Improvement in Personal Meaning Mediates the Effects of a Life Review Intervention on Depressive Symptoms in a Randomized Controlled Trial

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Purpose: The purpose of the study was to assess the impact of a life review intervention on personal meaning in life and the mediating effect of personal meaning on depressive symptoms as the primary outcome of this form of indicated prevention. Design and Methods: A multicenter randomized controlled trial was conducted with one group of older adults obtaining life review (N = 83) and the other watching a video about the art of growing older (N = 88). Measurements took place before and after the intervention as well as 6 months later at follow-up. Results: It was found that those who followed life review improved more in personal meaning than those in the control group, although at follow-up the difference was no longer significant. Improvements in meaning during the intervention predicted decreases in depressive symptoms later in time and mediated the effects of the program on depressive symptoms. Implications: Personal meaning is an important asset in contemporary society, which some older adults find difficult to achieve. The findings from this study show that it is possible to support older persons in their search for meaning by means of life review and that this helps in alleviating depressive symptoms.

Key Words: Life review, Meaning in life, Depression, Preventive services, Clinical trial methods

In contemporary individualized society, people are increasingly responsible for creating personal meaning in their lives. One might expect that the search for meaning poses particular challenges for older people. Important societal values like productivity, autonomy, or health are difficult to achieve for many older persons (Gergen & Gergen, 2000), and society fails to provide meaningful alternatives for older adults (Riley & Riley, 1994). Personal life events such as age-graded losses in social relations, social roles, and psychophysical functioning as well as the approaching end of life also provide strong challenges to older persons’ search for meaning (Read, Westerhof, & Dittmann-Kohli, 2005; Weiss & Bass, 2002). In general, older adults do not experience much less meaning in life than other age groups (Pinquart, 2002). Nevertheless, there is a substantial group of older adults who experience meaninglessness (van Selm & Dittmann-Kohli, 1998; Westerhof, Thissen, Dittmann-Kohli, & Stevens, 2006). It is therefore important to develop interventions that are particularly tailored to the needs of older persons in their search for personal meaning.

Researchers have often argued that the reconciliation with one’s personal past is especially important
to finding meaning in later life (Cappeliez, Rivard, & Guindon, 2007; Erikson, 1982; Krause, 2004). Life review may therefore be a fruitful method to employ in an intervention intended to promote personal meaning. Yet, there have been no studies, which rigorously examined the effects of life review interventions on personal meaning. The present study used a prospective multicenter randomized controlled trial to assess the effects of a life review program on personal meaning in older adults and to examine the effects of personal meaning on the alleviation of depressive symptoms by the program. This life review program was designed as a form of indicated prevention for older people with depressive symptoms but no clinical depression (“Looking for Meaning”; Bohlmeijer, Valenkamp, Westerhof, Smit, & Cuijpers, 2005). In the following, we will first define personal meaning and discuss its relations with life review and depression. Next, the design of the intervention and the study are described. Finally, the findings will be presented and discussed.

**Personal meaning**

The concept of personal meaning dates back to the work of clinical psychologists like Frankl (1972), Maddi (1970), and Weisskopf-Joelson (1968), who considered the search for meaning a core motive in the lives of their clients. This has also been argued more recently (e.g., Hermans & Hermans-Jansen, 1995; Wong, 1998). Furthermore, personal meaning has gained interest in academic psychology as well (Westerhof & Kuin, 2008).

Different scholars in the field have used different definitions (Battista & Almond, 1973; Baumeister, 1991; Dittmann-Kohli, 1995; Frankl, 1972; King, Hicks, Krull, & Del Gaiso, 2006; Klinger, 1998; Krause, 2007; Reker, 1997; Reker & Wong, 1987). In reviewing these definitions, two core psychological processes of meaning construction can be identified as (a) the cognitive process of making sense out of experience and (b) the motivational process of discovering a purpose in life (Dittmann-Kohli & Westerhof, 2000; Klinger; Westerhof & Kuin, 2008). Both processes relate individual life experiences to a broader framework of cognitions, values, and goals in life. Individuals may vary in how well they succeed in this process of meaning construction and may thereby experience their lives as more meaningless or more meaningful (Read et al., 2005; van Selm & Dittmann-Kohli, 1998; Westerhof et al., 2006).

**Personal meaning and life review**

In its long history in the field of gerontology, life review has been seen as a major process through which individuals achieve personal meaning in the last phase of life. Classical scholars like Erikson (1982) and Butler (1963) already saw the reconciliation with one’s past life as an important way of achieving personal meaning in the light of life’s finitude.

