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ORIGINAL PAPER

The Effects of Integrative Reminiscence on Depressive Symptomatology and Mastery of Older Adults

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Abstract A quasi-experimental (non-randomized) study was conducted to study the effects of a new intervention *The story of your life* that combines integrative reminiscence with narrative therapy. The program consists of seven sessions of two hours and one follow-up session after 8 weeks. It is directed at community-dwelling people of 55 years and older with mild to moderate depressive symptoms. After the intervention the participants showed significantly less depressive symptoms and higher mastery, also in comparison with a waiting-list control group. Demographic factors and initial levels of depressive symptomatology and mastery were not found to moderate the effects. The effects were maintained at 3 months after completion of the intervention. Although the new program was positively evaluated by the majority of the participants there is room for improvement. Adaptations should be made, and evaluated in a randomised controlled trial.

Keywords Integrative reminiscence · Narrative therapy · Depression · Mastery · Older adults

Introduction

Depression is a common and disabling disorder among the growing number of older adults living in the community. About 3% suffer from severe depression and another 10–15% have a mild to moderate depression (Cole and Yaffe 1996; Beekman et al. 1999). Late-life depression is characterized by unfavourable prognosis, reduced quality of life and excess mortality (Beekman et al. 2002; Geerlings et al. 2001). In general only few older adults receive adequate treatment for depression (Zivian et al. 1992; Gottlieb 1994). Under-utilisation of specialised mental health services by depressed elderly are caused by low detection rates by health care providers, the assumption that depressive symp-toms are part of the ageing process, insufficient knowledge about available services and reluctance to accept help in general (Schuurmans 2005). So there is a need for attractive, effective interventions for older adults with depressive symptomatology. Reminiscence could be a prime candidate (Bohlmeijer et al. 2003).

Reminiscence has been defined as 'the vocal or silent recall of events in a person's life, either alone or with another person or group of people' (Woods et al. 1992 p. 138). Empirical studies have shown that people may reminisce for very different purposes: boredom reduction, death preparation, identity-forming, problem-solving, conversation, intimacy maintenance, bitterness revival and teach/inform (Webster 1993; Webster and McCall 1999). Identity-forming reminiscence (similar to Integrative reminiscence or life-review) and problem-solving reminiscence (similar to instrumental reminiscence) have been found to correlate with successful aging (Wong and Watt 1991). Reminiscence for the sake of bitterness revival was found to correlate with higher levels of depression (Cully et al. 2001; Cappeliez et al. 2005). Therefore reminiscence as treatment of late-life depression should not only promote integrative reminiscence and problem-solving reminiscence but also reduce or transform bitterness-revival. In a meta-analysis of studies on the effects of reminiscence on late-life depression an effect-size of 0.84 was found (Bohlmeijer et al. 2003). Structure, evaluation of both positive and negative life-events and synthesis have been recognized as important

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ingredients of reminiscence (Haight and Dias 1992; Webster and Young 1988). Integrative reminiscence has been defined as 'a process in which individuals attempt to accept negative events in the past, resolve past conflicts, reconcile the discrepancy between ideal and reality, identify a pattern of continuity between past and present and find meaning and worth in life as it was lived' (Watt and Cappeliez 2000 p. 167). In addition, interventions in which reminiscence is combined with other therapeutic approaches (Watt and Cappeliez 2000) are promising. Reminiscence has been integrated with cognitive therapy (Watt and Cappeliez 2000), stress-coping theories (Watt and Cappeliez 2000) and creative therapy (Bohlmeijer et al. 2005). Another possibility is the integration of reminiscence and narrative therapy.

Narrative therapy has been recognized as a meaning-making approach (Kropf and Tandy 1998; Polkinghorne 1996; Atwood and Ruiz 1993). Reminiscence can bring forth—especially for depressed people in a counseling or therapeutic setting—dominant life-stories that are 'problem-saturated' (Payne 2000), and these stories express pessimism and defeat and focus on negative elements (Garland and Garland 2001). When this is the case narrative therapy offers a framework for transforming these stories by delineating two processes: deconstruction and reconstruction (Payne 2000; Kropf and Tandy 1998). In the deconstruction phase the counselor will explore with the client the influence of problems on their lives, the influence of themselves on their problems, values that preserve the problem and unique outcomes (periods in the life of clients in which the problem was absent). In the reconstruction phase alternative stories based on client's strength are constructed and 'thickened'. The integration of reminiscence and narrative therapy could be fruitful in two ways. First, it stimulates building memories into coherent life-stories and developing context (Bluck and Levine 1998; Baerger and McAdams 1999) and second, when these stories express bitterness and are problem-saturated a framework is offered that invites people to see these stories as interpretations or constructions and to look for alternative stories.

