Promoting Emotional Well-Being in Older Adults: Teaching Self-Regulation to Address Obsession and Depression

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Article Info	ABSTRACT
	Objective: This investigation endeavors to elucidate the methodologies through which self-regulation can be imparted to older adults to enhance their acquisition of a foreign language while concurrently enabling them to navigate adverse emotional experiences. In particular, this study scrutinizes the phenomena of obsession and depression. Furthermore, Alzheimer's disease represents a considerable burden for the older population, compounding the inherent difficulties associated with aging and detrimentally influencing their overall quality of life. Consequently, we aim to propose a framework that empowers elderly individuals to reclaim a semblance of control over their obsessive thoughts and depressive states. **Methods**: The research encompasses 40 Iranian participants who are 65 years of age or older, in alignment with the World Health Organization's classification of elderly individuals. These participants were recruited employing a convenience sampling method. The study utilizes a quasi-experimental design featuring pre-test and post-test assessments alongside a control group. **Results**: The results indicate that the instruction of the English language exerts a notable effect in mitigating obsessive thoughts and depressive symptoms among adults diagnosed with Alzheimer's disease. **Conclusions**: This research bears significant implications for elderly individuals in the initial phases of Alzheimer's, their caregiving relatives, psychologists addressing the emotional difficulties faced by older adults, and policymakers involved in the domain of language education.

Introduction

A phenomenon remarkably recognized at the beginning of the century throughout the World is the aging. What that makes it more complicated is the fact that a considerable number of old adults are prone to mental and neurological disorders and various health problems (Iovu & Breaz, 2019). This means that with the start of aging, the human beings become vulnerable to various diseases (Daryani & Marashi, 2021), among which Alzheimer can be mentioned.

The old people with Alzheimer usually suffer from various disorders simultaneously such as obsession and depression. Obsession disorder makes one to have intrusive and persistent thoughts about anxiety provoking contexts. It leads to repetitive and excessive actions, among which cleaning or counting can be mentioned as coping mechanisms for reducing the anxiety. Obsession disorder is the cause of distress that is debilitative in the old people. Since obsession disorder strongly influences the life quality of the elderly in various aspects, designing treatments to reduce it has been among the primary concerns of the psychologists and psychoanalysts. In the present study, the intrusive effect of obsession disorder on older adults with Alzheimer is the focus; therefore, the mention of the word "obsession" throughout the research refers to the obsession disorder, emphasizing its negative effect on quality of the lives of people. In a chain like form, neurological disorders are tied to each other inevitably. For example, depression has been shown to be linked to obsession in the old people (Reus et al., 2016). Consequently, depression is the most common mental health condition in people aged 65 and over with a detrimental effect on life quality that reduce patients' ability to manage their health (Giosan et al., 2017).

Fortunately, the old adults have positively responded to the various treatments. More particularly, English language teaching has been reported to be influential on mental impairments such as anxiety, stress, comfort, etc. in the studies conducted in English as a Foreign Language (EFL) settings (Alico, 2016; Chen & Lin, 2009; Fahim & Eslamdoost, 2014). Language interventions have gained traction as a promising approach to tackle these challenges and enhance the overall quality of life for AD patients (Scheltens et al., 2016). Previous research has underscored the effectiveness of multimodal language interventions, which incorporate speech therapy, music therapy, and visual aids. These interventions have the potential to augment language comprehension and expression (Simmons-Stern et al., 2010). Errorless learning techniques, which involve guiding patients to provide correct responses, have also been utilized in language

Promoting Emotional Well-Being in Older Adults | Mehrara et al.

165

interventions. These approaches aim to minimize frustration and maximize successful language use (Clare et al., 2004).

This may also have implications for the people with Alzheimer. This can be theoretically supported referring to the joint place of language and memory(loss) in the brain (Cameli et al., 2005). More significantly, language problems recognized in people with Alzheimer trigger thinking about the potential impact of English language teaching on mental disorders in the patients with Alzheimer. Although there have been some studies on the effect of interventionist approaches on mental disorder, reviewing the existing literature shows that there is still a gap in this research area (De Beurs et al., 1999; Grenier et al., 2011; Helmes & Pachana, 2008; Välimäki et al., 2022; Wolitzky-Taylor et al., 2010). In spite of the bulk of studies conducted on the effectiveness of language teaching on anxiety, stress and other psychological problems in a classroom setting and specifically for students, it has not been tried on older people with an attempt to help them.

