

Writing Wisdom, Reviewing Identity: Positive Outcomes of Participating in a Memoir Course for Older Adults

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Constructing a personal narrative and consolidating identity is an ongoing process that becomes pressing in the face of mortality. The current pilot study examined the process of life review in a sample of older people, specifically examining the effects of participation in a memoir course on wisdom, identity, and well-being. We hypothesized that wisdom, identity fidelity and coherence, and subjective well-being would increase for those in the memoir group compared to a control. Eighteen elderly individuals from two senior retirement communities were randomly assigned to participate in weekly classes, for four weeks, either to work on a memoir or discuss films (control group). After engaging in the process of organizing their life story and writing about important memories, the nine individuals in the memoir group scored significantly higher on self-report measures of wise reminiscence, identity fidelity, and subjective well-being compared to those in the control group. Furthermore, exploratory analyses found that wise reminiscence statistically mediated relationships between the memoir condition and the outcome measures of identity fidelity, identity coherence, and subjective well-being. These findings point to the benefits of memoir writing for positive aging as well as potential mechanisms underlying its effectiveness.

Key Words: Wisdom, Identity, Subjective Well-Being, Life Review, Narrative

The mental health and general well-being of older people is a pressing issue as the population of those over 65 is projected to nearly double between 2014 and 2060 in the United States alone (Administration on Aging [AOA], 2015; Ortman, Velkoff, & Hogan, 2014). Aging related challenges (e.g., illness, financial difficulties, social isolation, loss of loved ones) and internalization of negative age-related stereotypes (DePaola, Griffin, Young & Neimeyer, 2003; Gergen & Gergen, 1988) increase vulnerability for mental health issues (World Health Organization [WHO], 2016). Although we have progressed in the diagnosis and treatment of mental illness in old age, there is much to be done to enhance the well-

being, quality of life and community engagement of older people, including opportunities to shift negative perceptions on aging and to provide strength-based support (Karlin & Duffy, 2004).

Theories of aging have evolved to emphasize resilience and continued growth (Fry & Keyes, 2010; Leiblich, 2014; Rowe & Kahn, 1997, 2015; Schroots, 1996) by recognizing skills unique to the aging population (Baltes, 1987; Baltes, P. & Baltes, M., 1990; Rowe & Kahn, 1997, 2015). Older individuals have specific sets of knowledge, skills, and strengths (Dockendorf, 2014; Fry & Keyes, 2010); and interventions can be tailored to benefit older people and their communities (Kahlbaugh & Huffman, 2017).

In this context, our small, intensive pilot study focused on enhancing wisdom, identity, and subjective well-being by implementing a memoir writing intervention. This research furthers the current literature by: 1) using the memoir format to scaffold the construction of a coherent and meaningful personal narrative, 2) investigating effects of creating personal narratives on wisdom, identity, and well-being, and 3) exploring mechanisms that might account for positive outcomes of life review processes.

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Wisdom, Identity, and Well-Being

Erikson (1950) determined that the central conflict during life's final stage is "ego-integrity versus despair," and that wisdom is a product of successfully navigating the

tension between creating meaning in life and knowing that life will soon end (Erikson, 1950). Individuals at this stage ideally recall defining moments and resolve past issues to create a stronger sense of self and more effective coping mechanisms; coming to terms with varied life experiences, including contradictory ones (Erikson, 1959; Markstrom, Sabino, Turner, & Berman, 1997; Staudinger, 1989, 2001; Weststrate & Glück, 2017). Tornstam (2011) builds on Erikson's perspective by including cosmic transcendence (changing perspectives on time, life, death; accepting the mysteries of existence; and spirituality) and coherence of identity (acceptance of the whole self) as patterns of gerotranscendence. These patterns capture both wisdom (i.e., cosmic transcendence) and identity fidelity and coherence, and they are predictive of life satisfaction (Tornstam, 2003, 2011).

The unique life perspective afforded by old age and the ability to share it with others is integral to the conceptualization of wisdom across cultures (Baltes & Staudinger, 1993; Staudinger, 1989, 2001; Tornstam, 2011; Webster, 2003; Weststrate & Glück, 2017). Theoretically, wisdom is central to views of positive aging, and one strategy to understand wisdom has been to study qualities of wise people (Baltes & Staudinger, 1993; Webster, 1993, 2003; Webster, Weststrate, Ferrari, Munroe, & Pierce, 2017; Weststrate & Glück, 2017). Wise people hold expert knowledge (factual and procedural), appreciate knowledge's relativity, accept uncertainty, and effectively synthesize opposing perspectives (Baltes & Staudinger, 1993; 2000, Kramer, Kahlbaugh & Goldston, 1992). The HERO model of wisdom (**H**umor, **E**motional regulation, **R**eminiscence, **O**penness to experience, critical life **E**xperiences; Webster, 2003) emphasizes having humor, accepting emotions' complexity, reminiscing/reflecting, being open to experience, and overcoming varied life experiences as key facets of wisdom. Wisdom is increased by coping with conflict and recognizing alternate viewpoints. It is not necessarily aging that generates wisdom, but rather the types and richness of experiences individuals have faced, as well as their ability to learn from, reflect on, and give those experiences meaning (Webster et al., 2017; Webster, Westerhof, & Bohlmeijer, 2014). Thus, wisdom and past/present self-integration are intimately linked.

Older individuals can reaffirm identity by reminiscing (Butler, 1963, 2002; Erikson, 1959; Korte, Bohlmeijer, Westerhof, & Pot, 2011). Reminiscing includes reflecting on positive experiences or accomplishments, resolving conflicts, and acknowledging regrets. As mortality awareness increases, thoughts are drawn to the past (Wong, Reker, & Gesser, 1994). Older individuals' tendency to reminisce renders frameworks that account for the life story (i.e., constructivism, narrative psychology, life review, and reminiscence) especially useful for exploring wisdom, identity, and well-being (Bruner, 1986; Bryant, Smart, & King; 2005; Butler, 1963; Neimeyer, 2000, 2004, 2014; Webster et al., 2017).

