

SYSTEMATIC REVIEW OF REMINISCENCE THERAPY: GLOBAL TRENDS & INDIAN ADAPTIONS

*¹NAVEENA J H, ²SMRITI ARORA, ³VIKAS SHARMA

ABSTRACT--It is a systematic review on Reminiscence Therapy (RT) among older adults suffering from dementia and Alzheimer's diseases with choice – parameters globally used in clinical settings. RT is in infancy stage in Indian clinical setting and we are establishing in this work various acceptable choice – parameters in India. To study the current status of research of RT in India and abroad. The recent research studies highlighted that non-pharmacological approach in treatment of old adults is becoming crucial and very encouraging in terms of acceptance amongst patients. This paper finds the research gaps from the rigorous review of literature and highlights future scope of this field. In this paper we systematically reviewed 25 recent high quality research papers using key words search method. The findings are discussed and research gaps pertaining to RT are listed accordingly. The key research papers are extracted from Scholarly repositories such as; PubMed, CINHAL, Cochrane, Google scholar, Research Gate. The findings are critically dissected to form meaningful and relevant research gaps. This paper is a systematic review analysis based on multiple intervention based RT studies done between 2001 and 2020. The research papers on RT available today majorly reports about aged adults (>60years) diagnosed with Dementia and Alzheimer's disease (AD). This is a formative paper which establishes 15 Research gaps, which needs to be studied in detail. New parameter: "Health status" is added and discussed as per new trend in RT dimensions. Research gaps are illustrated for conducting further study. However, it was noticed that major global studies lack adequate sample size for generalization. It is promising to note that improvement in patients occurred even with a short span of RT approach. We must do specific analysis of long term and short term RT on various patients of multicultural nature.

Keywords--Reminiscence therapy, Self-esteem, Quality of life, Older adults, Indian studies on Reminiscence therapy, Dementia and Alzheimer's disease.

I. INTRODUCTION

Aging is natural process in all human beings and leads to susceptibility towards various naturally occurring and degenerative diseases. On contrary, majority of human beings who are self-sufficient in old age manage to overcome aging problems (Patidar & Haya (2018)). Scientifically, Old age means growing of cells about nearing lifespan of human beings. This leads to end of one's life cycle.

¹* Ph.D Scholar and Assistant Professor, Amity College of Nursing, Amity University, Gurugram, India -122051.

²Professor, Amity College of Nursing, Amity University, Gurugram, India - 122051.

³Head, Amity Institute of Clinical Psychology, Amity University, Gurugram, India - 122051.

Fewer studies have examined older population as compared to younger generation. Older adults have particular needs, which generally remain unaddressed. Disciplines like medical, psychology, nursing and social welfare, etc. have highlighted need to conduct research on old age population lately in the United States. (Sivis, 2005).

Self-esteem constitutes one of the important features of personality. Moreover, its effect on other personal aspects and its deficit may lead to various disturbances. It may also contribute to the development of psychological or emotional disturbances such as depression, timidity, guilt, aggression, fear and shame. Self-esteem includes growth of self-worth feelings by qualification and attractiveness and includes two self-efficacy and self-worth feeling parts. Self-efficacy includes adequacy feelings and being efficient individual in facing physical and social environment and self-worth means sensation and appraisal that individual have from own. Self-worth component is limited to time and place, meaning that self-worth feeling results from experiences and positions types. These feelings are obtained differently in different ages (Refahi & Ghafariyan, 2016).

Normally, aged adults tend to forget Quality of life (QOL) in later years of their life. In some cases they do not have access to basics of QOL. In their young life they go through lot of stress which on aging gratifies. It is important to theorise some elements of QOL to study its impact on patients going through multidimensional biopsychosocial (namely: physical, psychological and social). It is seen that physical ageing is predominant and easily identifiable hence, QOL is ignored – Including AD and dementia, Insomnia (Jamjan & Jerayingmongkol, 2002). Some socially infused disorders in aged adults such as depression, emotional isolation, death anxiety are identified as psychological factors. Another injected problems such as loss of independence, Boredom, loss of spouse/close-friends, can lead to psychological disorders.

