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Effects of Simple Reminiscence on Reminiscence Functions in Older Adults with Mild Cognitive Impairment Due to Alzheimer's Disease

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ABSTRACT

Objectives: Simple reminiscence has been used as a non-pharmacological strategy to improve emotional well-being and adaptation in older adults, particularly those with mild cognitive impairment due to Alzheimer's disease. This study examined the effects of a simple reminiscence-based intervention on different reminiscence functions in this population.

Methods: 113 participants were randomly assigned to an experimental ($n = 61$) or control group ($n = 52$). The experimental group received 16 reminiscence sessions over eight weeks. Assessments occurred pre-, post-intervention, and at follow-up. The eight subscales of the Reminiscence Functions Scale served as the study's primary outcome variables. Intervention effects were analyzed using 2×3 mixed ANOVAs (group $\times$ time).

Results: The results showed significant improvements in adaptive reminiscence functions, including identity, problem-solving, and preparation for death, as well as in the prosocial functions of conversation and teaching/informing in the experimental group compared to the control group.

Conclusions: These findings suggest that simple reminiscence can be an effective strategy for preserving and enhancing adaptive reminiscence functions in older adults with mild cognitive impairment due to Alzheimer's disease. Clinical Implications: This intervention can be integrated into routine care for individuals with cognitive impairment, helping maintain emotional-cognitive functioning and improve quality of life.

KEYWORDS

Emotional well-being; mild cognitive impairment due to Alzheimer's disease; psychological adaptation; reminiscence; reminiscence functions

Introduction

Older adults with mild cognitive impairment due to Alzheimer's disease (MCI-AD) often experience difficulties in maintaining and narrating their personal history, a process that is closely linked to autobiographical memory (Irish, 2023). Although cognitive impairments at this stage are still relatively mild and functional independence is preserved, evidence shows that episodic autobiographical memory -the capacity to recall specific personal events in time and place- is already affected, whereas personal semantic memory remains relatively intact (Murphy et al., 2008; Seidl et al., 2011). This deterioration not only compromises the integration of past experiences but also affects the ability to access and express an established sense of identity, often leading to difficulties in adapting to the changes imposed by the disease (Rasmussen & Berntsen, 2023). In

individuals with MCI due to Alzheimer's disease, where some cognitive abilities are still preserved, it is crucial to identify strategies that can maintain the connection to meaningful memories, promoting both emotional and cognitive adaptation to the disease (Woods et al., 2018).

Non-pharmacological and pharmacological interventions for individuals with mild cognitive impairment due to Alzheimer's disease aim to address multiple dimensions, including supporting cognitive functioning, improving emotional well-being, managing behavioral and emotional symptoms, and promoting quality of life (Olazarán et al., 2010). However, preserving other psychological aspects (such as emotional regulation, sense of self-continuity, and personal identity) should also be a key objective. One therapy that may support this goal is reminiscence therapy.

Reminiscence is defined as the process of recalling personal memories through tangible stimuli or conversations, promoting the integration of experiences and the strengthening of personal identity (Woods et al., 2018). These interventions, which vary in depth and intensity, stand out for their versatility and adaptability. Simple reminiscence, based on the spontaneous narration of autobiographical material, primarily aims to foster social interaction and emotional well-being by using positive and meaningful memories. This approach is particularly useful in social or group settings, where the evocation of memories enhances interpersonal connections and active participation (Shin et al., 2023). Furthermore, its unstructured nature makes it an accessible tool that can be adapted to different levels of cognitive ability, which is especially relevant for individuals in the early stages of mild cognitive impairment due to Alzheimer's disease, where partial access to significant memories is still preserved.

The flexibility of simple reminiscence is not only reflected in its practical application but also in the various functions it can serve depending on the person's needs. Eight main reminiscence functions have been described (Webster et al., 2010), which, according to Cappeliez and O'Rourke (2006), can be grouped into three categories: positive self (identity, problem-solving, and preparation for death), negative self (bitterness revival, intimacy maintenance, and boredom reduction), and prosocial functions (conversation and information sharing). The positive self-functions, such as identity and problem-solving, are associated with greater well-being and better emotional adaptation, strengthening the ability to face challenges and maintain a coherent personal narrative. Preparation for death, as a reminiscence function, is related to the achievement of ego integrity and, therefore, adequate adaptation to aging. The negative self-functions are fundamentally maladaptive and tend to be associated with higher rates of psychological disorders and lower levels of psychological well-being (O'Rourke et al., 2011). Prosocial functions influence emotion management by maximizing opportunities to experience positive emotions in social encounters.

