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Encouraging Occupation: A Systematic Review of the Use of Life Review and Reminiscence

Therapy for the Treatment of Depressive Symptoms in Older Adults

Sarah Dordan, Caitlin Ivey, and Allison Zuiderveen

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Abstract

Objective: The present systematic review attempts to investigate the efficacy of both life review and reminiscence therapy interventions in the treatment of depressive symptoms in older adults. This review also attempts to clearly define each intervention; thereby determining which type of therapy was actually performed in previous research studies.

Methods: A systematic review of the literature was conducted using three databases: CINAHL, PubMed, and PsycINFO. Six studies met the inclusion criteria and pertinent variables were extracted for data analysis.

Results: In all six articles, the reminiscence therapy or life review intervention was found to be effective in the treatment of depressive symptoms in older adults. Of the two studies that collected follow-up data, effects of the interventions were maintained at three months. Two out of the three studies that utilized a life review intervention were conducted on an individual basis, while all three studies that utilized a reminiscence therapy intervention were conducted in a group setting.

Conclusion: Life review and reminiscence therapy were both found to be effective interventions in the treatment of depressive symptoms in older adults. These interventions are appropriate for use in occupational therapy practice, as occupational therapists are well-equipped to treat the psychosocial needs of individuals.

Encouraging Occupation: A Systematic Review of the Use of Life Review and Reminiscence

Therapy for the Treatment of Depressive Symptoms in Older Adults

Major depression affects approximately 350 million people worldwide and is the fourth leading cause of disability (Kessler & Bromet, 2013; Marcus, Yasamy, van Ommeren, Chrisholm, & Saxena, 2012; Murray & Lopez, 1996). This disorder is a serious, recurring condition that affects role function and quality of life. Even without a clinical diagnosis of major depression, individuals who have depressive symptoms often experience a significant decline in independence, functional performance of activities of daily living, and overall health (Chippendale & Bear-Lehman, 2012). Research has shown that as many as 27% of older adults who live in a senior residence exhibit symptoms of depression (Chippendale & Bear-Lehman, 2012). Due to this prevalence and the devastating and expansive effects of depressive symptoms, early intervention and treatment is crucial.

Life review and reminiscence therapy are being used in a variety of clinical settings and may be two important interventions for the treatment of depressive symptoms in older adults (Stevens-Ratchford, 1992). Both life review and reminiscence therapy use memory and recall during the intervention; thus, the terms are frequently used interchangeably throughout the existing literature (Haight & Burnside, 1993). However, the blurring of these definitions has contributed to the uncertainty of their clinical effectiveness, making it important to distinguish between the two (Chin, 2007). Life review is a systematic process of evaluating one's life and past, and provides coping strategies for negative experiences. It also provides individuals with an opportunity to view life positively (Haight, 1992). In comparison, reminiscence is an unstructured reflection on the past or discussion of personal life events (Pinquart & Forstmeier, 2012).

Occupational Therapy Interventions: Life Review and Reminiscence

The World Health Organization (WHO) recognizes that the definition of 'health' is not merely an absence of disease or disability; rather, total health and wellness are greatly influenced by the ability to carry out daily activities and participate in meaningful life roles (WHO, 1946; American Occupational Therapy Association [AOTA], 2014). The profession of occupational therapy is founded upon the belief that engagement in occupations, activities that are meaningful and give purpose in a person's life, are essential in promoting one's overall health and wellbeing. Thus, occupational therapy's foundational beliefs uphold the WHO's perspective on the importance of occupational engagement.

Depressive symptoms change one's ability to participate in goal-oriented use of time, energy, interest, and attention, and thus, greatly impact an individual's engagement in occupation (Devereaux & Carlson, 1992). Thus, it is important to identify health care professionals and interventions that can address depressive symptoms and their impact on occupational engagement and function. The current literature recognizes occupational therapy as an appropriate profession for addressing the psychosocial and occupational needs of individuals (Chippendale & Bear-Lehman, 2012; AOTA, 2014). Two interventions within the scope of occupational therapy practice that have been utilized to address the occupational deficits caused by depressive symptoms include life review and reminiscence therapy (Harwood, 1989; Stevens-Ratchford, 1992; Chin, 2007). Chippendale and Bear-Lehman (2012) recognized the value for occupational therapists to implement life review interventions when treating older adults with depressive symptoms. This article emphasized the profession's unique ability to address clients' psychosocial needs through this therapeutic modality and stated that addressing individuals' psychosocial needs is imperative to increase engagement in occupation and improve quality of

life. When addressing psychosocial needs of clients, occupational therapists must draw upon knowledge gained from theories that address the emotional needs of individuals.

