.5
<b>Reason for stay in old age home</b>				
Loose of spouse	53	26.5	55	27.5
Lack of care takers	127	63.5	126	63.0
No Children	20	10.0	19	9.5
<b>Admitted to old age home</b>				
Forcefully	61	30.5	58	29.0
Voluntarily	139	69.5	142	71.0
<b>Co morbid disease</b>				
Yes	30	15.0	30	15.0
No	170	85.0	170	85.0

**Section – II Analysis of depression level of elders**

**Table 3: Mean, mean % and standard deviation for the depression score of elderly  
 N=400 (E=200, C=200)**

	Experimental group		Control group	
	Pre test	Post test	Pre test	Post test
<b>Level of depression</b>	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)
No Depression	0 (0)	59(29.5)	0 (0)	1 (0.5)
Mild Depression	101 (50.5)	110 (55)	98 (49)	114 (57)
Severe Depression	99(49.5)	31 (15.5)	102 (51)	85 (42.5)
<b>Total</b>	200 (100)	200 (100)	200 (100)	200 (100)

**Table 4: Mean, mean Percentage and standard deviation for the depression scores  
 N=400**

Elderly depression scores	Max Score	Pre test			Post test		
		Mean	Mean %	S D	Mean	Mean %	S D
<b>Experimental Group</b>	20	14.45	72.25	2.928	9.58	47.9	3.304
<b>Control group</b>	20	15.08	75.4	2.946	14.59	72.95	3.161

**Section – III Analysis of self-esteem level of elders**

**Table 5: Mean, mean % and standard deviation for the Self-esteem score of elderly  
 N=400 (E=200, C=200)**

Level of Self-esteem	Experimental group		Control group	
	Pre test	Post test	Pre test	Post test
	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)
Bad self esteem	177(88.5)	22 (11)	177 (88.5)	161 (80.5)
Moderate self esteem	23 (11.5)	164 (52)	23 (11.5)	39 (19.5)
Good self esteem	0 (0)	14 (7)	0 (0)	0 (0)
<b>Total</b>	200 (100)	200 (100)	200 (100)	200 (100)

**Table6: Mean, mean Percentage and standard deviation for the self-esteem scores.  
 N=400**

Elderly self-esteem scores	Max Score	Pre test			Post test		
		Mean	Mean %	S D	Mean	Mean %	S D
<b>Experimental Group</b>	40	22.6	56.5	2.540	30.26	75.65	3.878
<b>Control group</b>	40	22.54	56.35	2.548	22.93	57.32	2.921

**Section – IV Analysis of loneliness level of elders**

**Table 7: Mean, mean Percentage and standard deviation for the Loneliness scores  
 N=400 (E=200, C=200)**

Level of loneliness	Experimental group		Control group	
	Pre test	Post test	Pre test	Post test
	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)	Frequency (Percentage %)
Not lonely	16 (8)	95 (47.5)	0 (0)	4 (2)
Moderate	173 (86.5)	105 (52.5)	200 (100)	196 (98)

Loneliness				
Sever Loneliness	11 (5.5)	0 (0)	0 (0)	0 (0)
<b>Total</b>	200 (100)	200 (100)	200 (100)	200 (100)

**Table 8: Mean, mean % and standard deviation for the Loneliness scores of elders. N=400**

Elderly Loneliness scores	Max Score	Pre test			Post test		
		Mean	Mean %	S D	Mean	Mean %	S D
Experimental Group	60	30.73	51.21	6.398	20.86	34.76	6.084
Control group	60	31.1	51.83	3.245	30.59	50.98	4.051

**Section – V Impact of reminiscence group therapy on depression, self-esteem and loneliness by comparing pre and posttest depression, self esteem and loneliness scores in experimental group.**

**Table-9: Impact of reminiscence group therapy on depression scores.**

**N=200**

Depression score	Pre test		Post test		Mean Difference	t-value	Inference
	Mean	SD	Mean	SD			
Experimental group	14.45	2.928	9.58	3.304	4.87	21.576	S
Control group	15.08	2.946	14.59	3.161	0.49	1.882	NS
Mean Difference	0.63		5.01				
t-value	2.025		14.186				
Inference	NS		S				

**Highly Significant, p-0.000, Df-399**

**Table 10: Impact of reminiscence group therapy on self-esteem scores**

**N=200**

Self-esteem score	Pre test		Post test		Mean Difference	t-value	Inference
	Mean	SD	Mean	SD			
Experimental group	22.6	2.54	30.26	3.87	7.66	28.247	S
Control group	22.54	2.54	22.93	2.92	0.39	1.663	NS
Mean Difference	0.65		7.33				
t-value	0.279		22.109				
Inference	NS		S				

