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Original Study

The Group Reminiscence Approach Can Increase Self-Awareness of Memory Deficits and Evoke a Life Review in People With Mild Cognitive Impairment: The Kurihara Project Data

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A B S T R A C T

Objectives: The group reminiscence approach (GRA) and reality orientation (RO) are common psychosocial interventions for patients with dementia. As a qualitative evaluation of the reminiscence approach in patients with dementia, the Patient Report Outcome (PRO) is useful. The purpose of this study was to investigate the effects of GRA-RO for participants with mild cognitive impairment (MCI) using the PRO.
Design: A cluster randomized controlled trial.
Setting: Community-based study.
Participants: Ninety-four patients with MCI (39 GRA-RO, 23 physical activity, and 32 cognitive training) described their impressions.
Intervention: Based on the database of the Kurihara Project, we retrospectively analyzed the participants' descriptions of their impressions as a PRO in the nonpharmacological interventions: GRA-RO, physical activity, and cognitive training. We categorized the descriptions according to the following 2 types: impression with content and reminiscence with life review. We assessed what they wrote regarding memory loss. The content on their life reviews was also a particular focus for the GRA-RO group.
Measurements: PRO.
Results: Compared with the physical activity and the clinical training groups, the GRA-RO patients described their reminiscence with life review and their own memory problems. There was no confusion of the order of events of their autobiographical memories. There was a significant time effect between the 2 family involvement groups in quality-of-life (QOL) scores, and the postintervention QOL scores were significantly better than preintervention.
Conclusion: This study suggests that the GRA-RO in participants with MCI not only stimulates life review but also increases self-awareness of memory deficits without confusion of the order of events. Thus, the GRA-RO may improve self-esteem and develop self-awareness.

Reminiscence therapy[1] and the reality orientation (RO) approach[2] are common psychosocial interventions for patients with dementia. In reminiscence therapy, patients are encouraged to talk about past events using the aid of tangible prompts (ie, photographs).[1] Life review typically involves individual reminiscence sessions, in which the person is guided chronologically through life experiences, and is encouraged to evaluate them.[1] The RO approach could improve overall cognitive function in patients suffering from dementia.[2,3] The reminiscence therapy for dementia could be effective in reducing depressive symptoms and improving psychological well-being.[4] We previously reported that the group reminiscence approach with RO (GRA-RO) improved executive functions, emotion, and social behavior in patients with dementia.[5,6]

GRA-RO is a combined approach of GRA and RO, and it was suggested to show synergistic effects in patients with dementia.[5–7] Cognitive stimulation therapy, based on RO, is a nonpharmacologic intervention for people with dementia that offers a range of enjoyable activities providing general stimulation for thinking, concentration, and memory.[2,8] In RO combined with GRA, there was orientation training at the beginning of each session.[9,10] In some sessions of GRA-RO, stimulations such as seasonal events and foods were used as reminiscence items.[9,10]

The authors declare no conflicts of interest.

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As a qualitative evaluation of the reminiscence approach for patients with dementia, the Patient Report Outcome (PRO) is useful.[7] The previous study using the PRO suggested that reports of patients with dementia, such as enjoyable, for intervention might have a positive effect on the postassessment.[7] We previously evaluated the beneficial effect of the GRA-RO in patients with vascular dementia (VaD).[1] From secondary analysis, we found that, compared with the "not enjoyable" group, the "enjoyable" group showed a statistically significant improvement on the Multidimensional Observation Scale for Elderly Subjects (MOSES).[7] MOSES is a kind of psychometric assessment consisting of self-care, disorientation, depression, irritability, and withdrawal subscales.[11] In the PRO, the rater classified as "enjoyable" when the overall emotional expression of an essay was positive, and the rater classified as "not enjoyable" when the emotional expression was negative or neutral.[7,10] The PRO study suggested that patients with dementia showed an improved inner mental world after using a psychosocial approach.[7] There was one particular narrative report from a patient with mild AD; in the first reminiscence session, she spoke using negative words (eg, "only a mountain here, and, nothing else").[12] In the fourth and fifth sessions, she spoke of her memories of housework, and the negative talking decreased.[12] After completion of the reminiscence sessions, the family member of one patient expressed the impression that the frustration and anxiety of the patient was decreased compared with before participation in the sessions.[12]

In our previous intervention study in the Kurihara project, we reported the effect of 3 types of psychosocial interventions for a population of individuals 75 and older with mild cognitive impairment (MCI)[13,14] (ie, GRA-RO, physical activities [PA], and cognitive training [CT]).[10] A Clinical Dementia Rating (CDR)[15,16] of 0.5 or MCI is comparable to questionable dementia. There are some definitions of MCI. In a recent MCI study of a Cochrane review including our study,[17,18] the authors used the MCI criteria of Petersen et al,[19] revised Petersen criteria,[13] Matthews criteria,[20] or a CDR of 0.5.[16] We clinically classified individuals with MCI using "CDR 0.5 criteria" in this study. In our intervention study, our findings suggest that PA and CT may be beneficial to physical and cognitive abilities, respectively. Our study accorded with past findings: Some PA studies of aerobic exercise[21] and resistance exercise[22] reported that there were positive effects of executive functions for people with MCI. Using CT study suggested that persons with MCI can improve their performance on cognition and function when provided with early cognitive training.[23] All intervention groups showed improvements in executive function and quality-of-life (QOL) scores, and greater improvements were noted by those with subjective good impressions throughout the sessions.[10] However, there has been no report using the PRO in reminiscence therapy for patients with MCI.