In healthy older adults, reminiscence functions have been studied, and research has demonstrated

that interventions based on simple reminiscence can positively influence these dimensions. Significant increases have been observed in positive self-functions, such as preparation for death and problem-solving, as well as in prosocial functions like conversation, and a significant reduction in negative self-functions, such as bitterness and intimacy maintenance (Satorres et al., 2021). These effects persisted three months after the intervention. These findings highlight the importance of evaluating and intervening in reminiscence functions, not only to foster emotional well-being but also to optimize emotional adaptation to adverse events, such as the onset of neurodegenerative conditions like Alzheimer's disease.

In general, in both healthy older adults and those with cognitive impairment, including those with dementia, reminiscence-based interventions have aimed to reduce negative mood and improve well-being, with satisfactory results (González et al., 2015).

A recent systematic review and meta-analysis of randomized controlled trials confirmed that reminiscence therapy has significant positive effects on global cognition, depressive symptoms, and quality of life in older people with Alzheimer's disease (Cammisuli et al., 2022). Similarly, a network meta-analysis comparing various art-based therapies found that reminiscence therapy is among the most effective interventions for improving cognitive functioning, reducing agitation, and enhancing quality of life in patients with dementia (Liu et al., 2023).

These findings underscore the therapeutic potential of reminiscence interventions, while also pointing to the need for further studies to explore their specific mechanisms and long-term efficacy. Despite this growing body of evidence, there is still limited understanding of how reminiscence therapy may influence specific positive self, negative self, and prosocial functions, which are central to emotional adaptation and resilience in the face of cognitive decline.

Older adults with mild cognitive impairment due to Alzheimer's disease face not only challenges related to subtle but progressive cognitive decline, but also a reconfiguration of self-identity and their social roles. In this context, simple reminiscence, by focusing on positive and meaningful memories,

could offer a space that allows individuals to reaffirm their identity and strengthen interpersonal connections. Additionally, the accessibility and ease of implementation of this intervention make it a viable tool, even in resource-limited settings, underscoring its potential as a therapeutic resource for cognitive impairment care.

The present study aims to explore the effects of simple reminiscence in older adults with MCI due to Alzheimer's disease. This approach seeks not only to bridge the existing gap in the literature but also to contribute to the development of more effective, evidence-based interventions that support adaptation to the disease in this vulnerable population.

Methods

Study design and participants

A study was conducted that included an intervention group, which received 16 sessions of reminiscence therapy, each lasting 45 minutes, compared to a control group. Participants with mild cognitive impairment (MCI) due to Alzheimer's disease (AD) or prodromal AD, as defined by the National Institute on Aging-Alzheimer's Association (NIA-AA) workgroup (Albert et al., 2013), were assessed before and after the intervention, as well as one month after completion. Eligibility was confirmed through clinical and neuropsychological screening prior to baseline assessment. Only participants who met the inclusion and exclusion criteria were then randomly assigned to either the reminiscence group or the control group.

Eligible participants were required to be over 60 years old and meet the clinical and cognitive criteria for mild cognitive impairment due to Alzheimer's disease as defined by the NIA-AA workgroup (Albert et al., 2011). This condition is characterized by subtle deficits in cognitive abilities, particularly in episodic memory, but also potentially affecting executive function, attention, language, or visuospatial skills, without significant impairment in daily functioning. These participants did not meet criteria for dementia and were considered to be in the prodromal stage of Alzheimer's disease.

The inclusion criteria required a Mini-Mental State Examination (MMSE; Folstein et al., 1975)

score above 20 during screening, in accordance with NICE guidelines, a score of 3 on the Global Deterioration Scale (GDS; Reisberg et al., 1982), which corresponds to mild cognitive impairment, indicating preserved functional independence in daily life with minimal support. Exclusion criteria included individuals with neurodegenerative diseases other than AD, severe psychiatric symptoms, high levels of dependency, and those anticipating relocation during the study period.

All participants were affiliated with nine centers managed by organizations representing relatives of individuals with Alzheimer's disease and other dementias (AFAS) in the province of Valencia, Spain. Initially, 137 participants were contacted; however, six were excluded due to MMSE scores below 21, four due to a GDS score of 4, and two individuals chose not to participate after the initial evaluation. Among the 125 remaining participants, 65 were assigned to the intervention group and 60 to the control group, consisting of 42 men and 83 women (33.6% and 66.4%, respectively), with ages ranging from 60 to 94 years ($M = 79.7$; $SD = 6.98$). All participants provided informed consent at the beginning of the study. This study was approved by the Human Research Ethics Committee.

