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Group Reminiscence for Treating Geriatric Depression in Rural Community: A Randomized Controlled Trial

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Abstract

Introduction: Geriatric depression is one of the most common challenges encountered in ageing adults. Early identification of geriatric depression and adopting measures to promote mental health and quality of life is essential. Reminiscence is one of the most effective non-pharmacological interventions to promote mental health in older adults.

Objective: The aim of the study was to assess the effectiveness of group reminiscence on depression among older adults.

Methods: A Single Blind Randomized controlled trial was conducted among 130 older adults. The participants were randomized in to Experimental (65) and Control (65) groups. A Geriatric depression scale was used to assess the presence of depression symptoms. 12 weeks of group reminiscence was implemented with selected themes. Pre-post assessment of depression levels were analysed using statistical analysis with SPSS 25 version

Results: The participants age ranged from 60 to 85 years. Group reminiscence shown significant difference in the experimental group compared to the controlled group and the mean score was statistically significant ($Z=6.68$ $P< 0.001$). In the intergroup comparison a significant difference was found between the experimental and control group and the mean difference scores in Geriatric depression was statistically significant ($Z= -8.809$, $P<0.001$). Group reminiscence was found to be effective in decreasing depression among rural older adults in South India.

Keywords: Depression, Mental health, Randomized controlled trial, Rural older adults and Structured group reminiscence.

1. Introduction

The population of elderly is increasing worldwide. About 9.4% of India's population is over 60 years, which is similar to Indonesia's but lower than China's (12.4%). India has over 125.6 million older adults and projections show that by 2050, this population could be 316.7 million (WPA, 2017). The occurrence of disease, disability, psychological, social and physical health-related problems are also increasing rapidly among older adults. The

older adults were increase in morbidity, mortality, hospitalisation, and loss of functional status due to cognitive and mental health problems (Ingle and Nath, 2008).

In India, the National Mental Health Survey (Gautham et al., 2022) found that 10.6% of the elderly population has been affected by mental health disorders. Factors such as rapid urbanization, social modernization, and the breakdown of the family support system contribute to this issue. The absence of strong interpersonal relationships and limited access to healthcare, rehabilitation, and recreational facilities worsen age-related socioeconomic challenges. Older adults who are separated from their spouses or close relatives require significant supportive care as they age.

Geriatric depression is a disregarded mental health concern in rural communities among older adults. Risk factors include; chronic illness, ongoing pain, and functional limitations, lack of income or pension, loneliness, and social disintegration. Geriatric depression is the leading cause of global disability-adjusted life years (Rehm et al., 2009 and Khandelwas et al., 2007). Depression is the most recurrent mental health illness, accounting for 5.25% of all cases. In low- and middle-income countries, where there is a consistent lack of mental healthcare, depression has grown as a major public health issue (Rathode et al., 2017). It is the most prevalent cause of emotional illness in older adults, resulting in functional impairment and effect on quality of life. A poor quality of life in older adults can also be brought on by low levels of education, economic downturns, absence of social engagement, cultural challenges, and insufficient healthcare services.

Addressing mental health challenges in rural areas of India are more difficult compared to urban areas. The country lacks resources, with most available resources concentrated in cities and urbanized states (Kumar Anan, 2012). Rural residents often face social isolation, stress, anxiety, and depression, adversely affecting their mental health and quality of life. Prioritizing geriatric depression in rural communities is essential, and psychosocial interventions like reminiscence therapy can significantly improve their quality of life. Healthcare providers and policymakers should consider the current and future mental health issues faced by rural populations, emphasizing non-pharmacological interventions. Reminiscence therapy has shown promising results in improving the mood of older adults (Tadaka and Kanagawa, 2007; Woods et al., 2018).