The definition of Reminiscence therapy given by Chen T J et al. (2012): previous life repository (recorded in black and white/audio/visual) – the learning from this can improve the psychological well-being of old aged persons. Therapy based intervention impacts life experiences of individuals, aimed to assist patients to maintain optimum mental health (Chen T J et al. (2012)). The majority of work done in this area focuses on elderly people suffering from moderate or chronic depression.

Nevertheless, in countries like India, where both human resources and infrastructural facilities are not abundant which address such a huge burden comparatively at low-cost alternative management options are desired. Present suggestions are made that RT has great potential in enhancing QOL & psychological positivity among old persons living in old aged nursing homes. A recent work by McKee et al. (2005) utilised re-collection, re-evaluation and reviewing of past experiences recorded in patient's life. Thus, it is noteworthy to consider the use of RT as effective solution for bringing aged people to life and vigour.

The main parameters identified for RT study are characterized as – Basic Reminiscence, Review of previous experiences called as Life Review (LR) therapy. The study by McKee et al. (2018) considers old aged persons with recognizable good mental health are game for simple recollection and autobiographic panorama. This helps patients to rejuvenate and regain their integrity. The LR therapy used by the researcher focusses only old aged marginal sample. The RT treatment healed negativity in mind-set and developed coping skills.

The aging population has lurking health challenges witnessed by Five hundred eighty million people. The sample considered for summary statistics included people aged 60 years and above found in growing economies (Countries such as, India, Brazil, Indonesia, China and Pakistan). Recently in these countries old aged population

has grown manifold up to one billion (ONU, 2015). Due to birth control policy perpetrated by these economies old aged population is rapidly growing. It is expected that in next three decades, the population of older adults will be doubled. The older adults are facing physical and mental threats which needs to be investigated and studied. The 20% old adults aged over 60 years go through mental disorders of neurological nature and 6.6% amounts for all disability; out of which common psychoneurotic disorders are dementia and depression (WHO, 2017).

Over the past few decades, life expectancy has been increased substantially across the globe as reflected by an increased proportion of the geriatric population. Although this proportion is much higher in high-income countries like Japan, Germany, and Italy; the low and middle-income countries are also experiencing such situation and the rate of increase of geriatric people is comparable with the high-income countries, sometimes even higher (Rockwood, 2016).

India is considered to be second leading old age population in the world. According to the report 'Elderly in India- Profile and Programmes 2016' by Government of India, a little more than hundred million elderly persons aged 60 years or above were there during 2011 census and thereby contributed 8.6% of the total population. The proportion has increased by one and a half times over the last 50 years(Rockwood, 2016).

Health issues related to age increases with age. Apart from inseparable diseases, people suffer from mental illness like loneliness, anxiety and depression in old age. The reason for older adults to live alone are primarily linked to changing family composition, culture and values and changing socio-economic scenario. Old age homes resulting in a feeling of isolation, loneliness, anxiety, and depression (Singh & Misra, 2009). As age advances, the reference groups where they were attached to since childhood loses its relevance. One of these simple, cost-effective psychotherapy technique is reminiscence based intervention. Thus, it results in isolation, anxiety, loneliness and depressive symptoms. In writing this paper authors have diligently covered recent literature and derived findings to formulate this area of research in Indian scenario. There is scanty information available about its implantation in Indian Healthcare system. It is therefore high time to apply and re-create new dimensions for RT application as a low cost and high efficiency approach treatment. The location of RT treatment centres can be planned using location planning (Nilaiish, 2017).

II. LITERATURE ANALYSIS & DISCUSSIONS

The table 3.2 provides relevant literature survey of the present topic in global and some Indian locations but still the information is too limited and general to derive pertinent research gaps. The papers are selected on the basis of key words as given in table 3.1

Table 3.1: Key words search strategy with number of papers

Key words	No. of Papers
<i>Dementia & Reminiscence Therapy</i>	5
<i>Alzheimer's Disease & Reminiscence Therapy</i>	2
<i>Quality of life & Reminiscence Therapy</i>	4
<i>Self-esteem & Reminiscence Therapy</i>	5
<i>Depression & Reminiscence Therapy</i>	12