A new community-based reminiscence intervention—*The story of your life*—was developed for older adults with clinical relevant depressive symptoms. This intervention combines reminiscence and elements of narrative therapy. In this paper the results of an explorative, quasi-experimental study are presented. The following research questions are central in this study.

1. Is there an indication that the intervention might be effective? In other words: does the intervention group have better outcomes than a waiting-list control group at post-measurement in terms of less depressive symptoms and more sense of mastery?
2. Are these effects preserved at 3 months after the intervention?
3. Can we identify groups of participants that especially seem to benefit from the intervention? Or the other way around, can we identify groups of participants who don't seem to benefit?

Methods

Procedure and Recruitment

Participants were recruited through advertisements in local papers and through leaflets and posters at general practitioner offices and public places like libraries and were included when they met the following criteria: (a) minimum age of 55 years (b) a score above 10 and under 28 on the Centre for Epidemiological Studies on Depression scale (CES-D, see below).

Design

The pilot study was conducted as a quasi-experiment (without randomization) in two parallel non-equivalent groups, a treatment group and a waiting list group, with measurements at baseline, at 2 months (after the intervention). When respondents had expressed their interest in participating, they were invited for an intake-interview in which the inclusion criteria were checked and further information about the program was given. Participants were then referred to either condition on a first come/first serve basis. Only the intervention group received a follow-up at 5 months after baseline, in order to assess to what degree treatment effects were maintained over time.

Intervention

The story of your life consists of eight sessions of 2 h. It's aimed at people of 55 years and older with mild to moderate depressive symptoms. It is a group-based intervention with a maximum of four people in one group. Each session has a different theme: Introduction and meeting, youth, work and care, difficult times, social relations, turning points, metaphors, meaning and future. Participants are given questions about these themes which they have to answer at home (see "Appendix" for an overview of questions). They bring the answers with them and read the answers out aloud. The questions in session two are for example: what kind of child were you? If you were asked to describe your youth in three words, what three words would that be? Can you explain? What event first comes to your mind when you think about your youth (for example because it made a strong impression on you)? What are you grateful for with respect to your youth? Who was the most important person for you as a child? And why? What would this person tell you now?

The counsellor has different roles. He facilitates group discussions and asks questions aimed at the evaluation and significance of the stories. If these stories express negative views about self or life in general or express meaninglessness, the counsellor asks questions aimed at developing alternative reconstructions and stories. Examples of questions that the counsellor could ask are 'were there any exceptions (e.g. pleasant moments) in this difficult time of your life?', 'how were you able to cope with this situation?', 'now, at a much later date, can you say that you have also learned from that period in your life, could you explain?' Another aim may be to increase the coherence of the participants' life-stories. When a participant has told about important values and the moments in his life that he became conscious of these values, the counsellor may ask 'have these values been important for you throughout your life? And if yes, can you give me some examples of it? Or a counsellor may ask: now that you have told about this situation and how you handled it, what does it tell about the person you are? The counsellors were psychologists or psychiatric nurses with experience in counselling and therapy with older adults. They underwent a 1 day training by a psychotherapist specialized in narrative therapy and a half-day follow-up meeting during the intervention.

So the basic structure of the intervention is life-review: a systematic evaluation of one's life course with a special focus on integrating negative life-events. This makes the intervention different from narrative therapy where there is often much more focus on the present or whatever theme the client feels like introducing into a session. For the counsellors the main challenge is to facilitate integrative and instrumental reminiscence in order to co-create more inspiring and meaning-filled stories. They have to be particularly aware of stories that are problem-saturated and express bitterness or escapism which may be the cause of depression. When this is the case the counsellors should use questions based on a narrative therapeutic framework and try to deconstruct these stories with the client and find unique outcomes that contradict the dominant story. This also underscores the importance of linking past experiences to the present life-situation.

Measures

The primary clinical end-term was CES-D depressive symptomatology; the secondary end-term Pearlin's mastery scale for assessing changes in internal locus of control. The CES-D (Centre of Epidemiological Studies Depression scale) was used to measure *depressive symptoms* (Bouma et al. 1995). A sumscore, ranging from 0 to 60, is computed across the 20 items to assess the level of depressive symptoms. The Dutch translation has good reliability and validity (Bouma et al. 1995). A score of 16 on the CES-D is considered as a cut-off score for possible cases (Beekman et al. 2002). Mastery was measured with the *Pearlin Mastery Scale* (PMS; Pearlin and Schooler 1978), abbreviated to 5 items. The concept of mastery refers to beliefs regarding the extent to which one is able to control one's environment. Responses are rated on a 5-point Likert scale, ranging from 1 (not al all) to 5 (always). Summation of the separate items provides the total mastery score. Also sociodemographic characteristics were collected: gender, age, educational level, marital status and employment status.