The psychodynamic theory is an occupational therapy approach that has been recognized as an effective method for treating emotional issues and is frequently used in mental health practice (Cole & Tufano, 2008). This theory addresses social participation; expression of emotions and motivation for engagement in occupations; self-awareness; defense mechanisms including denial, projection, and sublimation through the symbolism of activities; and exploring the symbolic meaning of occupations through projective arts and activities (Cole & Tufano, 2008). From the psychodynamic perspective, improvements in psychological integrity are viewed as a result of insight, self-understanding, and reflection on past experiences (Cole & Tufano, 2008). Thus, because life review and reminiscence therapy have been identified as two interventions that facilitate reflection on the past, both support the psychodynamic theory's perspective of change.

Literature Review

The expansive effects of depressive symptoms are well documented in the current literature as six reviews have examined the efficacy of life review and reminiscence therapy on depressive symptoms. However, the conclusion about the effectiveness of these interventions remains incongruous. Significant improvements in depressive symptoms have been documented in studies by Bohlmeijer, Smit, and Cuijpers (2003; overall effect size of 0.84, 95% CI, 0.31-1.37, based on 20 studies), Chin (2007; pooled standardized mean difference = -0.90, 95% CI, -1.49 to -0.32 in favor of reminiscence therapy, based on 15 studies), Pinquart, Duberstein, and Lyness (2007; self-rated depression improved by 0.84 standard deviation units and clinician-rated depression improved by 0.93 standard deviation units, based on 57 studies), and Pinquart

and Forstmeier (2012; depression improved by 0.57 standard deviation units, based on 128 studies). In contrast, Forsman, Schierenbeck, and Wahlbeck (2011; pooled standardized mean difference = -0.24; 95% CI, -0.62 to 0.13, based on 69 studies) reported that reminiscence or life review had insignificant effects on depressive symptoms and Hsieh and Wang (2003) reported varying results on the effects of depressive symptoms based on nine studies.

In addition to inconclusive findings, there have been several limitations noted within the existing literature. Limitations identified include a lack of distinction between reminiscence therapy and life review, no measure of long-term effects, and a small number of studies included in the reviews (Bohlmeijer et al., 2003; Hsieh & Wang, 2003; Chin, 2007; Pinquart et al., 2007). The aforementioned inconclusive findings and limitations in the current literature guided the researchers to conduct this systematic review.

Purpose of Systematic Review

The present systematic review attempts to investigate the efficacy of both life review and reminiscence therapy interventions in the treatment of depressive symptoms in older adults. This review also attempts to clearly define each intervention; thereby determining which type of therapy was actually performed in previous primary research studies.

Methods

Selection of Studies

Studies were included if they were identified during searches conducted of the electronic databases CINAHL, PubMed, and PsycINFO. Search terms included: MH "life review", "life review Iowa NIC", "reminiscence" and "depression" (CINAHL); "reminiscence", "life review", and MeSH "depression" and "depressive disorder" (PubMed); MJSUB "reminiscence", "life

review" and "depression" (PsycINFO). Inclusion criteria for this systematic review include studies that

- used reminiscence therapy or life review interventions,
- examined the effects of reminiscence therapy or life review on depressive symptoms,
- included participants who had depressive symptoms at baseline, but no clinical diagnosis
 of depression,
- included participants who had been tested and demonstrated no cognitive impairment,
- were published prior to March 2014, and
- were published in English.

Exclusions were made due to the following criteria: title review (53); duplication (83); no reminiscence or life review intervention (18); did not examine the effects of reminiscence or life review on depressive symptoms (5); the article was not peer-reviewed (24); the article was a systematic review, meta-analysis, or literature review (15); the article did not provide quantitative data (35); presence of a cognitive impairment or did not test for cognitive impairment (18); not in English (8); or did not meet criteria for baseline depressive symptoms (62). In total, 321 articles were excluded from the original 327 articles (see Appendix A).