<i>Life satisfaction & Reminiscence Therapy</i>	8
<i>Psychological well-being & Reminiscence Therapy</i>	3
<i>Anxiety & Reminiscence Therapy</i>	7
<i>Self-forgiveness & Reminiscence Therapy</i>	1
<i>Mental health & Reminiscence Therapy</i>	4
<i>Loneliness & Reminiscence Therapy</i>	3
<i>Cognitive function & Reminiscence Therapy</i>	2

This table provides set of papers extracted from Scholarly repositories such as; PubMed, CINHAL, Cochrane, Google scholar, Research Gate. It is obvious that very few relevant papers are available on this subject. A total of 60 papers were located but based on the inclusion criteria (UoM, 2020) as given below:

- Based on age group of 60 years and above
- Gender neutral studies
- Period of published research (2000 – 2020).
- Top tier journal articles (based on high impact factor)

III. RESULTS

As a result a total of 25 papers qualified as secondary data for my systematic review. The table 3.2 presents the schematic review of different elements of RT.

Chang &Chien, (2018) proves that when depression is treated using RT methods the pre-scores were significantly reduced. However, it is important that time-scale RT treatment results are methodologically studied. Research gap identified: *Time-bound analysis of impact from RT treatment on depression on old adults requires research attention. Time-bound Analysis means study of the RT therapy impact in different treatment periods such as, 3 months or 6 months.*

Melendez et al. (2013) considered Self-esteem, Satisfaction, and Psychological well-being as parameters for investigation and found that the group-score was significantly improved towards positive side. The sample size was small for finding concrete affirmation. Thus, the research gap as per this study which is relevant is given as: *increased size of sample for investigation with multidimensional demographics focus will help the researcher to study the generic outcome for formalizing results. Future studies must focus on examination of the relationships between sessions and results obtained per experiment.*

Azurra, 2012, conducted empirical study on three groups using Randomised Control Trail and concluded that ‘quality of life’ in the intervention group was improved for patients of dementia. However, the study fails to quantify the degree of improvement across the groups with varying time scales. Hence, the research gap is listed as *varying time scales on subjects of the experiment with the parameter: quality of life with intervention group inclusion will be helpful in studying the degree of improvement.*

Taruguet al. (2019) used level of loneliness, depressive symptoms and anxiety for study at Chitoor (Andhra Pradesh, India). However, the parameter loneliness showed improvement and other parameters revealed delineating effect but was not clear to the extent of usefulness. In table 3.2, cost analysis of this method is

necessitated. Therefore, the research gap as per this study is: *what are long term effects of RT with regards to feasibility and cost effective solution for professional setup?*

Rajammal, (2016) conducted a study based on 'level of depression' in Chennai (Tamil Nadu, India) over 50 elderly people. Author used purposive sampling and considered pre and post-test scores for labelling the degree of improvement among the subjects. However, we must understand that the sampling is small and diversity of subjects (different value system of adults such as, conservative and liberal) is not considered. Hence, the research gap located is given as: *RT therapy on depression of diverse elderly adults on relatively large sample size is necessary for generalizing the results of this research.*

The study by Chao, S. et al. (2006) concluded that self-esteem, depression and life satisfaction on a sample of twelve patients (aged between 65 and 85 years of North Taiwan) – there is a slight improvement in patients but insignificant for generalization. Therefore, the research gap is: *large sample size for this research for obtaining statistically significant conclusion is needed.*

Jo & An, (2018) used self-forgiveness, life satisfaction and death anxiety as parameters for studying RT impact on 47 old adults aged between 69-91 years. The participants were from nursing homes having similar expectations. However, there was no statistically significant difference in self forgiveness across experimental and control groups. The study reported eight- weeks RT programme, but self-forgiveness was not improved. It is noteworthy that an appropriate intervention for high life satisfaction and low death was compared to the control group as: *the two months RT programme is inadequate time frame for treatment of death anxiety.*