Over the past two decades, there have been three major advances in the study of reminiscence and life review in normal aging (Westerhof, Bohlmeijer, & Webster, in press). First, studies have shown that not all older individuals engage in a systematic life review (Merriam, 1993; Wink & Schiff, 2002). Second, recollecting memories has more functions than death preparation. Functions which are commonly recognized nowadays are integrative functions serving death preparation, identity development, and problem solving; social functions serving interpersonal bonding; as well as dysfunctional uses like the obsessive revival of bitter memories and the use of memories to escape present problems (Bluck & Alea, 2002; Webster, 1993; Wong & Watt, 1991). Third, it has become clear that reminiscence and life review are not specific to the last phase of life. Nowadays, reviewing memories from one’s own past is seen as an important process in individual development throughout the life span (Webster, 2002; Pasupathi, Weeks, & Rice, 2006).

With these shifts in theorizing, the link with personal meaning continued to be stressed (Cappeliez et al., 2007; Krause, 2004). Whereas obsessive and escapist uses of memories may hamper the search for meaning, integrative life review would promote meaning in life (Westerhof et al., in press). Integrative life review does not only involve the mere recollection of personal memories but also the revision of positive and negative memories. This includes, for example, learning from adverse experiences, remembering solutions to past problems, and integrating memories into a coherent life story. Integrative life review thereby fulfills both personal meaning functions of making sense out of experience and finding purpose in life.

Two empirical studies have shown that there are significant relations between life review and personal meaning in older adults (Cappeliez & O’Rourke, 2002; Fry, 1991). Krause (2004) even distinguishes reconciliation with the past as a core component of meaning in later life. He found that it contributes to a higher order factor of personal
meaning together with three other components—values, purpose, and goals. However, an important question remains whether stimulating the process of life review will result in increases in personal meaning. Two pilot studies suggest that this might be possible (Bohlmeijer, Westerhof, & Emmerik-de Jong, 2008; Westerhof, Bohlmeijer, & Valenkamp, 2004).

Life review, personal meaning, and depression

Life review interventions have most consistently been designed to prevent or treat feelings of depression. Recent meta-analyses have shown that life review interventions can indeed be effective in alleviating depressive symptoms (Bohlmeijer, Smit & Cuijpers, 2003; Hsieh & Wang, 2003). Scogin, Welsh, Hanson, Stump, and Coats (2005) even describe reminiscence interventions as one type of evidence-based psychological treatments for older persons with depression.

Scholars have often related personal meaning to depression. Being able to attribute meaning to one's experiences and being involved in a life of purpose is most often seen as a buffer against depressive symptoms (Frankl, 1972; Reker & Wong, 1987). In a meta-analysis of 14 studies, comprising almost 2,000 older adults, Pinquart (2002) reported a shared variance of 21.2% between purpose in life and depression. However, these cross-sectional studies could not solve the issue of the causality of the relation. Krause (2007) reports a longitudinal study of older persons that indeed shows that meaning in life predicts depression over time but not the other way around.

Research hypotheses

The life review intervention “Looking for Meaning” was developed as a form of indicated prevention for adults aged 50 years and older with mild depressive symptoms. The intervention was effective with regard to its primary outcome: decreasing depressive symptoms (effect size $d = .58$; Pot et al., in press). The present article makes use of the same study to assess the effects of the intervention in improving meaning in life as a secondary outcome. Furthermore, it is assessed whether personal meaning can explain the effects of the intervention on the primary outcome measure, that is, the alleviation of depressive symptoms. We have two hypotheses:

1. There is more improvement of meaningfulness in the life review group compared with the control group, and this improvement remains stable 6 months after the intervention ended.
2. A stronger improvement in meaning during the life review mediates the effects on depressive symptoms after the intervention and at follow-up.

Methods

The intervention and control groups

The intervention group followed the prevention program “Looking for Meaning,” which combines life review with elements of creative therapy and problem-solving therapy in order to enhance personal meaning in life and thereby alleviate depressive symptoms. The intervention consists of 12 sessions of 2 hr each in groups with about eight participants. The groups were conducted by two trained mental health care professionals. Each session focuses on one theme: your name, smells from the past, houses you have lived in, recognizing your resources, hands, photographs, friendship, balance, thread of life and turning points, longing and desire, the future in me, and identity. These themes address cognitive and motivational processes as well as different sources of meaning and time periods in one’s life. The program evolves from smaller and more concrete themes to broader themes that leave more room for evaluation and review. Participants combine individual home assignments with group discussion.

