

# Evidence-Based Practice Recommendations for Working with Individuals with Dementia: Group Reminiscence Therapy

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In 2001, the Academy of Neurologic Communication Disorders and Sciences (ANCDS), in collaboration with the American Speech-Language Hearing Association (ASHA), its Special Interest Division 2 (SID-2: Neurophysiology and Neurogenic Speech and Language Disorders), and the Veterans Administration (VA) established a committee to write evidence-based practice guidelines for speech-language pathologists (SLPs) serving individuals with Alzheimer dementia. The writing committee developed a technical report with evidence tables, based on a systematic review of the literature related to interventions that SLPs would likely carry out with individuals with Alzheimer disease. In this clinical paper, results of the review related to reminiscence therapy are presented. The six studies reviewed were judged to provide Class II evidence to support the use of group reminiscence therapy to improve the functioning of individuals with Alzheimer dementia. A summary of the evidence supporting group reminiscence therapy is presented, followed by a discussion of practice recommendations and directions for future research.

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The Dementia Practice Guidelines writing committee was charged with the task of developing evidence-based practice guidelines for SLPs serving individuals with dementia. The committee systematically reviewed the literature and classified the evidence according to predetermined criteria. (See Bayles et al. [2005] for a detailed description of the procedures developed by the committee to evaluate the literature.) In this article, one of a series, evidence related to group reminiscence therapy as an intervention for individuals with dementia is reviewed.

Dementia is a syndrome characterized by multiple cognitive deficits, which are sufficient to interfere with daily living and social and occupational functioning (Grabowski & Damasio, 2004). Alzheimer disease (AD), the most common cause of dementia, accounts for approximately 66% of individuals with dementia (Katzman & Bick, 2000). As the risk of AD increases with age, the incidence of dementia will rise dramatically in the coming decades. Indeed, Ripich and Horner (2004) cite the aging of the "baby boomer" generation for creating the fastest growing clinical population served by SLPs.

Whereas many advances in pharmacological management of Alzheimer disease have been made, there still exists a great need for efficacious behavioral management techniques to maintain functioning and quality of life in the growing number of individuals affected by dementing diseases. SLPs, with their expertise in cognition and communication, are increasingly called on to design and implement interventions that either focus directly on the individual with dementia or indirectly through managing aspects of their environment, including interactions with caregivers. Group reminiscence therapy (RT) is an example of a direct therapeutic intervention for individuals with dementia.

### WHAT IS REMINISCENCE THERAPY?

Reminiscence is the process of recalling personally experienced episodes from one's past. Based on his theory of "life review," Butler (1963) posited that reminiscing about the past would serve an adaptive function for older adults, whereby they could achieve a sense of psychological well-being and closure in the face of their own mortality. Shortly after Butler's seminal paper, psychotherapists began using reminiscence as a therapeutic approach to improve psychological and social functioning. In studies with cognitively intact older adults, reminiscence therapy has been associated with positive changes in self-esteem and affect (Ebersole, 1978; Lappe,

1978); increased life satisfaction (Cook, 1998); decreased depression (Haight, Michel, & Hendrix, 1998); and increased communication skills, spontaneity, and laughter (Burnside, Rodriguez, & Trevino, 1989). (See Birren & Deutchman [1991] for a review on positive effects of reminiscence therapy.)

From a cognitive standpoint, the rationale of using reminiscence therapy with individuals with dementia is based on the theory that function is improved by decreasing demands on impaired cognitive abilities and capitalizing on preserved ones. Because individuals with dementia (in the early to moderate stages) have greater preservation of remote as compared to recent autobiographical memories (Greene & Hodges, 1996; Kopelman, 1985), researchers have hypothesized that talking about previous life events would result in enhanced communicative interactions (Woods, Spector, Jones, Orrell, & Davies, 2005).