Creating a personal narrative is an essential part of being human. No story is more vital to one's well-being

than the constantly developing story in which that person is the main character (Bruner, 1986; Crossley, 2000; McAdams, 1993, 2001, 2010; Sugiyama, 2001). Individuals begin to understand stories as integrated life narratives during adolescence (e.g., Habermas & Bluck, 2000), becoming more actively engaged in the process of constructing the self and interpreting actions through the lens of the life narrative as they age (Bruner, 1986; McAdams, 2010). These narratives create a coherent sense of self, explain past experiences, and justify current decisions (McAdams, 1993, 2001; Singer, Blagov, Berry, & Oost, 2012). Narratives help identify and reinforce patterns in individuals' lives (Crossley, 2000; Singer et al., 2012). The "reminiscence bump," a phenomenon in which individuals are more likely to store memories related to times of identity change or self-concept development (adolescence and young adulthood), is well documented across cultures (Conway, Wang, Hanyu, & Haque, 2005; McAdams, 2001; Steiner, Pillemer, Thomsen, & Minigan, 2014). These memories are integral to the life story because they affirm and explain identity, which is one essential life narrative function (Rathbone, Moulin, & Conway, 2008; Rathbone, O'Connor, & Moulin, 2017).

Having a narrative with a meaningful trajectory is key to self-integrity. Certain narrative structures and qualities (such as coherence and agency) predict mental health and well-being (Adler, 2011; McAdams, 1993, 2001, 2010; McAdams & Guo, 2015; Singer et al., 2012). Coherence results from logically sequencing events, identifying contextual reference, and making thematic connections between discrete life events and the entire life story (Waters & Fivush, 2015). Analyses of the narratives of 157 adults revealed associations between narrative themes that include redemption sequences (overcoming a negative situation) and meaning making (taking a lesson about the self or life from that particular experience) with measures of generativity and psychological well-being (McAdams & Guo, 2015). Furthermore, people experiencing post-traumatic growth score higher on wisdom measures (Webster & Deng, 2015) and experience changes in self-perception, interpersonal relationships, and worldview consistent with gerotranscendence (Weiss, 2013). The narrative form, with its clear structure (i.e. a beginning, middle, and end) and numerous plot and theme options, offers the individual many ways of organizing experience and making meaning within one's cultural and social context (Bruner, 1986; Neimeyer, 2000; 2004; 2014; Neimeyer & Stewart, 1996). Maintaining or restructuring a narrative involves both reminiscence and life review. Whereas life review is a more comprehensive and intentional approach regarding the life as a whole (Bohlmeijer, Smit, & Cuijpers, 2003; Lieblich, 2014), reminiscence is the spontaneous remembrance of past events. Reminiscence is likely a component of life review.

After assessing 20 life review and reminiscence studies, Bohlmeijer et al., (2003) determined that both processes enhance mental health and decrease depressive symptoms in older people. Specifically, reminiscence therapy increased self-esteem and decreased anxiety in

widowed men (Pishvaei, Ataie Moghanloo R. and Ataie Moghanloo, V., 2015), and it increased the amount of time that students felt happy (Bryant, Smart, & King, 2005). Group reminiscence therapy decreased depressive symptoms and increased happiness and affect regulation (Zhou et al., 2012). Moreover, reminiscing can enhance the experience of elderly patients with dementia living in a long-term care facility (Cooney et al., 2014) and can help create positive relationships between patients and psychiatric nurses (Shellman, 2016).

Life review also fosters positive outcomes (Butler, 1963, 2002). Combined with cancer treatment, life review improved patients' mental health and well-being (Zhang, Xiao, & Chen, 2017) and facilitated transitions to assisted living (O'Hara & Roberto, 2018). A pretest/posttest study of nine older nursing home residents showed increased life satisfaction and social engagement after a structured life review intervention (Wren, 2016). However, that study lacked an adequate control; thus, whether life review or social interaction facilitated those changes remains unclear.

Aims of the Present Study

This pilot study examines if a memoir-writing workshop increases older individuals' wisdom, sense of identity, and well-being compared to a film discussion control group used to control for any benefits associated with social interaction (i.e., Wren, 2016). The memoir format is a life review intervention that facilitates meaning making through active reflection and reconstruction of the past using common literary devices.

Memoir writing merges constructivist theories, narrative psychology, and reminiscence/life review methodologies to create an intervention that should foster wiser life perspectives by increasing self-coherence and commitment to facilitate higher well-being. Our intervention asked participants to recognize and connect themes and events in a comprehensive narrative. Special attention was paid to investigating the influence of the memoir intervention on identity coherence (i.e., knowledge of and comfort with the entire self; Rosenthal, Gurney, & Moore, 1981) and fidelity (i.e., feeling and acting in ways that are congruent with current self-views; Markstrom et al., 1997).

Although identity coherence and identity fidelity are considered products of emerging successfully from Erikson's identity versus role confusion conflict, which spans the teenage years, they remain relevant in old age as identity shifts once again and individuals look back to their life-defining years to conceptualize life in its entirety (Conway et al., 2005; Erikson, 1950; McAdams, 2001; Rathbone et al., 2008; Rathbone et al., 2017; Singer et al., 2012; Steiner et al., 2014). Flexibility and accommodation are successful coping strategies for overcoming aging-related challenges that can be encouraged when individuals rethink and strengthen identity in life's final stages using

life review (Dockendorff, 2014; Webster, 1993). Focusing the memoir process on current strengths and limitations in the context of aging would theoretically confer a wise perspective, a more coherent and committed sense of self, and greater well-being.

Hypotheses

We predicted that compared to the film discussion group (control), the memoir condition would result in higher wisdom (*H1*), identity coherence (*H2a*), identity fidelity (*H2b*), and subjective well-being (*H3*). Although we have a restricted sample, we also explored possible theoretically and logically sound mechanisms by which memoir writing effects positive changes. We explored whether wisdom served as a statistical mediator between the memoir condition and a) identity coherence and fidelity and b) subjective well-being (see Figure 1).

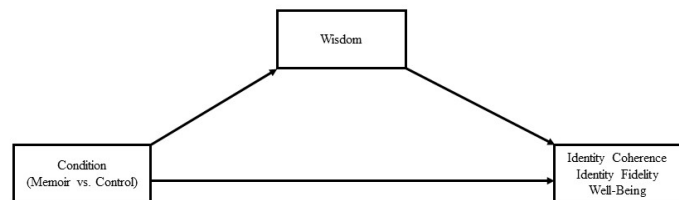


Figure 1. Proposed mediation model depicting the proposed indirect effect of condition assignment on the predicted outcomes via wisdom.