To support our claim, self-regulated learning (SRL) as the theoretical framework is being used. As Zimmerman (1990) maintained, SRL has three main characteristics. Firstly, it arouses learners' internal motivation. Secondly, it involves learners meta-cognitively in completing a task. Thirdly, it encourages learners to actively take measures to construct their own learning modes. Likewise, Paris and Winograd (2013) considered three central characteristics for self-regulated learning including awareness of thinking, use of strategies, and sustained motivation. They were of the opinion that awareness of effective thinking and analyses of one's own thinking habits are meta-cognitive procedures which can direct the plans they decide on, the strategies they employ, and their interpretation of their performance. As a result, awareness gives rise to efficient problem solving.

Moreover, Bandura (1986) asserted that SRL involves three interrelated processes including self-observation, self-evaluation, and self-direction. He added that awareness of these processes and using them purposefully is the meta-cognitive part of SRL. Pintrich (1995) also presumed three characteristics for SRL. First, self-regulated learners are perceived to seek to control their behavior, motivation, and thought. Second, such learners strongly strive to accomplish a goal. Lastly, they need to be in control of their learning. Pintrich (1995) also cited that SRL control three aspects of learning. First, self-regulated behavior involves the control of resource such as environment, time, and utilization of other persons to receive help. Second, self-regulated

motivation is related to managing and enhancing motivational beliefs such as achievement goals, efficacy, and emotions. Eventually, self-regulated cognition refers to the control of cognitive strategies for learning such as surface and deep processing strategies.

Many empirical researches have approached obsession and depression; however, we could not trace any studies in which English language teaching had intervened in the research as a way to alleviate these disorders. Moroney (2017) sought to review the comorbidity of obsessive-compulsive disorder (OCD) and depression in a college and indicated that further research needs to be done to understand treatment outcomes of those with comorbid OCD and depression. Gezel and Ylvac (2018) investigated the relation between obsession and eating behaviors among university students and showed that those with obsessive disorder eat more. Shakil et al. (2022) validated the Obsession with COVID-19 Scale (OCS) and showed that the OCS exhibited validity. Concerning depression, Elsawy et al. (2020) investigated the prevalence of depression among medical students in Alexandria and showed the incidence of moderate and severe depression in 27.9% and 17.2% of the medical students, respectively. Dhungana (2022) sought to find the factors associated with depression among elderly people living in old aged homes in Pokhara. A significant association was found between degree of depression and entertainment activities in elderly homes. Malian et al. (2021) assessed depression and its associated factors among elderly in old-age homes and a community of Kathmandu district. According to the results, the prevalence of depression among elderly in old-age homes was 74.6% and in community was 41.8%.

This study may broaden the range of application of the field of English Language Teaching (ELT) to clinical realms. With a view that this study touches an inter-disciplinary topic shared between ELT and psychology field, it can fill a gap in both of the fields.

Accordingly, obsession and depression as two known behavior problems are studied in the present research in Iranian older adults at the first stages of Alzheimer to find out the possibility of a relationship between pacifying these problems and the effectiveness of English language teaching. This study aimed to investigate the effectiveness of self-regulation, a method in English language teaching, on obsession and depression in older adults. By addressing and helping to alleviate these mental problems, through English language teaching medium, we hoped the feeling of well-being in older people with Alzheimer is enhanced. Regarding to this, the following questions were attempted to be answered in this research:

Promoting Emotional Well-Being in Older Adults | Mehrara et al.

167

1. How can English language teaching via self- regulation method prepare old adults with Alzheimer's to control their obsession?

2. Does self- regulation in English language teaching guide older adults with Alzheimer's to control their depression?

Material and Methods

For the present study a quasi-experimental pre-test post-test with the control group design was selected. The participants included 40 Iranian (20 males and 20 females) old adults over 65 years from Kerman province, Iran. The participants were chosen to be at the primary level of Alzheimer so that they could cooperate properly during the study and it was arranged that the study only lasts for about one and a half months to diminish effects like exposure to any training course or program during the study, or even the possibility of deterioration of their disease condition.

