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Developing a Model for Autobiography Writing to Promote Mental Health Using an AI Powered Platform

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Abstract

Purpose: This study aims to make it easier for anyone to write an autobiography by utilizing AI technology, allowing individuals to reflect on their lives and reaffirm their identity, ultimately enhancing their self-esteem. Through this research, the necessity of promoting mental health for the elderly is emphasized, and it seeks to provide foundational data contributing to new approaches for improving quality of life.

Methods: Basic data for program development were collected in April 2024. Subsequently, the AI beta version was used to identify issues, which were then addressed and improved upon.

Results: The results of this study are as follows: First, it was confirmed that structuring the autobiography writing program and providing clear guidelines are essential. Second, the importance of the role of conversation companions and the need for their prior training were emphasized. Third, ensuring the accessibility and ease of participation in the program was shown to enhance participant engagement. Fourth, further empirical research is necessary to verify the effectiveness of the program.

Conclusion: This study confirmed that an autobiography writing model utilizing an AI-based platform can contribute to improving older adults' mental health. Older adults who struggle to use digital devices can become more comfortable with them through this program. Additionally, autobiographical writing activities that involve reflecting on their lives and narrating their stories according to various themes provide older adults with the opportunity to achieve a sense of self-integration. Finally, if this program is disseminated in a manner that suits the characteristics of older adults, it can play a significant role in improving their mental health.

Key words: AI powered platform, autobiography, elderly, mental health

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Ⅰ. Introduction

Modern society is rapidly aging; consequently, the mental health of older adults is emerging as a significant public health issue. Older adults' mental health is directly linked to their quality of life, and various psychological issues, such as depression, loneliness, and cognitive decline, affect their daily lives and health. Self-reflective activities, such as writing autobiographies, have been proposed as effective methods to address these issues. An autobiography is a living document that encompasses an individual's development and self-formation process, and it is the result of recording one's unique life (Son, 2002). While memoirs focus on recording historical events objectively and factually, autobiographies emphasize the subjective narration of events experienced by individuals. While memoirs highlight the author's social achievements and roles, autobiographies emphasize the author's identity and the process of inner character formation. Therefore, an autobiography does not focus on the objective facts and achievements of life; rather, it focuses on the subjective interpretation and narration of the individual's life. Writing autobiographies is recognized as a method for older adults to enhance their self-identity and improve their mental health by reflecting on and giving meaning to their life experiences.

Recent advancements in artificial intelligence (AI) technology are creating new possibilities for providing personalized healthcare solutions. AI is establishing itself as a tool that analyzes user data to provide personalized feedback and maximize the user experience. In particular, a memoir-writing program using AI holds great potential to help older-adult users systematically organize and reflect on the stories of their lives. Researchers focusing on the content characteristics of memoirs argue that, while memoirs are fundamentally based on facts, they paradoxically borrow fictional techniques to make these facts appear more realistic (Yoon, 1999). According to them, the essence of a memoir lies not in the factual accuracy of the narrated content, but in the present truth. A memoir selects and combines past memories and reconstructs their meaning to understand the present, rather than merely evoking the past. In other words, a memoir is the process of finding one's current identity by reconstructing personal memories through the medium of writing (Yu, 2011; Yoon, 2013). Therefore, a sophisticated structure and program for memoir writing must be established to effectively contribute to mental health improvements among older adults.

Nevertheless, empirical research on how memoir-writing programs can positively impact older adults' mental health is still lacking. Therefore, this study aimed to fill this research gap by investigating the effects of a memoir-writing program on the self-esteem, life satisfaction, and mental health of older adults. We further aimed to identify ways in which AI technology can substantially contribute to the promotion of education and mental health among older adults.

This study highlights the need to promote mental health among older adults. AI technology not only makes it easy for individuals to reflect on their life and write autobiographies, but also presents an autobiography as a meaningful way to enhance self-esteem by reaffirming individuals' identity in the process of reflecting on their lives and finding meaning. Through this study, we intended to provide basic data that can contribute to improving older adults' quality of life by seeking a new approach to support their mental health.