Hsiao et.al (2020) studied agitated behaviour and anxiety on 54 elderly individuals taken from dementia care centres (Northern and Central Taiwan). This work used clusters of patients having agitated behaviour mended by RT. Researchers suggested that RT has merits in curing of agitated behaviour among old patients. They further concluded, Art Therapy (AT) is a major breakthrough in treatment of dementia related behaviours. There is a future scope of research with regards to RT intervention and sixteen weeks or more durations must be formulated to note outcomes. The research gap was identified as: *the inclusion of Art therapy with RT over adequate sample size for 16 weeks or more is needed for studying intra and inter relationships of these combinations.*

The study conducted by Sivis, (2005) relied on life satisfaction among Ankarian adults and applied statistical tests (Mann-whitney U test & Wilcoxon test). The tests revealed non-significant results after RT initiation. However, it is evident that no basis was confirmed to establish the effects of RT. Musavi, Mohammadian, & Mohammadinezhad, (2017) indicated that integrated RT approach may have positive impact on mental health but there is no concrete hypothetical modelling to approve. RT with areas of action are identified as – physical wellbeing, anxiety reduction, insomnia treatment, social dysfunction handling and reducing depression. The total of sixty old aged women were considered subjects for analysing post test results. These women were residing at nursing homes and four-week programme was run on them.

Pishvaei et al. (2015) reported MANCOVA results which were positive for self-esteem and anxiety. The inclusion criteria assumed; a) memory impairment, b) target age range, c) widower and d) lack of physical and mental chronic diseases. RT treatment with integrative focus was very encouraging in terms of application in nursing homes.

Kamaruzaman et al. (2013) suggested that AD patients aged between sixty and seventy years diagnosed with the initial stage of dementia demonstrated improvement in self-esteem, self-independence and discovered sensible

visual idea. The research gap identified from these studies as: *the same study must be done with larger sample size to confirm variability of impact among AD patients.*

Viguer et al. (2017) performed a study on 160 Dominican Republic elderly citizens. They studied on parameters such as, wellbeing, life satisfaction and depression. Pre-test and post-test results were analysed for evaluating impact of RT intervention. They concluded that as group interaction increases there is a significant improvement in life satisfaction and psychological behaviour of patients. There is a limitation of duration (12 weeks) which must be strengthened to 16 weeks or more.

Siverová&Bužgová (2014) concentrated on QOL as a foundation for RT and performed quantitative research to analyse inter effect. They concluded RT has positive effect in improving QOL considering faculties such as physical health, mental health and cognitive functions. They stated that RT is innovative new non pharmacological intervention in treating patients having Dementia.

Cully et al. (2001) studied parameters, personality, depression, anxiety and death anxiety – and used canonical correlation technique which indicated that patients with psychological disorders frequently reminisce as a cleanser for removing bitter memory, boredom and death anxiety. Hence, RT therapy was well received by western community with inclination towards discerning methods for treatment. The research gap from above literatures as: *similar study must be carried in Asian countries with polar orientation to generalise this outcome.*

Syed et al. (2019) involved 18 participants from Kuala Lumpur, Malaysia. The participants were sent for 6 weeks SRT programme in residential care facility. The participants had enriching experiences coupled with laughter sharing and interaction showed positive impact towards loneliness, anxiety and depression. The results specify that there is an optimal desirability among participants. The enthusiasm for participation was a key in carrying out this research.

Lök et al. (2019) studied 60 AD patients located at Konya (Turkey). From the sample 50% were in intervention group and rest were in control group. The Authors conducted a single blinding study with two groups and concluded that regular RT should be prescribed as routine care for cognitive function improvement. The depressive symptoms and QOL are linked for AD patients. The research gap was noted: *A large sample size of AD patients must be subjected to quantitative research and qualitative evaluation based on cognitive behaviour.*

Chiang et al. (2010) performed research on institutional patients of Taipei (Taiwan) [A total of 92 patients aged over 65 years]. The patients were selected randomly with clear motivation for active participation in two groups. RT was administered to understand the three month effect on parameters like, psychological disorder, depression and isolation. However, it will be interesting to understand RT's short term and long term impact on ameliorate depression. Thus research gap arises, *what will be the impact of short term and long term RT treatment to ameliorate depression?*