Although reminiscence can be evoked through primarily verbal means, often props such as music, pictures, objects, and sounds are used to facilitate reminiscence. For example, a reminiscence therapy session centered on "pets" may include photos and slides of different pets; objects such as dog collars; stuffed animals; and tapes of dog, cat, and bird sounds. In recent years, a number of commercially available reminiscence materials have become available. These kits are designed for both caregivers and therapists, and are often organized around historical themes such as "The Great Depression" (BiFolkal Productions, 1997), chronological timelines arranged by decades (Bayles & Tomoeda, 1995) or developmental life milestones (Memory Lane, 2004).

### Role of the SLP in Reminiscence Therapy

Facilitating communication is a primary role of SLPs working with individuals with dementia. The process of reminiscing requires activation of multiple cognitive systems including attention, semantic and episodic memory, as well as the language associated with the relevant concepts, events, and feelings. SLPs may use reminiscence to promote engagement in daily life activities and to minimize social isolation by encouraging interaction between older adults and their communication partners. Reminiscence may also be used to elicit self-generated discourse samples, which can then be analyzed for diagnostic information and treatment objectives, such as linguistic content and pragmatic markers. With the expertise that SLPs possess in the domain of cognition and language, they are in a unique po-

sition to design reminiscence treatment programs to engage individuals with dementia at various levels of communicative competence. SLPs may be involved in leading reminiscence groups, or training other personnel and/or caregivers to implement reminiscence principles. SLPs also should be involved in assessment and screening of individuals' cognitive-communicative performance, vision, and hearing status to maximize benefit from placement in appropriate reminiscence therapy groups. (See Harris [1997] for suggestions on programming reminiscence groups.) Thus, SLPs have a role in assessment, design, and implementation of RT and require evidence to support its use with individuals with dementia. The following section includes information on procedures and results of the systematic review and classification of evidence related to RT with individuals who have dementia.

## PROCEDURES

### Systematic Review of the Literature

A general search was conducted in several electronic databases: Medline (1966–August 2002), CINAHL (1982–August 2002), HealthSTAR (1975–August 2002), PsycINFO (1967–August 2002), EBM Reviews, Cochrane Database of Systematic Reviews, ACP Journal Club, Database of Abstracts of Reviews of Effectiveness, Cochrane Controlled Trials Register, AMED (1985–September 2002), and Academic Search Elite (1980–September 2002). Additionally, hand searches were conducted of relevant edited books and studies cited in articles and chapters. The following search terms were used: reminiscence, reminiscence therapy, life review, dementia of the Alzheimer's type, and Alzheimer's/Alzheimer disease. After excluding articles in which RT was used with individuals without a clear diagnosis of dementia or Alzheimer disease (i.e., "confused elderly") and articles in which outcome measures did not include assessment of cognitive-linguistic functioning, seven articles were identified for inclusion in this review. One article (Woods, Portnoy, Head, & Jones, 1992) was excluded from review because the data presented in it were identical to those presented in an earlier paper by the same authors (Head, Portnoy, & Woods, 1990). Thus, this review includes six articles.

### Classifying the Evidence

The Dementia Practice Guidelines writing committee developed an evidence table template to classify

the research evidence related to SLPs' management of individuals with dementia. Each study was evaluated and classified based on several parameters, including the purpose of the study, major findings, subject characteristics, internal validity, external validity, dose-response characteristics (length, frequency, and duration of intervention), and construct validity. Two members of the committee independently read and rated each study based on the parameters listed above. The results of the classification of studies related to direct and indirect interventions for individuals with dementia are available in a technical report on the website of the ANCDs ([www.ancds.org](http://www.ancds.org)). In this clinical report, evidence related to the use of group reminiscence therapy will be discussed using a format adapted from Sohlberg et al. (2003) and Hopper et al. (2005). This format uses six key questions to guide the review of the literature:

1. What is the focus of the group RT studies?
2. Who are the participants who received the group RT intervention?
3. What comprises the group RT intervention?
4. What are the outcomes of the group RT intervention?
5. What are key methodological concerns related to the group RT intervention studies?
6. Are there clinically applicable trends across the group RT intervention studies?