Group reminiscence is described as the verbal or silent recall of life experiences delivered in front of a group. It comprises recalling and discussing past activities, events, and experiences (Woods et al., 2018). Sharing happy moments in a group setting (Cotelli et al., 2006) helps older adults feel stronger, valuable and comfortable with their own image. There is evidence that group reminiscence assists in reducing depressive symptoms among older adults (Wang, 2005). Studies have reported that reminiscence can improve psychological wellbeing (Lai et al., 2004), and effect balance (Zhou et al., 2012), reduce depression (Su et al., 2012), increase self-esteem and life satisfaction, and decrease depressive symptoms (Wu, 2011 and Wu and Koo, 2006). In addition, Life satisfaction has been improved among older adults group with reminiscence.

Nurses have documented anecdotal accounts (Beadleson and Lara, 1988 and Hala, 1975) and conducted research (Lappe, 1987; Pearson, 1986; Tourangeau, 1988 and Bramwell, 1988) on reminiscence therapy. They have recognized its usefulness in gathering information and identifying patterns during health assessments (Breeze, 1909). Jessie Breeze (1909), a nurse was among the first to mention reminiscence in the context of elderly patient care. Notably, few studies on nurses' utilization of reminiscence currently exist (Park et al., 2019; Hsieh et al., 2010; Huang et al., 2015; Bohlmeijer et al., 2003; wang et al., 2005). No specific indication has been found to provision the effectiveness of group reminiscence on cognition among older adults in Rural India.

Although reminiscence is known to be one of the better strategies to address mental health in older adults in various setting, its effects on older adults within rural communities is understudied. It is challenging to evaluate the results and assess the viability of using reminiscence as an effective remedy because studies on the effects of depression and reminiscence use a variety of methodologies or situations. Themes and materials used in reminiscence differ among countries because of cultural variances. In India, healthcare services are highly prioritised to report the physical and health needs of older adults only in urban and city areas. The number of healthcare professionals who are available to provide healthcare services and the number of older adults in rural

communities in India are vastly out of proportion. In an attempt to find ways to bridge this gap, the present study tries to understand the effectiveness of group reminiscence on geriatric depression in rural India.

The study was conducted to assess the effectiveness of group reminiscence on depression among south Indian rural older adults, Telangana, India.

2. Material and Methods

2.1 Study Design and Participants:

A Single Blind randomized controlled trial conducted from April to December 2022, involving healthy older adults residing in rural area of South India. The participants were randomly recruited from Chitkul village, Patancheru Rural Health Center, located in Sangareddy, Telangana. A house-to-house survey was conducted to identify potential participants. A total of 327 older adults screened for eligibility, 130 individuals who met the inclusion criteria; 60 years and above, Mild depression and willing to participant were selected. Individuals with moderate to severe depression, severe hearing loss, and recent surgical interventions were excluded from the study. The recruitment flow chart was presented in Figure1.

The sample size was calculated based on the proportion of the older adults in Telangana. Population proportion of the older adults is 0.09, and the population size in Telangana is 35 million, with a 95% of Confidence interval.

$$\text{Sample Size} = \frac{Z^2 * p\,(1-p)/e^2}{1+\left(\frac{Z^2 * p\,(1-p)}{e^2 N}\right)}$$

$$\frac{1.96^2 * 0.09(1-0.09)/0.05^2}{1+\left(\frac{1.96^2 * 0.09(1-0.09)}{0.05^2 * 35193978}\right)} = 126+4=130$$

2.2 Randomization and Blinding:

Randomization ensures that every participant has an equal chance of being assigned to either the experimental or control group in a study. This process, also known as random assignment of subjects, eliminates the potential for systematic bias by randomly placing participants into groups. In our study, we employed a simple randomization method called the slips of paper (Lottery) method to assign participants equally to the experimental and control groups. It should be noted that this was a single-blind study, meaning that only the participants were unaware of their group assignment. Due to the nature of the study, it was not feasible to blind the researcher

2.3 Outcome Measures:

Socio-demographic: General socio-demographic information regarding age, gender, marital status, financial status and current health was collected from the participants. In addition to collecting socio-demographic data, a short form geriatric depression questionnaire was administered to screen participants for depressive symptoms. This scale has demonstrated good reliability and validity $r = .84$, $p < .001$ (Sheikh and Yesavage, 1986). Telugu translated Geriatric depression scale (Vijayasree and vidhyamanth, 2019) was used in this study and the cut off score was 5-8 (Mild Depression).

