# ORIGINAL ARTICLE

# The Impact of Spiritual Care Education on the Self-Efficacy of the Family Caregivers of Elderly People with Alzheimer's Disease

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#### **A**BSTRACT

**Background:** Caring for people who suffer from Alzheimer's disease is stressful. Family caregivers of these people usually experience physical and mental burnout and lose their efficacy in doing care-related activities. The present study aimed to examine the impacts of spiritual care education on self-efficacy of the family caregivers of people with Alzheimer's disease.

**Methods:** This study was conducted from October to December 2015 by using a two-group pretest-posttest quasi-experimental design. In total, 60 family caregivers of people with Alzheimer's disease were recruited and randomly allocated to the intervention and control groups. A spiritual care educational intervention was implemented for the caregivers in the intervention group. The data were collected before and three weeks after the study intervention by using the ten-item General Self Efficacy scale. The study data were analyzed in SPSS using Chi-square and independent t-test.

**Results:** Before the study intervention, the means of pretest self-efficacy scores in the intervention and control groups were  $29.80\pm4.80$  and  $28.39\pm6.41$ , respectively. There was no significant difference between the groups regarding the mean score of self-efficacy (P=0.36). After the study, these two scores changed to  $32.73\pm4.75$  and  $27.85\pm5.98$ , respectively. However, after the intervention, the mean score of self-efficacy in the intervention group was significantly higher than the control group (P=0.002).

**Conclusion:** Spiritual care can enhance the self-efficacy of the family caregivers of people who suffer from Alzheimer's disease. Therefore, care providers are recommended to use such spirituality-based interventions for empowering family caregivers.

**KEYWORDS:** Spiritual care, Alzheimer's disease, Family caregivers, Self-efficacy

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#### INTRODUCTION

Alzheimer's disease (AD) is the commonest type of dementia which is characterized by loss of memory and impaired thinking abilities. It affects afflicted individuals' abilities in doing daily life activities. Age is the most important risk factor for AD. Currently, 44.4 million people in the world suffer from AD and it is estimated that the number of AD sufferers reaches 135.5 million by 2050.1

In the United States of America, 5.3 million people have AD from whom 5.1 million are older than 65 years and almost 200000 are aged less than 65. Currently, every 67 seconds one person develops AD and it is estimated that it reaches one person every 33 seconds by 2050.<sup>2</sup>

According to the Iran Alzheimer's Association, there is no reliable statistics on the number of Iranians who suffer from AD. Nonetheless, it is estimated that about 500000 Iranians have the disease. Given the growing population of elderly people in Iran, it is estimated that 25% of total Iranian population will have become elderly by the next 20-30 years from whom 8%-10% will develop AD.3 Elderly people with AD who are dependent on others for doing activities of daily living and making decisions are considered as vulnerable.4 Most people with AD live at homes and receive care from their family members.<sup>5</sup> Family members or friends who look after people with AD are called informal caregivers. According to the results of a study, informal caregivers are individuals who have not received professional education and are not paid for their care services.<sup>6</sup>

Caregivers have the most pivotal role in creating a safe environment and providing high quality care to people with AD.<sup>7</sup> They usually experience many difficulties in providing respectful and dignified non-abusive care to AD sufferers because caring for them is a tiresome work.<sup>8</sup>

Caring for AD sufferers is stressful because caregivers' responsibilities and duties as well as the physical, mental, social, and financial burden of care giving are increased progressively. The results of a study showed that caring for people with AD is more stressful than that for physically-disabled people. Caregivers are physically and mentally vulnerable; thus, they may experience physical and mental burnout and lose their efficacy in doing care-related activities if their problems remain unresolved. Consequently, developing effective strategies for reducing the negative effects of care giving on AD family caregivers necessitates identifying the caregivers' self-efficacy.

Self-efficacy is a significant factor behind maintaining the caregivers' physical and mental health and promoting their healthy behaviors.<sup>13</sup> It is also effective in empowering people for coping with different stressful situations as well as difficult and challenging tasks. Furthermore, it enhances the people's self-confidence, life satisfaction, sense of well-being, and quality of life.<sup>14</sup>

General self-efficacy is individuals' general perception of their own abilities to cope with different needs and situations. <sup>15</sup> Caregivers who have higher self-efficacy experience less psychosocial stress and care-related burden and can enhance care receivers' well-being. <sup>16</sup> In this regard, the results of another study also found that family caregivers' higher self-efficacy is associated with their greater life satisfaction, lower care-related mental burden, and milder feelings of depression. <sup>17</sup>

Nurses can play a significant role in promoting AD family caregivers' self-efficacy through developing and implementing educational and supportive programs for them. A complementary therapy which can help family caregivers provide more effective care services and improve their self-efficacy is spiritual care (SC).