Justification for Inclusion Criteria

Studies conducted on reminiscence therapy and life review have inconsistent inclusion criteria regarding baseline depression scores. In order to ensure that this was not a confounding variable, the present systematic review included only articles that studied the effects of these interventions on depressive symptoms. This criterion was based on the suggestion of Korte, Cappeliez, Bohlmeijer, and Westerhof (2012) that life review and reminiscence therapy interventions are not as effective for individuals with a clinical diagnosis of depression. There is

also concern that depressive symptomatology may be complicated or induced by co-occurring dementia or cognitive impairment (Pinquart et al., 2007). Due to this possibility, any article that did not test for cognitive impairment or included participants with a cognitive impairment was excluded.

Procedure

In the primary search of the databases, two of the three researchers searched for and reviewed articles from each of the three databases. All three researchers conducted an individual abstract review on the articles to determine whether or not the inclusion and exclusion criteria were met for this systematic review. The two researchers who reviewed each database compared their results. Any discrepancies were rectified by at least two of the three researchers conducting a full text review of the article in question.

After the exclusions and an analysis of each article, six articles were selected for data extraction (see Appendix A). According to this systematic review's previously defined terms of life review and reminiscence therapy, three articles were identified as using a life review intervention and three used reminiscence therapy. In order to collect pertinent information, the researchers extracted data from the included articles. This information was added to an Excel template for further analysis and discussion. See Table 1 and Table 2 for an abbreviated list of pertinent variables examined.

Results

Three of the six included articles investigated the effects of life review on depressive symptoms. Of these three articles, all reported a significant improvement in depressive symptoms.

Preschl et al. (2012) conducted a randomized controlled trial that examined the results of a life review intervention compared to a waiting-list control group, who received the same intervention after the treatment group completed the life review intervention. The study consisted of 26 participants with a median age of 70.7 years. The six weekly life review therapy sessions lasted 60 to 90 minutes and included face-to-face and computer supplement interventions. The computer supplement interventions consisted of two modules. The first module provided exercises in mindfulness, relaxation, and positive recall of life stages. The second module consisted of a 3-D adaptation of a book called the "Book of Life" and consisted of text, pictures and MP3 music files that encouraged reminiscence. The results of the study indicated that the intervention group experienced a significant decline in depressive symptoms as compared to the control group. Participants who received the life review intervention experienced a decline of depressive symptoms from 19.0 to 10.0 as measured using the Beck Depression Inventory (BDI-II), a statistically significant difference when compared to the control group's pre-test of 16.5 and post-test of 15.1 (p < 0.05). Participants were given a questionnaire at a three-month followup. The results of this questionnaire indicated a large effect size (d = 1.27) from pre-treatment to follow-up (p < 0.01), suggesting that the effects of the intervention were maintained (Preschl et al., 2012).

Goncalves, Albuquerque, and Paul (2009) also conducted a life review intervention with questions aimed at recalling specific memories. The life review intervention group was compared to a control group, who received care as usual. Twenty-two participants, with a mean age of 80.7 years, were recruited for this study. The subjects participated in four sessions of life review therapy, averaging one hour each, over a two week time period. Participants who received the life review intervention experienced a decline of depressive symptoms from 10.10

to 5.00 as measured using the Geriatric Depression Scale (GDS), a statistically significant difference when compared to the control group (p < 0.05). No follow-up data was collected (Goncalves et al., 2009).

Chan, Ng, Tient, Man Ho, and Thayala (2013) conducted a life review intervention that consisted of 26 participants with a mean age of 69.7 years. The life review treatment group participated in five interview sessions across an eight week time period. Length of session ranged from 30 to 45 minutes. The intervention and control groups met with researchers an equal number of times; however, the control group was only seen to collect depression scores. Responses from the transcripts of the interviews were compiled into a life storybook and participants were encouraged to review each chapter of the storybook and provide photographs for final printing. The mean GDS score for the intervention group showed a significant reduction in depressive symptoms from a mean baseline score of 7.9 to a mean score of 2.5 at week eight (p < 0.001). No follow-up data was collected (Chan et al., 2013).

Three of the six articles investigated the efficacy of reminiscence therapy for the treatment of depressive symptoms and all reported a significant improvement in these symptoms.