Group assignment was conducted using a randomized block design to ensure baseline comparability and minimize unintentional imbalances. Centers were assigned to either the Reminiscence or Control Group using block randomization with a 2:1 allocation ratio. This ratio was chosen to optimize statistical power while ensuring a sufficient number of participants in the intervention groups. Additionally, rural and urban geographic locations were used as stratification factors to further improve the randomization process and ensure diversity across environments. Participant assessments were conducted by psychologists who were external to the centers. Figure 1 presents the study flowchart.

Finally, a total of 113 participants completed the study. The reminiscence group consisted of 61 participants, while the control group had 52 participants. Table 1 presents the main demographic data

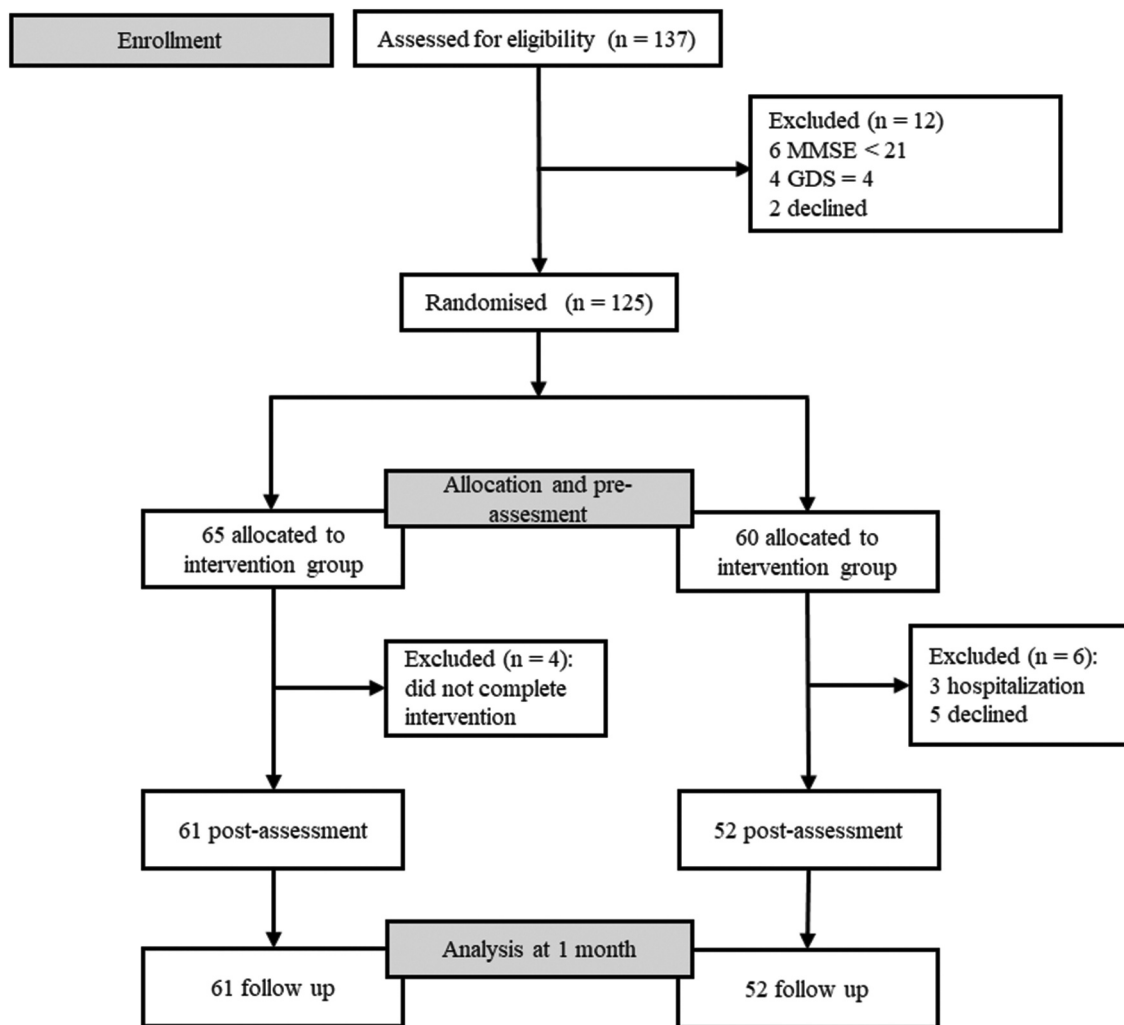


Figure 1. Flowchart of study participant.

Table 1. Means (and *SD*) of demographic indices comparing intervention and control groups.