Ⅱ. Life reflection and self-reflection

Writing autobiographies helps older adults reflect on their lives, giving meaning to the life they have lived so far and achieving a sense of self-integration. The act of older adults reflecting on their lives has been a continuous subject of research under the important theme of life stories in the fields of education and psychology, and its significance has been consistently emphasized. This study aimed to explore older adults' unique stories with a focus on life retrospection and self-reflection.

1. Life reflection

Erikson (1997) describes ego integrity as the most important psychosocial task in old age. As people age, they reflect on their lives. If they recognize their lives as successful, regardless of others' judgments, they achieve ego integrity. However, if they perceive their lives as failures, they fall into despair. Thus, reflecting on one's life in old age is an important task. Butler (1963) suggested that, through life review therapy, older adults can achieve ego integrity, self-esteem, and a sense of meaning in life. Since Butler introduced life review therapy, several studies have been conducted. Most of the research results related to life review indicate that life review increases ego integrity, self-esteem, and life satisfaction in older adults, while reducing depression and hopelessness (Noh, G. H., 2009; Butler, 1963; Haight, 1988; Haight, Michel & Hendrix, 1998; Serrano, Latorre, Gatz & Montanes, 2004).

Additionally, studies related to life review therapy or those that have combined other therapies with life review therapy have shown similar results. Lee (2006) found that meaning therapy combined with exercise improves ego integrity in older adults. Hong and Lee (2008) reported similar results using therapeutic recreation. Choi et al. (2007) applied a life review program incorporating art therapy as a leisure activity and found that it enhanced older adults' ego integrity. Lee et al. (2007) reported that supportive group counseling utilizing reminiscence was effective in enhancing ego integrity and reducing death anxiety among older adults. Kim (2004) found that group art therapy focused on reminiscence contributed to improvements in older adults' self-esteem and ego integrity, while also facilitating emotional stability, increased self-expression, and positive changes in social interactions (Kim, 2004). Yeon and Kim (2006) reported that a life review narrative therapy group program was effective in promoting older adults' ego integrity. They noted that, when conducting reminiscence therapy for older adults in Korea, it was helpful to focus on experiences related to family life or significant experiences from early adulthood and middle age, rather than childhood or adolescence (Yeon & Kim, 2006).

Although not directly related to life review therapy or related therapeutic methods, several research findings related to life review should be considered when developing an autobiography writing program model for older adults. Regarding autobiography writing themes, it is particularly important to consider research results that mention the significance of family to older adults in Korea. Kim (2002) reported that, through reminiscence, older adults resolve past psychological conflicts, unfulfilled wishes, and tasks, and develop an attitude of coming to terms with their lives. Considering specific results, first, older adults find value in life and confirm their identities through their current descendants. This reflects the family centered cultural attributes of Korea and suggests that relationships with children

within the family significantly impact ego integrity in old age. Second, through reminiscence, individuals are able to accept their past lives and adopt an attitude of accepting death, leading to the formation of ego integrity and, ultimately, successful aging (Kim, 2002). Regarding life reviews of older-adult women, Kim (2007) reported that grandmothers' life stories often have a narrative structure of repeated hardships, serving as a means of self-affirmation by deeply engaging with the world around them. In other words, the act of enduring repeated hardship is a psychological and mental attempt to create a space for self-involvement within the world by identifying with the role of a victim who endures suffering under the illusion that the responsibility for the current tragic situation is entirely one's own (Kim, 2007). They perceive themselves as responsible for their tragic reality and believe that their sacrificial role upholds the world around them by actively valuing their actions. According to Mo and Kim (2006), first, older-adult women have lived under the influence of historical, sociocultural environments and patriarchal Confucian culture, fulfilling the roles of "daughter-in-law and daughter" and "wife and mother." Second, most older-adult women have lived or are still living in isolation owing to the death or disability of family members; however, the impact of this on their current lives varies. Third, writing an autobiography has been reported to be a good opportunity for older-adult women to reflect on their lives and organize their experiences (Mo & Kim, 2006). Such studies on life review among older adults provide specific and in-depth tools for understanding the current lives of older-adult women, highlighting the importance of family, particularly as a theme for writing autobiographies.