Watt and Cappeliez (2000) conducted a study comparing the effectiveness of an integrative reminiscence group, an instrumental reminiscence group, and a socialization control group. The study was comprised of 26 participants, with a mean age of 66.8 years and consisted of six weekly sessions that lasted 90 minutes each. Each session focused on a theme from Birren and Deutchman's (1991) guided autobiography approach. The integrative reminiscence group focused on redefining the participants' negative appraisals of past events. In contrast, the instrumental reminiscence group focused on identifying successful coping strategies employed in

the past in order to draw upon these skills to cope with difficult current life events. The socialization control group also met weekly and focused on pertinent concerns for older adults. The results of the study by Watt and Cappeliez (2000) demonstrated that both the integrative and instrumental reminiscence interventions were effective in improving depressive symptoms when compared to the control group. This was indicated by improvements in pre- and post-GDS scores. The integrative group's GDS mean score improved from 20.58 to 14.67 (p < 0.01) and the instrumental group's GDS mean score improved from 18.87 to 15.50 (p < 0.05). The control group's GDS mean score was insignificant (p-value not reported), as indicated by the pre- and post-test GDS means of 19.18 and 21.20, respectively (Watt & Cappeliez, 2000).

Watt and Cappeliez (2000) collected follow-up data at three months post-intervention using the Hamilton Rating Scale for Depression (HRSD). In the integrative reminiscence group, 58% of the participants experienced a significant improvement in depressive symptoms at post-test as compared to 100% of the participants at the three-month follow-up. In the instrumental reminiscence group, 56% of the participants experienced a significant improvement in depressive symptoms at post-test as compared to 88% of participants at the three-month follow-up. These results suggest that both reminiscence interventions are effective in reducing depressive symptoms, with the integrative reminiscence intervention being slightly more effective at follow-up (Watt & Cappeliez, 2000).

In 2009, Hsu and Wang conducted a reminiscence therapy intervention consisting of 45 participants with a mean age of 77.9 years. The experimental group met for eight weekly sessions that lasted 60 minutes each, while the control group received care as usual. The reminiscence therapy intervention utilized traditional festival foods, photos, and songs in order to stimulate conversation. The reminiscence intervention decreased depressive symptoms

significantly on the GDS by an average of 2 points, as compared to no change in the care as usual control group (p = 0.002). No follow-up data was collected (Hsu & Wang, 2009).

Similar to Watt and Cappeliez (2000), Karimi et al. (2010) compared integrative reminiscence, instrumental reminiscence, and an active social discussion control group that related to topics of concern for older adults. The study was comprised of 29 participants, with a mean age of 70.5 years. The individuals met for six weekly sessions that lasted for 90 minutes each. In contrast to Watt and Cappeliez (2000), researchers reported a statistically significant difference between the integrative and control group, but not between the instrumental and control group (p-values not reported). This was indicated by differences in pre- and post-test scores on the GDS. The integrative group's GDS mean score improved from 9.40 to 4.70 and the instrumental group's GDS mean score improved from 9.22 to 7.0. The control group's GDS mean score was insignificant, as indicated by the pre- and post-test GDS means of 9.10 and 8.0, respectively (p-values not reported). No follow-up data was collected (Karimi et al., 2010).

Of the three studies that utilized a life review intervention, two out of the three studies were conducted on an individual basis (Preschl et al., 2012; Chan et al., 2013). Of the three studies that utilized a reminiscence therapy intervention, all three were conducted in a group setting (Watt & Cappeliez, 2000; Hsu & Wang, 2009; Karimi et al., 2010).

Table 1. Summary of Description of the Three Reviewed Life Review Studies

Study	Intervention Type	Mean Age of Participants	Number of Participants	Duration and Frequency of Intervention	Group vs. Individual	Follow- up Data	Group Facilitators	Country of Origin
Chan et al., 2013	Life Review	69.7 years (60 years or older)	26 participants (14 treatment; 12 control)	8 weeks; 5 sessions; 30-45 minute sessions	Individual	No	"researcher"	Singapore
Goncalves et al., 2009	Life Review	80.7 years (65 years or older)	22 participants (Number of participants in each group was not discussed)	2 weeks; 4 sessions; average of one hour sessions	Group	No	Did not state	Portugal
Preschl et al., 2012	Life Review	Median: 70.7 years (65 years or older)	36 participants (20 treatment; 16 control)	6 weeks; 6 sessions; 1-1.5 hour sessions	Individual	Yes; three month follow-up	One PhD and one MA psychologist with training in psychotherapy and cognitive behavioral therapy	Switzerland

Table 2. Summary of Description of the Three Reviewed Reminiscence Therapy Studies