## SUMMARY OF EVIDENCE FOR GROUP RT STUDIES

### What Is the Focus of the Group RT Studies?

The primary purpose of all studies reviewed was to evaluate the effects of group RT on various communicative, cognitive, and functional/behavioral outcome measures. The studies differed in the number and type of control groups, the structure of RT sessions, settings in which treatment sessions took place, and outcome measures obtained. Four investigative teams (Goldwasser, Auerbach, & Harkins, 1987; Namazi & Haynes, 1994; Nomura, 2002; Thorgrimsen, Schweitzer, & Orrell, 2002) compared individuals who received RT to control groups that received some other form of group treatment, (without the RT component), and/or a no-treatment control group. Both Goldwasser et al. (1987) and Namazi and Haynes (1994) assigned nursing home residents with dementia to one of three groups: reminiscence, "support group" therapy where individuals met and discussed present or future events or

problems, or a no-treatment control group. Thorgrimsen and colleagues (2002) applied group RT to dyads of individuals with dementia and their family caregivers. Dyads were assigned to either a treatment group or a no-treatment control group. In addition to group RT sessions within dyads, caregivers participated in additional training sessions on how to facilitate reminiscence. Nomura (2002) examined individuals with dementia participating in a day-care program. In this study, four groups were compared. Group 1 consisted of a mixed group of individuals (some with AD, some with vascular dementia) who received ordinary day-care programming. Group 2 consisted of individuals with AD who received day-care programming and RT. Group 3 consisted of individuals with vascular dementia who received day-care programming and RT, and Group 4 consisted of a control group of individuals (AD and vascular dementia) who did not participate in the day-care program nor receive RT.

The remaining two investigative teams used designs in which individuals with dementia served as their own controls, and performance during group RT sessions was compared to performance during a comparison condition. Head and colleagues (1990) compared RT to "alternative" group activities for individuals in two settings: a community and an institutional day-care facility. Moss, Polignano, White, Minichiello and Sunderland (2002) investigated quality of discourse interactions of individuals with AD during a group RT session as compared to discourse elicited while administering a standardized language test.

### **Who Are the Participants Who Received Group RT Intervention?**

A total of 122 participants were included in the six intervention studies. Fifty-nine individuals received group RT, and the remaining received either a similar "placebo" treatment or no treatment. Two investigative teams (Head et al., 1990; Thorgrimsen et al., 2002) included individuals with a diagnosis of dementia but did not specify the subtype of dementia. Goldwasser and colleagues (1987) and Nomura (2002) included individuals with other types of dementia besides AD, such as multi-infarct dementia and vascular dementia, respectively, although Nomura separated the results according to dementia subtype. None of the investigative teams reported how a diagnosis of Alzheimer disease or dementia was obtained. Table 1 contains information on the characteristics of the participants across the six studies reviewed.

Overall, participants were predominantly female (65%), averaging 77 years in age, community dwelling (62%), and exhibiting moderate-to-severe dementia severity. Individuals in the Moss et al. (2002) study were the least severe, with a mean score of 114/144 (range = 89–136) on the Mattis Dementia Rating Scale (MDRS; Mattis, 1988) indicating mild to moderate dementia severity. Individuals in the remaining studies were classified as moderate-severe, with mean Mini-Mental State Exam (MMSE) scores ranging from 10.4 (Goldwasser et al., 1987) to 16.0 (Nomura, 2002). Goldwasser and colleagues (1987) were the only investigators to administer a measure of depression (Beck Depression Inventory, BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) to their study participants, although Moss and colleagues (2002) remarked that participants "presented with no other neurological or psychiatric disorders, based on current medical records" (p. 39).