2. Self-reflection

Reflection goes beyond mere conscious awareness to encompass a process of exploring objects while retrospectively examining one's entire existence to seek new meaning. It involves a meeting of the subject and the object within the process of recognition, wherein the subject gains an opportunity to reflect on their values and attitudes by projecting them onto the objectified "self." Through this process, they gain a new understanding of their meaning and value. These experiences, resulting from the process of reflection, influence and promote internal changes, leading to human growth. Thus, reflection holds significant meaning in the formation of human identity.

"Self-reflection" refers to a series of cognitive actions aimed at understanding oneself through an "object." It is a conscious activity that orients one's values and attitudes toward the world and one's life by reflecting on oneself and discovering and understanding anew by exploring the meaning of the object (Hwang & Nam 2012).

According to the meaning of reflection presented above, reflection ultimately implies experiencing points of contact wherein the self meets the world, and understanding the relationship between the self and the world within that context. The process of reflection—comprising intentionality, in which the subject discovers and recognizes the object to grasp its meaning, and reflexivity, in which the subject discovers and understands themselves through the object—expands the breadth of understanding of both the object and oneself (Hwang & Nam, 2012). Furthermore, self-reflection is achieved through a calm gaze at the object encountered in the space where the self and world meet (Park, 2014).

Ⅲ. Autobiography writing and its healing effects

Writing autobiographies provides various therapeutic effects beyond simply recording individual histories. It helps older adults reflect on their lives and find meaning and promotes emotional stability and mental health. These aspects have been continuously verified in the fields of psychology and gerontology. Further, writing autobiographies has been proven to be an effective method for eliciting life stories among older adults.

1. Autobiography writing

Birren and Deutchman (1991) developed an autobiography writing program for older adults using Butler's life review therapy. This program helps older adults achieve a sense of self-integration by having them write autobiographies based on themes through storytelling in small groups. The program is sometimes called "elderly autobiography writing" or "guided elderly autobiography writing," with "guided" indicating that the writing follows specific themes. In this paper, the term "elderly autobiography writing" is consistently used. Research on the autobiography writing program for older adults in Korea has reported that participation in the program leads to improvements in various areas. Lee et al. (2009) reported that the autobiography writing program elicited positive changes to the negative emotions and overall marital satisfaction of older-adult couples (Lee et al., 2009). Park and Yoon (2009) demonstrated that older adults trained in life review methods—a form of autobiographical memory usage—experienced not only a decrease in depressive symptoms and feelings of hopelessness, but also an increase in life satisfaction (Park & Yoon, 2009). Ji (2008) analyzed the process and learning experiences of older-adult participants in the autobiography writing education program, examining the processes of self-integration and reflection in old age. The findings highlighted the effects and significance of autobiography writing education for older adults(Ji, 2008).

2. Healing effects

Expressing experiences of trauma through writing positively affects physical and mental health; however, little research has been conducted on the mechanisms or processes underlying these effects. Park (2006) and Heo (2011) studied the therapeutic effects of writing about traumatic experiences in women victims of domestic violence and reported that exposure was the most effective therapeutic mechanism (Park, 2006; Heo, 2011).

Jang (2009) in analyzing Plato's Dialogues, argued that it reflects Plato's philosophical stance on writing. According to Jang, writing is a form of soul care that serves as an important means of establishing oneself as an ethical subject not only in relation to oneself but also in relation to others. Writing can also be a tool for healing illnesses caused by disharmony of the soul. This can be seen in the same context as the Hellenistic scholars' use of methods such as "silence," "memory," and "writing" for soul care (Jang, 2009).