**Highly Significant, p-0.000, Df-399**



**Table 11: Impact of reminiscence group therapy on loneliness scores**

**N=200**

Loneliness score	Pre test		Post test		Mean Difference	t-value	Inference
	Mean	SD	Mean	SD			
Experimental group	30.73	6.39	20.86	6.084	9.87	24.717	S
Control group	31.1	3.24	30.59	4.051	0.51	1.356	NS
Mean Difference	0.37		9.73				
t-value	0.709		19.028				
Inference	NS		S				

**Highly Significant, p-0.000, Df-399**

**Section – VI: Assessment of correlation between depression, self esteem and loneliness scores among elders in experimental group.**

**Table 12: Correlation between depression and self-esteem among elders in experimental group**

**N=200**

Variables	Mean	S D	Pearson's r Value	P value	Inference
Depression	14.45	2.928	0.063	0.206	Weak Positive correlation
Self esteem	22.6	2.540			

**Table 13: Correlation between depression and loneliness scores among elders in experimental group**

**N=200**

Variables	Mean	S D	Pearson's r Value	P value	Inference
Depression	14.45	2.928	0.021	0.669	Strong Positive correlation
Loneliness	30.73	6.398			

**Table 14: Correlation between self-esteem and Loneliness among elders in experimental group**

**N=200**

Variables	Mean	S D	Pearson's r Value	P value	Inference
Self esteem	22.57	2.600	0.008	0.880	Very strong positive correlation
Loneliness	30.93	5.095			

**Section – VII: Association between the depression, self-esteem and loneliness scores of Elders with their selected demographic variables in experimental group.**

**N=200**

Variable	Depression		self-esteem		Loneliness	
	$\chi^2$ Value	Inference	$\chi^2$ Value	Inference	$\chi^2$ Value	Inference
Age in years	1.180	NS	4.580	NS	1.069	NS
Gender	0.385	NS	0.598	NS	6.994	S
Marital History	10.421	S	5.151	NS	8.355	NS
Spouse status	1.602	NS	2.064	NS	0.015	NS
Number of Children	3.102	NS	2.851	NS	2.436	NS
Education	9.548	S	1.565	NS	5.172	NS
Nature of previous occupation	2.514	NS	2.880	NS	11.915	S
Average Sleep per day	0.653	NS	1.900	NS	0.250	NS
Source of Income	1.287	NS	2.240	NS	3.211	NS
Duration of stay	0.681	NS	0.663	NS	5.656	NS
Frequency of visitors	1.525	NS	2.776	NS	13.302	S
Activities done at old age home	1.415	NS	1.786	NS	16.417	NS
Reason for stay in old age home	6.102	NS	4.343	NS	3.308	NS
Admitted to old age home	0.135	NS	6.737	NS	0.396	NS
Co morbid disease	2.325	NS	2.075	NS	9.115	S

**Discussion:**

The study findings were in consistent with Franak et al(2015) on Self-Esteem among Elderly Patients Visiting Medical Facilities in Kermanshah, Iran. In order to lessen their social, psychological, and medical issues, the elderly need to have higher self-esteem, according to the study's findings; this showed that about one-third of them had poor self-esteem.

Additionally, it has been demonstrated that a number of psychosocial variables, lifestyle and nutritional issues, and the existence of long-term medical illnesses are all linked to depression. Data on different therapy methods on depression are scarce. The information at hand points to the value of electroconvulsive treatment, cognitive behavior therapy, and pranayama. Data on the symptom profile and the different treatment strategies for the therapy of depression

in the elderly from India, however, are lacking. Large metacentric investigations must be conducted right now to close this research gap.

**Conclusion:**

In level of depression, in pretest in experimental group 99(49.5) were severe depression whereas in post test 59(29.5) in no depression. In level of self esteem, in pretest in experimental group 177(88.5) were bad self esteem whereas in post test 164 (52) in moderate self esteem. In level of loneliness, in pretest in experimental group 173 (86.5) were moderate loneliness whereas in post test 95 (47.5) in no loneliness.

Impact of reminiscence group therapy in experimental group, on depression scores between pre test and post test t Value 21.576 Significant. On self esteem scores between pre test and post test t Value 28.24 Significant. On loneliness scores between pre test and post test t Value 24.717 Significant.

There was no correlation found between depression and self-esteem, depression and loneliness and self-esteem and Loneliness. In association in experimental group, in depression association found between Marital History, Education and depression scores. In self esteem there is no association found between any socio demographic variables and self esteem scores. In loneliness association found between gender, Nature of previous occupation, Frequency of visitors, Co morbid disease and loneliness scores.