### **What Comprises the Group RT Intervention?**

The structure of the RT group treatments across all six studies involved a group facilitator and individuals with dementia meeting together one to three times a week. Facilitators for the various groups included psychologists, occupational therapists, registered nurses, SLPs, and professional reminiscence workers from Age Exchange, a charitable organization that runs reminiscence sessions in hospitals and nursing homes in the United Kingdom (Head et al., 1990). With the exception of Moss and colleagues (2002), who only had a single session of RT group treatment, the remaining groups centered around a different theme each week. Thorgrimsen and colleagues (2002) were the only investigators who used a standardized reminiscence protocol (*Reminiscing with People with Dementia—A Handbook for Carers*; Bruce, Hodgson, & Schweitzer, 1999) in their study. Four of the five remaining investigative teams that did not use a standardized RT protocol used props and other sensory stimuli to stimulate conversations and evoke memories. Goldwasser and colleagues (1987) did not use any sensory stimuli; rather, the RT sessions consisted of the facilitators and patients engaging in verbal discussion of various topics. The participants in Nomura's (2002) study and in the community day-care facility in Head and colleagues' (1990) study received RT session using props and stimuli related to memories that were personally relevant, whereas the remaining investigators used props and stimuli designed to stimulate general reminiscence. The number of RT

**TABLE 1.** Participant characteristics across the six reviewed studies.

	Goldwasser <i>et al.</i> (1987)	Head <i>et al.</i> (1990)	Namazi & Haynes (1994)	Nomura (2002)	Moss <i>et al.</i> (2002)	Thorgrimsen <i>et al.</i> (2002)
Total Number of participants	27	10	15	44	15	11
Number receiving RT	9	10	5	8*	15	7
Mean Age	82.3 (70–97)	78.5 (60–98)	81.5	75	68 (54–81)	76.2
Gender	7M; 20F	3M; 7F	15F	19M; 25F	9M; 6F	5M; 6F
Diagnosis	6AD; 11 Multiinfarct; 10 other dem	“Dementia”	15 AD	25 AD; 19 VaD	15 AD	“Dementia”
Severity	Mean MMSE = 10 (1–22)	CAPE Moderate- severe	Mean MMSE = 12 (6–19)	Mean MMSE = 16	MDRS Mild- moderate	Mean MMSE = 13
Vision	Not screened	1 with “poor eyesight”	Screened; poor vision excluded	Not screened	Screened	Not screened
Hearing	Not screened	3 were “hard of hearing”	Screened; poor hearing excluded	Not screened	Screened	Not screened
Residence	Nursing home	4 institute; 6 community	Nursing home	Community dwelling	Community dwelling	Community dwelling
Depression Screened?	Yes	No	No	No	Yes	No
Ethnicity	Not mentioned	Not mentioned	Not mentioned	All Japanese	“Diverse geographic & ethnic regions”	Not mentioned

\*13 individuals received RT; 8 had a diagnosis of AD, 5 had a diagnosis of vascular dementia

MMSE = Mini-Mental State Exam (Folstein, Folstein, & McHugh, 1975)

CAPE = Clifton Assessment Procedure for the Elderly (Pattie & Gilleard, 1979)

MDRS = Mattis Dementia Rating Scale (Mattis, 1988) (max = 144)

sessions conducted varied from one (Moss *et al.*, 2002) to 25 (Nomura, 2002), with a mean of 10 sessions across studies. Table 2 provides details about the structure of the reminiscence group sessions.

### What Are the Outcomes of the Group RT Intervention?

Outcome measures are intended to measure any change in functioning as a result of an intervention. All investigators employed a measure of cognitive or communicative functioning. Head and colleagues

(1990) tallied counts of how many utterances individuals made during the group RT and alternative group activities and to whom (staff member, other group member) the utterances were addressed. Moss *et al.* (2002) used the NIH Rating Scale for Functional Communication Abilities of Dementia (Moss, 1993) to rate verbal and nonverbal aspects of narrative and spontaneous (conversational) discourse. The remaining four investigative teams employed the Mini-Mental State Exam (MMSE; Folstein, Folstein, & McHugh, 1975) as a measure of cognitive change.