Method

Participants

Administrators (i.e. activity director and social worker) at two senior retirement communities in the Northeastern United States identified residents with the cognitive (i.e. ability to recall and speak about the past) and physical (i.e. ability to sit and speak in a group for the hour of class) capacities to participate in the memoir writing or film discussion workshops. We randomly assigned these elderly adult participants ($n = 18$; $M_{age} = 85.06$, $SD_{age} = 8.11$; 77.9% female; 100% white; 61% widowed) to either the memoir ($n = 9$; $M_{age} = 82.78$, $SD_{age} = 7.63$; 77.8% female; 100.0% white; 55.6% widowed) or the film condition ($n = 9$; $M_{age} = 87.62$, $SD_{age} = 8.33$; 87.5% female; 100% white; 75.0% widowed; see Table 1 for a summary of participant demographics).

Participants in each condition met for four one-hour sessions across four weeks. At the first meeting pre-tests were administered before the session began, and at the last meeting post-tests were administered at the end of the session. If a participant missed a session, a makeup session was scheduled, and the activities were completed on-one with the instructor. For participants who were unable to write responses to the homework, accommodations were made to record and transcribe assignments between classes.

Table 1. *Summary of Sample Demographic Information*

Demographic Variable	%
Male	17.60
Female	82.40
Straight	94.10
Gay	5.90
Married	17.60
Single	11.80
Widowed	64.70
Divorced	5.90
White	100.00
Lower Middle income	17.60
Middle Income	47.10
Upper Middle Income	35.30

Self-Report Measures

Pretest assessments. Participants provided demographic information pertaining to their age, marital status, gender, race, and socioeconomic status. Participants in both groups indicated goals they had for the workshops. To ensure sampling equivalence between groups and sites, personality and mood were assessed.

Personality. We assessed personality using The Big Five Inventory (BFI), a 44-item measure of the Big Five personality traits (John, Naumann, & Soto, 2008). Participants responded to items such as, “is talkative,” or “tends to find fault with others,” using 1 (*strongly disagree*) to 5 (*strongly agree*) scales.

Mood. We assessed affect using the 20-item Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). Ten items assessed positive affect (e.g., “happy,” “excited”) and 10 assessed negative affect (e.g., “nervous,” “irritable”). Instructions directed participants to indicate how they were feeling “right now.” Participants indicated how strongly each adjective described their current affective state using 1 (*very slightly or not at all*) to 5 (*extremely*) scales.

Posttest assessments

At the end of each course, participants in both conditions indicated whether they had achieved their goals, if they would continue the course given the option, and whether their experience in the course was positive or negative.

Wisdom. The 40-item Self-Assessed Wisdom Survey (Webster, 2003) assessed five dimensions of wisdom: 1) humor (e.g., “I can chuckle at personal embarrassments”), 2) reminiscence (e.g., “Reviewing my past helps me gain perspective on current concerns”), 3) emotional regulation

(e.g., “I am very good at reading my emotional states”), 4) complexity of experiences (e.g., “I have had to make many important life decisions”), and 5) openness (e.g., “I enjoy sampling a variety of different ethnic foods”). Participants responded on 1 (*strongly disagree*) to 6 (*strongly agree*) scales.

Identity coherence. The identity coherence subscale on the Erikson Psychosocial Stage Inventory (EPSI; Rosenthal et al., 1981) assessed identity coherence using 12 items. Example items are, “I know what kind of person I am,” and “I find I have to keep up a front when I’m with people.” Participants responded to each item using 1 (*never true*) to 5 (*almost always true*).

Identity fidelity. We used the fidelity versus role repudiation subscale on the Psychosocial Inventory of Ego Strengths (PIES; Markstrom et al., 1997) to measure identity fidelity. This measure asks participants to indicate how well eight statements (e.g., “I believe in being true to myself and others.”) describe them. Participants responded using 1 (*doesn’t describe me very well*) to 5 (*describes me very well*) scales.

Subjective well-being. To assess well-being, participants responded to the three-item Subjective Well-Being scale (SWB; Campbell, Converse, & Rogers, 1976; Diener, Emmons, Larson, & Griffen, 1985; e.g., “At present to what extent are you satisfied with your life as a whole?”) asking about overall life satisfaction and happiness using 0 (*completely dissatisfied, extremely unhappy or extremely untrue of me*) to 10 (*completely satisfied, extremely happy or extremely true of me*) scales.

The Experimental Manipulation

Film condition (control). The film condition provided a socially and intellectually stimulating experience similar to that provided by the memoir condition. Take home exercises and engagement with stories that excluded individuals’ personal narratives paralleled the time and context of the memoir condition. Participants met once a week for four weeks during which they viewed and discussed a film. The film discussion groups at both locations were led by a research assistant with experience leading social and recreational groups trained to use a standardized protocol throughout the sessions.

After initial introductions and pretest completion, the participants experienced a standardized process whereby the research assistant greeted everyone, administered the brief mood survey, collected the previous week’s take-home exercise, showed the film, and guided discussion using a standardized question list. If a personal narrative or connection to a participant’s life story was raised during discussion of the film, the research assistant tactfully guided the conversation back to analysis of the film content. Discussions lasted between 15 and 30 minutes, at which point the facilitator distributed take-home exercises and concluded the meeting. Participants completed the post-measures immediately prior to being dismissed from the final session.

Memoir writing condition. The memoir writing sessions provided space and time for participants to examine their personal memories utilizing narrative form and literary devices to facilitate the meaning-making process. The memoir group was led by a teacher with a degree in English Literature and a creative writing background. The memoir condition was modeled after a writers' workshop format, allotting time for sharing and discussing take-home exercises at the start of each session (Calkins, 1994). Different themes and concepts, linguistic devices, and aspects of the memoir were covered each week. These included: 1) defining the memoir, 2) discussing individual voice, 3) using sensory information to recollect and describe experience, 4) exploring connections between each memory and the entire narrative, 5) discussing influences on identity, and 6) discussing how to write about important life events (Butler, 1963; Calkins, 1994; Crossley, 2000; Karr, 2015). The final two meetings focused on tying up loose ends and organization, including making a timeline of important life events to see how they might be connected. Participants used that timeline to imagine titles and themes for their memoirs. Take-home assignments related to themes covered in class were completed between sessions and shared with the group at the start of the following class. Individuals wrote about an early memory, people and institutions that influenced them, challenges and obstacles that they experienced, and key life events. Although session protocols were standardized in terms of structure, this structure allowed flexibility to incorporate participants' idiosyncratic memories, reflections, and interests into the discussion. Standardizing the course structure, while allowing individualized flexibility in content, facilitated in-depth exploration of different concepts and perspectives within the objectives and literary concepts presented by the instructor.¹

Results

Preliminary Analyses

Zero-order correlations, means, standard deviations, and Cronbach's alpha reliability estimates for all reported study variables are presented in Table 2. Although one participant only partially completed the survey we retained that partial data due to the study's limited sample size. As such, statistical tests with demographic variables, identity fidelity, identity coherence, and subjective well-being

were analyzed using a sample size of 17; all other tests included the full sample of 18 participants.