In the previous study on autobiographical episodic memory, the patients with MCI had a significantly lower score than healthy elderly in their recall of adolescence, middle age, and recent memories, but sparing childhood and early adulthood memories.[24] Prodromal patients with mild AD displayed a deficit in emotional autobiographical memory rather than the controls; however, the specificity of those memories was preserved.[25] However, it is not clear of the order of events and the reminiscence approach in people with MCI.

However, the effects of GRA-RO using the assessment of the PRO for participants with MCI have not been clear. Because the reminiscence approach uses the perspective of a "life review" to enrich the inner life through summarizing a person's own life, the effect on self-awareness of memory loss is hypothesized. The purpose of this study was to investigate the effects of GRA-RO for participants with MCI using the PRO. Through the analysis of description of the PRO of patients with MCI, in this study, we clarify the qualitative effects of GRA-RO, which are that GRA-RO may increase self-awareness of memory deficits and may evoke a life review in people with MCI.

Methods

Participants

We undertook the prevalence study in the community of Kurihara, Northern Japan, from October 2009 to December 2010. From 255 division communities in Kurihara, 19 were selected by city officials and were asked to participate in the project to help us reach our target population of 1252.[26] A total of 590 of the 1252 people aged 75 years or older agreed to take part in this study.[10,26–28] We assessed CDR,[15,16] clinical examination, blood tests, neuropsychological tests, and magnetic resonance imaging for all participants. The detailed methods of the Kurihara project have been described in previous reports.[10,26] Of the 295 people assessed as CDR 0.5 in our prevalence study, we conducted a psychosocial intervention study for 127 people (52 men and 75 women) who met the inclusion criteria and agreed to participate.[10] In this study, to evaluate the PRO of the psychosocial intervention, we asked the participants to write a description of their impressions after all sessions. Of the 127, 95 participants (39 GRA-RO, 24 PA, and 32 CT participants) completed the intervention, and 94 participants (39 GRA-RO, 23 PA, and 32 CT participants) described their impressions (72.7%) (Figure 1). One PA participant was excluded from the analysis because her family wrote her impression alternatively (Figure 1).

Table 1 shows the demographics and the mean scores of the Mini Mental State Examination (MMSE),[29] Geriatric Depression Scale—short version (GDS),[30] Apathy Evaluation Scale (AES),[31,32] and Face scale as assessments of the QOL[33] in the 3 intervention groups. There were no significant differences in sex among the 3 groups based on the χ^2 test ($\chi^2 = 2.12$; $P = .347$). There were no significant differences in age ($F = 0.83$; $P = .440$), GDS scores ($F = 2.05$; $P = .135$), AES scores ($F = 0.14$, $P = .868$), and QOL scores ($F = 1.43$; $P = .244$) among the 3 groups based on 1-way analysis of variance (ANOVA) with the post hoc Bonferroni test. The GRA-RO group was significantly higher than the CT group in educational level ($F = 6.00$, $P = .004$) and MMSE score ($F = 9.49$; $P < .001$) based on 1-way ANOVA with the post hoc Bonferroni test ($P < .05$).

Assessments

CDR[15,16,26] was used as a clinical dementia assessment for all participants. A clinical team consisting of skilled physicians (neurologists and a psychiatrist) and skilled public health nurses determined CDR for each participant, and were blinded to the cognitive test results. One author (KM) was certified as a CDR rater at Washington University. Before the physician interview, the public health nurses visited the participants' homes to evaluate their daily activities. The physicians interviewed the participants to assess episodic memory, orientation, and judgment. Finally, with reference to the information provided by the family members, the CDR for each of the participants

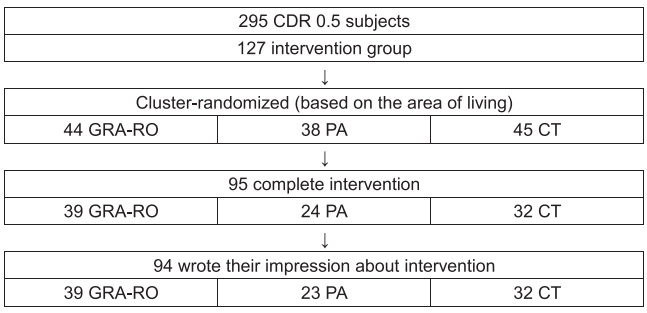

Fig. 1. Participants of the intervention study.