Statistical Analyses

Independent Samples *t*-tests were used to analyse differences between the conditions in depressive symptoms and mastery at T1 (research question 1). *T*-test analyses were conducted one-sided at $P < 0.05$, expressing the expected superiority of the intervention group. Paired *t*-tests were used to test for significant changes in CES-D and Mastery from pre-intervention to post-intervention and follow up after 3 months (research question 2). For both outcomes standardised effect sizes (d) were calculated. Standardised effect sizes, d, are commonly calculated as: $d = (M_1 - M_0)/Sd_0$; where, M_1 and M_0 are the means at post and pre-test and Sd_0 is the pre-test standard deviation of measures of psychological wellbeing. We were also interested in obtaining the effect size of the experimental effect minus the effect (of spontaneous recovery) in the control group. Therefore, we calculated the standardised pre–post change score of the experimental group (d_E) and did the same for the control group (d_C). Then we calculated their difference, i.e. $\Delta(d) = d_E - d_C$. These incremental standardized effect sizes show by how many standard units the experimental group has been removed from the control group. An effect size of 0.5 thus indicates that the mean of the experimental group is half a standard deviation larger than the mean of the control group. Lipsey and Wilson (1993) have shown that from a clinical perspective an effect size of 0.56–1.2 can be interpreted as a large effect, while effect sizes of 0.33–0.55 are moderate, and effect sizes of 0–0.32 are small.

To find predictors for more or less successful outcomes of the intervention, we studied effect modification (research question 3). Groups that did or did not benefit from the intervention were identified with help of regression analyses with the individual standardised change scores (effect sizes; pre- to post-intervention) as the outcome and the interaction term of treatment dummy by the participants' characteristics as predictors, along with their constituent main effects. The predictors were constructed as follows. First the characteristics on a continuous measurement scale (age, CES-D and Mastery at baseline) were transformed into dichotomous variables using the median to divide the variable in two. Categorical variables with more than two categories

were recoded into two meaningful categories. Then, we calculated the product of the intervention dummy (intervention = 1 vs. waiting list control group = 0) and each of the dummy variables that described the participants' characteristics (cf Clayton and Hills 1993; Rotyman and Greenland 1998). The interaction terms together with the corresponding main effects were entered in the linear regression model. The models were tested at $P < 0.05$. Independent Samples *t*-tests were used to analyse differences between the conditions in depressive symptoms and mastery at T1 (research question 3). *T*-test analyses were conducted one-sided at $P < 0.05$, expressing the expected superiority of the intervention group.

We carried out all analyses on an intention to treat basis to counter the possible effects of differential loss-to-follow-up. We used regression imputation to estimate missing data. In the regression imputation model, the baseline scores of the outcome measure were used as predictors.

One participant had an extreme effect size d for depressive symptoms. In a boxplot procedure, the effect size *d* was more than 3 box lengths from the upper edge of the box for both the pre-post d and the post-test-follow up d. We conducted all analyses with and without this participant (a member of the intervention group). The results without the extreme are presented first. The differences in results with and without the extreme participant will be discussed in a separate paragraph.

Participants' Evaluation of the Program

In addition to the effects on depression and mastery we were also interested in the evaluation of the new intervention by the participants. Directly after the intervention the participants were asked to complete a questionnaire. The central question was to what extent did you benefit from the life-review interviews? The answer categories were: 'very much', 'much', 'partly', 'little', 'not at all'. The participants were then asked to elaborate on their answers in their own words. Next the duration of the program (too little, good, too much) and the quality of the homework were evaluated (too easy, good, too difficult). The participants were also asked to give their opinion about the intervention (1–10, very poor to excellent).

Results

Sample

Hundred and eight participants were included in the study at T0: 65 in the intervention group and 43 in the waiting list control group. 94 (87%) of them also filled out the questionnaire at T1. The intervention group also received T2 and $n = 50$ (78.5%) completed it. The mean age of the participants was 63.8 years, with a range from 55 to 87 years. 79.2% of the participants were female. Half of them were married (48.1%), 28.3% was divorced and 19.8% was widowed. Nearly a third (31.1)% was retired, 28.3% was homemaker, 17.9% was disability pensioner, 15.1% had payed jobs and 7.5% was unemployed. The educational level of 33.3% was high, 52.3% middle, and14.3% low. The response at T1 did not differ significantly between the intervention and the control groups. In Table 1 an overview of the characteristics of the participants is given. Chi-square analysis and *t*-tests showed no differences between the conditions on any of the baseline measures and socio-demographic characteristics (not even at $P < 0.10$). The participants who did not complete the questionnaire at T1 also did not differ significantly from those who did on any of the baseline characteristics.