Seo (2015) stated that writing based on one's own experiences is a form of self-discipline that can change one's life. Writing reinforces and expands one's personal experiences. The act of caring for oneself has always been connected to the act of writing (Foucault, 1988). Writing transforms numerous events occurring in the soul from "invisible forms" to "visible forms," and once expressed in writing, it shifts from a subjective and individual method to an objective

and universal one. This is somewhat analogous to the process of psychoanalytic therapy, wherein the unconscious is made conscious. This process of objectification occurs through memory and writing. As the soul is objectified by memory, one's actions are reviewed by the soul, leading to ethical reflection and healing (Jang, 2009). Subsequently, writing down the soul's memories undergoes another process of objectification through the text.

Pennebaker (1999) stated that, to overcome psychological trauma and to ensure psychological and physical health, it is helpful to recognize and express thoughts and emotions related to the traumatic experience rather than suppressing or avoiding them. He found that people whose health improved wrote more "self-reflective and emotion-focused" pieces compared with other groups. Through a categorical analysis of words, he also reported that the use of positive words correlated with better health. Furthermore, groups for whom writing was effective showed more vivid self-disclosure and emotional expression and significant qualitative and quantitative differences in understanding, insight, reflective thinking, hope, and the formulation of new plans for the future (Pennebaker, 2007).

Other studies on therapeutic writing in Korea have shown its impact on various aspects, such as the effect of writing therapy on the emotional intelligence of elementary school students (Ha, 2010), influence on the self-concept of introverted adolescents (Kim, 2000), autobiography writing for adolescents (Kim, 2004; Kim, 2013), autobiography writing to treat depression in middle-aged women (Kim, 2007), and forgiveness therapy through writing (Park, 2007). These studies demonstrated that writing has the power to change lives.

The difference between therapeutic writing and writing therapy, compared with general writing, is that therapeutic writing is performed for healing purposes. It focuses on unresolved issues, concerns, conflicts, and confusion within oneself; clarifies these problems or conflicts; and facilitates the experience of healing by writing about the process of solving these issues (Adams, 2006; Pennebaker, 2007). Additionally, using writing in cognitive analytic therapy (Bolton et al., 2012) helps achieve a higher level of shared understanding because verbal recollection is limited by short-term memory capacity and prone to distortion by preconceptions, whereas writing facilitates more accurate internalization.

Ⅳ. AI-based autobiography platform composition and technical planning

1. Constructing an AI-based autobiography writing platform

In this study, the AI-assisted autobiography writing model begins with an orientation that provides guidance on using AI for autobiography writing and prepares participants with basic questions about key life events. This is followed by interviews, and, when necessary, participants are encouraged to write their own content, allowing for data collection. Two adults over the age of 60, residing in City N in Gyeonggi Province, voluntarily participated in the study. The collected data is digitized and input into an AI platform, with additional information being added as needed. The AI then generates the autobiography based on the participant's characteristics and produces the final result in a format tailored to each individual.

Previous studies have proven that writing autobiographies is effective in enhancing older adults' self-esteem, ego integrity, and sense of life meaning, which are important topics in human life. Writing autobiographies provides a process for rediscovering the self and reevaluating the meaning of life by reflecting on and narrating one's life experiences. Particularly for older adults, writing an autobiography can offer an opportunity to reconstruct significant moments of

their lives and positively reflect on their lives, thereby strengthening their identity and contributing to increased life satisfaction.

Advancements in AI technology offer opportunities to effectively support the autobiography writing process. AI can maximize user experience and assist in deeper self-reflection through personalized writing guidance, sentiment analysis, and content recommendations. Therefore, the development of AI-powered autobiography writing programs is expected to be an innovative method for supporting and enhancing older adults' mental health. The platform configuration used in this study is presented in <Table 1>.

