

## **Integrative and instrumental reminiscence therapies for depression in older adults: intervention strategies and treatment effectiveness**

L. M. WATT & P. CAPPELIEZ

*School of Psychology, University of Ottawa, Ontario Canada*

### **Abstract**

Reminiscence has been identified as an important contributor to adaptation in later life by gerontologists, developmental theorists and clinical practitioners. Despite its wide acceptance as an intervention, there remains some doubt about its therapeutic efficiency. In order to assess the value of reminiscence for the treatment of depression in older adults, cognitive theories of depression were integrated with reminiscence theory to develop two standardized integrative and instrumental reminiscence interventions. Integrative reminiscence therapy aims at a constructive re-appraisal of interpretations and emotions to past self-defining events, whereas instrumental reminiscence uses memories for providing evidence of past successful coping and for identifying appropriate coping strategies. These interventions were implemented in a short-term group format and compared to an active socialization group as the control condition. Twenty-six older adults with moderate to severe depression constituted the sample. Evaluation of the clinical significance of the results showed that both reminiscence therapies led to significant improvements in the symptoms of depression at the end of the intervention. In the integrative group, 58% of clients demonstrated clinically significant improvement at post-test, yielding an effect size (ES) of 0.86. At follow-up three months later, 100% of integrative clients had improved clinically (ES=0.96). In the instrumental group, 56% of clients demonstrated clinically significant improvement at post-test (ES=0.81) and 88% improved at the follow-up (ES=0.89).

Recognition of the unique needs and concerns involved in adaptation to the later stages of life has led clinicians to modify traditional interventions, such as cognitive and interpersonal approaches, to address psychological issues of particular relevance to older adults experiencing depression (e.g. Clarke & Lewinsohn, 1989; Cohen, 1990; Hebl & Enright, 1993; Leszcz, 1990; Miller *et al.*, 1994; Moberg & Lazarus, 1990). Unique interventions that are specifically designed for use with older adults have also been developed. Reminiscence (or life review) therapy is one intervention which has been developed to provide an alternative to the more traditional approaches to psychotherapy with older adults. The idea that reminiscence plays a major role in successful aging (Butler, 1974) has gained currency among researchers and practitioners (Coleman, 1986; Cook, 1991; Kaminsky, 1984). An increasing number of seniors centres and nursing homes have included some form of life review discussion group as part of their regular programs (Birren & Deutchman, 1991; Kaminsky, 1984). Reports on the clinical value of reminiscence and its attractiveness to the elderly population continue to appear regularly in the literature (see Thornton & Brotchie, 1987 and Haight, 1991 for reviews; Arean *et al.*, 1993; Goldstein, 1987; Magee, 1988; Rybarczk & Auerbach, 1990).

After reviewing more than 100 published articles, Haight (1991) concluded that the majority recognized reminiscing as providing a variety of therapeutic benefits to older adults. This positive evaluation of reminiscence, however, was based to a great extent on unreplicated single case studies and clinical observations of reminiscence therapy. Several investigations which have empirically evaluated the effectiveness of reminiscence intervention on depression and psychological variables related to depression support the utility of reminiscence as a therapeutic intervention (e.g. Arean *et al.*, 1993; Fry, 1983; Rattenbury & Stones, 1989). In contrast, other studies do not support the effectiveness of reminiscence therapy in the treatment of depression (e.g. Cook, 1991; Fallot, 1979–80; Perotta & Meacham, 1981–82; Stevens-Ratchford, 1993). In summary, the research on reminiscence interventions is characterized by inconclusive findings.

Evaluation of the efficacy of reminiscence will continue to be inconsistent and inconclusive until research is guided by a comprehensive theoretical framework of reminiscence which specifies the content of reminiscence that is critical to adaptation, the function reminiscence serves for specific populations, and the psychological change processes which should be evaluated in reminiscence interventions. A first step

in this direction is the recognition that reminiscence is not a unitary phenomenon. Webster and Haight (1995) have concluded from their review that taxonomies which have been proposed overlap in major dimensions. Among these classifications, the comprehensive system proposed by Watt and Wong (1991) specifies guidelines for the reliable classification of reminiscence. On the basis of content analysis of reminiscence data collected from 400 seniors, the authors identified six different types of reminiscence: integrative, instrumental, transmissive, narrative, escapist and obsessive.

Wong and Watt (1991) investigated the differential relationships of these different types of reminiscence with adaptation and well-being among older adults. Successful elderly people assessed on mental and physical health and adjustment engaged in integrative and instrumental reminiscence to a greater extent than unsuccessful older adults. The finding that integrative and instrumental types of reminiscence were associated with successful aging provided the impetus for further examination of the specific cognitive and affective processes invoked by use of these two types of reminiscence in treatment of depression. A theoretical understanding of how these specific types of reminiscence are linked with appropriate target symptoms was attempted in the context of an integration of reminiscence and cognitive models of depression and coping (Watt & Cappeliez, 1995). The theoretical model and intervention strategies for integrative and instrumental reminiscence are developed below.