**Recommendations:**

Based on the results of this investigation, a similar study may be conducted to look at the long-term competency of parenting skills. Immediately following the session, reminiscence therapy dramatically improved the quality of life and depressive remission in older persons. To enable widespread application, the evidence-based procedure and method of recollection treatments must be improved and standardized according to Indian scenarios. Same study can be applied on different ages.

**References:**

1. Orth-Gomer, K. (2009). Mind/Body Health: Stress. American Psychological Association. The Journal of the American Medical Association; WebMD Medical Reference
2. Abdul Manaf MR et al (2016). Factors Influencing the Prevalence of Mental Health Problems among Malay Elderly Residing in a Rural Community: A Cross-Sectional Study. PLoS One. 2016 Jun 9; 11(6): e0156937. Doi: 10.1371/journal.pone.0156937.
3. Labadi B et al (2022). Psychological well-being and coping strategies of elderly people during the COVID-19 pandemic in Hungary. Aging Ment Health. 2022 Mar; 26(3):570-577. Doi: 10.1080/13607863.2021.1902469.
4. Li H and Kong F (2022). Effect of morbidities, depression, anxiety, and stress on oral health-related quality of life among migrant elderly following children in Weifang, China. Int J Environ Res Public Health. 2022 Apr 13; 19(8):4677. Doi: 10.3390/ijerph19084677.
5. Li S et al (2021). The mediating role of self-acceptance in the relationship between loneliness and subjective well-being among the elderly in nursing home: A cross-sectional study. Medicine (Baltimore). 2021 Oct 8; 100(40): e27364. Doi: 10.1097/MD.00000000000027364.
6. Abu Elheja R et al (2021). The role of oxytocin in regulating loneliness in old age. Psych neuroendocrinology. 2021 Nov; 133:105413. Doi: 10.1016/j.psyneuen. 2021.105413.

7. Boyd M et al (2021). Lonely in a crowd: loneliness in New Zealand retirement village residents. *Int Psycho geriatric* 2021 May; 33(5):481-493. Doi: 10.1017/S1041610220000393.
8. Calsavara AJ et al (2021). Prevalence and risk factors for post-traumatic stress, anxiety, and depression in sepsis survivors after ICU discharge. *Braz J Psychiatry*. 2021 May-Jun; 43(3):269-276. Doi: 10.1590/1516-4446-2020-0986
9. Ezeokonkwo FC, Sekula KL, Theeke LA (2021). Loneliness in Homebound Older Adults: Integrative Literature Review. *J Gerontol Nurs*. 2021 Aug; 47(8):13-20. Doi: 10.3928/00989134-20210624-01.
10. Çam C et al (2021). Elderly people's quality of life in rural areas of Turkey and its relationship with loneliness and socio-demographic characteristics. *Psycho geriatrics*. 2021 Sep; 21(5):795-804. Doi: 10.1111/psyg.12741.
11. Chau R, Kissane DW and Davison TE (2021). Risk Factors for Depression in Long-term Care: A Prospective Observational Cohort Study. *Clin Gerontol*. 2021 Mar-Apr; 44(2):112-125. Doi: 10.1080/07317115.2019.1635548.
12. Kimron, Peleg, Zohar and Lavender (2021). Death Anxiety and Loneliness among Older Adults: Role of Parental Self-Efficacy. *Int J Environ Res Public Health*. 2021 Sep 18; 18(18):9857. Doi: 10.3390/ijerph18189857.
13. Nasrallah E and Pati D (2021). Can Physical Design Help Reduce Loneliness in the Elderly? A Theoretical Exploration. *HERD*. 2021 Jul; 14(3):374-385. Doi: 10.1177/1937586720975208.
14. Chen J et al (2020). Effect of reminiscence therapy based on positive psychology theory (RTBPPT) on the positive feelings of the spousal caregivers of elderly patients with advanced cancer in China. *Eur J Cancer Care (Engl)*. 2020 Nov; 29(6): e13324. Doi: 10.1111/ecc.13324.
15. Felipe SGB et al (2020). Anxiety and depression in informal caregivers of dependent elderly people: an analytical study. *Rev Bras Enferm*. 2020 Sep 21; 73 Suppl 1(Suppl 1): e20190851. Doi: 10.1590/0034-7167-2019-0851.
16. Freedman A and Nicolle J (2020). Social isolation and loneliness: the new geriatric giants: Approach for primary care. *Can Fam Physician*. 2020 Mar; 66(3):176-182.
17. Fu P, Zhou C and Meng Q SA (2020). Associations of sleep quality and frailty among the older adults with chronic disease in China: The mediation effect of psychological distress. *Int J Environ Res Public Health*. 2020 Jul 20; 17(14):5240. Doi: 10.3390/ijerph17145240.
18. Hsiao CY LF et al (2020). Effects of art and reminiscence therapy on agitated behaviors among older adults with dementia. *J Nurs Res*. 2020 Aug; 28(4): e100. Doi: 10.1097/jnr.0000000000000373.
19. Correa HP et al (2020). Effects of auriculo therapy on stress, anxiety and depression in adults and older adults: a systematic review. *Rev Esc Enferm USP*. 2020 Oct 26; 54: e03626. Doi: 10.1590/S1980-220X2019006703626.
20. Chen J et al (2020). Effect of reminiscence therapy based on positive psychology theory (RTBPPT) on the positive feelings of the spousal caregivers of elderly patients with advanced cancer in China. *Eur J Cancer Care (Engl)*. 2020 Nov; 29(6): e13324. Doi: 10.1111/ecc.13324.