The participants assigned to the control group watched a 20-min educational video movie “The Art of Growing Older,” which supplied information about factors and skills that promote growing older successfully. The participants met one time in small groups to watch this video, with group discussion afterward. Participants did not get any further incentives to remain in the study. This intervention was considered a minimal intervention as no treatment was involved.

Participants

Participants were recruited through local and national newspapers and magazines targeted at an older audience or by the professionals of the 11 participating community mental health centers. The study was described in the media recruitment as a research project on a new intervention, which helps older people deal with depressive complaints. Inclusion criteria were being 50 years or older and
having at least slight depressive symptoms but no depressive disorder. People scoring 4 or lower on the Center for Epidemiological Studies Depression-Scale (CES-D; Bouma, Ranchor, Sanderman & van Sonderen, 1995) were excluded because improvement would be hardly possible. As the intervention is a form of indicated prevention, people who already received psychotropic or psychological treatment were excluded. People scoring 24 or higher on the CES-D were further examined with the Mental Illness Needs Index (Sheehan et al., 1998) and were excluded when they met the criteria for a major depressive disorder. Ninety-seven of the 268 applicants were excluded because of these criteria, leaving 171 study participants.

Randomization of the older adults eligible to participate took place at the research institute (Netherlands Institute of Mental Health and Addiction). Randomization was stratified for gender. The process took place directly after the recruitment. The recruitment resulted in enough participants, so that they did not have to wait before the group started. The outcome of the randomization procedure was sent to the mental health care professionals who allocated the participants to either the experimental or the comparison group accordingly.

Data were collected at baseline (T0) and at 3 months (after the intervention; T1) and 9 months later at follow-up (T2). There were 171 participants at the start of the project: 83 in the intervention group and 88 in the control group. We had complete data for 79 persons in the intervention group and 75 in the control group at T1 and for 73 and 67 persons at T2, respectively. Thus, 140 participants (82%) filled out the questionnaires three times. We did a binary logistic regression analysis of having complete data (yes or no) on group (intervention or control), age, gender, marital status, occupational status, number of chronic conditions, as well as depressive symptoms and personal meaning at baseline. This analysis showed that none of these variables predicted whether or not respondents had complete data.

The basic demographic characteristics of the participants are presented in Table 1. The group is rather varied as regards these demographic characteristics, although women are clearly overrepresented and the mean age was relatively low (64 years). There are no significant differences between the intervention and the control groups.

### Instruments

Besides the background characteristics and the CES-D as mentioned in the previous paragraph, a sentence completion instrument was used to assess “personal meaning.” Fifteen sentence stems were used, which were adopted from the longer SELE-instrument (SELE refers to Self and Life; Dittmann-Kohli, 1995; Dittmann-Kohli & Westerhof, 1997). They prompt both the cognitive processes and the motivational processes of meaning construction. Some sentence stems present positive wordings (“I am quite good at . . . ”; “I would like to . . . ”), some negative wordings (e.g., “My weaknesses are . . . ”; “I am afraid that . . . ”), and some neutral wordings (e.g., “When I think about myself . . . ”; “In the next few years . . . ”). Participants were asked to complete these sentences by expressing what they considered to be true and important about themselves.

Each sentence completion was coded on the presence or absence of personal meaning in life (dichotomous coding). Examples of positive sentence