### **Implementation of integrative reminiscence intervention: a cognitive re-attribution framework**

Integrative reminiscence is a process in which individuals attempt to accept negative events in the past, resolve past conflicts, reconcile the discrepancy between ideal and reality (Birren, 1964; Lieberman & Tobin, 1983), identify a pattern of continuity between past and present (Lieberman & Tobin, 1983) and find meaning and worth in life as it was lived (Butler, 1963; Erikson, 1980; Wong, 1989; 1995). Like cognitive models of depression, integrative recollections deal directly with the negative thoughts about the self, world and future (Beck, 1967; Beck *et al.*, 1979) and the schematic information-processing styles that emphasize dysfunctional causal attributions for negative events (Abramson *et al.*, 1988) which support negative mood and behavioural symptoms of depression.

#### *Disconfirmation of negative beliefs about the self and the future*

An integrative life review provides individuals with the opportunity to examine evidence that may discon-

firm negative self-evaluations associated with depression. To counteract the tendency of many depressed persons to ignore major pieces of positive information and centre on those that support their dysfunctional views, clients are led to seek fuller, more detailed accounts of the life story and correspondingly more balanced interpretations of past events (Hollon & Garber, 1990; Schneider & Schiffrin, 1977). As they review both good and bad experiences within the context of the entire lifetime, the negative impact of any given hardship, failure to act at an optimal level or negative comparison with others may be dispersed by recognition of good actions taken and happy events experienced. Both the sheer number of positive and negative experiences that fill the lifespan and the fact that failures in one domain, such as career, may be offset by accomplishments in another arena, such as family life, reduce the probability of the client committing cognitive errors such as selective abstraction and magnification/minimization. Individuals may thus disconfirm global, negative evaluations of the self that are associated with depression and begin to develop a realistic, adaptive view of the self that incorporates both positive and negative attributes.

#### *Alternatives to self-blame*

In addition to reducing cognitive errors that lead to negative beliefs about the self and the future, integrative reminiscence can interrupt the activation of depressogenic schema that influence self-definition during a period of depression. In particular, integrative reminiscence provides the opportunity for a balanced, realistic re-attribution of responsibility in situations of self-blame and self-criticism—helping to resolve past conflicts and reduce the tendency of depressed individuals to attribute the causes of negative events to internal, stable and global factors (Alloy *et al.*, 1988).

Integrative reminiscence gives clients the opportunity to review the causes and consequences of many negative events they have experienced during their lifetime. From a non-judgemental, middle-ground position, they can be prompted to identify their spontaneous attributions as well as alternative attributions. The life review format provides some distancing from personal and often emotionally-charged material and locates the life story within its historical context. This distance may permit individuals to think in a relativistic fashion about their actions and accomplishments. Negative social comparisons and moral evaluations may be short-circuited by recognition of mediating factors which may have led to differential experiences for each individual. For example, an elderly woman may ascribe her failure to obtain a teaching position to the difficult economic times experienced during the Depression, rather than to personal failings or to the

'fact' that others always get better breaks than she. The different temporal and contextual guidelines provided by the life review may afford elderly individuals the opportunity to re-interpret their experiences without making negative personal or social judgements (Blanchard-Fields, 1990; Labouvie-Vief, 1982; Labouvie-Vief *et al.*, 1989), leading to the development of a new set of beliefs about the self that are less absolute and reflect openness to alternative explanations (Riegel, 1973; 1975).

#### *Internal guidelines for the evaluation of self-worth*

One factor that has been identified as contributing to vulnerability to depression is the reliance on external sources of information about self-worth. To the extent that individuals fail to develop internal guidelines for determining their success and value, their sense of self will remain fragile and vulnerable to changing circumstances. The life review process invites an interpretation of experience that is dynamic, participatory and governed by standards that reflect personal interests, motivations and philosophies. As clients weave the stories of their lives, they re-interpret episodes in terms of the meaning they hold for them, rather than whether they are objectively right or wrong, good or bad (Bruner, 1986; Gergen & Gergen, 1986). Life review is used to promote contextual thinking that reflects internal standards of meaning and purpose. Through the identification and development of a set of subjective, coherent, self-affirming assumptions, the individual is able to reinterpret his or her experience in terms of its personal meaning and significance, rather than its negative reflection on the self (Labouvie-Vief, 1982; Labouvie-Vief *et al.* 1989).