Study	Intervention Type	Mean Age of Participants	Number of Participants	Duration and Frequency of Intervention	Group vs. Individual	Follow- up Data	Group Facilitators	Country of Origin
Hsu and Wang, 2009	Reminiscence Therapy	77.9 years (65 years of older)	45 participants (24 treatment; 21 control)	2 months; weekly sessions; 60 minute sessions	Group	No	Two master's- prepared geriatric nurse specialists	Taiwan
Karimi et al., 2010	Reminiscence Therapy	70.5 years (60 years or older)	29 participants (10 integrative; 9 instrumental; 10 social discussion group)	6 weeks; weekly sessions; 90 minute sessions	Group	No	Master's level therapist supervised by a registered clinical psychologist	Iran
Watt and Cappeliez, 2000	Reminiscence Therapy	66.8 years (60 years or older)	26 participants (Number of participants in each group was not discussed)	6 weeks; weekly sessions; 90 minute sessions	Group	Yes; three month follow-up	Master's level therapist supervised by a registered clinical psychologist	Canada

Discussion

Given the expansive negative effects that depressive symptoms can have on older adults, any intervention that can decrease these symptoms has clinical significance and should be of great interest to health practitioners (Hsieh & Wang, 2003). This systematic review demonstrates that life review and reminiscence therapy are two such interventions that may effectively reduce symptoms of depression in older adults immediately following the intervention. According to the two studies that examined follow-up data, improvements in depressive symptoms may be maintained at three months post-intervention (Watt & Cappeliez, 2000; Preschl et al., 2012). While all of the studies included in this review demonstrated successful outcomes, it is pertinent to note that the interventions carried out in each study differed in design. No consistent protocol was identified for either life review or reminiscence therapy interventions. For example, one study combined a face-to-face intervention with a computer supplement (Preschl et al., 2012), while another encouraged reminiscence through compilation of a life storybook (Chan et al., 2013). Also, different methods were used to stimulate conversation and promote reminiscence. Hsu and Wang (2009) utilized traditional festival foods, photos, and songs to stimulate conversation. In order to evoke memories, Watt and Cappeliez (2000) had each group member write a short response to the week's theme prior to the group discussion. There was also a clear division between life review and reminiscence therapy studies in terms of if interventions were administered in a group or individual setting. All reminiscence interventions were conducted in groups (Watt & Cappeliez, 2000; Hsu & Wang, 2009; Karimi et al., 2010); whereas, two out of the three life review interventions were conducted on an individual basis (Preschl et al., 2012; Chan et al., 2013).

According to the six studies included in the present review, it appears that reminiscence therapy may be most effective in a group setting, while life review may be more effective when implemented individually. This is an important consideration when attempting to resolve past conflicts in an individual's life through the life review process, as individual reflection may be best practice. In contrast, it is possible that reminiscence therapy may be most effective in a group setting because it promotes unstructured reflection and discussion of personal life experiences and memories. The more positive nature of reminiscence therapy lends itself to be more appropriate and enjoyable in a group setting with adults within the same cohort. Hsu and Wang (2009) support these ideas by discussing how sharing memories in a group setting, even consisting of family members and friends, provides older adults with support and empathy from other participants who have similar life experiences. In addition, Hsu and Wang (2009) suggest that group reminiscence may remind older adults of their sense of competence during life transitions, and that this could play a large role in reducing depressive symptoms.

Other variations in the study protocols include the length of intervention, number of sessions, and duration of study. The duration of study ranged from two weeks (Goncalves et al., 2009) to two months (Hsu & Wang, 2009), with number of sessions ranging from four sessions (Goncalves et al., 2009) to eight sessions (Chan et al., 2013). Length of interventions ranged from 30 minutes per session (Chan et al., 2013) to 90 minutes per session (Watt & Cappeliez, 2000; Karimi et al., 2010; Preschl et al., 2012). Despite these variations, the current systematic review found significant improvements in depressive symptoms for all six studies included.

Within these studies, the authors suggested several factors that contributed to the reduction of depressive symptoms among the studies' participants. Goncalves et al. (2009) assert that increased specificity of memories leads to a greater reduction in depressive symptoms

and an increase in life satisfaction. Chan et al. (2013) suggest that giving participants the opportunity to choose topics for discussion as well as photographs for the life storybook increases autonomy and this autonomy may be the most important factor in reducing depressive symptoms. Chan et al. (2013) and Hsu and Wang (2009) discuss the importance of social participation and the role group interaction plays in reducing depressive symptoms. These concepts are important considerations to make when delivering life review and reminiscence therapy interventions.