**TABLE 2.** Structure of reminiscence groups across the six reviewed studies.

	Facilitators	Stimuli	Format	Frequency
Goldwasser et al. (1987)	Clinical psychology student, volunteer social worker	None	9 people in group; facilitators elicit reminiscences from participants on a variety of topics, facilitators also regulate on-floor time & encourage participation	30 minutes; 2x/week; 5 weeks = 10 sessions
Head et al. (1990) Setting A: community day-care center	2 psychologists, 1 staff member	Personally relevant pictures	6 people in group; split into smaller groups of one staff member and two individuals with dementia; enactment of past experiences based on agenda for group	60 minutes; 1x/week; 6 weeks = 6 sessions
Head et al. (1990) Setting B: geriatric hospital day-care center	3 professional reminiscence workers from "Age Exchange"	General memorabilia such as old kitchen equipment, clothing	12 people (4 with dementia) in group; enactment and small group work; more spontaneity rather than a formal agenda as in Setting A	60 minutes; 1x/week; 6 weeks = 6 sessions
Namazi & Haynes (1994)	"Instructor familiar with reminiscence therapy"	Reminiscence package: audio cassette of sounds with accompanying pictures	5 people in group; instructor presents picture, plays accompanying sound, makes verbal references to picture to facilitate reminiscence; different topic each session	30 minutes; 3x/week; 4 weeks = 12 sessions
Nomura (2002)	Unknown	Props pertinent to theme, selected to be relevant to life histories	8 people in group; first part asked members for memories around certain themes; second part involved reminiscing with props	Unknown length; 2x/week; 12 weeks = 25 sessions
Moss et al. (2002)	Certified recreation specialist, Registered Nurse, SLP	Multimedia "remembering kits"—props, pictures, video, slides	15 people in group; reminiscence group (RG): introduction to theme, slides & props, sing-alongs based on familiar topics	60–90 minutes; 1 session
Thorgrimsen et al. (2002)	Community psychiatric nurses, occupational therapist	Slides, personal photos, music	7 people (+ caregivers) in group; standardized reminiscence program	Unknown length; 1x/week; 7 weeks = 7 sessions

Following the World Health Organization's International Classification of Functioning, Disability, and Health (ICF; World Health Organization, 2001) assessments can measure one of four main constructs that may impact functioning: Body Structure, Body Functions, Activity/Participation, and Contextual Factors. As the nature of group reminiscence therapy necessitates verbal communication and participation in a social activity, it should follow that outcome measures evaluate abilities at the Activity/Participation level of functioning. Whereas

the outcome measures employed by three investigative teams addressed participation in daily activities via behavioral counts/checklists of communication behaviors (Head et al., 1990; Moss et al., 2002; Namazi & Haynes, 1994) the remaining three research groups employed only standardized measures of cognitive function. Besides the MMSE, these included: the Hasegawa Dementia Scale-Revised (HDS-R; no reference given, cited in Nomura, 2002), Beck Depression Inventory (BDI; Beck et al., 1961), Katz Index of Activities of Daily Living (Katz,

Ford, Moskowitz, Jackson, & Jaffee, 1968), Quality of Life-Alzheimer's Disease (QOL-AD; Logsdon, Gibbons, McCurry, & Teri, 1999), Clifton Assessment Procedures for the Elderly Behavior Rating Scale (CAPE-BRS; Pattie & Gilleard, 1979), and the Holden Communication Scale (Holden & Woods, 1995). These standardized tests provide indirect measures of activity/participation based on other aspects of functioning such as depression and activities of daily living (Goldwasser et al., 1987), social interaction (Nomura, 2002), and quality of life (Thorgrimsen et al., 2002). However, the majority of the measures addressed some aspect of neuropsychological functioning, which falls under the domain of Body Functions in the ICF framework. Further, all but one of the investigative teams did not include measures of contextual (environmental) factors that may have changed as a result of the group reminiscence intervention. Thorgrimsen and colleagues (2002) administered a general health questionnaire and a relative stress scale to caregivers. Although these measures assess functioning of caregivers, they can also be seen as indirect measures of contextual factors, because changes in caregivers' knowledge/attitudes toward the individual with dementia would be expected to be affected by training in the use of RT techniques.

### **What Are Key Methodological Concerns Related to the Group RT Intervention Studies?**

Methodological concerns that arose in reviewing the studies were related to internal and external validity. Although each will be discussed separately, it is important to note that factors that threaten each type of validity can overlap and influence each other.