Prior to testing our hypotheses, we first conducted a series of independent samples *t*-tests to examine the equivalency of participants between conditions. Table 3 presents the full results, descriptive statistics, and effect size estimates for those tests. Preliminary analyses showed no significant differences in age ($p = .23$, $CI_{95\%} [-3.40, 13.09]$), gender ($p = .63$, $CI_{95\%} [-0.51, 0.32]$), marital status ($p = .06$, $CI_{95\%} [-0.05, 1.60]$), or income level ($p = .79$, $CI_{95\%} [-0.87, 0.68]$)². Conditions also did not differ on pre-existing extraversion ($p = .32$, $CI_{95\%} [-0.72, 0.25]$), agreeableness ($p = .40$, $CI_{95\%} [-0.62, 0.26]$), conscientiousness ($p = .42$, $CI_{95\%} [-0.29, 0.66]$), neuroticism ($p = .28$, $CI_{95\%} [-0.22, 0.75]$), openness ($p = .27$, $CI_{95\%} [-.20, 0.66]$), positive affect ($p = .16$, $CI_{95\%} [-1.57, 0.28]$), or negative affect ($p = .96$, $CI_{95\%} [-0.43, 0.41]$)³.

Because participants were recruited from two unique senior living centers, we also conducted independent samples *t*-tests to ensure that no significant differences existed between the sites at study entry (see Table 4 for full results). Analyses showed no significant differences between sites on age ($p = .51$, $CI_{95\%} [-5.82, 11.26]$), gender ($p = .49$, $CI_{95\%} [-0.27, 0.55]$), marital status ($p = .71$, $CI_{95\%} [-0.27, 0.55]$), or income level ($p = .08$, $CI_{95\%} [-0.09, 1.31]$)⁴. Independent samples *t*-tests did not identify significant differences between sites on extraversion ($p = .32$, $CI_{95\%} [-0.24, 0.72]$), agreeableness ($p = .79$, $CI_{95\%} [-0.51, 0.39]$), neuroticism ($p = .48$, $CI_{95\%} [-0.32, 0.65]$), openness ($p = .37$, $CI_{95\%} [-0.62, 0.25]$), or conscientiousness ($p = .17$, $CI_{95\%} [-0.14, 0.76]$). Lastly, negative affect ($p = .12$, $CI_{95\%} [-0.08, 0.69]$) did not differ by site whereas positive affect did differ by site ($p = .02$, $CI_{95\%} [-1.84, -0.20]$; see Table 4 for descriptive statistics and effect size estimates)⁵. These results suggest sampling equivalence and that the data are amenable to hypothesis testing.

Hypothesis Tests

Hypothesis 1: Hypothesis 1 predicted that the memoir (1) condition would report higher wisdom relative to the film (0) condition. The wisdom scale has five dimensions: 1) wise experience, 2) wise emotion, 3) wise reminiscence, 4) wise humor, and 5) wise openness. Therefore, we conducted five independent samples *t*-tests to examine differences between conditions on each of those outcomes and set the alpha value at $p < .01$ using the Bonferroni correction for a global alpha of $p < .05$. The results only

¹ All materials for film and memoir-writing sessions are available upon request from first author.

² Due to a restricted sample, we confirmed these results using Mann-Whitney U nonparametric tests; age: $p = .26$; years married: $p = .75$; gender: $p = .61$; income level: $p = .96$.

³ Mann-Whitney U results; extraversion: $p = .29$; agreeableness: $p = .19$; conscientiousness: $p = .63$; neuroticism: $p = .89$; positive affect: $p = .02$; negative affect: $p = .55$.

⁴ Mann-Whitney U results; age: $p = .56$; years married: $p = .27$; gender: $p = .67$; income level: $p = .07$.

⁵ Mann-Whitney U results; extraversion: $p = .99$; agreeableness: $p = .16$; conscientiousness: $p = .05$; neuroticism: $p = .89$; openness: $p = .23$; positive affect: $p = .02$; negative affect: $p = .14$.

Table 2. Zero-Order Correlations, Reliability Estimates, Means, & Standard Deviations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Extraversion	<i>.62</i>														
2. Agreeableness	.70	<i>.73</i>													
3. Conscientiousness	.51	<i>.27</i>	<i>.89</i>												
4. Neuroticism	.54	<i>.40</i>	<i>.35</i>	<i>.86</i>											
5. Openness	<i>.07</i>	<i>.37</i>	<i>.05</i>	<i>.30</i>	<i>.42</i>										
6. Negative Affect	<i>.20</i>	<i>.31</i>	<i>-.16</i>	.51	<i>-.08</i>	<i>.87</i>									
7. Positive Affect	<i>.39</i>	.50	<i>-.03</i>	<i>.13</i>	<i>.42</i>	<i>-.12</i>	<i>.89</i>								
8. Identity Coherence	<i>.20</i>	<i>.34</i>	<i>-.14</i>	<i>-.16</i>	<i>.22</i>	<i>.03</i>	.64	<i>.76</i>							
9. Identity Fidelity	<i>.21</i>	<i>.32</i>	<i>-.15</i>	<i>-.21</i>	<i>-.05</i>	<i>.15</i>	.59	.78	<i>.73</i>						
10. Wise Experience	.59	.60	<i>.24</i>	<i>.14</i>	<i>.05</i>	<i>.27</i>	.70	.71	.62	<i>.78</i>					
11. Wise Emotion	<i>.22</i>	.57	<i>-.05</i>	<i>.11</i>	<i>.34</i>	<i>.25</i>	.75	.69	.70	.67	<i>.88</i>				
12. Wise Reminiscence	<i>.38</i>	.48	<i>-.27</i>	<i>-.11</i>	<i>.24</i>	<i>.04</i>	.81	.65	.66	.64	.58	<i>.81</i>			
13. Wise Humor	<i>.27</i>	.59	<i>-.02</i>	<i>.10</i>	<i>.39</i>	<i>.27</i>	<i>.47</i>	.49	<i>.22</i>	.63	.55	.53	<i>.78</i>		
14. Wise Openness	<i>.34</i>	.76	<i>.00</i>	<i>.14</i>	<i>.41</i>	<i>.21</i>	.57	.62	<i>.35</i>	.60	.66	.56	.82	<i>.39</i>	
15. Subjective Well-Being	<i>.22</i>	<i>.30</i>	<i>-.23</i>	<i>-.31</i>	<i>.13</i>	<i>-.27</i>	.61	.76	.71	.52	.61	.74	<i>.41</i>	<i>.45</i>	<i>.71</i>
Mean	3.61	3.20	3.35	2.97	3.75	1.28	3.53	4.33	4.00	4.71	4.46	4.68	4.63	4.37	7.64
Standard Deviation	0.48	0.44	0.47	0.48	0.43	0.41	0.96	0.58	0.71	0.79	0.93	0.69	0.77	0.63	1.97