2.4 Intervention:

As the world's population continues to age, promoting healthy aging has become a significant area of research and intervention. One promising approach is group reminiscence, which involves structured discussions about past experiences and memories within a group setting. Group reminiscence is a therapeutic approach that involves engaging older adults in structured discussions and activities aimed at recalling and sharing memories of past events and experiences. It is based on the premise that reminiscing about personal history can have positive psychological, social, and emotional benefits for older adults. Group reminiscence provides a supportive environment where individuals can connect with others, enhance their sense of identity, and gain a renewed sense of purpose and fulfilment.

In this study, structured group reminiscence protocol was prepared which is consisting of 12 themes such as childhood memories, family and relationships, friends and friendship, festivals and group exercises. Which was developed by the investigator with the help of Supervisor. This new protocol sent to an experts to validate and the validation was done by 3 psychologists, one psychiatrist and one nursing professor. After the validation, pilot study was conducted to assess the potential issues. To evaluate whether the protocol effectively captures the targeted outcomes, a pre-and post-intervention assessments was conducted to determine the changes in participants' targeted outcomes. Feedback from participants is collected and analyzed to refine the protocol and ensured its feasibility and acceptability.

This protocol was implemented by the investigator, investigator trained under the senior psychologists and also from the supervisor. Group reminiscence was applied to the experimental group in a 60-minute session once a week for 12 weeks. The participants were divided into12 groups; each group consisting of 5-6 people. In the first session, participants were introduced to the concept of group reminiscence. Participants were actively participated and experienced the protocol. They appreciate the opportunity to share stories, listen to others' experiences, and build meaningful relationships. And they reported positive emotional experiences during the group reminiscence sessions

2.6 Statistical analysis:

Data entry and analysis were performed using Excel and SPSS software. The data were carefully reviewed to identify any errors or missing information, and necessary data cleaning procedures were conducted. Descriptive statistics, such as frequencies and percentages, were utilized to summarize the items in the questionnaire. The effectiveness of group reminiscence within the same group was assessed using the Wilcoxon test, while the Mann-Whitney test was employed to compare the effectiveness between different groups. A significance level of $p < 0.05$ was considered statistically significant.

2.7 Ethical considerations:

The study obtained ethical approval with the approval number UH/IEC/2021/34. All participants provided written consent after demonstrating their full understanding of the study's objectives and content. The trial has been registered at http://ctri.nic.in with the registration number CTRI/2021/12/038562. The registration was done prospectively, ensuring transparency and accountability. The researcher also informed the older adults about the importance of confidentiality and privacy, emphasizing the protection of their personal information.

3. Results

The study included 130 healthy older adults (67.7% female [n=88] and 32.3% male [n=42]). Age of the participants ranged from 60 to 85 years, and the mean age was 68.59 (6.10) years. Majority of the female participants in the experimental (69.2%) and control groups (66.2%) had depressive symptoms. Table 1 displays the demographic data of the participants as well as a comparison of their features. The mean age, gender, type of family, number of children, financial situation, current health, and rapport with family members of participants in the experimental and control groups are provided.

An independent sample t-test was conducted to examine the presence of depression based on gender, marital status, and type of family. Regarding gender, a significant difference was found ($t(128) = 2.33$, $p = 0.021$), with men ($M = 7.24$, $SD = 0.96$) having a higher mean score compared to women ($M = 6.86$, $SD = 0.83$). The magnitude of the mean difference (mean difference = 0.37, 95% CI: 0.05 to 0.69) was statistically significant. In terms of marital status, a statistically significant difference was observed ($t(128) = -3.25$, $p = 0.001$, 95% CI: -0.82 to -0.19), indicating that married participants ($M = 6.82$, $SD = 0.84$) had lower mean scores compared to widows/widowers ($M = 7.33$, $SD = 0.84$). Furthermore, a significant difference was found based on the type of family ($t(128) = -4.97$, $p = 0.000$, 95% CI: -1.02 to -0.18), with individuals from nuclear families ($M = 6.50$, $SD = 0.69$) having lower mean scores compared to those from joint families ($M = 7.23$, $SD = 0.85$) (table 2).