	Intervention (<i>n</i> = 61)	Control (<i>n</i> = 52)	Significance (<i>p</i> -value)
Age	80.43 (6.24)	79.13 (6.47)	.284
Gender	16 men/45 women	20 men/32 women	.164
Education (years)	8.72 (2.6)	8.55 (2.77)	.742
MMSE	23.34 (3.11)	23.38 (2.96)	.944
Rey direct copy	17.28 (10.42)	19.11 (10.1)	.347
Rey delayed recall	3.47 (4.92)	3.21 (3.78)	.745
Forward Digit Span	4.89 (1.22)	4.87 (1.15)	.930
Backward Digit Span	2.84 (0.96)	2.85 (0.91)	.955

and group comparisons. Both groups were matched in terms of their characteristics.

Instruments

The assessment of participants was conducted using validated and widely accepted instruments

in the clinical and neuropsychological research field, ensuring accuracy and reliability of the results. Additionally, a custom-designed questionnaire was used to collect sociodemographic data.

Mini-Mental State Examination (MMSE; Folstein et al., 1975). Mini-Mental State Examination is a brief, quantitative, and objective test designed to assess the degree of global cognitive impairment. It consists of 11 items that evaluate temporal and spatial orientation, immediate and recent memory, attention and calculation, language skills, and constructive praxis. The maximum score is 30 points, with cognitive impairment considered present when scores are 23 or lower. In this study, it was used both as an initial screening tool and to determine the severity of mild or moderate cognitive impairment.

Forward and Backward Digit Span, derived from the Wechsler Adult Intelligence Scale (WAIS; Wechsler, 2001), assess immediate memory, attention, and working memory. In the forward digit span task, participants must repeat numerical sequences in the same order in which they are presented, while in the backward digit span task, they must reproduce them in reverse order. The score is determined by the length of the longest correctly repeated sequence. The backward digit span task requires greater cognitive demand, allowing for an assessment of mental control and working memory.

Rey-Osterrieth Complex Figure Test (Rey, 1997), evaluates visuospatial ability, visual memory, and various executive functions, such as planning and organization. The test consists of two phases: a direct copy of the figure and a subsequent delayed recall reproduction. In this study, the original version was used, which assigns a maximum score of 36 points, based on accuracy and element placement criteria. The Rey-Osterrieth Complex Figure Test is highly sensitive to neuropsychological alterations and has been established as a robust indicator of executive dysfunction and cognitive decline.

Although these cognitive tests were not used as outcome measures, they were administered at baseline to obtain a more detailed neuropsychological profile of the participants and to ensure cognitive comparability between groups.

Reminiscence Functions Scale (RFS; Webster, 1993, 1997); evaluates reminiscence functions through 43 items, distributed across eight factors: bitterness revival (5 items; range: 5–30): involves ruminating on unresolved negative experiences, often linked to distress or regret; e.g. item 13: “When I reminisce it is to keep painful memories alive;” boredom reduction (6 items; range: 6–36): alleviates monotony or inactivity through mentally stimulating memories; e.g. item 11: “When I reminisce it is to pass the time during idle or restless hours;” conversation (5 items; range: 5–30): provides meaningful material for social exchange and interpersonal bonding; e.g. item 34: “When I reminisce it is to create ease of conversation;” preparation for death (6 items; range: 6–36): facilitates acceptance of mortality and life review, supporting

ego integrity; e.g. item 38: “When I reminisce it is because it helps me cope with thoughts of my own mortality;” identity (6 items; range: 6–36): reinforces a coherent self-concept by integrating past experiences into one’s life narrative, e.g. item 10: “When I reminisce it is to see how my past fits in with my journey through life;” intimacy maintenance (4 items; range: 4–24): sustains emotional connections with absent or deceased loved ones; e.g. item 5: “When I reminisce it is to keep alive the memory of a dead loved one;” problem-solving (6 items; range: 6–36): uses past experiences to inform current decision-making and coping strategies; e.g. item 31: “When I reminisce it is to put current problems in perspective;” and teaching/information (5 items; range: 5–30): uses life experiences to transmit knowledge, values, or advice to others; e.g. item 20: “When I reminisce it is to transmit knowledge that I’ve acquired to someone else.” Participants respond using a six-point Likert scale (1: rarely, 6: very frequently), indicating how often they use reminiscence for each function in their daily life, either spontaneously or deliberately. Ratings do not reflect the general frequency of reminiscing, but rather the extent to which each function motivates or accompanies their use of autobiographical memory. Higher scores indicate more frequent use of reminiscence for that specific function. Consistent with previous literature (O’Rourke et al., 2011; Ros et al., 2016), higher scores in positive self and prosocial functions are associated with greater psychological well-being and emotional adaptation. In contrast, elevated scores in negative self-functions - particularly bitterness revival- have been linked to higher psychological distress and maladaptive coping.