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Table 1. Sample Characteristics at Baseline for Intervention and Control Group (n = 171)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Intervention group</th>
<th>Control group</th>
</tr>
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<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M (SD)</td>
<td>64.4 (6.7)</td>
<td>64.2 (8.1)</td>
</tr>
<tr>
<td>Range</td>
<td>52–81</td>
<td>51–90</td>
</tr>
<tr>
<td>Chronic illnesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M (SD)</td>
<td>1.4 (1.1)</td>
<td>1.6 (1.3)</td>
</tr>
<tr>
<td>Range</td>
<td>0–4</td>
<td>0–7</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26.5</td>
<td>28.4</td>
</tr>
<tr>
<td>Female</td>
<td>73.5</td>
<td>71.6</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 11</td>
<td>35.4</td>
<td>31.8</td>
</tr>
<tr>
<td>11–14 years</td>
<td>27.8</td>
<td>31.8</td>
</tr>
<tr>
<td>More than 14</td>
<td>37.8</td>
<td>36.4</td>
</tr>
<tr>
<td>Marital status</td>
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<td></td>
</tr>
<tr>
<td>Married</td>
<td>25.3</td>
<td>31.8</td>
</tr>
<tr>
<td>Divorced</td>
<td>38.6</td>
<td>34.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>22.9</td>
<td>23.9</td>
</tr>
<tr>
<td>Never married</td>
<td>13.3</td>
<td>10.2</td>
</tr>
<tr>
<td>Employment</td>
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<td></td>
</tr>
<tr>
<td>Paid work</td>
<td>19.5</td>
<td>19.5</td>
</tr>
<tr>
<td>Retired</td>
<td>34.1</td>
<td>40.2</td>
</tr>
<tr>
<td>Homemaking</td>
<td>12.2</td>
<td>11.5</td>
</tr>
<tr>
<td>Volunteer work</td>
<td>13.4</td>
<td>12.6</td>
</tr>
<tr>
<td>Disability pension</td>
<td>13.4</td>
<td>13.8</td>
</tr>
<tr>
<td>Unemployed</td>
<td>7.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

a No significant differences (t test with p > .05).

b No significant differences (chi-square test with p > .05).
completions are “When I think about myself . . . I believe I am doing well” and “I am quite good at . . . communicating with other people.” Examples of negative sentence completions are “In comparison to the past . . . my possibilities are limited” and “I am quite good at . . . nothing.” Coding was done by the third author, who was blinded to the group and measurement point of the sentence completions. The interrater reliability (between the third and first author) was high: $\kappa = .93$.

For each participant, an overall measure of personal meaning was computed as the number of sentence completions coded as presence of meaning. In previous studies with the SELE-instrument, this proved to be a valid indicator of personal meaning, which is related to depression, sense of coherence, and subjective well-being (van Selm & Dittmann-Kohli, 1998; Westerhof et al., 2006). It also proved sensitive to change (Bohmeijer et al., 2008; Westerhof et al., 2004).

**Analyses**

In order to replace the missing values of personal meaning and depressive symptoms at T1 and T2 by plausible estimates, we used the regression imputation procedure as implemented in Stata version 9.1 (StataCorp, 2005).

To address Hypothesis 1, we carried out an analysis of variance with the three scores of personal meaning as repeated measures and the intervention group versus control group as the between-subjects factor. We examined planned contrasts (comparing the second and third to the first measurement). In addition, we determined the effect sizes for the intervention group by means of Cohen's $d$ (small, $d = .20$; medium, $d = .50$; and large, $d = .80$; see Cohen, 2005), using the pooled standard deviation method.

To answer the second research question, we first carried out a two-step hierarchical regression analysis with depressive symptoms at post-treatment (T1) as the outcome variable. We entered the baseline depression score (T0) and the group variable as a dummy (control vs. intervention) in the first step. In the second step, we added the baseline score on personal meaning (T0) and the change in personal meaning (T1–T0). We did another two-step hierarchical regression analysis with depressive symptoms at follow-up (T2) as the outcome variable. In the first step, we again entered depressive symptoms at baseline (T0) and the group dummy (control vs. intervention), followed in the second step by personal meaning at baseline (T0) and the change in personal meaning during treatment (T1–T0) and follow-up (T2–T1). In the subsequent mediational analysis, we used bootstrapping procedures ($n = 5,000$ bootstrap resamples) in order to assess the indirect effect of the mediational pattern, outlined by Preacher and Hayes (2004). As prescribed, an indirect effect was considered significant in the case 0 was not contained in the 95% confidence interval.

**Results**

**Improvement in personal meaning**

Hypothesis 1 stated that individuals in the intervention group improved more in personal meaning than individuals in the control group and that this improvement remained stable at follow-up. The corresponding means are visualized in Figure 1. This figure suggests that the intervention group improved in personal meaning between T0 and T1 and remained stable between T1 and T2 ($\text{mean}_{T0} = 7.2$ [SD = 2.2], $\text{mean}_{T1} = 8.2$ [SD = 2.2], and $\text{mean}_{T2} = 8.2$ [SD = 2.6]), whereas the control group increased slightly between the three points in time ($\text{mean}_{T0} = 7.3$ [SD = 2.2], $\text{mean}_{T1} = 7.6$ [SD = 2.4], and $\text{mean}_{T2} = 7.7$ [SD = 2.2]).