Table 1. Constructing an AI-based autobiography writing platform

Sub-items	Contents	Note
- sign up and log in to account	Google-, Naver-, and Kakaotalk-linked log in -Individual member -Institutional member -Administrator mode	Individual subscriber Institutional(organization) subscriber
- My life	- Site introduction - Manual	
1. Diary sketch(individual)	A. Input -Title Date and time Place Small talk >> Writing, voice input ▶ Convert audio file to text(ClOVA Note) ▶ Claude AI (Writing) -Picture (take Photo directly, import photo) B. Preview -Blog/Instagram customized design C. Output -Korean/can select English -Upload SNS -Blog/Instagram/Kakaotalk/send by e-mail, etc.	SNS interlock service (Kakaotalk and e-mail)
2. Newsletter (for institutions/ groups)	A. Input -Title -Date and time -Place -Content of the main event >> Writing, record -Key attendance -Total number of attendees and the number of attendees are affiliated -Interview with the bead of the event >> Writing, record -Interviews with participants in the event >> Writing, record ▶ Covert audio file to text(CLOVA Note) ▶ Claude AI(writing) -Picture(take photo directly, import photo) B. Preview	SNS interlock service (Kakaotalk and e-mail)

	-Newsletter-style design
	C. Output
	-Korean/can select English
3. Writing autobiography	A. Input

-writing an autobiography >> Writing, record
- ▶ Reference excel(proposal) My Life(AI-based autobiography platform) Table of contents
- ▶ Chapter 1 >> Major category
- ▶ Medium category > Sub-cat-egory question
- ▶ Two... Eight more

-Select (writing, voice, add pho-tos, photo description)

-Insert a picture around a major event
- ▶ Answer questions or choose a pass
- ▶ Choose to answer a large cat-egory question
- ▶ Choose to answer the middle category question
- ▶ Choose to answer subcategory questions
- ▶ Change the character of the recording file
- ▶ Claude AI (writing)

-Add temporary storage functionality

B. Preview
-Select cover template
-Select body design
-Preview
-Self-correcting

C. Output
-Korean/English selection available
-Photo autobiography (digital autobiography centered on Photos/events) >> Go to number 6 if desired to print
-Digital autobiography (full version) >> If desired, go to number 6
-Additional services
- ▶ PHOTO card >> Photo + brief greetings > Upload SNS
- ▶ Video letter (children, etc.)
- ▶ Convert pictures into car-icatures > + Simple greetings Share SNS(upload)
- ▶ Converting pictures to puzzle game (converting from computer to puzzle game) >> Sharing SNS(sending games)
- ▶ Making AI cartoons centered on major events(e.g., childhood)
- ▶ Making AI videos centered on major events (e.g., childhood)
- ▶ Producing AI songs centered on major events (e.g., childhood)

	▶ Read your own autobiography by learning your own voice	
4. Writing coaching	-Application for writing training -Application for remedial services from a professional	Paid membership matching service
5. Library	-Diary sketch -Newsletter -Autobiography (photo autobiography) -Autobiography (full ver.)	Pre-published autobiography, etc. Presenting a sample
6. Publication	-Preview -Publish a printed version(in conjunction with a publisher)	Paid service Hopeful person

2. Technical planning

    <Table 2> shows the technical planning direction of the AI-based autobiography writing program, which can be easily used based on the composition of the autobiography writing platform described above.

Table 2. Technical planning for constructing an AI-based autobiography writing platform

Steps	Content
	WordPress: Used as a content management system, the development team develops WordPress themes and plug-ins WordPress Core Plug-in Advanced Custom Fields: Managing autobiography metadata and structured content WP REST API: Provides endpoints for communication with external APIs JWT authentication: Token-based authentication for API security

1. System architecture and technology stack	Whisper Speech Recognition API: Transforming interview files that Malbot activists have been recording through interviews into text
	  - OpenAI Whisper API latest version
	  - Audio file processing: Server side PHP script
	  - Save converted text: Register as WordPress POST, save metadata utilizing custom fields
	
	ChatGPT API, Claud API: Converting converted interview file into autobiography format. After converting by question (by file), it is processed by grouping episodes or sub-topics
	  - OpenAI GPT-4o or latest version
	  - Anthropic Cloud 3.5 Sonnet or latest version
	  - API integration method: WordPress plug-in development (PHP)
	  - Use Claud or ChatGPT with an autobiographical transformation assessment
	