Another study by Refahi&Ghaforiyan (2016) on 40 old adults of Iran studied self-esteem and life satisfaction by Quasi-experimental study. They found that RT is very helpful in mitigating bitter experiences with regards to self-esteem and life satisfaction. Norris (2001) & King (2018) considered RT as a primary treatment tool for old adults seeking life satisfaction and lowering level of depression. Research gap found: *the level of depression under RT must be studied using randomised controlled research for clear understanding of efficacy.*

Lin et al. (2018) deploys CST among 23 participants and RT upon 40 and Controlled group size of 27 participants. The study reflected short-term impacts on cognitive psychology of patients. They coined CST

(Cognitive stimulation therapy) as treatment tool against RT. However, RT focusses on non-pharmacological approaches which provides patients with no future side effects. Whereas CST doesn't ensure this. Thus research gap noted as: *RT relies on non-pharmacological approach which is a no risk treatment solution but what are other competitive alternatives?*

Satorres et al. (2018), Hanaoka et al. (2018) & Ching-Teng et al. (2018) talks about RT contributions in enhancing mental health (by increasing coping strategies), overcome psychological distress, elderly home dwellers with good mental health. The need for structured RT implementation is the key for understanding long term impact on old adults. Hence Research gap located as: *what will be the service blueprint of RT for nursing home and home dwelling elderly participants?*

Table 3.2: Characteristics of included systematic reviews

SL NO	Author/s	Variables	Locality/ Population/Sample	Methodology
1	Chang, H. &Chien, H. (2018)	Depression	Taiwan, 21 samples from 2 dementia centres (Purposive sampling technique)	Quasi-experimental design
2	Melendez, Juan , Laura, Teresa and Alicia. (2013)	Self-esteem, Satisfaction , and Psychologic al well-being	Valencia, 34 elderly adults living in two retirement homes. 65 to 92 years	A quasi-experimental, single blind design
3	Azcurra, D. J. L. S. (2012).	Quality of life	Argentina, 135 dwellers from 2 nursing homes	Randomised control trail
4	Tarugu J et al (2019)	level of loneliness, depressive symptoms, and anxiety	Chittoor district, Andhra Pradesh, India , 27 old age home residents	Quasi-experimental study
5	Rajammal K (2016)	Level of depression	Chennai, 50 elderly people old age home (60 to 80 yrs), Purposive sampling technique	Pre- experimental single group pre and post-test Design
6	Chao, S et al (2006)	Life satisfaction, Depressive symptoms and self-esteem	North Taiwan, 12 eligible participants were selected (65 and 85 years of age). Purposive Sampling Technique	Quasi-experimental study,
7	Jo, K. H., & An, G. J. (2018)	Death anxiety,Self-forgiveness and life satisfaction	Daegu, Korea, 47 old aged persons between 69 to 91 years.	Non-equivalent control group design
8	Hsiao et.al (2020)	Agitated Behaviour and Anxiety.	Taiwan, 54 old age people in 2 dementia centers at northern and central Taiwan.	True experimental research design

9	Sivis R. (2005)	Life satisfaction	Ankara, Middle East : Older adults aged 60 years and above residing in retirement home, 70 old age people (39 women and 31 men	An experimental matched-pairs design
10	Musavi, Mohammadian, & Mohammadinezhad, B. (2017)	Depression, physical, anxiety, insomnia and social dysfunction	Dezful (Iran). 60 elderly women residents of nursing home, Purposive sampling technique.	A quasi experimental design
11	Pishvaei, Moghanloo, & Moghanloo (2015)	Self-esteem and Anxiety	Meshginshahr, Iran. 34 participants aged between 60-80 convenience sampling	Control group was subjected to clinical trial for extracting results.
12	Kamaruzaman, Anwar, & Azahari (2013)	self-independence and self-esteem	Malaysia, 10 Alzheimers Disease patients aged (60 to 70 years)	Observation and Interview method
13	Viguer, Satorres, Fortuna, & Meléndez, (2017)	Life Satisfaction , Depressed Mood and Well-Being	Dominican Republic, 160 old age people.	Experimental design
14	Siverová, & Bužgová, (2014)	Quality of life	Municipal Hospital Ostrava, 41 patients older than 60 years.	Quantitative research
15	Cully, LaVoie, & Gfeller (2001)	Death Anxiety, Depression, Anxiety and Personality	Midwestern metropolitan city. 83 participants age 65 and older	Canonical correlation technique
16	Syed Elias et.al (2019)	loneliness, anxiety and depression	Kuala Lumpur, Malaysia. 18 residents in nursing homes	Qualitative evaluation approach
17	Lök, Bademli, & Selçuk-Tosun (2019)	QOL, Depression and cognitive functions	Konya, Turkey. 60 samples suffering from AD	Two groups Randomized controlled single blind design