#### *Renewed sources of self-worth*

A restricted number of sources of self-worth is another vulnerability factor for the development of depression. The drive toward identifying meaning in life that is one of the hallmarks of integrative reminiscence may provide individuals who are vulnerable to depression with additional sources of self-worth, thereby granting them increased protection against the onset of depression. For example, Butler (1963) emphasized that sources of esteem and worth such as the development of personal values and commitments, the identification of spiritual or philosophical meaning, and the recognition of one's place in an intergenerational continuity are outcomes of a successful life review. Identification of multiple sources of meaning and worth may provide individuals with an increased sense of control in their lives and with a reduction in dissatisfaction, boredom and indiscriminate seeking of stimulation and fleeting goals.

### **Implementation of instrumental reminiscence: a stress and coping framework**

The psychosocial model of depression proposed by Billings and Moos (1982; 1985) assumes that depression results from an interplay between the situational demands experienced by individuals, their cognitive appraisal of the coping resources they have to meet these demands (i.e. challenge versus threat appraisals) and their coping responses to the stressors. Instrumental reminiscence involves recollections of past coping activities, including memories of plans developed to solve difficult situations, goal-directed activities, and the achievement of one's own goals or goals one helped others meet (Watt & Wong, 1991; Wong & Watt, 1991).

#### *Coping resources*

When individuals believe they are capable of managing negative events in their environment, they are less likely to appraise these events as threatening to themselves and important others (primary appraisals) and more likely to appraise them as challenges that can be coped with effectively (secondary appraisals) (Lazarus & Folkman, 1984). These challenge-oriented appraisals lead individuals to take active, problem-focused approaches to alter situations (e.g. problem-solving initiatives, integration of social support) (Fry, 1993). In contrast, low perceived self-efficacy and self-esteem have been found to lead to escape or avoidant coping activities which are negatively related to psychological adjustment and effective coping (Abler & Fretz, 1988; Holahan & Holahan, 1987; Taylor, 1983; Woodward & Wallston, 1987). Through their impact on adaptive coping, self-esteem and efficacy/control beliefs serve to mediate between the experience of stress and the onset of depression (Billings & Moos, 1982, 1985; Cappeliez, 1993).

Instrumental reminiscence may exert a positive effect on individuals' self-esteem and efficacy/control beliefs via recall of mastery experiences in which individuals acted effectively and competently to control their environment. This goal may be obtained by recalling episodes of successful past coping, with a focus on individuals' crucial contribution to the achievement.

#### *Primary and secondary appraisal strategies*

Whereas some enduring goals can be identified and accommodated, one of the major features of adaptive coping is to renounce or relegate to the periphery of importance those roles and commitments that are no longer rewarding or attainable and to invest in others more in tune with current conditions of living (Pearlin, 1980). For many seniors, changes in physical health,

financial status or social support necessitate major life changes. If these changes in priority are not accomplished when they are required, individuals may continue to struggle without reward and thereby experience reductions in morale and adaptation. By examining past experiences when individuals successfully negotiated role changes, the importance of taking stock of roles and commitments and re-evaluating them in the light of present circumstances is highlighted. This process, in turn, may decrease the number of unattainable goals which represent primary appraisals of threat to self-worth. Further, observation of the change and development of goals and needs in different coping situations over time can provide clients with concrete examples of compromise and prioritization that aid identification of alternative ways to have needs met, and to see this as a normal growing process, rather than a threat to the self.

Once relevant and irrelevant sources of stress have been identified, individuals must make challenge-oriented secondary appraisals of their ability to meet these stressors (i.e. the belief that something can be done to mediate a stressful situation). Problem-solving skills that promote challenge appraisals may be illustrated through clients' own recollections. For example, defining aspects of a stressful situation that can and cannot be changed, brainstorming alternative solutions to problems, and deciding on an appropriate solution are all essential features of successful coping individuals can recognize in themselves through reminiscence (Nezu *et al.*, 1989). By illustrating the importance of identifying the possibilities for change and adaptation that exist in a stressful situation, and through development of appropriate and meaningful goals in coping activities, instrumental memories make stressors manageable. The threatening and over-whelming nature of stressors is thus reduced, enabling clients to address negative experiences with a challenge orientation and a dynamic approach to problem-solving.

#### *Problem- and emotion-focused coping responses*

Instrumental reminiscence can have a positive impact on current coping practices by influencing the type of coping responses that are selected. Recent research indicates that older adults who successfully cope with depression use an active and problem-solving approach (Cappeliez & Blanchet, 1986; Foster & Gallagher, 1986; Fry, 1993; Gerbaux *et al.*, 1988; Vézina & Bourque, 1984; 1985).

Folkman and Lazarus (1986) describe problem-focused coping as a strategy which involves the individual in a deliberate goal-oriented effort to alter the situation (e.g. 'I knew what had to be done, so I doubled my efforts to make things work'), coupled with an analytic approach to solving the problem (e.g. 'I made a plan of action and followed it', 'I came up with a couple of different solutions to the

problem'). Instrumental reminiscence, with its focus on the recall of successful problem-solving strategies used in the past that can be applied to current problematic situations, encourages individuals to use the active, problem-focused coping responses that have been identified as anti-depressive.