Table (3) shows that pre and post intervention within groups analysis of Geriatric depression Scale among older adults. Experimental group pre intervention mean value as 6.95 with standard deviation of 0.86, whereas post

intervention mean value is 5.92 with standard deviation of 0.71. The Z-value is -6.681 and P-value is 0.000. For control group, the pre mean value is 7.02 with standard deviation of 0.89 and the post intervention mean value is 7.03 with standard deviation of 0.87. The Z- value is -0.447 and P-value is 0.655. Participants in the experimental group relieved depression after the 12 weeks of the group reminiscence. Further Mann Whitney was performed to the see the effectiveness of group reminiscence on geriatric depression between the groups.

Table (4) shows pre and post mean difference analysis of Geriatric depression between experimental and control group. Mean difference of experimental is 1.03 with standard deviation of 0.64, whereas mean difference in control group is -0.02 with standard deviation 0.28. The Z value is -8.809 and p value is 0.000, effect size r is 0.77 indicating Large difference in the effect of intervention. The results revealed that there was a significant difference between groups. It is interpreted that group reminiscence was an effective intervention to reduce depression among older adults.

4. Discussion

The current study was undertaken with healthy geriatrics present in rural areas to assess the effectiveness of group reminiscence on geriatric depression. The study's findings support the notion that group reminiscence reduces depression in older persons and is consistent with other research showing that reminiscence is beneficial in reducing depression in geriatrics.

Upon completion of the group reminiscence sessions in the present study, a notable decrease in the presence of depressive symptoms among older adults was observed in the experimental group, as compared to the control group. These findings corroborate previous research, which has highlighted group reminiscence as a highly effective non-pharmacological intervention for addressing depression in the elderly (Chao et al., 2006 and Wu, 2011). A meta-analysis further supports these findings, demonstrating that group reminiscence significantly alleviates depression in older adults (Song et al., 2014).

These results align with previous research supporting the effectiveness of structured group reminiscence in reducing depression and improving the emotional well-being of older adults (Fry, 1983; Stevens , 1963; Arean et al.,1993 and Cully et al., 2001). Supporting this, Fry (1983) demonstrated that structured group reminiscence interventions effectively alleviate depression and foster feelings of self-confidence and self-reliance.

Group reminiscence offers older adults therapeutic, social, and recreational opportunities, making it a valuable non-pharmacological intervention (Ayalon et al., 2006 and Hsieh et al., 2010). It has demonstrated effectiveness in improving mental health among the elderly and can serve as an alternative to conventional therapy methods. Additionally, group reminiscence is not only interesting but also easy to implement, providing a straightforward non-pharmacological solution. By participating in group reminiscence, older adults gain a structured platform to express intense emotions, unresolved thoughts, and suppressed fears. This therapeutic approach encourages self-expression and facilitates communication (Cully et al., 2001). Moreover, the intervention creates a warm and empathetic environment where active reminiscing is encouraged, allowing the elderly to feel comfortable and supported throughout the process.

The significant advantage observed in this study regarding group reminiscence was the opportunity it provided elderly participants to express themselves. The study results strongly indicate that engaging in group reminiscence exercises is a valuable and beneficial activity for older adults. Building upon the evidence from this and previous studies, the findings can be applied in healthcare settings within rural communities, effectively utilizing group reminiscence as a means of addressing depression. However, it is crucial for facilitators (such as nurses or individuals trained in group reminiscence) to consider and incorporate the unique cultural values and experiences of older individuals in Indian rural areas. For instance, older Indian adults often prioritize their families, farms, and children, which may evoke relevant memories for them. By acknowledging and integrating these cultural aspects, facilitators can optimize the success of group reminiscence interventions in these specific settings.