#### ***Internal Validity***

Internal validity pertains to the ability to make causal inferences from the study, and as such, factors including research design, presence of control groups, random assignment of participants to groups, and presence and treatment of missing data are considered. Four investigative teams employed a group treatment design in which group RT was compared with a no-treatment control group (Thorgrimsen et al., 2002) or to both a "placebo" treatment control group and a no-treatment control group (Goldwasser et al., 1987; Namazi & Haynes, 1994; Nomura, 2002). The remaining two investigative teams (Head et al., 1990; Moss et al., 2002) employed a design where all participants received both

group RT and an alternative treatment and measured outcomes during/after both conditions. Although group treatment designs with the presence of a control group allow for greater experimental control of confounding variables, random assignment of participants to groups was only conducted by Goldwasser et al. (1987) and Thorgrimsen et al. (2002).

Another methodological concern was that the groups had a small number of participants (five to ten) per group, which may limit generalizability. There were only three patient/caregiver dyads in the control group in the Thorgrimsen et al. (2002) study and only four participants in one of the groups in the Namazi and Haynes (1994) study. However, investigators may have purposely limited the number of participants per group to maximize the interaction among group members and staff members during the reminiscence therapy.

In addition to the small groups, three studies reported subject attrition. In each case, the investigative teams (Goldwasser et al., 1987; Namazi & Haynes, 1994; Thorgrimsen et al. 2002) excluded the participants' data from the results. Attrition in two of the investigations (Goldwasser et al., 1987; Thorgrimsen et al., 2002) was due to deteriorating health. Although differences inherent in participants who completed the study versus those who did not poses a methodological concern, the fact that both studies had random assignment of participants to groups likely mitigated potential confounding effects. Head and colleagues (1990) reported missing data due to technical problems. Video data were not collected for all sessions; therefore, direct comparison of communicative interactions between reminiscence and alternative activities could only be made for 50% of the sessions. Further, in one of the settings (community day-care center) a particular staff member was only available for half of the sessions. As one of the outcome measures in this study included assessment of the frequency with which the participants communicated with staff members, the absence of this staff member may have affected results obtained during these sessions. An additional concern that arose from review of the Head et al. (1990) study had to do with disparities between the two settings (community day-care center and geriatric hospital) being investigated. Besides differences in the nature of the participants living in the community versus those living in a geriatric hospital, there were significant procedural differences between the two groups. For instance, the reminiscence groups in the two settings were run by different facilitators, the group in the geri-

atric hospital included non-demented elderly, and the activities during the reminiscence and alternative sessions also differed. In the community day center, alternative group activities were social verbal activities such as charades, whereas alternative activities in the geriatric hospital were nonverbal solitary activities such as knitting and basket weaving. These differences in procedures are problematic in that the efficacy of RT was evaluated by comparing communicative interactions made during reminiscence activities to those made during these diverse alternative activities.

### **External Validity**

External validity relates to the generalizability of findings, and includes consideration of factors such as whether the treatment was described in sufficient detail to be replicated, consistency and fidelity of treatment application, and sufficient characterization of participants. Although most of the investigators described the reminiscence group procedures, including themes, props, and general order of events in sufficient detail, due to the dynamic nature of group reminiscence therapy, it is difficult to replicate exactly the treatment procedures described by the investigators. In most instances, it appeared that facilitation of the reminiscence group was largely subjective and/or dependent on the facilitator's skill and rapport with group members. For instance, Namazi and Haynes (1994) state: "The instructor would attempt to keep the topic alive for the remainder of the 30 minute session by posing more questions related to the topic when necessary" (p. 34). Similarly, facilitators in Goldwasser et al.'s (1987) study "sought to stimulate the retrieval of information . . . by helping the participants generate internal retrieval cues such as logical situational and chronological inductions" (p. 211). Based on these descriptions, the reviewers agreed that the questions and cues generated by facilitators would be highly variable, thus overall replicability of procedures was limited.

Given the relatively subjective nature of group reminiscence therapy, inter-rater reliability judgments of treatment implementation or other manipulation checks would have strengthened treatment fidelity. No inter-rater reliability estimates related to treatment implementation nor data collection procedures were reported in any study, except by Head et al. (1990). Head and colleagues reported an average inter-rater reliability of behavioral observations of 90%. Finally, although all studies employed measures where observation of behaviors was neces-

sary, only in two studies (Goldwasser et al., 1987; Thorgrimsen et al., 2002) were raters blind to which participants were receiving treatment.