Effectiveness at 3 Months

The imputed means on CES-D and Mastery of the intervention and the waiting list control group at T1 are presented in Table 2. The conditions did not have significant differences at baseline in depressive symptoms and mastery ($P > 0.10$).

The results of the paired *t*-tests showed a difference between conditions of 4.2 scale points on the CES-D at T1 (90% CI = 1.30–7.17; $t(105) = 2.40$; $P = 0.009$; delta

Table 1 Characteristics of participants at baseline, including the extreme case

	Intervention group[a]	Waiting list group[b]
Female (*n*, %)	48 (75.0)	36 (85.7)
Age (*M*, SD)	64.0 (7.0)	63.4 (7.7)
Marital status (*n*, %)		
Married/cohabiting	30 (46.9)	22 (52.4)
Single	1 (1.6)	1 (2.4)
Divorced	21 (32.8)	10 (23.8)
Widowed	12 (18.8)	9 (21.4)
Education (*n*, %)		
Low	6 (9.5)	9 (21.4)
Middle	28 (44.4)	13 (31.0)
High	29 (46.0)	20 (47.7)
Depressive symptoms	17.6 (9.7)	19.2 (7.0)
CES-D (*M*, SD)		
Mastery (*M*, SD)	15.4 (3.6)	14.9 (3.8)

Chi-square analysis and *t*-tests showed no differences between the groups on any of the baseline measures and socio-demographic characteristics ($P < 0.10$)

[a] Number of respondents varies from 63 to 65 because not all respondents answered all questions

[b] Number of respondents varies from 40 to 42

Table 2 Imputed means and standard deviations (SD) for depressive symptoms (CES-D) and mastery at T1

	Condition	*N*	Mean	SD
CES-D	Intervention	64	14.0	10.3
	Waiting list	43	18.2	8.5
Mastery	Intervention	63	16.4	4.0
	Waiting list	42	15.1	3.7

$d = 0.26$) (small effect size) and a difference of 1.34 scale points on the mastery scale (90% CI = 0.06–2.61; $t(103) = 1.74$, $P = 0.04$, delta $d = 0.21$), both in favour of the intervention group. Based on these results there might be a positive effect of the intervention, manifesting itself in less depressive symptoms and a slightly larger sense of mastery.

Persistence of Treatment Effects over 5 Months

Table 3 shows the imputed means for the intervention group on the CES-D and the Mastery scale.

Results of the *t*-tests are shown in Table 4. The intervention group had a significant improvement ($P < 0.05$) in depressive symptoms and sense of mastery from pre- to post-test and from pre-measurement to follow-up after 3 months. The effect sizes *d* are medium for the CES-D (0.37 and 0.39) and small for Mastery (0.25 and 0.19). Depressive complaints and mastery did not change significantly from post-measurement to follow-up after 3 months, meaning a preservation of the gain from pre- to post measurement.

Table 3 Imputed means and standard deviations for the intervention group for CES-D and mastery

	Depressive symptoms (CES-D)			Mastery (Mastery 5)		
	N	*M*	SD	*N*	*M*	SD
T0 (pre)	64	17.5	9.8	63	15.5	3.6
T1 (post)	64	14.0	9.2	63	16.4	4.0
T2 (fu 3 m)	64	13.7	8.2	63	16.2	4.1

Table 4 Paired *t*-tests for the intervention group

	N	Difference	*T*	*df*	*P* (2-sided)	*d*[a]
CES-D						
T0–T1	64	3.58	4.43	63	0.000	0.37
T0–T2	64	3.87	3.49	63	0.001	0.39
T1–T2	64	0.29	0.37	63	0.713	0.03
Mastery						
T1–T0	63	0.90	2.72	62	0.009	0.25
T2–T0	63	0.70	2.17	62	0.034	0.19
T2–T1	63	−0.20	−0.88	62	0.383	−0.05

[a] *d* = (individual difference between measurements/group SD for the first of the two measurements); a positive *d* means improvement: less depressive symptoms and more sense of mastery

Effect Modification

Certain groups of participants might profit more from the intervention. Profit is here defined in terms of the effect size *d* for depression (CES-D) and mastery. The results of the regression analyses are shown in Table 5. In this table only the regression coefficient for the interaction terms are given, while those of the main effects are not of concern here. This coefficient beta can be interpreted as the effect size.

It seems that women and older participants (63–87 years) did profit somewhat more from the intervention than men and younger participants (55–62 years) in terms of a reduction in depressive symptoms. However, this result was not significant. Educational level, martial status and the level of depression and mastery at baseline did not predict a better outcome at T1.

Analyses Including the Participant with the Extreme Values

The foregoing analyses were also conducted including the participant with extreme changes in depressive symptoms. This participant had an extreme negative change in CES-D score during the time between pre-test (T0) and post-test (T1) and an extreme positive change from post-test to follow-up after 3 months, which might influence the outcomes of the analyses.