This scale has demonstrated adequate internal consistency (Cronbach’s alpha ranging from 0.74 to 0.89) and has been validated in the Spanish population by Ros et al. (2016), showing similar results. In the present study, internal consistency was assessed using Cronbach’s alpha based on baseline data, and results were satisfactory across the eight subscales: Boredom Reduction ($\alpha = .829$), Death Preparation ($\alpha = .885$), Identity ($\alpha = .854$), Problem Solving ($\alpha = .828$), Conversation

($\alpha = .799$), Intimacy Maintenance ($\alpha = .867$), Bitterness Revival ($\alpha = .848$), and Teaching/Informing ($\alpha = .822$).

Procedure

Intervention rationale and objectives

The intervention was designed to modify the use of reminiscence functions and promote better psychological adaptation in individuals with mild cognitive impairment due to Alzheimer's disease. Reminiscence, understood as the process of evoking and reflecting on personal memories, was used to enhance positive functions such as identity, problem-solving, and teaching, while minimizing negative functions like bitterness revival or boredom reduction. This approach aimed to help integrate past events into a coherent life narrative, facilitating emotional acceptance and adaptive coping in the face of the disease. The main objective of the intervention was to improve quality of life and emotional adaptation by mitigating the impact of the disease in its early stage. Specific objectives included increasing the use of positive and prosocial reminiscence functions, and reducing maladaptive ones. Additionally, one of the aims of the intervention was to promote the instrumental and integrative use of autobiographical memory, particularly by encouraging participants to reflect on past coping experiences and extract strategies applicable to current challenges.

Session format and structure

The design included a total duration of eight weeks, with 16 sessions delivered twice weekly. Each session lasted approximately 45 minutes and was conducted in small groups of 4 to 6 participants. This group format encouraged social engagement and interpersonal interaction. Sessions followed a structured format consisting of four components: welcome, reality orientation, main activities, and closing. This consistent structure promoted participant familiarity, active participation, and a trusting atmosphere. The structure, content, and delivery of the intervention were informed by established reminiscence therapy protocols and prior empirical studies (González et al., 2015; Melendez et al., 2017; Meléndez et al., 2013; Satorres et al., 2021; Viguer et al., 2017). Sessions

were adapted to the cognitive and emotional needs of individuals with MCI, using a flexible, strengths-based approach aligned with the functional model of reminiscence.

Recruitment and enrollment

Participants were recruited from nine centers affiliated with Alzheimer's and dementia family associations (AFAS) in the province of Valencia, Spain. After screening and verification of eligibility, 125 participants were enrolled and randomly assigned to either the reminiscence group ($n = 65$) or the control group ($n = 60$). A randomized block design was applied, stratified by rural and urban settings, using a 2:1 allocation ratio to ensure sufficient sample size in the intervention group. Evaluations were conducted by external psychologists blinded to group assignment.

The control group did not receive any structured intervention during the 8-week period. Participants continued with their usual daily activities and routine care provided by the centers, which typically included unstructured social interaction, occupational therapy, or recreational activities not related to reminiscence or cognitive stimulation. No additional sessions were offered by the research team, and participants had contact with external evaluators only at the pre-, post-, and follow-up assessment points. This design allowed for the isolation of the specific effects of the reminiscence intervention.

Session themes and content

Each session focused on a specific reminiscence theme following a chronological sequence from childhood to older adulthood, with some transversal topics like music or travel (see Table 2).

Facilitator techniques

The main activities were designed to stimulate the recall of positive memories and encourage guided reflection linking past experiences to present identity and coping strategies. Sessions were facilitated by psychologists experienced in working with individuals with cognitive impairment, who received specific training in the application of the intervention protocol. Each group was consistently led by the same facilitator throughout the eight weeks of the program, ensuring continuity, therapeutic

Table 2. Session themes and content.

Session	Themes	Content
Session 1	Childhood: Family and Home	Memories about family, home, and upbringing
Session 2	Childhood: Friendships and Games	Reminiscence of childhood friendships and games
Session 3	Childhood: School	Recalling school memories, classmates, teachers, and study environments
Session 4	Seasons of the Year	Memories linked to the current season, connecting its characteristics to various life aspects through proverbs
Session 5	Youth: Dating and Adolescence	Reflection on youth relationships and gender roles
Session 6	Adulthood: Wedding	Memories of the wedding day: celebration, ceremony, etc
Session 7	Adulthood: Parenting	Experiences raising children or other family members, parenting styles, and resources
Session 8	Music in Life	Musical memories, popular artists of the era, and musical preferences
Session 9	Adulthood: When Children Grow Up	Discussing adolescence and children's transition to independence until they leave home
Session 10	Life Around the Table	Daily and festive meals, favorite dishes, and traditional foods
Session 11	Adulthood: Work	Work experiences, first jobs, and related anecdotes
Session 12	Migration	Experiences of migration and the reasons behind it
Session 13	Household Tasks	Discussion about household responsibilities, gender roles, and the introduction of appliances
Session 14	Adulthood: Travel and Vacations	Stories of significant travels and how summer vacations used to be
Session 15	Adulthood: Retirement	Personal experiences related to retirement and life reorganization
Session 16	Adulthood: Leisure and Hobbies	Hobbies and recreational activities in adulthood