According to the US National Institute of Nursing Research, there is a need for non-pharmacological, cost effective strategies for lowering geriatric depression (NIH, 1997) Therefore, it is essential to dedicate efforts

towards harnessing the potential of group reminiscence as a means of promoting healthy aging and enhancing the well-being of senior citizens residing in rural areas. In geographically remote communities, it becomes imperative for nurses to assess the mental health requirements of older individuals and develop appropriate programs accordingly. The findings of this study indicate that group reminiscence can be advantageous by facilitating the adjustment to life's transitions and improving communication skills among older adults. It is reasonable to assume that increased attention and enhanced communication abilities will lead to greater social interaction. Consequently, future studies could consider incorporating measures of social activity to evaluate changes in this particular aspect.

5. Conclusion

In the rural communities of India, the utilization of group reminiscence remains untapped. The rural region lacks psychiatric clinics, psychologists, and counselling centers, which makes difficult for older adults to receive appropriate support. Introducing group reminiscence activities could be a valuable resource for addressing these challenges. By facilitating effective communication and providing a platform for discussions, group activities have the potential to assist older adults in this community. It is worth noting that both geriatric depression and dementia are interconnected with geriatric health concerns. Given the progressive nature of geriatric depression and its association with dementia, the findings of this study hold promise for the well-being of older adults. Moreover, this study could serve as a potential model for future research on non-pharmacological interventions tailored to older adults in rural community settings.

6. Limitations and Recommendations

Due to limitations in time, funding, and staff resources, this study focused solely on evaluating the short-term effects within a rural community. The participants included in this study were exclusively from rural areas and were limited to those experiencing mild depression. Based on the results of this study, it is recommended to replicate similar interventions in diverse settings to assess their long-term effectiveness. To effectively meet the mental health needs of older adults, especially in geographically isolated regions, it is crucial for nurses and healthcare professionals to adopt and implement these programs.

Declaration of Interest

Authors declare no conflict of Interest.

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Table1 Descriptive analysis of experimental and control group.

Demographic Variables	Experimental group (n=65)		Control group (n=65)		χ^2	Z	P
	f	%	f	%			
Age (Mean and SD)	68.31±5.74		68.88±6.47			-0.28	0.77
Gender					0.14		0.70
Male	20	30.8	22	33.8			
Female	45	69.2	43	66.2			
Type of family					0.13		0.71
Nuclear Family	23	35.4	21	32.3			
Joint Family	42	64.6	44	67.7			
No. of Children					1.49		0.47
One	20	30.8	17	26.2			

Demographic Variables	Experimental group (n=65)		Control group (n=65)		χ^2	Z	P
	f	%	f	%			
Two	8	12.3	13	20.0			
Three and above	37	56.9	35	53.8			
Financial Status					0.14		0.93
Have enough money	5	7.7	5	7.7			
Need additional support	21	32.3	23	35.4			
Completely dependent	39	60.0	37	56.9			
Current health					0.95		0.62
Good	21	32.3	17	26.2			
Fair	22	33.8	21	32.3			
Poor	22	33.8	27	41.5			
Rapport with families					2.2		0.69
Almost every day	3	4.6	1	1.5			
Often	6	9.2	4	6.2			
Sometimes	28	35.4	23	35.4			
Rarely	8	12.3	12	18.5			
Never	25	38.5	25	38.5			

Table 2. Differences in Depression between men and women, married and widow/Widower and, nuclear family and joint family

N=130

Variables	**Depression Present**		
Gender	**Mean**	**SD**	**'t' Value**
Men	7.24	0.91	2.33*
Women	6.86	0.83	
Marital Status			
Married	6.82	0.84	-3.5***
Widow/Widower	7.33	0.84	
Type of Family			
Nuclear Family	6.5	0.7	-4.92***
Joint Family	7.23	0.85	

*Significance at 0.05 level.