In the analyses including the extreme case, the changes in depression and mastery from pre-test to post-test and from pre-test to follow-up were still significantly improved. However, the effect size of the change in depressive symptoms from T0 to T1 was now small instead of medium ($d = 0.31$ instead of 0.37). Like the analyses without the extreme case, there were no characteristics of participants at baseline that could predict a better or worse outcome at T1.

The differences between the intervention group and the control group in CES-D score at T1 changed from 4.2 to 3.7 scale points, but this was still a significant difference ($P < 0.05$). The difference between conditions in the level of mastery at T1 changed from 1.34 scale points to 1.2 scale points, resulting in a nearly significant difference ($P = 0.06$) instead of a significant difference ($P = 0.04$). However, the effect size remains the same (small). Although there are some small changes, overall, the conclusions of the analyses with the extreme case, are comparable to the conclusions without it.

Table 5 Predictors of outcome at T1: coefficient beta and significance level

Interaction term: characteristic × condition	CES-D effect size d^a		Mastery effect size d^a	
	Beta	*P*	Beta	*P*
Female	0.32	0.22	0.08	0.78
Older age (>62)	0.28	0.12	0.06	0.77
High education level	0.00	0.98	−0.08	0.65
Married/cohabiting	−0.07	0.69	0.00	0.98
Relative low level of depressive symptoms at T0 (<17)	X	X	0.01	0.80
Relative high level of mastery at T0 (>15)	−0.10	0.58	X	X

X Variable not in the equation

Coefficient beta of the interaction term. Beta of main effects not shown

[a] d = (individual difference between T1 and T0/SD T0 group); a positive effect size means improvement from T0 to T1

Participants' Evaluation of the Program

Fifty two percent of the participants answered that they had 'much' or 'very much' benefited from the intervention. Examples of corresponding comments were: 'I have learnt that every life-story is unique and that, apart of my sorrow, I have experienced many good things for which I am grateful', 'Letting go of my past and forgiving myself and others has given me peace', 'Affirmation, sharing, listening, to be heard and understood', 'I now appreciate more that I have survived hard times and that I am stronger mentally than I realized'. 23% of the participants answered that they had benefited partly; 20% did benefit just a little or not at all. Examples of explanations of this last category were: 'I had been very sad about the divorce of my son, I had expected more room to talk about this', 'I did not understand how this could have helped me coping with my depression', 'I doubt whether just telling your life-story is helpful. Meeting other fellow-sufferers was positive but the program did not bring any solutions'. Eighty percent of the participants were satisfied with the number of sessions; 15% would have welcomed more sessions. Seventy five percent of the participants were positive about the life-review questions; 20% regarded the questions as too difficult. On a score between 1 and 10 the interventions was rated a 7.6 on average.

Discussion

Main Findings

1. Our data suggest that the intervention is more effective than doing nothing, but this is only a tentative conclusion under the condition that a quasi-experimental design was used. The effect differences however were small ($d = 0.26$ for depressive symptoms and $d = 0.21$ for mastery). In a recent meta-analysis of twenty controlled outcome studies an overall effect size of reminiscence and life-review on depression of 0.84 (95% CI = 0.31–1.37) was found (Bohlmeijer et al. 2003). In comparison to the outcome of this meta-analysis the effects of *The story of your life* on depression is substantially lower. How can this difference be explained? First, the same meta-analysis found that the effects of life-review were significantly larger in subjects with a major depression or high levels of depressive symptoms as compared to subjects with mild or moderate depressive symptoms (Bohlmeijer et al. 2003). As the subject in our study were in this second group a somewhat lower effect size can be expected. In general, lower pre-intervention levels of symptomatology may leave less room for improvement (Willemse et al. 2004). Second, the intervention itself can be improved. In the intake conversation and first session more time can be spent with the participants on defining specific and clear targets they want to achieve. Each new session could be consequently started with a reflection on how their answers to the life-review questions in the last session and the following discussion in the group have contributed to achieving their aims. In this way the sessions would become more focused on causes of depression in their current life. Also some of the life-review questions that the participants have to answer at home could be adapted in accordance with this goal. Third, we think that the training and supervision of the facilitators of the life-review groups has to be intensified. A 1 day training and a half-day follow-up meeting may not have been enough for a number of counsellors to master this new, therapeutic framework well enough. Fourth, a review of the recent developments in conceptual understanding of reminiscence offers some hypotheses regarding prognostic factors (Bohlmeijer et al. submitted). In general the attitude of people towards reminiscence could be of relevance (Sayre 2002). People with a more positive, general attitude towards reminiscence as a means of

self-understanding may profit more than people who are less interested in reminiscence. Wink and Schiff (2002) suggest that only 30–50% of the older adults go through a process of life-review. In addition it has been found that some reminiscence styles (boredom reduction and bitterness revival) correlate strongly with both psychological distress and neurotic personality traits (Cully et al. 2001; Cappeliez et al. 2005). Theoretically this would make persons with these reminiscence styles prime candidates for life-review interventions, but it is yet unclear to what extent negative reminiscence styles can indeed be changed. At last it could be hypothesized that in order to profit from reminiscence abilities of more abstract and introspective thinking are a prerequisite (Coleman 2005). Inclusion of instruments measuring the before mentioned factors in future effectiveness studies on reminiscence is strongly recommended.