18	Chiang et.al (2010)	psychological well-being, depression, and loneliness	Taipei, Taiwan. 92 old age people (> 65 years) resides in nursing home.	Experimental study design
19	Refahi, &Ghaforiyan (2016)	self esteem and life satisfaction	Yazd, Iran. 40 older adults in day care centres (Purposive Sampling technique)	Quasi-experimental design
20	Norris, T. L. (2001)	Life Satisfaction	Italy, 78 male and female participants (>65 years)living independently in the community	RCT
21	King (2018)	Level of depression	Brockton, Massachusetts, USA, 45 old age people were screenedand 34 were finally participated.	One group pre- and post-test design
22	Lin, Yang, Cheng& Wang(2018)	Quality of life and cognitive function	Taiwan, 90 samples from ten long-term care institutions (LTCI)	Quasi experimental Design
23	Satorres, Viquer, Fortuna &Meléndez (2018).	Coping Strategies	Dominican Republic, 150 elderly adults aged 65 and more from the	Experimental design
24	Hanaoka, Muraki,Ede, Yasuhara& Okamura (2018)	Cognitive functions and Mental health	Hiroshima, 72 old age people.	Quasi-experimental design
25	Ching-Teng, Chia-Ju, &Hsiu-Yueh(2018)	Life satisfaction	South Taiwan, 50 old age residents of 2 nursing homes	quasi-experimental design

IV. CONCLUSION

In this paper, we reviewed the present status of RT from global and Indian perspectives. RT is still at its infancy stage with low visibility. RT is coming out as breakthrough in independent nursing interventions. The non-pharmacological approach imbibed in RT is a key factor which increases its desirability among patients seeking non-pharmacological treatments. The older people lose interest in life activities and this contributes to cognitive imbalances. The symptoms of AD and Dementia are common conditions in older adults. The present literature examined mostly on Self-esteem, QOL, levels of depression and life satisfaction after RT treatment. There is no

single study on 'health status' impact after RT. The biochemical parameters which define Health Status are namely, Blood Pressure (B.P), Pulse, Heart rate and Respiration rate. The study of psychological imbalances improvement where dysfunctional metabolism which is predominant in old adults is necessary. The systematic review highlights 15 research gaps labelled as RG1 to RG15. It is important that, researchers identify success factors and critical factors in successful deployment of RT in global as well Indian scenario.

V. ACKNOWLEDGEMENTS

I am highly grateful to Debbie Hommel Special services, Egg Harbor City, New Jersey, USA – for their impeccable mentorship and guidance to understand RT as a clinical tool and its practice. I am thankful to my PhD guide and co-guide for their academic support and guidance.