Instrumental reminiscence intervention can also facilitate emotion-focused coping, which is relevant in situations that are unchangeable (Folkman *et al.*, 1986). Three types of emotion-focused coping are particularly useful. Positive re-appraisal involves attempts to create positive interpretations of stress by focusing on personal growth. Accepting responsibility acknowledges one's own role in creating the stress and a desire to try to put things right. And distancing involves detaching oneself from the situation by trying not to become too serious about it or by looking for a silver lining.

#### **Hypotheses and overview of the study**

The purpose of this research was to determine the impact of integrative and instrumental reminiscence interventions on depressive symptomatology and adaptive functioning in older adults, in comparison to an active socialization control group. An active socialization control was chosen as it provides many of the same group factors that occur in the experimental groups, which may have an impact on depression (e.g. universality, social support) without the introduction of reminiscence. Based on the models presented above, intervention manuals outlining the implementation of integrative and instrumental reminiscence interventions were developed (manuals available from the first author on request). Subjects were randomly assigned to one of three groups (integrative, instrumental or active socialization control). The hypothesis that instrumental and integrative interventions produce clinically significant improvements in depression was examined.

#### **Method**

##### *Participants*

Clients, recruited through mental health agencies and community advertising, met the following criteria for inclusion in the study: (1) 60 years of age and older; (2) clinically significant levels of depressive symptomatology as indicated by a score of at least 14 on the Geriatric Depression Scale (GDS; Brink *et al.*, 1982; Yesavage *et al.*, 1983); and (3) not currently receiving anti-depressant medication, or if taking such medication, must be stabilized on that medication for at least three months. Participants who demonstrated the following characteristics were excluded from the study: (1) elevated risk of suicide; (2) alcohol or drug abuse; (3) psychiatric disorder other than primary

depression; (4) significant cognitive impairment as indicated by a score below 24 on the Mini-Mental State Examination (MMSE; Folstein *et al.*, 1975); (5) physical impairment which may seriously inhibit participation in group therapy; and (6) current participation in another psychotherapeutic intervention.

Of the 81 persons contacted for treatment, 52 (64%) passed the telephone screening and were assessed for eligibility. Forty clients met inclusion and exclusion criteria and were accepted into the study. Through attrition, 26 clients completed the study. Attrition rates were greatest in the control group.

The mean age of the subjects was 66.8 years, with about equal gender distribution (54% women) and a high level of education (73% with some level of college or university education). Thirty-five per cent of the participants were married, 38% divorced or separated, 15% widowed and 12% single. Sixty-five per cent rated their health as good or very good. Pre-treatment level of depression on the HRSD and GDS indicated that all three groups demonstrated moderate to severe depression prior to engaging in the research project (Table 1). Social adjustment scores demonstrated greater dysfunction than an average community-dwelling sample, but not to the degree reported in Weissman's initial normative study of acutely depressed individuals (Weissman *et al.*, 1978). The three groups did not differ in terms of social adjustment.

#### Procedure

All assessments of participants were conducted by a Master's level psychologist who was not the therapist and who was blind to subject's treatment group. During the intake interview, this psychologist gave prospective participants the MMSE, the Hamilton Interview for Depression, the GDS and a demographic questionnaire. Subjects meeting the

criteria were given the time and date of the first meeting of the condition to which they had been randomly assigned. The three conditions were integrative reminiscence, instrumental reminiscence and active socialization control. Subjects were brought into the study at five different time points, or cohorts. At each cohort, subjects were randomly assigned into a different pair of conditions, in a balanced sequence. For example, in the first cohort, clients were randomly assigned to the integrative group or instrumental group. In the second cohort, clients were randomly assigned to the active socialization control group or the instrumental group.

Prior to the first session of the intervention, each participant completed the following measures: Geriatric Depression Scale (GDS; Yesavage *et al.*, 1983); Social Adjustment Scale (SAS; Weissman & Bothwell, 1976); Effectance Motivation Scale (Maddux *et al.*, 1986); Hopelessness Scale (Beck *et al.*, 1974); Rosenberg Self-esteem Scale (Rosenberg, 1965); Attributional Style Questionnaire (Seligman *et al.*, 1979); Life Attitude Profile (Reker *et al.*, 1987); Appraisal Questionnaire, and Ways of Coping-Revised (Folkman & Lazarus, 1986; 1988). At the mid-point (after session three) and at the conclusion of the intervention (end of the sixth week) participants were again assessed on all these measures. A follow-up assessment was conducted three months after the end of the intervention using the interview-based HRSD. The present report deals with the outcome assessed by the GDS, SAS and HRSD. The other measures were included to assess the therapeutic process and will be reported in another paper.