rapport, and familiarity with participants' needs. Techniques used included storytelling, open-ended questions, and group discussion. These activities aimed to activate executive functions such as planning and working memory while promoting emotional integration of autobiographical memory. The intervention was grounded in evidence-based practices and adapted to the needs of people with MCI. It allowed for individualization based on participants' capacities, respecting autonomy and ensuring a supportive, non-pressured environment.

Furthermore, the intervention promoted the instrumental and integrative use of memories to support adaptive functioning. For instance, during sessions on parenting, work life, or retirement, participants were encouraged to identify coping strategies they had successfully used in the past – such as conflict resolution, seeking social support, or emotional self-regulation. These strategies were discussed in the group and connected to current challenges, reinforcing their applicability and supporting participants' autonomy and problem-solving capacity. Similarly, integrative sessions such as those on leisure, travel, or shared meals encouraged participants to reflect on life transitions and derive personal meaning, supporting emotional coherence and identity consolidation.

Assessment timeline

Outcome assessments were conducted at three time points: before the intervention (pre-intervention), immediately after the program (post-intervention), and one month later (follow-up). This allowed for

measuring both immediate and short-term effects of the intervention on reminiscence functions, providing a comprehensive and evidence-informed evaluation of its impact. At each of the three time points (T0, T1, and T2), participants completed the Reminiscence Functions Scale (RFS), which served as the primary outcome measure. No additional instruments were administered at post-intervention or follow-up.

Data analysis

The collected data were analyzed using the IBM SPSS Statistics software (version 29). First, descriptive analyses were conducted to examine the socio-demographic characteristics of the sample, as well as homogeneity tests between groups using independent-sample analysis of variance (ANOVA) and chi-square tests.

To assess the effects of the intervention, 2×3 mixed ANOVAs (group $\times$ time) were performed, where the time factor (pretest, posttest, and follow-up) was treated as a within-subject variable, and the group factor (experimental and control) was treated as a between-subject variable. Additionally, age, gender, and diagnosis were included as covariates to control for potential confounding effects.

Finally, post hoc comparisons were conducted using the Bonferroni method to analyze simple effects and group $\times$ time interactions. The significance level was set at 0.05. All eight subscales of the Reminiscence Functions Scale (RFS) were included as dependent variables in the analyses.

Table 3. Main and interaction effects of reminiscence variables.

	Main Effect of Time			Main Effect of Group			Time $\times$ Group Interaction		
	$F(2, 111)$	p	η^2	$F(2, 111)$	p	η^2	$F(2, 111)$	p	η^2
Identity	2.17	.119	0.038	1.55	.216	0.014	4.91	.009	0.082
Problem-solving	1.14	.323	0.020	4.06	.046	0.035	5.88	.004	0.096
Preparation for death	2.38	.097	0.041	1.76	.188	0.015	3.99	.006	0.089
Bitterness revival	1.45	.237	0.026	0.54	.461	0.005	2.71	.071	0.046
Boredom reduction	0.87	.418	0.016	0.04	.837	<0.001	1.77	.174	0.031
Intimacy maintenance	1.02	.362	0.018	0.06	.794	<0.001	2.34	.101	0.041
Conversation	1.09	.337	0.019	1.48	.226	0.013	3.91	.023	0.066
Teaching/informing	5.86	.004	0.096	1.31	.255	0.012	4.65	.011	0.077

Results

Table 3 presents the main effects of the intervention on reminiscence functions, showing a significant interaction effect (time $\times$ group) for the following dimensions: identity, problem-solving, preparation for death, conversation, and teaching/informing.

Since some of the studied variables showed a significant interaction effect, simple effects tests were conducted. First, group comparisons were made at each evaluation time point to verify the existence of differences between groups. These simple effects tests (**Table 4**) confirmed that there were no significant differences between groups in any of the dependent variables before the intervention. However, at post-intervention, a significant difference was observed for the problem-solving variable. Additionally, at the follow-up assessment, significant differences emerged in the positive self-dimensions (identity, problem-solving, and preparation for death) and in the prosocial functions (conversation and teaching/informing).