We carried out a multivariate analysis of variance with the intervention and control groups as between-subjects variable and the personal meaning variables at the three measurement points as within-subjects contrasts to assess these different trajectories. The planned contrasts showed that there is a significant interaction of group with the contrast between T1 and T0 ($F[1, 169] = 5.5$, $p = .020$). Post hoc paired $t$ tests confirmed that the difference between T0 and T1 is significant for the intervention group ($t(82) = -4.4$, $p < .001$) but not for the control group ($t(87) = -1.4$, $p = .158$). However, there was no significant interaction of group with the simple contrast between T2 and T0 ($F[1, 169] = 2.4$, $p = .124$): the intervention group is not better off at follow-up than the control group. Post hoc tests showed that both groups remained stable between T1 and T2 (intervention group: $t(82) = 0.1$, $p = .889$; control group: $t(87) = -0.6$, $p = .569$). The intervention group thus exhibits the expected pattern of an improvement after the intervention that is maintained at follow-up, whereas the control group remains stable.
Nevertheless, there is no difference between both groups anymore at follow-up. These findings partly support Hypothesis 1.

The increase in the intervention group corresponds to one extra sentence completion coded as meaningful after the intervention. The predominantly negative profile (less than half of the sentence completions are positive) changed into a predominantly positive profile (more than half of them are positive). The effect size (Cohen’s d) for the intervention group corresponds to medium effect sizes: .46 (T1–T0) and .41 (T2–T0).

**Mediating effects of personal meaning on depressive symptoms**

Hypothesis 2 stated that a stronger improvement in meaning during the life review mediates the effects on depressive symptoms after the intervention and at follow-up. This hypothesis builds on a previous finding that the intervention is effective in its primary outcome: alleviating depressive symptoms (Pot et al., in press). The depression scores in the intervention group (mean$_{T0} = 21.3$ [SD = 7.7], mean$_{T1} = 15.0$ [SD = 7.4], and mean$_{T2} = 15.1$ [SD = 8.3]) compare favorably with those in the control group (mean$_{T0} = 20.1$ [SD = 7.6], mean$_{T1} = 18.2$ [SD = 9.0], and mean$_{T2} = 17.0$ [SD = 8.7]).

Table 2 shows that controlling for the autoregressive effect of depressive symptoms before the intervention, the intervention group showed less depressive symptoms after the intervention than the control group. Furthermore, both the personal meaning at T0 and the improvement in personal meaning during the intervention were significantly related to depressive symptoms after the intervention. Those who experienced a higher level of meaning before the intervention and those who experienced more improvement in meaning showed a stronger

![Figure 1. Meaning in life (number of positive sentence completions) by group (intervention vs. control) and time of measurement (n = 171).](image)

*aSignificant interaction of group with improvement in personal meaning between T1 and T0.

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
</tr>
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<tbody>
<tr>
<td>Beta</td>
<td>Beta</td>
</tr>
<tr>
<td>Intervention group (Reference: control group)</td>
<td>−.234***</td>
</tr>
<tr>
<td>Baseline depressive symptoms (T0)</td>
<td>.511***</td>
</tr>
<tr>
<td>Baseline personal meaning (T0)</td>
<td>−.335***</td>
</tr>
<tr>
<td>Improvement in personal meaning (T1–T0)</td>
<td>−.281***</td>
</tr>
</tbody>
</table>

Explained variance (adjusted $R^2$) .288 .379

*aSignificant improvement in $R^2$ change ($p < .05$).
decrease in depressive symptoms. Moreover, the effect of the group (control vs. intervention) is reduced by 23%. Mediation analysis, following Preacher and Hayes (2004), showed that the indirect effect of improvement in personal meaning is significant ($p < .05$), with bootstrapping values between $-0.87$ and $-0.13$.

In a second assessment of Hypothesis 2, we analyzed the changes in depressive symptoms between baseline and follow-up. We first entered the group dummy (control vs. intervention) and the depressive symptoms at baseline. It can be seen in Table 3 that the intervention group again showed significantly less depressive symptoms at follow-up than the control group, controlling for the autoregressive effects of depressive symptoms. The effects after the life review intervention were therefore sustained. Furthermore, the personal meaning at baseline was related to a stronger decrease in depressive symptoms after the intervention and at follow-up. These findings show that personal meaning plays an important role in reducing depressive symptoms and sustaining this effect. It may indeed be easier for individuals who already see more coherence and purpose in their lives at baseline to integrate their memories into this significant mediator (bootstrapping values between $-0.38$ and $0.71$). To conclude, the improvement in personal meaning during the intervention explains the long-term effect of the intervention on depressive symptoms.