Note. Italicized values on the diagonal represent Cronbach's reliability estimates. Bold values indicated significant correlations at $p < .05$. Means and standard deviations are reported prior to standardization.

Table 3. Preliminary Analyses of Condition: *t*-Test Results

Dependent Variable	<i>t</i>	<i>p</i>	<i>CI</i> _{95%}	Film <i>M</i> (<i>SD</i>)	Memoir <i>M</i> (<i>SD</i>)	Cohen's <i>d</i>
Age	1.25	.23	[-3.40, 13.09]	87.63 (8.33)	82.87 (7.63)	0.60
Gender	-0.50	.63	[-0.51, 0.32]	N/A	N/A	N/A
Marital Status	2.01	.06	[-0.05, 1.60]	N/A	N/A	N/A
Income Level	-0.27	.79	[-0.87, 0.68]	N/A	N/A	N/A
Extraversion	-1.13	.28	[-1.52, 0.47]	3.50 (0.39)	3.74 (0.56)	0.50
Agreeableness	-0.64	.53	[-1.32, 0.71]	3.11 (0.29)	3.29 (0.51)	0.43
Conscientiousness	-0.36	.73	[-1.20, 0.85]	3.44 (0.43)	3.26 (0.51)	0.38
Neuroticism	0.00	1.00	[-1.03, 1.03]	3.10 (0.37)	2.85 (0.56)	0.53
Openness	0.31	.76	[-0.88, 1.18]	3.87 (0.46)	3.63 (0.39)	0.56
Positive Affect	-1.47	.16	[-1.64, 0.30]	3.21 (0.93)	3.86 (0.92)	0.70
Negative Affect	-0.06	.96	[-1.06, 1.00]	1.28 (0.29)	1.29 (0.52)	0.02

Note. Demographic variable degrees of freedom = 15; all else = 16. Gender, marital status, and income levels are categorical variables for which *M*/*SD* is not interpretable.

indicated significant condition differences for wise reminiscence ($M_{\text{Difference}} = -0.87$, $t[15] = -3.25$, $p = .005$, $CI_{95\%} [-1.43, -0.29]$; see Table 5 for all hypotheses' test results). No significant condition differences emerged for wise experience ($t[15] = -1.83$, $p = .09$, $CI_{95\%} [-1.42, 0.11]$), wise emotion ($t[15] = -0.46$, $p = .66$, $CI_{95\%} [-1.20, 0.78]$), wise humor ($t[15] = -1.11$, $p = .28$, $CI_{95\%} [-1.21, 0.38]$), or wise openness ($t[15] = -0.43$, $p = .68$, $CI_{95\%} [-0.80, 0.54]$).

Given the restricted sample size drawn from a limited population, we confirmed significant parametric findings using nonparametric Mann-Whitney U tests. Those results ($U = 9.50$, $p = .008$) confirmed significant wise reminiscence differences between the memoir ($M_{\text{rank}} = 11.94$) and film conditions ($M_{\text{rank}} = 5.69$). These results partially support Hypothesis 1 as the memoir condition reported

Table 4. Preliminary Analyses of Site: *t*-Test Results

Dependent Variable	<i>t</i>	<i>p</i>	<i>CI</i> _{95%}	Film <i>M</i> (<i>SD</i>)	Memoir <i>M</i> (<i>SD</i>)	Cohen's <i>d</i>
Age	0.68	.51	[-5.81, 11.26]	86.50 (7.07)	83.78 (9.15)	0.33
Gender	0.72	.49	[-0.27, 0.55]	N/A	N/A	N/A
Marital Status	-0.38	.71	[-1.09, 0.76]	N/A	N/A	N/A
Income Level	1.86	.08	[-0.09, 1.31]	N/A	N/A	N/A
Extraversion	-0.36	.72	[-1.20, 0.85]	3.74 (0.39)	3.50 (0.56)	0.50
Agreeableness	-1.74	.10	[-1.72, 0.17]	3.17 (0.43)	3.23 (0.47)	0.13
Conscientiousness	-3.17	.01	[-2.01, -0.40]	3.51 (0.46)	3.20 (0.45)	0.68
Neuroticism	1.06	.30	[-0.50, 1.49]	3.06 (0.35)	2.89 (0.59)	0.35
Openness	0.43	.67	[-0.82, 1.23]	3.66 (0.30)	3.84 (0.54)	0.041
Positive Affect	-2.62	.02	[-1.93, -0.20]	3.02 (0.77)	4.04 (0.88)	1.23
Negative Affect	1.64	.12	[-0.22, 1.69]	1.43 (0.50)	1.13 (0.22)	0.78

Note. Demographic variable degrees of freedom = 15; all else = 16. Gender, marital status, and income levels are categorical variables for which *M/SD* is not interpretable.