It was even made sure that participants haven't been already in any language programs prior to the present study. They were selected through convenient sampling by asking four or five neurologists who have office in Kerman to cooperate with this study and make the researcher linked with the cases who were qualified for the present study. The participants were randomly divided into two groups including the experimental and control groups, each consisting of 20 participants. It was determined that the experimental group should participate in English language classes and start learning English via self-regulation method that was later explained to them as a strategy that they could use to help them with obsession and depression; whereas, the control group didn't get the learning program. To choose the participants, they were promised that their personal information would not be disclosed and only will be used in the course of the research. The ethical considerations of this research were based on the Declaration of Helsinki. We orally explained to the participants the research objectives and also, we explained how data would be collected. The data collected from the participants were not drafted under their name, but in numbers, so that we could make sure no personal information of the participants should be revealed. They were assured that their participation is voluntary and they could withdraw the research whenever they felt discomfort. When they were assured, they are free to choose to stay or to leave the study at any time they felt discomfort, they were more willing to join the study. Moreover, as we were talking to them to ask for their consent to join the study, we told them that the rest of participant are more

or less similar to them, based on their clinical files. This way they were encouraged to join the study, maybe by knowing that they were not going to be judged for some of their particularities. Also, we told them we were not going to mention their names and we would use numbers to refer to them, and that their personal information is confided with us throughout the study. All the participants verbally gave their consent. They were also assured that they wouldn't be harmed during the research since it was educational research and didn't involve their physical health issues

Depression Inventory: Depression Inventory by Beck et al. ([1961](#)) was filled by the participants to measure their depression. It consists of 21 multiple choice items which will be scored in a range from 0 to 3. These questions primarily focus on the feeling of depression in varying extents in the participants, in an attempt to find out about the effectivity of self-regulation in English language teaching and using the same experience in controlling depression. Accordingly, the scores of this inventory are placed in a range between 0 to 63.

Obsession Inventory: The Padua Obsession Inventory-Washington State University Revision by Lot et al. ([1995](#)) was the tool of measurement of the subjects' obsession. It has 35 Likert items in a range from 0= not at all to 4= very much. The subjects got a score between 0 to 140 in this questionnaire. they confirmed the validity of the inventory by running factor analysis.

Procedures of Data Collection and Analyses

The study method was first described for the participants and they were assured that the collected data were only used for the purpose of the research. The researcher helped the participants in filling out their questionaries by answering their questions and helping them. The inclusion criteria included ≥65-year-old patients, literacy, lack of exposure to any English language teaching prior to the present study, and lack of exposure to any training course or program during the study. Then, the experimental group took part in the treatment which consisted of 20 sessions of English language teaching three times a week in 40 minutes. During these sessions the participants were asked to set a common goal which was the ability to pronounce, distinguish and write new alphabetical letters, yet internally they could have had their personal needs and wishes in their goals. Meanwhile, in the last twenty minutes of every session, the researcher talked to the participants about their feelings, especially obsession and depression. The researcher gave them ideas on how they could use their similar experience with language learning to control their disturbing feelings. The researcher in these last twenty minutes specifically talked them into setting

Promoting Emotional Well-Being in Older Adults | Mehrara et al.

169

goals, finding their own way for self-relief and also, she encouraged them for having a daily self-assessment about their bad feelings, which was something they had previously learned via self-regulation in language learning.

During the sessions, the participants were asked to design their own way to learn to pronounce, distinguish and write new letters, which could also give them hints into controlling their mind and consequently their bad feelings. Accordingly, some participants asked the researcher to rewrite some alphabetical letters as models for their writing practice. And some others were interested in listening songs as a strategy for rehearsal and a practice for the pronunciation. They were also told about different strategies they could have made use of in order to design their learning process. Among the suggested strategies were rehearsal, elaboration, generating questions and repair (Boekaerts, 1997). Also, they had to find a way to monitor their progress. In so doing some of them after learning a new letter would try to find them in a text or in other words scattered through other pages in the book and they would repeatedly ask whether they had found the words correctly. Or else they would write an alphabetical letter and ask the researcher to read it out loud to check if they had correctly written the letter. During these sessions wherein the researcher was the English teacher, the books '*Phonics for Kids 1&2*' by Baby Professor Publication, were taught to the participants. They are elementary-level books in 32 pages which start from English alphabet and then proceed to simple words with the pictures. But the control group did not participate in the treatment and just filled the questionnaires at the beginning and end of the study.

Moreover, both the experimental and the control groups were kindly asked not to participate in any training course or program in any form with any purpose during the study. After the end of the treatment, to measure the level of obsession and depression of the participants, both groups were asked to fill the two questionnaires.

Data analysis was done by the SPSS 22 at the two levels of descriptive and inferential statistics. Additionally, Kolmogorov-Smirnov test was run to see whether the data are normally distributed and Leven's test was run to check for homogeneity of variances. Finally, based on the results of normality test, an appropriate parametric (i.e., one-way Analysis of Covariance (ANCOVA) was selected to compare the two groups' mean scores of obsession and depression in the pre-and post-test.