**Discussion**

Despite the theoretical interest in the relations of meaning in life with life review and depression in later life, the available empirical evidence is still scarce. The present study added to our knowledge in the field by examining the effects of the life review intervention “Looking for meaning,” a form of indicated prevention for older adults with depressive symptoms. The study was based on a large sample with a high retention rate compared with other studies on life review.

The study participants had a predominantly negative meaning profile at baseline, whereas the general population shows a predominantly positive meaning profile (Read et al., 2005; van Selm & Dittmann-Kohli, 1998; Westerhof et al., 2006). It can thus be concluded that a group with impoverished meaning has been recruited.

We found that the intervention group improved in personal meaning and that this improvement was maintained 6 months later. Nevertheless, the intervention and control groups did not differ any more at follow-up. The control group improved somewhat, though not significantly. That might have been due to the minimal intervention of watching a video, which is relevant to their problems. The study thereby partly confirms the first hypothesis that stimulating life review results in finding more meaning in one’s life. It lends further empirical verification of the theoretical link between life review and personal meaning, which has previously been assessed in the general population (Cappeliez & O’Rourke, 2002; Fry, 1991; Krause, 2004).

The second hypothesis was confirmed: Personal meaning and improvement in meaning predicted decline in depressive symptoms after the intervention and at follow-up. Personal meaning at baseline was related to a stronger decrease in depressive symptoms after the intervention and at follow-up. These findings show that personal meaning plays an important role in reducing depressive symptoms and sustaining this effect. It may indeed be easier for individuals who already see more coherence and purpose in their lives at baseline to integrate their memories into this significant mediator (bootstrapping values between $-0.38$ and $0.71$). To conclude, the improvement in personal meaning during the intervention explains the long-term effect of the intervention on depressive symptoms.

**Table 3. Hierarchical Regression Analysis of Depressive Symptoms at Follow-up on Group, Baseline Depressive Symptoms, Baseline Personal Meaning, and Improvement in Personal Meaning ($n = 171$)**

<table>
<thead>
<tr>
<th></th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depressive symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(T2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention group</td>
<td>-.148*</td>
<td>-.079</td>
</tr>
<tr>
<td>(Reference: control group)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline depressive symptoms (T0)</td>
<td>.446***</td>
<td>.360***</td>
</tr>
<tr>
<td>Baseline personal meaning (T0)</td>
<td>-.383***</td>
<td>-.489***</td>
</tr>
<tr>
<td>Improvement in personal meaning (T1–T0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement in personal meaning (T2–T1)</td>
<td>-.419***</td>
<td></td>
</tr>
<tr>
<td>Explained variance (adjusted $R^2$)</td>
<td>.201</td>
<td>.403*</td>
</tr>
</tbody>
</table>

*Significant improvement in $R^2$ change ($p < .05$).

*p < .05. **p < .01. ***p < .001.
framework and thereby alleviate depressive symptoms. Furthermore, the improvement in personal meaning during the intervention partly explains the effects of the intervention on the alleviation of depressive symptoms directly after the intervention and fully explains the effect of the intervention on depressive symptoms at follow-up. Improvements in meaning in life during the intervention may provide individuals with more coherence and purpose and thereby result in decreases of depressive symptoms at follow-up. These results match previous findings in the general population, showing that both phenomena are related to each other (Pinquart, 2002) and that personal meaning is causally related to depression (Krause, 2007).

The present study has a number of limitations. First, the intervention group also provided the participants with social interactions on a weekly basis and thereby the possibility to share personal memories with others. The control group did not have these opportunities for social contact. Furthermore, the trial was pragmatic, meaning that the compliance to the protocol and the quality of the therapy provided was not controlled. This may have lead to an underestimation of the effects but contributes to generalizing the findings to common practice. Last, the mean age of the participants was relatively low (64 years). It would be worthwhile to study the effects of life review interventions on adults in the higher age categories.

Personal meaning is an important asset in our contemporary society, but for some older adults, it is difficult to find meaning in their lives. The findings from this study show that it is possible to support these older persons in their search for meaning by means of life review and that this also helps them to deal with symptoms of depression.

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