Table 5. Hypotheses 1, 2, and 3 Independent Samples *t*-Test Results

Dependent Variable	<i>t</i>	<i>p</i>	Film <i>M</i> (<i>SD</i>)	Memoir <i>M</i> (<i>SD</i>)	Cohen's <i>d</i>
Wise Reminiscence	-3.25	.005	4.22(.59)	5.08(.51)	1.56
Wise Experience	-1.83	.087	4.36(.72)	5.01(.75)	0.88
Wise Emotion	-0.46	.655	4.34(.93)	4.56(.97)	0.23
Wise Humor	-1.11	.284	4.41(.64)	4.82(.86)	0.54
Wise Openness	-0.43	.677	4.30(.58)	4.43(.70)	0.20
Identity Coherence	-1.20	.247	4.16(.74)	4.49(.37)	0.56
Identity Fidelity	-2.31	.036	3.63(.71)	4.33(.56)	1.09
Subjective Well-being	-2.17	.046	6.65((2.08)	8.51(1.45)	1.04

Note. *df* = 15; all else = 16. Bold typeface indicates significant differences at *p* < .05

significantly higher wise reminiscence than the film condition.

Hypothesis 2: Hypothesis 2 predicted significant differences between conditions in identity coherence (H2a) and identity fidelity (H2b). Although an independent samples *t*-test failed to identify significant differences between conditions for identity coherence ($t[15] = -1.20, p = .25, CI_{95\%} [-0.92, 0.28]$), we did observe significant differences between conditions for identity fidelity ($M_{\text{Difference}} = -0.71, t[15] = -2.31, p = .04, CI_{95\%} [-1.35, -0.05]$). A Mann-Whitney test confirmed that, compared to the film condition ($M_{\text{rank}} = 6.06$), the memoir condition ($M_{\text{rank}} = 11.61$) had significantly higher identity fidelity ($U = 12.50, p = .02$). This partially supports Hypothesis 2 as identity fidelity was higher in the memoir condition than the film condition.

Hypothesis 3: An independent samples *t*-test confirmed expectations that the memoir condition would exhibit higher subjective well-being than the film

condition ($t[15] = -2.17, p = .046, CI_{95\%} [-3.71, -0.03]$). Although a Mann-Whitney test also showed the memoir condition ($M_{\text{rank}} = 11.17$) resulted in higher subjective wellbeing than the film condition ($M_{\text{rank}} = 6.56, U = 16.50, p = .059$), that test only approached traditional statistical significance and should be interpreted with caution.

Exploratory Analyses

Our fourth hypothesis predicted that relationships between memoir condition and the dependent variables (i.e., identity coherence, identity fidelity, and subjective well-being) would be mediated by wise reminiscence (see Figure 1, p.11). However, due to the restricted sample size, statistical power was limited concerning our ability to confirm this prediction. We therefore report the following exploratory results that require future confirmation with larger samples. Still, these results hold value, as meta-analysis of small sample studies can lead to meaningful

estimates of population parameters—an approach likely beneficial for research of vulnerable (e.g., elderly) populations (Goh, Hall, & Rosenthal, 2016; Glass, 1976, 1978; Walker, Hernandez & Kattan, 2008). As Hypothesis 1 results identified a significant relationship between memoir condition and wise reminiscence, we focus solely on wise reminiscence as the mediator. We used the PROCESS macro for SPSS (Hayes, 2012; Model 4; 5000 bias-corrected resamples) to conduct these analyses and interpret indirect effect confidence intervals excluding zero as evidence consistent with mediation.

Identity cohesion. First, we examined whether wise reminiscence mediated a relationship between memoir condition and identity cohesion. Confirming Path A of the mediation model (see Figure 2), participating in the memoir condition (1) relative to the film condition (0)

remembrance was significant ($ab = .57$, $CI_{95\%} [0.17, 1.23]$; see Figure 2). Calculating Fairchild, MacKinnon, Taborga, and Taylor’s (2009; see also Hayes, 2012; Hayes, 2018) R^2 mediation effect size showed that memoir condition assignment and wise reminiscence (the mediator) together explained approximately 6% of the variance in identity coherence ($R^2_{\text{mediation}} = .06$). The ratio of the indirect to the direct effect was -2.42.

Identity fidelity. Next, we explored wise reminiscence’s role in mediating the relationship between condition and identity fidelity. Similar to the above set of analyses, the memoir condition reported higher wise reminiscence (Path A: $b = 0.86$, $t[15] = 3.25$, $p = .005$; $CI_{95\%}[0.30, 1.43]$; $F_{\text{Full Model}} [1, 15] = 10.57$, $p = .005$, $R^2 = .41$) relative to the film condition. Higher wise reminiscence predicted higher identity fidelity (Path B: b

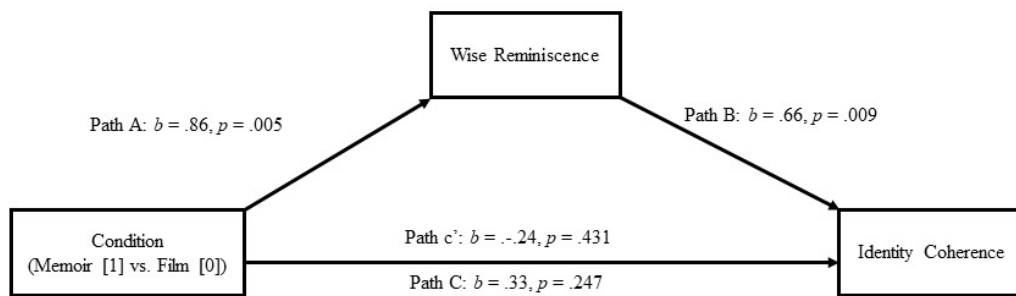


Figure 2. Results of exploratory mediation analysis with condition predicting identity coherence via wise reminiscence.

predicted higher wise reminiscence ($b = 0.86$, $t[15] = 3.25$, $p = .005$, $CI_{95\%} [0.30, 1.43]$; $F_{\text{Full Model}} [1, 15] = 10.57$, $p = .005$, $R^2 = .41$). Also confirming Path B of the predicted mediation model, wise reminiscence significantly predicted more identity coherence ($b = .66$, $t[14] = 3.05$, $p = .009$, $CI_{95\%} [0.19, 1.12]$; $F_{\text{Full Model}} [2, 14] = 5.77$, $p = .02$,