2. We have some preliminary evidence that the treatment effects are maintained over time for depressive symptomatology, but may diminish somewhat with respect to the participants' sense of mastery in the time interval from 2 to 5 months after baseline.
3. Our data did not produce evidence that some groups will benefit less than others from the intervention or are placed at an elevated risk of experiencing adverse effects. This may suggest that the intervention has not to be tailored to specific groups. But one has to bear in mind that the sample size may be too small to find significant predictive factors. That men profited equally from life-review as women is somewhat surprising. In general gender differences in reminiscence behaviour across the life-span are reported in favour of women. Women have more (vivid) memories, include more details of personal experiences and have better memory for emotional experiences (Sehulster 1995; Seidlitz and Diener 1998). In addition it was found that women reminisced more with the aim of intimacy maintenance and identity formation (Webster 1993). That no gender differences were found could be due to the fact that the intervention includes both questions aimed at instrumental reminiscence (part of which is recalling achievements and successful coping behaviour) and integrative reminiscence (solving emotional conflicts from the past and finding meaning in one's life). On the basis of socialisation men would have a preference for the former and women for the latter (Webster 2001; Haden 1998). So the intervention may stimulate both men and women to focus on reminiscences that seem most meaningful to them.
4. The intervention was positively evaluated by the majority of the participants. However 20% of the participants assessed that they had benefited little or not at all. On the basis of their responses three important recommendations can be made. The first is that it is really important to explain more clearly in the first session the aim of the intervention and how integrative and instrumental reminiscence may be effective in coping with depression. The second recommendation is that it is important to discuss the expectations of the candidates and to check if they would prefer another kind of help. The third recommendation is that it is important for the counsellors to monitor whether the participants have difficulties answering the life-review questions at home. When this is the case it is recommended to adapt the questions or give fewer questions.

Limitations and Strengths

This study has several important limitations. The participants were not randomly assigned to either the intervention or control group. So the internal validity is possibly weak and we have to be careful in drawing conclusions about the effect of the intervention. Effect maintenance was only studied in the treatment group at 5 months after baseline. The sample size was rather small and especially the number of male participants, so the interpretations regarding gender differences have to be made with care. Data on diagnoses of depressive disorders were not collected, so we don't know if cases of depression were actually prevented by the intervention. However the CES-D has good psychometric properties and reduction of depressive symptoms is especially relevant for older adults among whom the prevalence of sub-threshold depression is large and the prevalence of major depressive disorders relatively small (Beekman et al. 2002). Protocol adherence was not evaluated.

The strength of the study is that for the first time an intervention combining reminiscence and narrative therapy was conducted and evaluated. In addition, the target group was successfully reached. At baseline, the mean score on the Centre of Epidemiological Studies Depression scale (CES-D) was 18.2, which is substantially higher than 7.5 which is the score on the CES-D of the average Dutch elderly population (Deeg et al. 1998). The average score is also above 16 which is recognized as a cut-off score for having clinically relevant depressive symptoms (Beekman et al. 2002). The presence of depressive symptoms is the most important risk-factor for developing a major depression (Schoevers et al. 2006; Smit et al. 2006).

Implication

The aim of this study was not to assess the efficacy of the intervention but to get a first evaluation of the intervention's effectiveness as it stands now, and how it will be used in real life settings. Hence our emphasis on the external (or ecological) validity of the study, because that would shed

light on how the intervention would generate effects under realistic conditions. That such beneficial effects were generated, is supported by the finding that the majority of the participants reported that they had profited 'partly', 'much' or even 'very much'. However the average effects were not very substantial and should be improved by adapting the intervention according to the above mentioned suggestions. After the adaptations are made, research should be conducted preferably as a randomised controlled trial (to strengthen the internal validity) with better measurements of pertinent depression and quality of life outcomes, over longer follow-up times and with more relevant prognostic variables. It is also recommended that in-depth interviews are held with participants who have and have not benefited from the intervention in order to study how this intervention can be optimally implemented.