#### Format of the interventions

The sessions were conducted in a group format with two–four participants and one Master's level therapist who was supervised by a registered clinical psychologist. The therapist conducted both reminiscence interventions and the control treatment. The two

TABLE 1. Pre- and post-treatment and three-month follow-up depressive symptomatology and social adjustment mean scores (and standard deviations) for the integrative, instrumental and control groups

	GDS	SAS	HRSD
Integrative			
Pre-treatment	20.58 (3.82)	1.72 (0.52)	21.67 (4.31)
Post-treatment	14.67 (7.40)	1.68 (0.43)	–
Follow-up	–	–	7.33 (4.05)
Instrumental			
Pre-treatment	18.87 (4.29)	1.41 (0.41)	22.22 (4.27)
Post-treatment	15.50 (7.08)	1.25 (0.35)	–
Follow-up	–	–	10.33 (4.09)
Active control			
Pre-treatment	19.18 (4.76)	2.08 (0.66)	21.78 (4.01)
Post-treatment	21.20 (3.90)	2.04 (0.76)	–
Follow-up	–	–	21.40 (5.59)

Note: Dashes indicate that the measure was not collected at the given measurement period.

reminiscence groups consisted of six weekly sessions of 90 minutes, with two follow-up sessions, consistent in format with the treatment sessions at six weeks and three-months post-treatment. This time frame was considered appropriate for an initial attempt at validating a new approach to treatment, given that significant alleviation of depression typically occurs within the first few sessions and weeks of therapy. The memories recalled focused on a different theme during each weekly session. The themes were derived from Birren and Deutchman's (1991) guided autobiography approach and included: family history, life accomplishments, major life turning points, history of loves and hates, stress experiences and life meaning and purpose. The group members were asked to write a short response to the week's theme to bring for discussion with the group at the following session.

The therapeutic content and process of the reminiscence groups are described in the Introduction section of this paper. To summarize, the integrative group prompted the recall of experiences that provide a sense of meaning and purpose in life, involve coming to terms with or accepting past negative experiences, engage a positive evaluation of how one measures up to one's ideals, and demonstrate some continuity between participants' sense of self in the past and their self-beliefs now. The instrumental reminiscence group focused on recollections of past problem-solving including memories of past plans, goal-directed activities, the attainment of goals, helping others solve their problems, past attempts to overcome difficulties, or drawing upon past experience to solve present problems.

Participants in the active socialization control group were invited to participate in a series of six, weekly meetings dealing with topics of concern to contemporary older adults, such as: sensory changes and their impact on daily functioning; current changes in family patterns and relationships; discussion of the impact of social and political concerns on the aging population; and creativity and aging. Members of this group were also asked to prepare a short written discussion of the week's theme. Participants who were assigned to the active socialization control group were offered the opportunity to participate in one of the experimental groups following the control group. Data were not collected from individuals in the treatment groups who had previously participated in the control group.

#### *Therapeutic modality*

Procedures used by the NIMH comparative study of depression treatments (Elkin *et al.*, 1988) were adopted to ensure that the active ingredients in the treatments were actually delivered. Specifically, the therapist received training in all three interventions. Training involved reading the treatment manual, review of training tapes and discussion and role-play

sessions conducted during a training period spanning four weeks. The therapist received two hours of supervision per week during the six weeks of the intervention and after the two follow-up sessions. This study did not use formal random checks to ensure that the treatment modality was delivered as described in the manual. However, the clinical supervisor and/or the author monitored all sessions in the therapy phase through a one-way mirror and provided supervision to the therapist on a weekly basis to ensure correct implementation of the treatments.

#### *Measures*

*Mini-Mental State Examination* (MMSE; Folstein *et al.*, 1975). This widely used instrument measures the degree of cognitive impairment on a basis of a short interview. The MMSE yields a range of scores from 0–30. A score below 24 is indicative of the presence of cognitive impairment, and this cut-off was used to exclude participants from the study. The MMSE is widely used for the purpose of screening for dementia (for a review see Tombaugh & McIntyre, 1992).

*Hamilton Rating Scale for Depression* (HRSD; Hamilton, 1967) is a measure of the intensity of depressive symptomatology on the basis of a clinical interview. The version used includes 17 items on depression, plus four on other syndromes (e.g. depersonalization, paranoid symptoms), scored in terms of categories of increasing intensity from 0–2. Examples of items about depression include depressed mood, psychomotor retardation and changes in work and interests. The possible range of scores is 0–52 for the 17-item version. It was administered with the Structured Interview Guide for the HRSD (SIGH; Williams, 1988), which provides specific wording for all questions and anchor points, for better reliability. Yesavage *et al.* (1983) have reported a mean score of 5.43 for a normal population, 13.35 for mildly depressed persons and 25.42 for severely depressed persons, for the 17-item version. Scores of 17 or greater on the HRSD almost always result in a patient meeting DSM-III-R criteria.