***Significance at 0.001 level.

Table 3 Pre-Post within the group analysis of Geriatric Depression Scale

N=130

GDS	Experimental Group M±SD	Control group M±SD
Pre-test	6.95 ± 0.856	7.02 ± 0.893
Post-test	-5.96± 0.714	7.03 ± 0.865
Z*	-6.681	0.447
P	0.000	0.655

Z* Wilcoxon test

Table 4 Pre-Post between the group analysis of Geriatric Depression Scale

N=130

GDS	Mean Difference	Z value*	P value	Effect Size
Experimental	1.03 (0.64)	-8.809	0.000	0.77
Control	-0.02 (0.28)			

Z* Mann-Whitney test

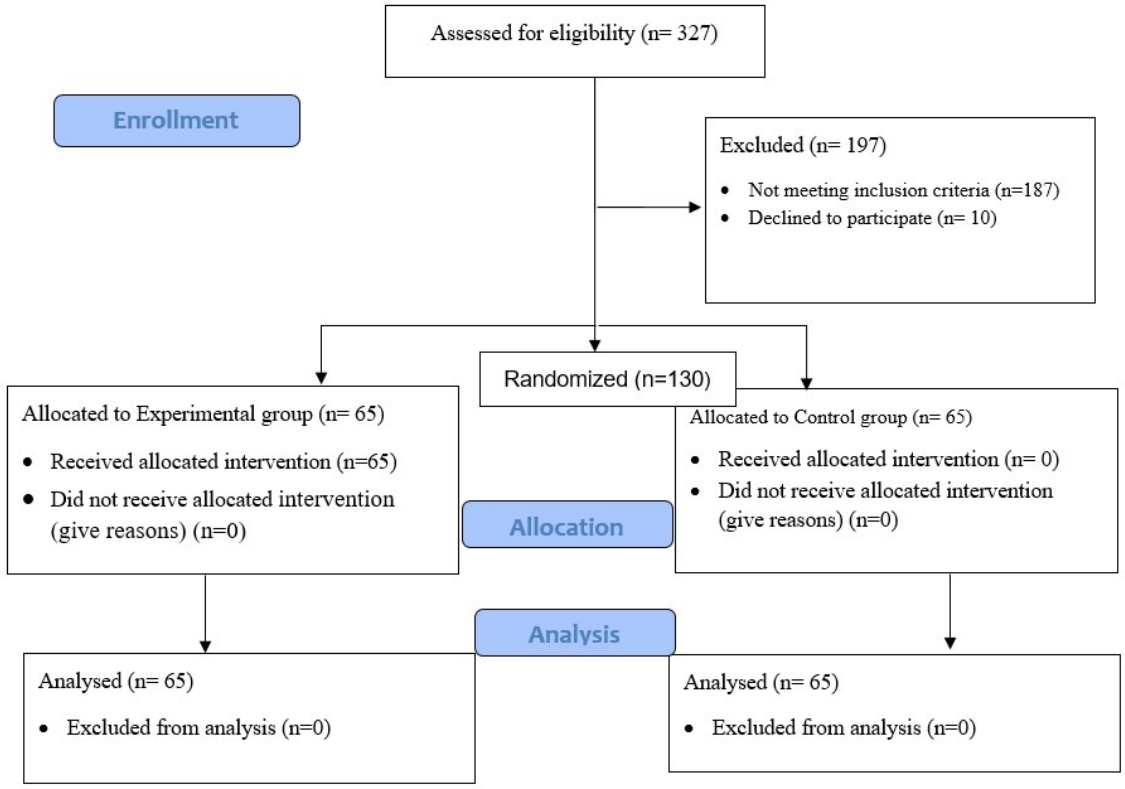

Fig.1 CONSORT (2010) Flow diagram on progress of participants