A final component of external validity relates to how well the participants were characterized, and the stringency/leniency of inclusion and exclusion criteria for participation. This information is applicable in assisting readers to infer how generalizable the study sample would be to a particular population of interest. Three of the six studies reviewed included participants with a diagnosis of "dementia," without specifying subtype. The remaining three (Moss et al., 2002; Namazi & Haynes, 1994; Nomura, 2002) restricted their sample to individuals with a diagnosis of Alzheimer dementia but did not specify what diagnostic criteria were used to establish AD etiology. Aside from diagnosis of participants, half of the studies were limited in sample generalizability, as the cognitive profiles of the participants and/or exclusionary criteria used to enroll participants were not adequately characterized (Head et al., 1990; Nomura, 2002; Thorgrimsen et al., 2002).

Causal generalizability refers to the extent to which a causal link between the treatment and outcomes can be inferred. Factors such as participant characterization, treatment fidelity, and presence of manipulation checks all contribute to overall causal generalizability. Given the methodological concerns outlined above, the reviewers judged only a moderate degree of certainty that the treatment was causally linked to the outcomes across all studies reviewed. Potential confounding factors that limited causal generalizability included inadequate characterization of participants in some studies, lack of inter-rater reliability judgments, and limited treatment fidelity due to lack of manipulation checks.

### **Are There Clinically Applicable Trends Across the Group RT Intervention Studies?**

The following are trends that emerged across studies.

1. *Group reminiscence therapy may contribute to improved cognitive functioning as measured by the MMSE.* Two of the four (Namazi & Haynes, 1994; Nomura, 2002) investigative teams who used the MMSE as a cognitive outcome measure reported differences on MMSE scores postintervention between the experimental and control groups. The remaining two, Goldwasser et al. (1987) and Thorgrimsen et al. (2002), reported trends toward improved MMSE scores for the treatment group; however, the scores did not reach statistical significance. Of note is that the two studies that had significant results had a greater number of sessions

(24–25 sessions, Nomura, 2002) or greater frequency of intervention (three times per week, Namazi & Haynes, 1994) than the two studies that did not have significant differences.

2. *Group reminiscence therapy may contribute to improved discourse.* Moss and colleagues (2002) reported improved discourse ratings during group RT sessions compared to discourse obtained during diagnostic language sessions. In particular, the discourse categories “narrative production” and “linguistic and verbal behaviors” showed significant improvements.

3. *Group reminiscence therapy may contribute to increased well-being in individuals with dementia and their caregivers.* Individuals in the Goldwasser et al. (1987) study who received group RT had lower scores on the BDI following treatment suggesting an improvement in well-being. However, the authors caution that despite random assignment to groups, the participants in the experimental group incidentally had higher baseline BDI scores. Caregivers who participated in the RT treatment group in Thorgrimsen et al.’s (2002) study reported a decrease in self-reported stress as measured by the Relative Stress scale.

4. *The social nature of the activities may be an important factor in promoting positive outcomes related to cognition, communication and well-being.* In Nomura’s (2002) study, individuals who participated in day-care programming plus group RT had the greatest improvement in MMSE scores. However, those who participated in day-care programming alone also demonstrated improvements in cognitive functioning, indicating that the social interaction of the day-care program had some facilitative effects. Namazi and Haynes (1994) reported that verbal and nonverbal responses were not significantly different between the RT group and the placebo control group that participated in structured group activities but did not engage in reminiscence. Finally, individuals in Head et al.’s (1990) community day-care center setting did not show a significant difference in the number of conversational exchanges made during RT activities versus alternative activities that were social in nature (charades, games). The individuals in the geriatric hospital did show a significant difference between RT and alternative activities, which were composed mainly of solitary activities such as basket weaving and knitting.