$= .58$, $t[14] = 2.19$, $p = .045$; $CI_{95\%} [.01, 1.16]$; $F_{\text{Full Model}} [1, 14] = 5.74$, $p = .015$, $R^2 = .45$) in that model, but condition became non-significant with wise reminiscence included as a predictor (Path c’: $b = .20$, $t[14] = 0.57$, $p = .58$). Importantly, the indirect effect was statistically significant ($ab = .50$, $CI_{95\%} [0.13, 1.23]$; see Figure 3). Combined,

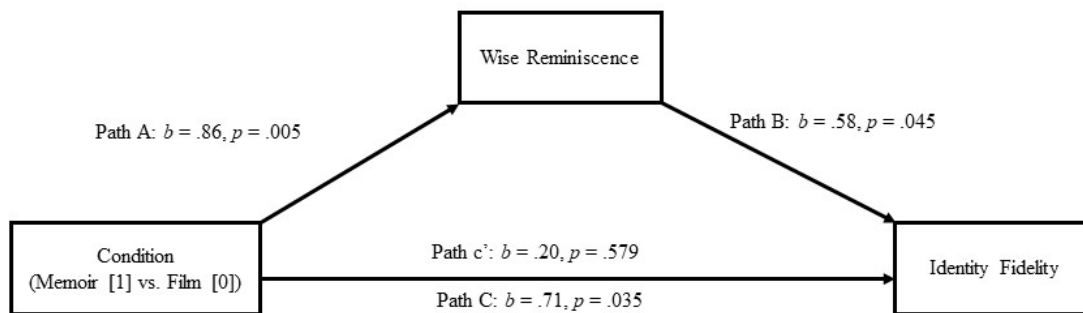


Figure 3. Results of exploratory mediation analysis with condition predicting identity fidelity via wise reminiscence.

$R^2 = .45$), but memoir condition was not a significant predictor of identity coherence when wise reminiscence was entered as a predictor in the same regression model (Path c’: $b = -.24$, $t[14] = -0.81$, $p = .43$, $CI_{95\%} [-0.86, 0.39]$). Consistent with those results, the indirect effect of memoir condition on identity coherence through wise

condition assignment and wise reminiscence explained approximately 25% of the variance in identity fidelity ($R^2_{\text{mediation}} = .25$), and the ratio of the indirect to the direct effect was 2.49.

Subjective well-being. Last, we explored whether wise reminiscence mediated the relationship between condition

assignment and subjective well-being. Compared to the film condition, the memoir condition reported higher levels of wise reminiscence (Path A: $b = 0.86$, $t[15] = 3.25$, $p = .005$, $CI_{95\%} [0.30, 1.43]$; $F_{Full Model} [1, 15] = 10.57$, $p = .005$, $R^2 = .41$). Higher wise reminiscence was associated with higher subjective well-being (Path B: $b = 2.05$, $t[14] = 3.04$, $p = .009$, $CI_{95\%} [0.60, 3.48]$; $F_{Full Model} [2, 14] = 8.27$, $p = .004$, $R^2 = .54$). The indirect effect of condition on subjective well-being via wise reminiscence was statistically reliable ($ab = 1.77$, $CI_{95\%} [0.80, 3.53]$; see Figure 4). Together, condition assignment and wise reminiscence explained approximately 24% of the variance in subjective well-being ($R^2_{mediation} = .24$), and the ratio of the indirect effect to the direct effect was 16.99. Together, these results are consistent with the proposed mediation path and provide impetus for future research.

increasing older individuals' identity coherence, identity fidelity, and subjective well-being. Furthermore, these results add to the current body of literature by: 1) demonstrating that it is possible to increase wise reminiscence, identity fidelity and subjective well-being using the memoir process, 2) pointing to the possibility that wise reminiscence might act as a mechanism behind the positive outcomes of the intervention, 3) merging the approaches of narrative psychology, constructivism, reminiscence, and life review interventions, and 4) incorporating views of positive aging into strengths-based intervention planning.

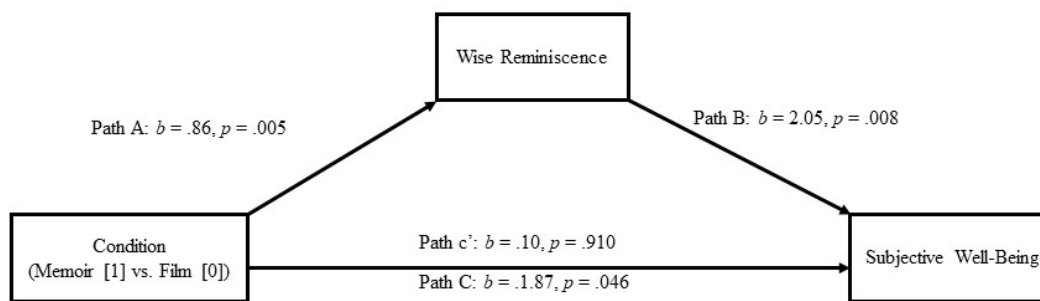


Figure 4. Results of exploratory mediation analysis with condition predicting subjective well-being via wise reminiscence.

Discussion

The present study investigated whether a four-week memoir writing experience increases wisdom, identity coherence, identity fidelity, and subjective well-being in older people, compared to a film discussion group. In partial support of these predictions, the memoir writing intervention effectively increased wise reminiscence, identity fidelity, and subjective well-being. The memoir intervention also increased identity coherence and subjective well-being relative to the film condition through the proposed mediator of wise reminiscence, which is consistent with the belief that looking to the past reaffirms identity and provides coping strategies to use in the present. The memoir intervention encouraged individuals to move beyond reflection to reminiscence; not just remembering past experiences, but evaluating them in the context of personal identity (Staudinger, 2001). Those participants whose memoir experiences increased wise reminiscence also made concomitant gains in their identity coherence, identity fidelity, and subjective well-being. Of course, we cannot rule out the possibility that increasing identity coherence and fidelity results in higher levels of wise reminiscence.

These results further the current literature by showing that increasing wise reminiscence using a low-intensity and non-therapeutic methodology could be a viable path to

Implications for Theory

The pervasiveness of the narrative form supports the argument that it has an evolutionary purpose (Bruner, 1986; Sugiyama, 2001). The stories that we tell ourselves about our identity, experiences, and actions are advantageous because they help us make sense of the world and affirm our reason for being (McAdams, 2001, 2010, Singer et al., 2012; Waters & Fivush, 2015). Personal narratives hold the power to organize the past, present, and future in ways that strengthen identity and support mental health and functioning (McAdams, 2001, 2010; Waters & Fivush, 2015; Webster et al., 2017; Weststrate & Glück, 2017).