Appendix: Theme's and Questions

Following are examples of life-review questions that are given to the participants before each session

Childhood

What kind of child were you?
What values were important to your parents?
Which of these values have been important to you throughout your life?
Which of these values did you choose not to take up?
Who has been the most important person for you as a child? Why?
What would this person say to you now?

Work and Care

What did or do work or care mean to you?
Why did choose to do what you did?
What has been your biggest disappointment?
What are you most proud of with regard to your working life?
What important aspect (quality) of yourself were you not able to develop or express because of your responsibilities? Could you express or apply these aspect in your current life? How?

Difficult Times

What has been a difficult time in your life? Can you explain?
How did you survive or cope with the situation?
Was it only bad, or could say, now afterwards, that you also learnt from this period? Could you explain?

Love and Relationships

Who has been the most important person for you in your life?
What has this person meant for you?
What have you meant for this person?
Are there still 'conflicts' in your life or things you regret with regard to relationships?
Would you want to solve this conflict of regret?
What could be a first step?

Turning Points

Could you make a list of turning points in your life?
Could you describe each turning point with some words?
You could see these turning points as chapters in a book. What would be the title of this book?
What chapter would you like to start writing now?
Imagine that you are the victim in this book. What would a short version be like?
Now imagine that you are the hero in this book. What would a short version be like then?
What story do you prefer?

Metaphor

Try to take some time this week to reflect upon your life as it has been and as it is now: important experiences, developments and themes, pictures of yourself at different ages et cetera. Would there come an image to your mind that somehow is a good metaphor for your life?
Could you associate 5 to 10 words with that image?
Could you make a drawing or picture of that image? Or could you write a short story in which that image plays a role?

Meaning and Future

What makes life worthwhile for you?
What did you learn from the past weeks that helps you for the future?
What decisions have you made?
What would you really want that people close to you would say about you at your funeral?
What actions in your life fit with that description?

References

Atwood, J. D., & Ruiz, J. (1993). Social constructionist therapy with the elderly. *Journal of Family Psychotherapy, 4*, 1–32.
Baerger, D. R., & McAdams, D. P. (1999). Life story coherence and its relation to psychological well-being. *Narrative Inquiry, 9*, 69–96.

Beekman, A. T. F., Copeland, J. R. M., & Prince, M. J. (1999). Review of community prevalence of depression in later life. *British Journal of Psychiatry, 174*, 307–311.

Beekman, A. T. F., Geerlings, S. W., Deeg, D. J. H., Smit, J. H., Schoevers, R. S., de Beurs, E., et al. (2002). The natural history of late-life depression: A 6-year prospective study in the community. *Archives of General Psychiatry, 59*, 605–611.

Bluck, S., & Levine, L. J. (1998). Reminiscence as autobiographical memory: A catalyst for reminiscence theory development. *Ageing and Society, 18*, 185–208.

Bohlmeijer, E., Smit, F., & Cuijpers, P. (2003). Effects of reminiscence and life review on late-life depression: A meta-analysis. *International journal of geriatric psychiatry, 18*, 1088–1094.

Bohlmeijer, E., Valenkamp, M., Westerhof, G., Smit, F., & Cuijpers, P. (2005). Creative reminiscence as an early intervention for depression: Results of a pilot project. *Aging & Mental Health, 9*, 302–304.

Bouma, J., Ranchor, A. V., Sanderman, R., & en Van Sonderen, F. L. P. (1995). *Het meten van symptomen van depressie met de CES-D*. Rijksuniversiteit Groningen: Een handleiding. Noordelijk Centrum voor Gezondheidsvraagstukken.

Cappeliez, P., O'Rourke, N., & Chaudhury, H. (2005). Functions of reminiscence and mental health in later life. *Aging & mental health, 9*, 295–301.

Clayton, D., & Hills, M. (1993). *Statistical models in epidemiology*. Oxford: Oxford University Press.

Cole, M. G., & Yaffe, M. J. (1996). Pathway to psychiatric care of the elderly with depression. *International Journal of Geriatric Psychiatry, 11*, 157–161.

Coleman, P. G. (2005). Editorial: Uses of reminiscence: Functions and benefits. *Aging & Mental Health, 9*, 291–294.

Cully, J. A., LaVoie, D., & Gfeller, J. D. (2001). Reminiscence, personality, and psychological functioning in older adults. *Gerontologist, 41*, 89–95.

Deeg, D. J. H., Beekman, A. T. F., Kriegsman, D. M. W., & en Westendorp-De Serière, M. (Eds.). (1998). *Autonomy and well-being in the aging population II. Report from the longitudinal aging study Amsterdam, 1992–1996*. Amterdam: VU University Press.

Garland, J., & Garland, C. (2001). *Life review in health and social care: A practitioner's guide*. New York: Brunner-Routledge.