*Geriatric Depression Scale* (GDS; Yesavage *et al.*, 1983). This instrument was specifically designed to measure the intensity of depressive symptoms in the aged. It consists of a 30-item self-report questionnaire in a yes/no format which covers a range of depressive symptoms including mood quality, level of energy and motivation, hopelessness, social initiative and subjective evaluation of various cognitive functions. The range of scores on the GDS is 0–30. Yesavage *et al.* (1983) have reported a mean score of 5.75 for a normal population, 15.05 for mildly depressed persons, and 22.85 for severely depressed individuals. It is considered as the best all-around

self-report depression scale available at present, with utility across a broad range of geriatric populations (Pachana *et al.*, 1994).

*Social Adjustment Scale* (SAS; Weissman & Bothwell, 1976) is a 42-item questionnaire that measures role performance, positive and negative aspects of interpersonal relationships, and inner feelings and satisfaction in six major areas of functioning: social and leisure activities; relationships with friends/extended family; roles as a spouse; and role as a parent. Criterion validity with a social adjustment interview and informant ratings ranged from 0.40 to 0.76 for each of the five scales, and 0.70 to 0.74 for the overall adjustment score on a sample of 76 depressed patients. The scores of items are summed within each of the six major areas of functioning and a mean score is obtained. An overall adjustment score is obtained by summing the scores of all items and dividing by the number of items actually scored. We selected a sub-set of 19 questions that focused on roles appropriate to an older population (e.g. we removed the category related to work). On this shortened measure, mean scores on the overall adjustment scale range from 1 to 5, with 1 representing a higher level of social adjustment.

#### *Data analysis*

The clinical significance of the two experimental groups was evaluated using a strategy developed by Jacobson *et al.* (1984). This two-fold criterion requires that only those patients whose scores have shown reliable change from pre-test levels, and whose post-test scores are likely to be in a functional population, are considered to have made a clinically significant change. The post-test score of each subject in the integrative and instrumental and control groups on the HRSD, GDS and SAS was evaluated to determine whether the score was more likely to fall into a functional or dysfunctional population. Scores from a functional population are those that fall at or beyond a value two standard deviations away from the mean of the dysfunctional population, in the direction of greater functioning. In addition, a reliable change index for each patient's post-treatment score was calculated according to the method of Jacobson *et al.* (1984). The reliable change index identifies changes from pre- to post-test that are not likely to be due to measurement error. Otherwise, it was considered as indicating no change, unless there was deterioration. Clinically significant deterioration was determined when the change in a score from pre-test to post-test was reliable according to the reliable change index and in the direction of lower levels of functioning.

Analysis of the effectiveness of the two reminiscence groups in comparison to an active control group was based on the ordinal categorization of data according to clinically significant change. Using a Mann-

Whitney U test, the categories of clinical improvement, no change and clinical deterioration on measures of depression (HRSD, GDS) and social adjustment (SAS) are the dependent variables, and group membership is the independent variable. The Mann-Whitney U test provides a statistical test of the null hypothesis that the integrative reminiscence and control group and the instrumental reminiscence and control groups were drawn from treated clinical populations with the same distribution of categorical outcomes. Rejection of the null hypothesis indicates that the integrative reminiscence group is superior to the control group and that the instrumental intervention is superior to the control intervention in terms of greater subject membership in the clinically improved category. The Mann-Whitney U test also provides an estimate of the magnitude of the effect of the interventions. This effect size is the estimated probability that a randomly sampled client from the population that is given integrative or instrumental reminiscence therapy will have a categorical outcome superior to the outcome of a randomly sampled client from the population that is given the active control condition (Grissom, 1994). The magnitude of the probability is judged according to the criteria of small, moderate and strong effect size as described by Cohen (1969). The Mann-Whitney U test also provides data from which generalized odds ratio (GOR) can be generated. The GOR is an additional estimate of the relationship between therapy group membership and ordinal categorical outcome which indicates the number of subjects for which therapy 1 is superior to therapy 2 (Grissom, 1994).

#### **Results**

The null hypotheses that the experimental and control therapies were equally effective in achieving clinically significant improvement was evaluated with the Mann-Whitney U test. Table 2 displays the percentage of subjects falling within the three categories for the integrative, instrumental and control groups on the GDS, HRSD and SAS. For the integrative group, the null hypothesis was rejected on two of the three outcome measures. The integrative intervention was superior to the active control intervention in achieving clinically significant improvement at the conclusion of the interventions on the GDS ( $U=51.5$ ,  $p<0.01$ ) and at three-month follow-up on the HRSD ( $U=57.5$ ,  $p<0.01$ ). On the other hand, there was no significant difference between the number of subjects in the integrative and active control groups who experienced clinically significant improvement on the SAS at the end of active treatment ( $U=40$ ,  $p>0.05$ ). This analysis indicates that the integrative reminiscence intervention is both statistically and clinically superior to an active control group for reducing depressive symptomatology, but not for