The memoir format is a useful tool to provide meaning and coherence to personal narratives. We found that participating in the memoir course had a significant and reliable effect on wise reminiscence, identity fidelity, and subjective well-being—increasing the former by over one standard deviation. It is possible that this increase in wise reminiscence mediated the effect of the intervention to increase identity fidelity, identity coherence, and subjective well-being. This takes the field a step forward by suggesting that it may be possible to help individuals (re)construct their life stories in meaningful ways, and that this process might play a role in increasing wise reminiscence, which in turn boosts memoir-writers'

identity fidelity, identity coherence, and well-being. Thus, our pilot study results support the idea that the memoir scaffolding approach is an effective method of improving older individuals' psychological outcomes—an idea which clearly warrants further research.

Wisdom allows one to look back on and reinterpret the past (Butler, 2002; Webster, 2003). Identifying wise reminiscence as one of the potential mechanisms behind positive outcomes of life review is important for understanding how this process might lead to positive outcomes. The reported research indicates that wise reminiscence could be one mechanism via which memoir writing improves identity fidelity, identity coherence, and subjective well-being. Engaging in the memoir process may have encouraged individuals to see the value of reminiscing and in revisiting and making meaning of events within their life story. Knowledge of the pathways to positive outcomes of reminiscence and life review would be helpful for professionals looking to incorporate these techniques into their practice. When using narrative intervention, attention could be paid to wise reminiscence – the collective process of making meaning, reminiscing to reinforce identity, and reminiscing to develop coping strategies for handling present challenges (Webster, 1993). Therefore, these results suggest many profitable avenues to pursue in future research.

Thinking of the life story in memoir form and asking individuals to comment on unifying themes, underlying meanings, and to organize events might be particularly helpful exercises. In this study, participants were encouraged to write about early experiences, life influences, key life events and to ponder themes that connected separate experiences. Themes that arose included overcoming adversity, the importance of relationships, the idea that a single event or chance meeting could change one's life trajectory, and the importance of finding purpose. Such exercises could be easily and cost-effectively (in terms of labor and fiscal costs) implemented by a facility through its recreation programs, counseling services, or social workers with the goal of improving elderly residents' subjective well-being. When asked whether they would continue taking the memoir or film courses if given the option, 77.78% of participants responded "yes" in the memoir course as opposed to 44.45% in the film course; indicating that they were willing to devote more time and energy to participating.

Limitations

Research on older individuals is challenging given restricted access and comorbid conditions which limit research participation (e.g., Cassidy, Baird, & Sheikh, 2001; McHenry et al., 2012; Mody et al., 2008). The conclusions from this controlled field experiment should be viewed as preliminary as the sample size is small. Having said that, researchers in this field can benefit from aggregating small sample studies. Meta-analytic techniques allow for meaningful conclusions about likely

population effects through a convergence of findings (Glass, 1976, 1978; Goh, Hall, & Rosenthal, 2016; Walker, Hernandez & Kattan, 2008). Clearly, future research should seek to investigate these effects using larger samples; however, aggregating multiple small sample studies in meta-analysis provides a meaningful alternative approach.

The sample was also primarily white and female, which possibly reflects the general lack of diversity in the elderly population of Connecticut (Office of Legislative Research, 2017). Females have longer life expectancies than males, and therefore make up a larger percentage of those 65 and older nationwide (U.S. Census Bureau, 2014) and in Connecticut (Office of Legislative Research, 2017). According to the 2010 census, the population residing in residential care facilities was primarily white (numbers range from 84%-91%) and female (70%; Caffrey et al., 2012; U.S. Census Bureau, 2014). Racial disparities may be due to many factors, including differences in socioeconomic status, differing cultural and generational attitudes towards senior care, and segregation or lack of access to preferred facilities, such as senior living communities (Howard et al., 2002; Johnson & Appold, 2017). Future research on the efficacy of the memoir writing intervention with different demographics is needed, as the population of those 65 and over is projected to become more diverse (Howard et al., 2002; U.S. Census Bureau, 2014). Webster (2014) notes that there is a lack of wisdom and reminiscence research that includes communities of color, which is a deficit considering the potential positive effects of the narrative process and of memoir writing, in particular, on mental health and identity that might be particularly important for marginalized groups. Thus, future research should focus specifically on older individuals from underrepresented racial categories who might also benefit from support to engage in life review.

Investigating the impact of the memoir intervention on groups experiencing psychopathology, including populations diagnosed with mood disorders or anxiety is another important direction for this research. The connection between a positive sense of self and mental health is of longstanding concern (Erikson, 1950, 1959; Jung, 1969/1980). Identity disturbances (e.g., lack of stable sense of self) have been linked to difficulties regulating emotion, anxiety, and depression, while a positive sense of self has been linked with well-being, generativity, and self-efficacy (McAdams & Guo, 2015; Neacsiu, Herr, Fang, Rodriguez, & Rosenthal, 2015; Waters & Fivush, 2015). Further research is needed to determine whether the positive outcomes related to wise reminiscence's mediation of identity fidelity and well-being could be replicated with individuals experiencing mental health issues. This process could be used to provide tools and scaffolding to create stories that would give meaning to stressful or identity-challenging events (McAdams & Guo, 2015; Webster & Deng, 2015). Engaging with and reconstructing narratives of painful or incongruent

experiences offers the poetic opportunity to heal and grow from them (Neimeyer, 2004).

Another avenue for future research might investigate the benefits of a more extended intervention. In our work, we found positive outcomes with a limited number of sessions of the memoir course. Future work could investigate whether results would be more pronounced with a longer intervention period and could follow participants after a period of time to determine if positive outcomes were lasting. Finally, if the program was run over a longer period of time, it would be valuable to incorporate pre- and posttest assessment in order to capture individual growth and change.

In summary, constructing and sharing life stories is a cultural exchange in which we share our reality in ways that we and others can understand. The results of this small, intensive memoir workshop intervention provide insight into the effects of memoir writing on wisdom, identity, and subjective well-being, and provide an impetus for future research on the benefits of structured memoir formation to improve the quality of the aging experience in our society.

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