REFERENCES

1. Azcurra, D. J. L. S. (2012). A reminiscence program intervention to improve the quality of life of long-term care residents with Alzheimer's disease. A randomized controlled trial. *Revista Brasileira de Psiquiatria*, 34(4), 422-433.
2. Chang, H., &Chien, H. W. (2018). Effectiveness of group reminiscence therapy for people living with dementia in a day care centers in Taiwan. *Dementia*, 17(7), 924-935.
3. Chao, S., Liu, H., Wu, C., Jin, S., Chu, T., Huang, T., & Clark, M. J. (2006). The effects of group reminiscence therapy on depression, self esteem, and life satisfaction of elderly nursing home residents. *Journal of Nursing Research*, 14(1), 36.
4. Chiang, K. J., Chu, H., Chang, H. J., Chung, M. H., Chen, C. H., Chiou, H. Y., & Chou, K. R. (2010). The effects of reminiscence therapy on psychological well-being, depression, and loneliness among the institutionalized aged. *International Journal of Geriatric Psychiatry: A journal of the psychiatry of late life and allied sciences*, 25(4), 380-388.
5. Ching-Teng, Y., Chia-Ju, L., &Hsiu-Yueh, L. (2018). Effects of structured group reminiscence therapy on the life satisfaction of institutionalized older adults in Taiwan. *Social work in health care*, 57(8), 674-687.
6. Cully, J. A., LaVoie, D., &Gfeller, J. D. (2001). Reminiscence, personality, and psychological functioning in older adults. *The Gerontologist*, 41(1), 89-95.
7. Hanaoka, H., Muraki, T., Ede, J., Yasuhara, K., & Okamura, H. (2018). Effects of olfactory stimulation on reminiscence practice in community-dwelling elderly individuals. *Psychogeriatrics*, 18(4), 283-291.
8. HSIAO, C. Y., Shu-Li, C. H. E. N., HSIAO, Y. S., HUANG, H. Y., &Shu-Hui, Y. E. H. (2020). Effects of Art and Reminiscence Therapy on Agitated Behaviors Among Older Adults With Dementia. *Journal of Nursing Research*.
9. Jamjan, L., &Jerayingmongkol, P. (2002). Self-Image of People in Their Fifties. *Nursing & Health Sciences*, 4(3), A4-A4.
10. Jo, K. H., &An, G. J. (2018). Effects of a group reminiscence program on self-forgiveness, life satisfaction, and death anxiety among institutionalized older adults. *Korean Journal of Adult Nursing*, 30(5), 546-554.

11. Kamaruzaman, M. F., Anwar, R., & Azahari, M. H. H. (2013). Role of dynamic visual as a mode to enrich reminiscence therapy for patient with dementia. *Procedia-Social and Behavioral Sciences*, 105, 258-264.
12. King, K. D. (2018). Bringing creative writing instruction into reminiscence group treatment. *Clinical gerontologist*, 41(5), 438-444.
13. Lin, H. C., Yang, Y. P., Cheng, W. Y., & Wang, J. J. (2018). Distinctive effects between cognitive stimulation and reminiscence therapy on cognitive function and quality of life for different types of behavioural problems in dementia. *Scandinavian journal of caring sciences*, 32(2), 594-602.
14. Lök, N., Bademli, K., & Selçuk-Tosun, A. (2019). The effect of reminiscence therapy on cognitive functions, depression, and quality of life in Alzheimer patients: Randomized controlled trial. *International journal of geriatric psychiatry*, 34(1), 47-53.
15. McKee, K. J., Wilson, F., Chung, M. C., Hinchliff, S., Goudie, F., Elford, H., & Mitchell, C. (2005). Reminiscence, regrets and activity in older people in residential care: Associations with psychological health. *British Journal of Clinical Psychology*, 44(4), 543-561.
16. Meléndez-Moral, J. C., Charco-Ruiz, L., Mayordomo-Rodríguez, T., & Sales-Galán, A. (2013). Effects of a reminiscence program among institutionalized elderly adults. *Psicothema*, 25(3), 319-323.
17. Musavi, M., Mohammadian, S., & Mohammadinezhad, B. (2017). The effect of group integrative reminiscence therapy on mental health among older women living in Iranian nursing homes. *Nursing open*, 4(4), 303-309.
18. Nilaish, N. (2017). General Optimization Concept in Designing Supply Chain Network for a Manufacturer. Available at SSRN 2970887.
19. Norris, T. L. (2001). *The effectiveness and perceived effectiveness of simple reminiscence therapy involving photographic prompts for determining life satisfaction in noninstitutionalized elderly persons* (Doctoral dissertation).
20. ONU, "World population, aging," Suggest. Cit. United Nations, Dep. Econ. Soc. Aff. Popul. Div. (2015). World Popul. Aging, vol. United Nat, no. (ST/ESA/SER.A/390, p. 164, 2015.
21. Patidar, M. J. Haya (2018). The Saudi Journal of Life Sciences (SJLS) ISSN 2415-623X (Print). Vol-3, Iss-3: 306-310.
22. Pishvaei, M., Moghanloo, R. A., & Moghanloo, V. A. (2015). The efficacy of treatment reminders of life with emphasis on integrative reminiscence on self-esteem and anxiety in widowed old men. *Iranian journal of psychiatry*, 10(1), 19.
23. Rajammal, K. (2016). *Effectiveness of reminiscence therapy on level of depression among elderly people in selected old age home Chennai* (Doctoral dissertation, Venkateswara Nursing College, Thalambur, Chennai).
24. Refahi, Z., & Ghaforiyan, A. (2016). The Effect of the Group Reminiscence on the self esteem and life satisfaction Elders daily centers in Yazd. *International Journal of Pharmaceutical Research & Allied Sciences*, 5(3), 535-46.
25. Rockwood, K. (2016). What can we expect of health in old age?. *The Lancet*, 387(10020), 730-731.
26. Satorres, E., Viguer, P., Fortuna, F. B., & Meléndez, J. C. (2018). Effectiveness of instrumental reminiscence intervention on improving coping in healthy older adults. *Stress and Health*, 34(2), 227-234.
27. Singh, A., & Misra, N. (2009). A study on Loneliness, Depression and Sociability. *Industrial Psychiatry Journal*, 18(1), 51-52.