	Dall·E 3: Generating images by sub-topic – Description after selecting a scene suitable for sub-topic through ChatGPT, and creating a picture through Dall·E 3
	  - Developed in conjunction with OpenAI's latest Dall·E 3 API and WordPress REST API

2. Functional development and integration	User management system:
	  - WordPress default user role extension (User, Malbot Helper, Administrator)
	  - Set custom permissions

Interview management system:
- Pre-set the structure of the autobiography suitable for the subject and proceed
- Metadata: Subjects, questions, interview date, time, status, participant information, etc.
- Comprehensive management: Organize to manage in stages such as interview, file upload, text conversion, autobiography conversion, sub-topic refinement, etc.

Recording and uploading voice:
- Frontend: Utilize HTML5 media recorder API
- Backend: WordPress media upload API extensions

AI transformation process:
- Configures the Maltese helper to manage and convert files easily
- Developed for processing with AJAX to configure a simple interface

Autobiography editor:
- Correction of typos in Malbot Helper, various versions can be converted depending on original text editing
- Integrating AI-generated content with manual editing

API integration layer:
- Common API client function or class development (ChatGPT, Claud, Dall·E, Whisper)
- Implementation of request limitation and error handling logic

3. Autobiography templates and content organization	Template system: - The structure of the autobiography is registered according to the subject - Setting the display method according to the structure of the autobiography Content structure: - Use Advanced Custom Fields to structure your autobiography - Chapter, major theme, sub-topic Multimedia integration: Delivering reading services, using interview voices cloning - Elevenlabs - Implement gallery and player capabilities for images, audio clips
4. Audio and text conversion process	Audio preprocessing: - Chunk Split: Cut and organize audio files in question units Whisper API integration: - REST API client implementation (using either the Guzzle or WordPress HTTP API) Post-text processing: - Utilize markdown library to improve sentence expression structure Create AI Text: - Implement interactive interaction with ChatGPT/Claude API - Prompt engineering: Prompt design for effective autobiography style creation Version management and revision systems: - Expand the revision system of WordPress to manage the history of changes to AI-generated content - Integration logic of user editing and AI creation

Ⅴ. Conclusion

The AI-based platform model for an autobiography writing program for older adults developed in this study is a beta version that requires further validation for general use. Further, it is essential to verify its distinctiveness from existing autobiography writing programs for older adults and to evaluate its effectiveness after implementation. However, by presenting this model, we hope to encourage its validation and implementation. Accordingly, we make some suggestions.

First, the autobiography writing program in this study comprises a total of six stages. Among these, the most crucial is the third stage, which involves writing the autobiography. During this stage, it is essential to thoroughly explain and convey instructions before participants share their stories on each topic and respond to the given questions. It is important to appropriately present questions that stimulate thoughts related to the topic at each stage and, if necessary, allow participants to write down their responses for each topic.

At this point, it should be noted that participants might feel reluctant to write their autobiographies because of the perception that they have had insufficient formal education or the belief that they need to write well. Therefore, it is necessary to make participants fully aware, beforehand, that the critical aspect of writing is not correct grammar or spelling, but the content of their life stories.

Second, as this is a newly developed program, the program's purpose should be comprehensively explained during the orientation session and a positive rapport should be established that allows older adults to naturally share their life stories. To achieve this, it is necessary to provide specific training to conversation helpers on basic counseling skills and methods of empathy. Additionally, offering guidelines on basic rules, such as "active listening," "maintaining confidentiality," and "not monopolizing the conversation," as well as creating and presenting basic regulations for conducting interviews and the order of questions, would likely lead to a more structured and effective interview process.

Third, because it can be challenging for some older adults to adapt to a new program, conducting preliminary interviews to gather written information about participants' life backgrounds and motivations for seeking support during the beta version operation would likely lead to positive outcomes for the program. This approach could help better understand participants and tailor the program to meet their needs effectively.