To quantify the magnitude of these differences at follow-up (T2), Cohen's d was calculated for each variable (Cohen, 1988). The results indicated moderate effect sizes for Identity ($d = 0.45$), Problem Solving ($d = 0.53$), Preparation for Death ($d = 0.52$), Conversation ($d = 0.41$), and Teaching/Informing ($d = 0.43$), suggesting a clinically meaningful impact of the intervention on these functions.

Table 5 provides details on the means and standard deviations for each of the variables.

Continuing with the study of the effects on each variable, an analysis was conducted to determine whether the scores of each group (Reminiscence Group [RG] and Control Group [CG]) changed over time. For identity, the Reminiscence Group did not show significant changes in scores ($F(1, 111) = 0.85$, $p = .430$, $\eta^2 = 0.015$), whereas the Control Group showed a significant decline ($F(1, 111) = 5.83$, $p = .004$, $\eta^2 = 0.096$), with a significant difference between Time 1 and Time 3 ($p = .003$). For problem-solving, the Reminiscence Group did

Table 4. Simple effects between groups at pre-intervention, post-intervention, and follow-up.

	Pre-intervention			Post-intervention			Follow-up		
	$F(1, 111)$	p	η^2	$F(1, 111)$	p	η^2	$F(1, 111)$	p	η^2
Identity	0.618	.433	0.006	2.65	.106	0.023	5.53	.020	0.047
Problem-solving	0.056	.814	0.001	6.98	.009	0.059	7.88	.006	0.066
Preparation for death	0.641	.425	0.006	2.57	.112	0.022	7.42	.007	0.062
Conversation	0.333	.565	0.003	2.72	.102	0.024	4.72	.032	0.040
Teaching/informing	0.726	.396	0.006	2.16	.144	0.019	5.22	.024	0.045

Table 5. Means and standard deviations (SD) for significant interactions of reminiscence variables.

	Pre-intervention		Post-intervention		Follow-up	
	CG	RG	CG	RG	CG	RG
Identity	20.76 (8.4)	19.52 (8.3)	18.36 (8.0)	20.86 (8.2)	16.82 (8.2)	20.39 (7.8)
Problem-solving	17.52 (8.2)	17.18 (7.4)	14.52 (6.6)	18.19 (7.9)	14.41 (8.0)	18.68 (8.1)
Preparation for death	16.50 (9.4)	15.21 (7.7)	13.49 (7.7)	15.85 (7.9)	12.13 (7.2)	16.08 (8.0)
Conversation	17.0 (6.3)	16.29 (6.6)	15.26 (5.7)	17.04 (5.7)	14.47 (6.6)	17.04 (6.0)
Teaching/informing	18.01 (7.4)	16.88 (6.7)	15.37 (7.3)	17.34 (6.9)	13.62 (7.2)	16.60 (6.7)

CG = Control Group; RG = Reminiscence Group.

not show significant changes ($F(1, 111) = 1.19$, $p = .308$, $\eta^2 = 0.021$), whereas the Control Group experienced a significant decline ($F(1, 111) = 5.52$, $p = .005$, $\eta^2 = 0.091$), with significant differences between Time 1 and Time 2 ($p = .007$) and Time 1 and Time 3 ($p = .011$). For preparation for death, the Reminiscence Group did not show significant changes ($F(1, 111) = 0.33$, $p = .721$, $\eta^2 = 0.006$), while the Control Group experienced a significant decline ($F(1, 111) = 6.98$, $p = .001$, $\eta^2 = 0.112$), with significant differences between Time 1 and Time 2 ($p = .011$) and Time 1 and Time 3 ($p = .001$). The analysis of the conversation variable showed that the Reminiscence Group did not exhibit significant changes ($F(1, 111) = 0.59$, $p = .552$, $\eta^2 = 0.011$), whereas the Control Group experienced a significant decline ($F(1, 111) = 4.15$, $p = .018$, $\eta^2 = 0.070$), with a significant difference between Time 1 and Time 3 ($p = .014$). Finally, for teaching/informing, the Reminiscence Group did not show significant changes ($F(1, 111) = 0.51$, $p = .603$, $\eta^2 = 0.009$), whereas the Control Group showed a significant decline ($F(1, 111) = 9.38$, $p < .001$, $\eta^2 = 0.145$), with significant differences between Time 1 and Time 2 ($p = .014$) and Time 1 and Time 3 ($p < .001$).