TABLE 2. Percentage of subjects in the integrative, instrumental and control groups in the categories of clinical improvement, no change and clinical deterioration on the three outcome measures

	Improvement (%)	No change (%)	Deterioration (%)
Geriatric Depression Scale			
Integrative	58	33	8
Instrumental	56	33	11
Control	0	60	40
Social Adjustment Scale			
Integrative	42	58	0
Instrumental	67	33	0
Control	20	60	20
Hamilton Rating Scale for Depression			
Integrative	100	0	0
Instrumental	78	22	0
Control	0	100	0

improving social adjustment. Means and standard deviations for the three independent variables are reported in Table 1.

Analysis of data from the instrumental intervention indicates that the experimental group was superior to the active control intervention in achieving clinically significant improvement at the end of the intervention on the GDS ( $U=36.5$ ,  $p<0.05$ ) and at three-month follow-up on the HRSD ( $U=40$ ,  $p<0.01$ ) (see Table 2). Improvement in scores on the SAS for the instrumental group in comparison to the active control group approached but did not achieve a significant difference on the SAS ( $U=34.5$ ,  $p>0.05$ ). Means and standard deviations for the three independent variables are reported in Table 1.

These findings indicate that both integrative and instrumental reminiscence interventions are effective in ameliorating symptoms of depression in older adults. Although the two interventions appear to be equally effective at the end of the six-week intervention, at a three-month follow-up the integrative reminiscence intervention seems somewhat more effective than the instrumental group. This findings suggests that participation in an integrative reminiscence group may afford greater protection against relapse. However, the short duration of follow-up and the small sample size preclude any firm conclusions.

Another manner of documenting the clinical utility of these interventions can be found in Table 3. The

probability that a subject randomly selected from the population having received an integrative reminiscence intervention will present an outcome superior (in terms of category) to the one of a similarly randomly selected subject who participated in a socialization control group at the end of the six-week intervention is 86% (GDS) and 67% (SAS), and 96% at the three-month follow-up (HRSD). For a participant in the instrumental reminiscence intervention these probabilities are, respectively, 81% (GDS), 76% (SAS) and 89% (HRSD).

Data on the GOR underline this picture of a clinically significant effect. As indicated in Table 3, for all paired comparisons involving the integrative intervention and the control condition, there are two (SAS) and six (GDS) times more pairs in which the integrative intervention shows superiority of outcome over the control at the end of the six-week treatment. At the three-month follow-up on the HRSD, it is 24 times. For the instrumental intervention, the corresponding values are three (SAS), four (GDS) and eight (HRSD).

## Discussion

This initial investigation of the utility of a theory-driven application of reminiscence as a treatment for depression in older adults provides support for the hypothesis that certain types of reminiscence, integrative and instrumental, can be therapeutic. In

TABLE 3. Effect size and generalized odds ratio for integrative and instrumental reminiscence on the three outcome measures

	Effect size	Generalized odds ratio
Geriatric Depression Scale		
Integrative	0.86	6.14
Instrumental	0.81	4.26
Social Adjustment Scale		
Integrative	0.67	2.03
Instrumental	0.76	3.35
Hamilton Rating Scale for Depression		
Integrative	0.96	24.00
Instrumental	0.89	8.09

comparison to an active control group, individuals in both reminiscence groups demonstrated statistically and clinically greater improvements in depression. At the end of the six-week intervention, both reminiscence groups were equally effective in reducing symptoms of depression.

The importance of these findings is that specific types of reminiscence were shown to lead to significant improvements in depression. In previous studies in which participants were free to reminisce, as they desired, results were variable—some studies demonstrated an improvement in symptoms whereas others did not. By promoting a specific approach to the review of memories, which targets psychological processes that have been linked with the onset and maintenance of depression (Watt & Cappeliez, 1995), reminiscing was shown to act as powerful therapeutic intervention. To the extent that future investigations of reminiscence therapy continue to provide undifferentiated reminiscence interventions, it is likely that the therapeutic impact of the more adaptive forms of reminiscence will be obscured by non-therapeutic or counter-productive contributions made by other forms of reminiscence (e.g. obsessive reminiscence)—perpetuating the contradictory findings regarding the adaptive function of reminiscing. These changes are remarkable because they were demonstrated on the basis of rigorous, clinically meaningful indices of change and they were shown to be superior to an active socialization placebo condition which contained some potentially therapeutic ingredients (e.g. group support, scheduled and structured activity).