There are many benefits in employing life review or reminiscence therapy to aid in the reduction of depressive symptoms in older adults. One such benefit is that these interventions have been shown to be as effective as traditional interventions, such as cognitive behavioral therapy, in reducing depressive symptoms possibly within a shorter time frame (Watt & Cappeliez, 2000). This may be due to the fact that reminiscence requires no new skills for the participants; rather, clients are the experts on the material, which is their personal memories. Reminiscence is a common psychological activity in which older adults frequently participate, which may result in more immediate participation in the therapeutic process. Preschl et al. (2012) and Watt and Cappeliez (2000) measured the long-term effects of life review and reminiscence therapy, respectively, and determined that the effects of the interventions were maintained at a three month follow-up. In addition, the studies included in this review conducted the interventions in a variety of settings. Participants of these studies consisted of older adults living in an adult social day care program (Goncalves et al., 2009), at home (Chan et al., 2013), as well as long-term care facilities (Karimi et al., 2010; Preschl et al., 2012), suggesting that the effects of these interventions are not setting specific. Finally, reminiscence interventions offer a low-cost, effective treatment option for older adults with depressive symptoms.

The current study also attempted to differentiate between life review and reminiscence therapy. It is important to note that of the six studies included in this review, all self-identified interventions aligned with the previously defined definitions of the two therapies. However, prior to narrowing the inclusion criteria, discrepancies were noted in the intervention terminology of the current literature. These findings indicate that this systematic review's previous assumption regarding inconsistent definitions was validated during the literature review. To determine the efficacy of either intervention, there must be a clear demarcation between life review and reminiscence intervention protocols.

Implications for Occupational Therapy Practice

Of the six articles included in this systematic review, it is interesting to note that none of the studies utilized an occupational therapist to facilitate life review or reminiscence therapy interventions. Psychologists and nurses were the professionals providing the intervention. Despite this, reminiscence therapy and life review have been recognized as appropriate interventions for occupational therapists to treat older adults with depressive symptoms (Chippendale & Bear-Lehman, 2012). The profession is appropriate to administer these interventions for several reasons. First, occupational therapy has its roots in mental health and places great importance on the role of psychosocial aspects as this contributes to the overall health and well-being of individuals. Furthermore, AOTA has identified mental health as a crucial area of focus for occupational therapy practice in the 21st century. Because life review and reminiscence therapy focus on the psychosocial aspects of individual lives, these interventions are appropriate for occupational therapy to administer to older adults with depressive symptoms. Second, given that older adults already occupy a large percentage of occupational therapists' caseloads, and the prevalence of depressive symptoms in this

population, occupational therapists are adequately equipped and ideally positioned to utilize these interventions (AOTA, 2004). Third, reminiscence therapy and life review are based on individuals' memories and the meaning and purpose that can come from reflection on the past. A foundational belief of the field of occupational therapy is that engagement in meaningful occupations is essential in promoting one's health and well-being. Given that this meaning and purpose are vital components of life review, reminiscence therapy, and the profession of occupational therapy, occupational therapists are well suited to administer these interventions.

In order for occupational therapy to take ownership of life review and reminiscence therapy, these interventions must be occupation-based. Chippendale and Bear-Lehman (2012) conducted an occupation-based life review intervention that utilized a life writing workshop. Participants in this study received specific writing prompts at each session that coincided with a specific stage of life. Participants then had the opportunity to share their writing with others and receive positive feedback from the group. The results of this study determined that the occupation-based intervention was effective in reducing depressive symptoms among participants. Chippendale and Bear-Lehman (2012) suggest that occupational engagement through life review writing has great value to occupational therapy practice with the geriatric population.

The researchers of the present systematic review propose that occupational therapists must utilize a consistent occupation-based protocol in the implementation of life review and reminiscence therapy. An example of this protocol is the creation of a life story scrapbook using participants' photographs or photography from specific time periods to promote and encourage reminiscence. The participants will then be encouraged to write about their thoughts and feelings related to specific memories that are evoked by the photographs. This protocol could be

carried out in a group setting over the course of eight, weekly, 90-minute sessions, and should be facilitated by an occupational therapist. After each session, participants will be given the opportunity to share their scrapbook photos and life story writing with the group. Other suggestions to make these interventions protocol occupation-based include incorporating music, dance, or drawings to evoke specific memories of the past.