Discussion

The main findings of this study reveal promising results regarding the effects of simple reminiscence intervention in older adults with mild cognitive impairment due to Alzheimer's disease. The research identified differentiated effects across various reminiscence functions. Adaptive functions, such as identity construction, problem-solving, and existential preparation, remained stable in the Reminiscence Group, while the Control Group exhibited a significant decline. This pattern suggests a protective effect of the intervention, helping preserve key psychological functions associated with emotional and cognitive adaptation. These functions, associated with positive self-perception, not only facilitate emotional and cognitive adaptation but also promote resilience by reinforcing a sense of control and continuity in the face of progressive cognitive decline.

It is important to note that the Reminiscence Functions Scale (RFS) does not measure actual

cognitive performance in domains such as problem-solving or identity formation, but rather the frequency with which individuals use autobiographical memory for these purposes. As such, increases in these functions reflect greater reliance on reminiscence as a psychological strategy, rather than improvement in cognitive capacity per se. This distinction is important to contextualize the findings, and previous literature has shown that the use of adaptive reminiscence functions is associated with improved coping, self-regulation, and emotional well-being in older adults experiencing cognitive decline.

On the other hand, functions related to negative emotional processes, such as rumination or the tendency to relive bitter experiences, remained stable. This finding suggests that the intervention did not exacerbate these processes – an important outcome, as it prevents a potential increase in factors associated with psychological distress. This reinforces the potential of simple reminiscence as a safe and effective strategy for this population.

Additionally, the results showed that while the Reminiscence Group maintained or even slightly increased their scores in positive reminiscence functions, the Control Group exhibited a gradual decline in these abilities over the study period. This contrast supports the idea that simple reminiscence interventions may be particularly beneficial in this population, preserving key cognitive and emotional functions with relevant potential to enhance resilience in the face of mild cognitive impairment due to Alzheimer's disease.

These findings align with previous research on reminiscence interventions, which have demonstrated improvements in functions such as identity and problem-solving through similar interventions (Satorres et al., 2021). However, this study adds value by extending these findings to a population with MCI due to Alzheimer's disease, whereas previous research had mainly focused on general benefits, such as improvements in emotional well-being, reduction of depressive symptoms, or cognitive enhancement (González et al., 2015; Irazoki et al., 2017). By focusing on a detailed analysis of specific reminiscence functions, this study expands knowledge of their dynamics in a previously underexplored context – individuals with MCI due to Alzheimer's disease.

In summary, these findings not only support the effectiveness of simple reminiscence in maintaining and enhancing adaptive functions in this population but also highlight its potential to foster more effective emotional adaptation, thereby promoting a better quality of life for individuals with MCI due to Alzheimer's disease.

These patterns can be understood through the theoretical framework proposed by Webster (1993) and Cappeliez and O'Rourke (2006), which categorizes reminiscence functions based on their emotional and psychological impact. Adaptive functions, such as identity, problem-solving, and preparation for death, are linked to positive self-perception, resilience, and emotional regulation, which are crucial for maintaining well-being in the context of cognitive decline. In contrast, frequent use of functions such as bitterness revival has been associated with rumination, negative affect, and lower psychological adjustment. Therefore, increases in adaptive functions and stability or reduction in maladaptive ones may reflect better emotional adaptation and coping in daily life.

Limitations

This study stands out for employing a quasi-experimental design with a control group, which allowed for a detailed evaluation of the effects of simple reminiscence in individuals with MCI due to Alzheimer's disease. Additionally, validated measures were used, and a follow-up assessment was included after the intervention, providing robustness to the findings and enabling the observation of short-term sustainability of the effects. However, the lack of randomization in group assignment limits the ability to establish definitive causal relationships, despite no significant sociodemographic differences being observed between the groups. Furthermore, the sample size and relatively short follow-up period may limit generalizability and a comprehensive understanding of long-term effects.

Despite these limitations, this study provides valuable evidence on the specific impact of reminiscence functions in emotional and cognitive adaptation, opening new lines of research in the field of non-pharmacological interventions.

Conclusion

This study demonstrates that simple reminiscence can help preserve and improve specific functions such as identity and problem-solving in individuals with MCI due to Alzheimer's disease, promoting emotional and cognitive adaptation. The results support its integration into care programs and emphasize the need for future research to assess its long-term impact across different contexts.

Clinical implications

- Preserving adaptive cognitive and emotional functions: Simple reminiscence supports identity, problem-solving, and existential preparation, enhancing emotional resilience in individuals with MCI due to Alzheimer's disease.
- Supporting cognitive-emotional maintenance: Unlike controls, reminiscence participants maintained key functions, indicating short-term benefits in emotional adjustment.
- Feasibility and clinical application: Simple reminiscence is low-cost, scalable, and easy to integrate into care programs for individuals with MCI due to Alzheimer's disease, warranting further research on long-term benefits.

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Data availability statement

The data that support the findings of this study are available from the corresponding author [JCM] upon reasonable request.

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