Finally, the relationship between the conversation helper and the participant is crucial in the autobiography writing program. Helpers must be trained and experienced in leading conversations through questions and, when necessary, in providing appropriate control. Additionally, considering older adults' health characteristics, it is important to manage the duration of sessions to prevent them from being too long. Given these considerations, if the program is implemented in settings such as senior universities, it could play a significant role in enhancing the mental health of older adults in our country.

On the other hand, the limitations of this study are as follows: First, since the autobiography writing program is in its beta version, further validation is required before it can be widely applied to enhance the mental health of the elderly. Second, the study participants were selected from a limited pool, making it difficult to generalize the results based solely on this research. Third, there is a lack of a detailed guide on the "prompts" used for creating autobiographies with the AI-based platform. Therefore, future efforts should focus on improving understanding of the program. Lastly, the current methodology may not be refined enough to accurately measure the program's effectiveness, and the short study

period and small sample size present challenges in confirming the program's efficacy. Hence, follow-up research is needed to evaluate the effectiveness of the program.

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Reference

Adams, K. Journal to the self. (Original work published in English as Journal to the Self; Korean translation by E. Kang & B. Lee). Seoul: Hakjisa. 2006.

Birren, J. E., & Deutchman, D. E. Guiding autobiography groups for older adults. Baltimore, London: The Johns Hopkins University Press. 1991.

Bolton, G., Howlett, S., Lago, C., & Wright, J. K. Writing cures. (Original work published in English as Writing Cures; Korean translation by C. Kim & J. Lee). Seoul: Hakjisa. 2012.

Butler, R. N. The life review: An interpretation of reminiscence in old age. Psychiatry, Journal for the study of Inter-Personal Processes, 1963;26:65-76.

Choi, E. Y., Park, C. J., Kim, K. H., & Lee, S. M. The effects of art therapy as a leisure activity program on the enhancement of ego integrity among rural elderly. Journal of Welfare for the Elderly, 2007;36:267-298.

Cho, S. H. The effect of a meaning therapy autobiography writing program for wives of alcohol dependents. Journal of Psychiatric Nursing, 2008;17(2):71-181.

Erikson, E. H.(1997). The life cycle completed. New York: Norton.

Foucault, M. Technology of the self. In L. H. Martin, H. Gutman, & P. H. Hutton (Eds.), Technology of the self (Korean translation by H. Lee). Seoul: Dongmoonseon. 1988. pp.51.

Ha, M. S. The effects of writing therapy on the emotional intelligence of elementary school students [Master's thesis]. Pyeongtaek Univ. 2010.

Haight, B. K.(1988). The theraputic role of a structured life review process in homebound elderly subjects. Journal of Gerontology, 1988;43(2):40-44.

Haight, B. K., Michel, Y. & Hendrix, S.(1998). Life review: Preventing despair in newly relocated nursing home residents short and long term effects. International Journal of Aging and Human Development, 1998;47(2):119-142.

Heo, Y. J. A study on forgiveness for healing helplessness in trauma victims: An expressive writing emotional experience forgiveness model [Dissertation]. Seoul Christian Univ.

Hong, S. J., & Lee, Y. Y. Development and effectiveness of an educational program for elderly ego integrity using

therapeutic recreation. Journal of Korean Home Science Association, 2008;17(4):623-630.

Hwang, J. H., & Nam, S. J. Educational practice strategies for self-reflection in social studies education. Elementary Education Studies, 2012. pp80.

Jang, Y. R. Plato's writing of the soul and ethical healing. Philosophical Research, 2009;110:147-172.

Ji, H. J. A case study on an educational program for elderly autobiography writing [Master's thesis]. Hanseo Univ. 2008.

Kim, S. M. A Study on the Pedagogical Methods of Autobiography Writing for Character Education: Focused on Specialized Humanities High Schools [Master's thesis]. Chosun Univ. 2004.