### What Have We Learned From This Review?

All of the studies reviewed provide Class II evidence for the use of group RT for individuals with demen-

tia, and were considered to be Phase I or Phase II research, where investigators are developing and refining research hypotheses. Although the studies reviewed had methodological shortcomings, they provide preliminary evidence for the positive effects that group RT can have on communication and cognition of individuals with dementia. Based on this review, recommendations for clinical practice are outlined below.

### Appropriate Candidates for Group Reminiscence Therapy

Individuals with dementia displaying the following characteristics may be appropriate candidates for group RT.

- Episodic memory impairments as a result of progressive dementia, with some ability to engage in verbal communication retained
- Mild to moderate dementia severity, with the ability to attend to and tolerate social interaction within a group without excessive disruption to other group members
- Functional vision and hearing capabilities to participate in reminiscence therapy activities involving sensory stimuli

### Implementation of RT for Individuals with Dementia

The following guidelines for implementing RT provide positive effects.

- Limit group composition to individuals at a similar level of cognitive-linguistic ability
- Keep the staff-to-patient ratio small enough to allow for optimal facilitation of communication from all members (e.g., no more than five individuals with dementia per one staff facilitator)
- Group facilitators should be familiar with cognition and communication in aging and dementia and possess skills in management of time, topics, and group dynamics
- Focus each session around a central theme, including relevant multisensory props/stimuli to serve as retrieval cues
- Use personally relevant photos and other props to aid in retrieval of memories, although more systematic investigation is needed to validate the effects of personally relevant over generic stimuli

- Group RT sessions should take place at least weekly. More frequent and/or more sessions may result in stronger effects as suggested by the evidence reviewed here, but more research is required to corroborate this recommendation.

### ***Expected Outcomes***

When recommended guidelines are implemented, the following outcomes have been corroborated:

- For some individuals, small improvements in global cognitive functioning, as measured by the MMSE, although duration and type of improved cognitive functioning requires further investigation
- Greater number of conversational contributions during reminiscence group activities
- Improved verbal and narrative aspects of discourse produced during reminiscence group activities
- Increased ability to recall information related to the reminiscence topic

### **CURRENT AND FUTURE RESEARCH DIRECTIONS**

During the time between collection and systematic review of the literature and preparation of this clinical paper, one additional study on the use of group RT has been published. Although this study was not included in the technical report and evidence table, it is summarized here as it provides further evidence to support the use of group RT as a cognitive-linguistic intervention for individuals with dementia.

Tadaka and Kanagawa (2004) conducted a randomized controlled trial where 60 community-dwelling individuals with Alzheimer or vascular dementia were assigned to either an intervention or a control group. The intervention consisted of reminiscence and reality orientation care methods, in addition to routine day-care service, and was administered once a week for 10 consecutive weeks. Outcome measures were a Japanese version of the MMSE, and the Multi-Dimensional Observation Scale for the Elderly (MOSES; Helmes, Csapo, & Short, 1987). Measures were taken at baseline, immediately after 10 weeks of treatment, and at 6-month follow-up. After completion of the intervention, the experimental group had significantly higher scores on the MMSE, but there was no significant difference at 6-month follow-up. The experimental group also had significantly lower scores on

the disorientation and withdrawal portions of the MOSES, a difference that remained at 6-month follow-up. Although this study was methodologically more rigorous in ruling out threats to internal and external validity, a major caveat was that the intervention was a combination of reality orientation and reminiscence programming. It is impossible to delineate which aspects of the programming (reminiscence or reality orientation) affected the most change in performance of individuals with dementia.

The studies reviewed here provide preliminary evidence justifying the use of group RT as a cognitive-linguistic intervention for individuals with dementia. Additional studies employing larger samples and experimental control are required in order to further examine its efficacy. Additional questions that require further investigation include:

- Determining the characteristics of subjects who will derive the most benefit from group RT (including severity, dementia subtype, ethnicity, communicative status)
- Systematically investigating cognitive-linguistic and discourse variables pre- and postintervention
- Assessing the benefit of personally relevant versus generic props and themes
- Quantifying the length of time benefits are retained postintervention
- Determining the minimum duration and frequency of intervention required to derive benefits

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