As indicated in the introduction, reviews of the effectiveness of psychotherapy for the treatment of depression in adult and geriatric populations report that cognitive, behavioural, brief dynamic, interpersonal and pharmacological therapy all are effective in obtaining positive results, and they do not differ in degree of effectiveness. On average, using the classification of effect sizes developed by Cohen (1969), these interventions produce effect sizes in the moderate range in both adult (0.73) and geriatric (0.78) populations when compared to no treatment or to a control group (Niederehe, 1994; 1996; Robinson *et al.*, 1990; Scogin & McElreath, 1994). In a study conducted by Thompson *et al.* (1987) which examined the comparative effectiveness of psychotherapies for depressed older adults, overall 53% of geriatric subjects achieved remission and another 18% showed significant improvement in depression following exposure to either behavioural, cognitive or brief dynamic therapy.

Results of the present study suggest that integrative and instrumental reminiscence interventions provide a comparable improvement in depression in older adults. Effect sizes were within the range achieved by traditional therapies. Both integrative and instrumental reminiscence interventions produced effect sizes in the moderate to high range.

Reminiscence interventions were also comparable to traditional therapies in terms of the proportion of clients achieving clinically meaningful improvement. In the integrative group, 58% of clients showed remission of symptoms at the end of the six-week intervention and an additional 33% showed some improvement in symptoms of depression. And in the instrumental group, the proportion of clients who no longer demonstrated significant symptoms of depression at six weeks was 56%, with an additional 33% showing some improvement in depressive symptomatology.

The fact that the interventions appeared to have less of a positive impact on SAS scores than on measures of depression may be due to the type of social adjustment assessed by the SAS. The SAS measured the quality of relationships with spouse, children, other relatives and friends—improvements indicate less strife and antagonism and greater trust and communication. Given that the reminiscence interventions did not specifically target interpersonal communication, it is not likely that significant gains would be made in this area, especially over the course of a relatively brief six-week intervention. In retrospect, a measure that assessed the degree to which individuals increased the amount of their social interaction and participation in pleasurable activities may have been a better index of the kind of improvement in social adjustment that tends to co-occur with amelioration of depression. It is also of note that initial scores on the SAS were higher than what is typically reported in a depressed population. A ceiling effect may, therefore, have been in operation.

It is remarkable that positive results comparable with traditional interventions were obtained within a comparatively short time frame involving one 90-minute therapy session each week for a period of six weeks. In their review of psychosocial treatments for depression in older adults, Scogin and McElreath (1994) reported that clinical studies on average provided a much greater number of sessions (mean of 12 with a range of five to 46 sessions), albeit with effect sizes no greater than those obtained in this study. The rapidity with which the reminiscence interventions had a positive impact on depressive symptomatology may be due to the fact that reminiscing does not involve learning a new vocabulary or a new set of skills prior to engaging in therapy; rather, clients begin the therapeutic process immediately. It may also be that clients feel comfortable with reminiscing because it is a familiar mental activity that focuses on material about which the client is an expert (personal memories). This sense of familiarity may calm fears about engaging in a therapeutic process as well as providing a sense of control over the intensity and rate of disclosure of their reminiscences—which in turn may accelerate the rate of engagement in the therapeutic process.

The rapid treatment effect obtained by some of the

subjects in the integrative and instrumental reminiscence groups at the end of the six-week intervention was maintained by all of these subjects at a three-month follow-up assessment. At the follow-up assessment, not only were gains maintained but rates of improvement were significantly higher than at the post-test assessment. In the integrative group, the proportion of subjects demonstrating clinically significant improvement rose from 58 to 100%, and in the instrumental group, from 56 to 78% of patients, as measured by the HRSD. Although these findings need to be replicated on a larger scale than the number of case replications reported here, these rates of improvement exceed those reported for other psychotherapies used to treat depression in older adults. It is important to note that subjects were provided with follow-up booster sessions at one and three months after the completion of therapy, which may have helped to consolidate gains and promote use of reminiscence. When interviewed at the follow-up session all subjects in the experimental groups indicated that they had continued to use reminiscence during the three-month time period. A more cautious explanation may consider that the data were obtained with two different measures of depressive symptomatology. In a previous research (Latour & Cappeliez, 1994), we also found improvement to be higher when measured with the HRSD than with concomitantly completed self-reports such as GDS and the Beck Depression Inventory. The nature of this difference is a subject for further investigation.

One limitation of the study should be acknowledged. The same therapist administered all three treatments, including the control condition. The rationale was to control for therapist variables across conditions. However, there remains the possibility of a bias against the control group if somehow the therapist did not try quite as hard to engage participants. Still, as we have indicated, measures were taken to monitor adherence by the therapist to each treatment modality, including the control treatment.

In conclusion, the initial investigation of two forms of reminiscence intervention specifically designed to help depressed older adults appears promising. Still, the samples were small and it needs to be replicated with a larger and more diverse sample of adults older than these first participants. Further research should also be directed at integrating these two approaches into a single modality, after clinical decision rules have been developed for the skillful application of integrative and instrumental types of reminiscence intervention.

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