Kim, A. A study on the effect of group art therapy on self-esteem and ego integrity of the elderly with a theme of reminiscence. Journal of Welfare for the Elderly. 2004;24:153-179.

Kim, I. S. The effect of a group autobiography writing program on the treatment of depression in middle-aged women [Master's thesis]. Catholic Univ. 2007.

Kim, Y. R. A study on autobiography writing instructional methods for adolescents [Master's thesis]. Dong-A Univ. 2013.

Kim, Y. J. A life review and ego integrity of elderly women in Korea through reminiscence. Journal of Welfare for the Elderly, Winter Issue, 2002;207-231.

Kim, J. K. A study on the narrative structure and meaning-making methods in women's life stories. Journal of Korean Classical Women's Literature, 2007;17:89-116.

Kim, H. S. The effect of writing therapy on the self-concept of introverted adolescents [Master's thesis]. Keimyung Univ. 2000.

Lee, S. R., Ko, S. G., & Kwon, J. H. The effects of a directive autobiography program on subjective well-being and marital satisfaction among elderly couples. The Korean Journal of Psychology: Clinical, 2009;28(4):943-959.

Lee, C. H. The effects of meaning therapy combined with exercise on the sense of life, ego integrity, and daily activities performance among the elderly. Journal of the Korean Academy of Nursing, 2006;36(5):701-709.

Lee, H. R., Bae, K. D., & Jeong, M. Y. The effects of supportive group counseling using reminiscence on ego integrity and death anxiety among the elderly. Journal of Welfare for the Elderly, 2007;35:31-46.

Mo, S. H., & Kim, M. H. A study on the lives of elderly women in small towns through an autobiography writing program. Korean Journal of Community Welfare, 2005;20:87-116.

Park, K. H. The therapeutic effects and mechanisms of writing about trauma experiences: Focusing on women victims of domestic violence [Dissertation]. Seoul National Univ. 2006.

Park, J. H., & Yoon, G. H. Life review and the positivity effect in old age. Korean Journal of Gerontology, 2009;18: 107-122.

Park, H. K. Analysis of educational content and teaching-learning cases of self-reflective writing: Focusing on Daegu University's common liberal arts courses in writing and communication. Korean Language and Script Society, 2014;63:78-79.

Park, H. J. The effects of forgiveness therapy through writing on psychological adaptation of individuals with inter-personal trauma experiences [Master's thesis]. Pusan National Univ. 2007.

Pennebaker, J. W. Opening up. (Original work published in English as Opening Up; Korean translation by J. Kim & K. Park) Seoul: Hakjisa. 1999. pp.146.

Pennebaker, J. W. Writing to heal. (Original work published in English as Writing to Heal; Korean translation by B. Lee). Seoul: Hakjisa. 2007.

Roh, G. H. A study on group reminiscence therapy for Hansen's disease elderly: Focusing on self-esteem and ego integrity. Journal of Welfare for the Elderly, 2009;43:7-34.

Seo, M. Storyfunding. Min's Writing, Episode 12, November 19. 2015.

Serrano, J. P., Latorre, J. M., Gatz, M. & Montanes, J. (2004). Life review therapy using autobiographic retrieval practice for older adults with depressive symptomatology. Psychology and Aging, 2004;19(2):272-277.

Son, S. N. The educational value of autobiography. Journal of Educational Philosophy, 2002;28:110-111.

Yeo, I. S., & Kim, C. K. The effect of a life review narrative therapy group program on the enhancement of ego integrity in the elderly. Journal of the Korean Home Economics Association, 2006;44(5):157-169.

Yoon, J. The fiction of truth or the truth of fiction: Problems of autobiography writing. French Language Education, 7, 1999;268:272-273.

Yoon, S. U. From memory and stories to forgiveness and forgetting. Journal of Visual Culture, 2013;23:91-92.

Yu, H. S. Study on writing about oneself (2): Autobiography and sincerity. French Literature Studies, 2011;86:198.