21. Dona Ghosh and Soumyananda Dinda(2020). Determinants of the quality of life among elderly: comparison between China and India. *The International Journal of Community and Social Development* 2(1) 71–98, DOI: 10.1177/2516602620911835
22. Eman Abdulle A and van der Naalt J X et al (2020). The role of mood, post-traumatic stress, post-concussive symptoms and coping on outcome after MTBI in elderly patients. *Int Rev Psychiatry*. 2020 Feb; 32(1):3-11. Doi: 10.1080/09540261.2019.1664421.
23. Ketaki Ajit Patani (2020). Effect of Neurobic exercises on cognitive function related to Post –Stroke. *Journal of Applied Dental and Medical Sciences* Volume 6 Issue 3 July-Sept 2020. ISSN: 2454-2288.
24. Luchetti M et al (2020). The trajectory of loneliness in response to COVID-19. *Am Psychol*. 2020 Oct; 75(7):897-908. Doi: 10.1037/amp0000690.
25. Moral-Garcia et al (2020). Risk of dependence and self-esteem in elderly people according to physical activity and drug consumption. *Rev ESP Salud Publica*. 2020 Aug 27; 94: e202008091.
26. Carmo DRPD et al (2020). Relationships between substance use, anxiety, depression and stress by public university workers. *Rev Bras Enferm*. 2020 Oct 19; 73 Suppl 1(Suppl 1): e20190839. Doi: 10.1590/0034-7167-2019-0839. Abu-Kaf S et al (2020). Emotional distress among the Bedouin Arab and Jewish elderly in Israel: The roles of gender, discrimination, and self-esteem. *Psychiatry Res*. 2020 Sep; 291:113203. Doi: 10.1016/j.psychres.2020.113203.
27. Antheunissen T, Bakker TJEM and Collet J (2020). Recognizing the role of personality disorders in problem behavior of elderly residents in nursing home and homecare. *Tijdschr Gerontol Geriatr*. 2020 May 18; 51(2). Doi: 10.36613/tgg.1875-6832/2020.02.08.
28. Cekirdekci EI and Bugan B (2019). Level of Anxiety and Depression in Cardiac Syndrome X. *Med Princ Pract*. 2019; 28(1):82-86. Doi: 10.1159/000495109.
29. Islam FMA (2019) Psychological distress and its association with socio-demographic factors in a rural district in Bangladesh: A cross-sectional study. *PLoS ONE* 14(3): e0212765. [https://doi.org/ 10.1371/journal.pone.0212765](https://doi.org/10.1371/journal.pone.0212765).
30. Crespo M, Guillen AI and Piccini AT (2019). Work Experience and Emotional State in Caregivers of Elderly Relatives. *Span J Psychol*. 2019 Jul 12; 22: E34. Doi: 10.1017/sjp.2019.34. Bahar-Fuchs A et al (2019). Cognitive training for people with mild to moderate dementia. *Cochrane Database Syst Rev*. 2019 Mar 25;3(3):CD013069. Doi: 10.1002/14651858.
31. Chen and Min Chen (2019). Factors Associated with Quality of Life Among Older Adults with Chronic Disease in Taiwan. *International Journal of Gerontology* Volume 11, Issue 1, March 2017, Pages 12-15. [doi.org/10.1016/j.ijge.2016.07.002](https://doi.org/10.1016/j.ijge.2016.07.002)
32. Bermeja A and Ausin B (2018) Programs to combat loneliness in the institutionalized elderly: A review of the scientific literature. *Rev ESP Geriatr Gerontol*. 2018 May-Jun; 53(3):155-164. Doi: 10.1016/j.regg.2017.05.006.
33. Bob Woods et al (2018). Reminiscence therapy for dementia. *Cochrane Database of Systematic Reviews* 2018, Issue 3. Doi: 10.1002/14651858.cd001120.
34. Ahmadpanah M et al (2017). Detached mindfulness reduced both depression and anxiety in elderly women with major depressive disorders. *Psychiatry Res*. 2017 Nov; 257:87-94. Doi: 10.1016/j.psychres.2017.07.030.