Geerlings, S. W., Beekman, A. T. F., Deeg, D. J. H., Twisk, J. W. R., & Van Tilburg, W. (2001). *The longitudinal effect of depression on functional limitations and disability in older adults: An eight-wave prospective community-based study (Rep. No. 31)*. US: Cambridge University Press.

Gottlieb, G. L. (1994). Barriers to care for older adults with depression. In L. S. Schneider, C. F. Reynolds, B. D. Lebowitz, & A. J. Friedhoff (Eds.), *Diagnosis and treatment of depression in late life: Results of the NIH consensus development conference*. Washington DC: American Psychiatric Press.

Haden, C. A. (1998). Reminiscing with different children: Relating maternal stylistic consistency and sibling similarity in talk about the past. *Developmental psychology, 34*, 99–114.

Haight, B. K., & Dias, J. K. (1992). Examining key variables in selected reminiscing modalities. *International psychogeriatrics, 4*, 279–290.

Kropf, N. P., & Tandy, C. (1998). Narrative therapy with older clients: The use of a 'meaning-making' approach. *Clinical Gerontologist, 18*, 3–16.

Lipsey, M. W., & Wilson, D. B. (1993). The efficacy of psychological, educational and behavioural treatment. *American Psychologist, 48*, 1181–1209.

Payne, M. (2000). *Narrative therapy. An introduction for counsellors*. London: Sage.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior, 19*, 2–21.

Polkinghorne, D. E. (1996). Transformative narratives: From victimic to agentic life plots. *American Journal of Occupational Therapy, 50*, 299–305.

Rotyman, K. J., & Greenland, S. (1998). *Modern epidemiology*. Philadelphia: Lippincott–Raven.

Sayre, J. (2002). Personal narratives in the life stories of older adults. *Journal of Geriatric Psychiatry, 35*, 125–150.

Schoevers, R. A., Smit, F., Deeg, D. J. H., Cuijpers, P., Dekker, J., Van Tilburg, W., et al. (2006). Prevention of late-life depression in primary care: Do we know where to begin? *American Journal of Psychiatry, 163*, 1611–1621.

Schuurmans, J. (2005). *Anxiety in late life, moving toward a tailored treatment*. Dissertation, Amsterdam: Vrije Universiteit.

Sehulster, J. R. (1995). Memory styles and related abilities in presentation of self. *American Journal of Psychology, 108*, 67–88.

Seidlitz, L., & Diener, E. (1998). Sex differences in the recall of affective experiences. *Journal of Personality and Social Psychology, 74*, 262–271.

Smit, F., Ederveen, A., Cuijpers, P., Deeg, D., & Beekman, A. (2006). Opportunities for cost-effective prevention of late-life depression: An epidemiological approach. *Archives of General Psychiatry, 63*, 290–296.

Watt, L. M., & Cappeliez, P. (2000). Integrative and instrumental reminiscence therapies for depression in older adults: Intervention strategies and treatment effectiveness. *Aging & Mental Health, 4*, 166–177.

Webster, J. D. (1993). Construction and validation of the reminiscence functions scale. *Journals of Gerontology, 48*, 256–262.

Webster, J. D. (2001). The future of the past: Continuing challenges for reminiscence research. In G. Kenyon, P. Clark, & B. de Vries (Eds.), *Narrative gerontology, theory, research, practice*. New York: Springer publishing company.

Webster, J. D., & McCall, M. E. (1999). Reminiscence functions across adulthood: A replication and extension. *Journal of Adult Development, 6*, 73–85.

Webster, J. D., & Young, R. A. (1988). Process variables of the life review: Counseling implications. *International Journal of Aging and Human Development, 26*, 315–323.

Willemse, G. R. W. M., Smit, F., Cuijpers, P., & Tiemens, B. G. (2004). Minimal-contact psychotherapy for sub-threshold depression in primary care. *British Journal of Psychiatry, 185*, 416–421.

Wink, P., & Schiff, B. (2002). To review or not to review? The role of personality and life events in life review and adaptation to older age. In J. D. Webster & B. K. Haight (Eds.), *Critical advances in reminiscence work: From theory to application* (pp. 44–60). New York: Springer Publishing Co.

Wong, P. T., & Watt, L. M. (1991). What types of reminiscence are associated with successful aging? *Psychology and Aging, 6*, 272–279.

Woods, B., Portnoy, S., Head, D., & Jones, G. (1992). Reminiscence and life-review with persons with dementia: Which way forward? In G. M. Jones & B. M. L. Miesen (Eds.), *Care giving in dementia* (pp. 137–161). London: Routledge.

Zivian, M. T., Larsen, W., Knox, V. J., & Gekoski, W. L. (1992). Psychotherapy for the elderly: Psychotherapists' preferences. *Psychotherapy: Theory, Research, Practice, Training, 29*, 668–674.