Results

Before running the one-way ANCOVA, descriptive statistics were run for obsession. The results show that the level of obsession of the experimental group was near to that of the control group in the pre-test, which means the two group were similar in the beginning. The mean and standard deviation of the obsession of the participants in pre-test for experimental group was 120 ± 0.25 and for the control group was 123 ± 0.39. However, in the post-test, the mean and standard deviation for experimental group was 69 ± 0.33 and for the control group was 100 ± 0.41. Therefore, as the results show, the experimental group's obsession was lower in comparison to control group in the post-test. Next, to check the assumptions of the one-way ANCOVA, Kolmogorov-Smirnov and Leven tests were run. The results are reported in Table 2.

Table 1. Results of Kolmogorov-Smirnov and Leven Tests for Obsession

Variable	Groups	Kolmogorov-Smirnov			Leven test (Equality of variance)		
		Statistic	DF	P	Statistic	DF	Sig.
Obsession	Experimental pre-test	.40	20	.32	.74	57	.28
	Control pre-test	.36	20	.80			
	Experimental post-test	.48	20	.70			
	Control post-test	.22	20	.100			

Before starting ANCOVA, data like normal distribution and homogeneity of variances needed to be checked. The normality of data was checked using Kolmogorov-Smirnov test of normality and homogeneity of variances was checked using Leven's test. Table 1 shows the results for Kolmogorov-Smirnov test of normality and Leven's test of equality of variance. Kolmogorov-Smirnov test of normality indicated that obsession in both experimental and control group were normally distributed ($p>0.05$). In addition, Leven's test of equality of variances indicated that the two groups had similar variances ($p= 0.28$). Then, one-way ANCOVA was run. The results are reported in Table 2.

Table 2. Results of ANCOVA for Obsession

Source	SS	DF	MS	F	P	Partial Eta Squared
Obsession (pre-test)	510.00	1	510.00	31.00	0.0007	0.51
Group	175.330	1	175.330	8.333	*0.000	0.213
Error	1343.00	37	16.550			

* Significant at the 0.05 level.

Promoting Emotional Well-Being in Older Adults | Mehrara et al.

171

As it is presented in the Table 2, the results of the one-way ANCOVA are significant (F= 8.333, p<0.05, $\omega^2 = 0.213$). This indicates that English language teaching significantly affected obsession in the old people with Alzheimer.

Similarly, before running ANCOVA, descriptive statistics was run for depression. Experimental group had a mean score of 49.00 (SD= 0.60) and the control had a mean score of 45.00 (SD= 0.38) in the pre-test. In spite of this, the experimental group showed a considerably lower depression level (M= 28.00, SD= 0.49) than the control group (M= 40.00, SD= 0.55) in the post-test. Next, the assumptions of the one-way ANCOVA were checked via Kolmogorov-Smirnov and Leven tests. The results are reported in Table 3.

Table 3. Results of Kolmogorov-Smirnov and Leven Tests for Depression

Groups		Kolmogorov-Smirnov			Leven test (Equality of variance)		
		Statistic	DF	Sig.	Statistic	DF	Sig.
Depression	Experimental pre-test	.40	20	.19	3.42	57	.28
	Control pre-test	.20	20	.17			
	Experimental post-test	.28	20	.15			
	Control post-test	.22	20	.21			

Regarding to the results in table 3, both normality assumption (p>0.05) and homogeneity of variance assumption (p>0.05) were reached. Next, one-way ANCOVA was run. The results are reported in Table 4.

Table 4. Results of ANCOVA for Depression

Source	SS	DF	MS	F	P	Partial Eta Squared
Depression (pre-test)	176.00	1	176.00	14.40	0.0002	0.39
Group	82.901	1	82.901	8.113	*0.005	0.110
Error	608.001	37	10.530			

Table 4 demonstrated that the results of ANCOVA were significant (F= 8.11, p<0.05). In other words, it was found that learning English via self- regulation could have guided the older people in alleviating their depression. The results of ANCOVA for both obsession and depression indicated that the scores in the post- test were significantly different leading to the conclusion that self- regulation learning method had positive effect on the self- regulation of bad feelings like obsession and depression and it had promoted emotional well-being in older adults.