Currently, reminiscence therapy and life review are not included among the Accreditation Council for Occupational Therapy Education (ACOTE) requirements in order for an occupational therapy program to be accredited, and thus, are not taught in the entry-level curriculum (AOTA, 2011). Due to this review's findings of the effectiveness of these interventions, they are worthwhile treatments to discuss in conjunction with current treatment methods for older adults. Additionally, in order for occupational therapists who are currently practicing in the field and those entering the field to become competent in administering these interventions, it is recommended that a consistent protocol be developed such as the aforementioned protocol. An intervention protocol, such as the life story scrapbook protocol, should be taught in ACOTE accredited occupational therapy programs. Additionally, continuing education courses focused on a specific occupation-based protocol must be offered for therapists who are interested in learning and applying an evidence-based, effective treatment for older adults with depressive symptoms.

The field of occupational therapy is focusing on regaining their presence within the mental health field; thus, it is vitally important that other professionals within this field be encouraged to recognize the role that occupational therapists have in treating the psychosocial needs of individuals. In order to bring awareness to other healthcare professionals, it is important to educate these professionals about the role of occupational therapy. Workshops and

in-services can be offered to educate healthcare professionals (e.g., geriatricians and psychologists) about the role that occupational therapists can have in implementing occupation-based life review and reminiscence interventions to decrease depressive symptoms in older adults. This information can also be disseminated through future publications, and detailed explanations of occupation-based life review and reminiscence protocols. Moreover, occupational therapists who are currently working with the geriatric and mental health population can begin advocating at the grassroots level.

Limitations

Several limitations exist within the current systematic review. First, the sample size was extremely limited by the highly specific inclusion criteria. This is due, in part, to the fact that the present systematic review excluded articles with participants who had a possible cognitive impairment or a clinical diagnosis of depression. This strict criteria attempted to ensure that the presence of a cognitive impairment and the diagnosis of depression were not confounding variables. However, as a result, the findings from this review cannot be generalized to populations with diagnosed depression and/or cognitive impairments. Another limitation is that after the specific inclusion criteria were applied to the research, only studies conducted outside of the United States remained. Therefore, caution must be used when extrapolating these results to subjects within the United States. Additionally, there is great inconsistency within the protocols for intervention using life review and reminiscence therapy. No specific treatment methodology appears to exist within the current literature, making it difficult to draw definite conclusions regarding the efficacy of specific life review and reminiscence therapy interventions for the treatment of depressive symptoms in older adults.

Suggestions for Future Research

In light of the limitations of the current study and of other existing literature regarding the efficacy of life review and reminiscence therapy in the treatment of depressive symptoms among older adults, suggestions for future research include: (1) qualitative research in order to better understand the lived experiences of older adults during life review and reminiscence therapy, (2) studies that examine the long-term efficacy of life review and reminiscence, (3) studies that investigate the efficacy of life review and reminiscence for individuals with a cognitive impairment and/or a clinical diagnosis of depression, (4) systematic reviews that exclusively examine the effects of either life review or reminiscence therapy interventions, (5) systematic reviews that exclusively examine the effects of these interventions in either a group setting or on an individual basis, (6) studies conducted within the United States and other Western countries, (7) a standardized activity and protocol for both life review and reminiscence therapy, and (8) further quantitative research studies which follow specific, occupation-based intervention protocols that can be replicated.

Conclusions

In summary, several conclusions can be drawn from the results of the current systematic review. First, life review and reminiscence therapy are effective in treating depressive symptoms in older adults. Second, the six included studies' definitions and implementation of life review and reminiscence therapy were consistent with the current review's proposed definitions of these interventions. Third, because the field of occupational therapy addresses the psychosocial needs of older adults and has a renewed focus on mental health in the 21st century, other mental health practitioners must acknowledge that occupational therapists should play a prominent role in the treatment of older adults with depressive symptoms through the administration of life review and

reminiscence therapy. Fourth, future research is needed to further clarify the most effective protocol of life review and reminiscence therapy for treating depressive symptoms in older adults. Finally, an increased awareness of the applicability of these interventions within the field of occupational therapy is necessary and can be accomplished through future research that focuses on the development of an effective, occupation-based protocol of life review and reminiscence therapy.

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Appendix A: Selection of Studies Process