28. Siverová, J., & Bužgová, R. (2014). Influence reminiscence therapy on quality of life patients in the long-term hospital. *Central European Journal of Nursing and Midwifery*, 5(1), 21-28.
29. Siviş, R. (2005). The effect of a reminiscence group counseling program on the life satisfaction of older adults. *Unpublished Doctorial Dissertation*, Ankara. Middle East Technical University.
30. Syed Elias, S. M., Petriwskyj, A., Scott, T., & Neville, C. (2019). Spiritual reminiscence therapy for older people with loneliness, anxiety and depression living in a residential aged care facility, Malaysia: A qualitative approach. *Australasian journal on ageing*, 38(1), E25-E30.
31. Tarugu, J., Pavithra, R., Vinothchandrar, S., Basu, A., Chaudhuri, S., & John, K. R. (2019). Effectiveness of structured group reminiscence therapy in decreasing the feelings of loneliness, depressive symptoms and anxiety among inmates of a residential home for the elderly in Chittoor district. *International Journal of Community Medicine and Public Health*, 6(2), 847.
32. UoM. (2020). Systematic Review. *University of Melbourne*. Available [Online] URL: <https://unimelb.libguides.com/c.php?g=492361&p=3368110> [Retrieved 09 March 2020]
33. Viguier, P., Satorres, E., Fortuna, F. B., & Meléndez, J. C. (2017). A follow-up study of a reminiscence intervention and its effects on depressed mood, life satisfaction, and well-being in the elderly. *The Journal of psychology*, 151(8), 789-803.
34. World Health Organization. (2017). Mental health and older adults fact sheet. *World Health Organization Media Centre*. <http://www.who.int/mediacentre/factsheets/fs381/en/>. Published December, 12.
35. "The Osstrocised Other Elements of Dalit Literature in Namita Gokhale's Works", *International Journal of English and Literature (IJEL)*, Vol. 5, Issue 2, pp. 117-126
36. "Operation of Karmas", *International Journal of English and Literature (IJEL)*, Vol. 4, Issue 5, pp. 31-40
37. "Corrupted Fathers and the Affected Daughters, A Comparative Analysis of the Novels the Bluest Eye and Where Shall We Go This Summer?", *International Journal of Linguistics and Literature (IJLL)*, Vol. 5, Issue 2, pp. 5-10
38. "Narrative Technique in Shashi Deshpandes Novels", *International Journal of Linguistics and Literature (IJLL)*, Vol. 7, Issue 6, pp. 1-8
39. "Encroachment of Music on Loneliness in Widowed and Bachelor People", *IMPACT: International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL)*, Vol. 2, Issue 7, pp. 79-86
40. "A Study on the Effectiveness of Brain-Based- Learning of Students of Secondary Level on Their Academic Achievement in Biology, Study Habits and Stress", *IASET: International Journal of Humanities and Social Sciences (IJHSS)*, Vol. 5, Issue 2, pp. 103-122