Discussion

This study aimed to investigate the effectiveness of learning English language on pacifying obsession and depression as two behavior problem in adult people at the beginning stages of Alzheimer. The findings showed that the similar experience the older adults with Alzheimer's had with language learning via self-regulation method, gave them the needed motivation and even the needed clue to start self-regulating their behaviors. It significantly has caused an improvement in the state of behavior of people as a result of their entrance into Alzheimer disease.

In support of the findings, it can be stated that English language teaching improves people' s self-regulation (Mohsen & Shafeeq, 2014; Yunus et al., 2013), and this may support them regulate their obsession. In other words, English language teaching may have generated the sense of recurrence of the lost memory in the old people with Alzheimer and this in turn may have led to a considerable decrease in their anxiety. Anxiety and obsession are correlated significantly. When the former is reduced the latter is also decreased. Finally, English language teaching improves people' s sense of well-being, and this have supported the old people with Alzheimer to manage their obsession (Awaliyah et al., 2019).

Since this study was the first one on the effect of English language teaching on obsession, the findings cannot be compared with the results of the previous studies. Concerning depression, the findings unveiled the significant effect of English language teaching on depression in the old people who are suffering from Alzheimer. To support the results, it can be stated that increase in motivation level of such people under the effect of English language teaching has decreased their depression (Safotso & Tompte, 2018). This can mediate the effect of English language teaching on depression in the old people with Alzheimer. Last but not least, the improvements in self-confidence, self-esteem, autonomy and self-direction after exposure to English language teaching has potentially helped the old people with Alzheimer to manage their depression (Ibrahim et al., 2011).

These findings shed light on the potentiality of English language teaching and learning to help people. In this study we tried to make a similar experience for the participants so that they could use what they had learned in one experience, i.e., learning a second language via self- regulation, and to engage the same learnings in the other experience, which was self-regulation of obsession and depression. In other words, what we did in this research, which was different from the previous

Promoting Emotional Well-Being in Older Adults | Mehrara et al.

173

researches, was to make a treatment tangible enough for older adults with Alzheimer's, so that they could learn step by step how to refer to their minds and how to plan for a solution. By this we hoped that we could use English language learning as an instrument, not as an end in itself, to teach self- regulation of behavior to older adults suffering from Alzheimer's and also depression and obsession as the side effects of this disease. Furthermore, it is concluded that the old people with Alzheimer are influenced by educational treatments. This is promising and sparks the hope of making life easier and higher in quality for the old people with Alzheimer. Therefore, attempts should be done to enter English language teaching programs in daily life of the people who suffer from Alzheimer to help them cope with their obsession and depression. Consequently, the psychiatrists can encourage their patients at the beginning levels of Alzheimer resort to English language learning as a savior to confront Alzheimer-related problems such as obsession and depression. Moreover, top-level English language teaching policy makers can plan specific programs wherein the old people with Alzheimer can enroll with some privileges. For instance, the old people with Alzheimer can be provided with financial facilities and briefing sessions on the potential merits of English language teaching for them, in coping with their obsession and depression. In sum, it is concluded that English language teaching can be utilized at the service of specific groups including the old people with Alzheimer to increase their overall well-being.

The outcomes of the present study may develop the mental health state of the society by unveiling the advantages of English language teaching in decreasing obsession and depression among the old people with Alzheimer. The families of the old people with Alzheimer can also take useful insights from the findings of the present study and in this way, make life more peaceful for the old people with Alzheimer and themselves. Last but not least, psychiatrists can support the old people in an attempt to decrease their obsession and depression through encouraging them to learn English language and to make use of strategies involved in learning English language with the hope that they may feel a recovery from their disease.

It should also be noted that this study has some limitations that the results should be interpreted with caution. Since we didn't choose the participants randomly and also because they mostly come from Kerman province, we could not come up with a larger sample size which included participants of 65 years old or older who were also in their first stages of Alzheimer's. Therefore, it is recommended that future researches should take into account a larger sample size and include

more provinces across the country to consider ethnic background as well. Moreover, considering our participants were coming from Iran, their cultural background may also be considered to be effective on the result of the study, so the effect of cultural biases on mental health of older adults with Alzheimer should be addressed in the future studies. In addition, the potential effect of the other physical and mental disorders on those with which the present study was concerned with (i.e. depression, and obsession) may have affected the findings of the present study, considering these as possible covariates to the study, they couldn't be controlled by the researcher. Finally, the researcher should be very careful in working with older people at the early stages of Alzheimer. Since they are a vulnerable group, ethical considerations must be taken into account and they should be treated with absolute care.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Islamic Azad University.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Promoting Emotional Well-Being in Older Adults | Mehrara et al.

177

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