SC is a unique aspect of nursing care which is not replaceable with psychosocial care. 

18 It identifies and responds to people's psychological and spiritual needs in different situations such as traumas, diseases, and concerns. 

19 The results of a study revealed that SC alleviates distress and anxiety among

mothers of children who suffer from cancer.<sup>20</sup> Also, the results of another study showed that SC reduced the are giving burden among the caregivers of patients with schizophrenia and also played a significant role in coping with problems of care giving to these patients.<sup>21</sup>

Besides, spirituality has a significant correlation with general health so much that spirituality and religiosity are considered as important resources for coping with stressful life events,<sup>22</sup> problems, losses, and deprivations.<sup>23</sup> Spirituality also affects people's beliefs and helps them properly evaluate negative events and acquire a stronger sense of problem management.<sup>24</sup>

To the best of our knowledge, no studies have been found on the effects of SC education on AD caregivers' self-efficacy. Given the protective effects of spiritual well-being on the negative outcomes of care giving<sup>25</sup> and the significant role of spirituality and religiosity in Iranian's life, the present study aimed to examine the impacts of SC on the self-efficacy of AD family caregivers.

#### MATERIALS AND METHODS

This study was carried out from October to December 2015 using a two-group pretestposttest quasi-experimental design. The study population was all AD family caregivers who lived in Rafsanjan city of Iran. Based on the findings of a study conducted by Oman et al.26 and with a confidence level of 95% and a power of 80%, the necessary sample size was determined to be 58. Nonetheless, we decided to recruit 60 caregivers in order to compensate for probable attrition. Caregivers were included if they could read and write in Persian, were Muslim, provided care to an AD-suffering family member for at least six months, had no history of chronic mental or physical problems, had no history of drug abuse, and had no hearing impairment. They were excluded if they were willing to withdraw from the study or if their elderly care receivers died during the study.

The study participants were recruited conveniently from neurologists' private offices.

Evenly they were randomly allocated to either the intervention or control groups —30 in each group—by using the drawing method.

Study data were gathered using a demographic questionnaire and the ten-item General Self Efficacy scale (GSE-10). The items of the demographic questionnaire were age, gender, educational, employment, and financial status, kinship with AD sufferer, and the length of care giving. The original version of the GSE was developed by Jerusalem and Schwarzer in 1979 and comprised 20 items. Thereafter, it was reduced to a ten-item scale in 1981.27 The GSE-10 was translated into Persian in 1996 by Nezami<sup>28</sup> and validated and psychometrically evaluated in different studies in Iran. For instance, Rajabi29 and Moeini et al,30 respectively reported a Cronbach's alpha of 0.82 and 0.81 for the scale. The possible responses to the GSE items range from 'Not at all true' to 'Exactly true' which are scored from 1 to 4, respectively. Thus, the total GSE-10 score varies between 10 and 40. The study participants filled out the questionnaires both before and three weeks after the study intervention.31

The intervention included five SC educational sessions held weekly for five consecutive weeks. The length of each session ranged from 45 to 60 minutes. All sessions were held by the first author. The educational package had already been developed by Reyhani et al.<sup>32</sup>

It includes topics such as reliance on God, seeking help from holy people, patience, generosity, altruism, mantra, and prayer. This package has been approved by clergies and university instructors. In sessions one to five, we explained the roles of reliance on God, seeking help from holy people, patience, generosity, and mantra and prayer in maintaining or regaining the inner peace. Patients in the control group received no education about spirituality.

During the study, four family caregivers from the intervention group were excluded due to the death of their elderly AD sufferer (two participants) or having two or more absences from the educational sessions (two participants). Moreover, two caregivers were excluded from the control group due to the death of their elderly AD sufferer. Thus, the final data analysis was performed on the data retrieved from 54 caregivers—26 cases from the intervention and 28 from the control groups.

The study data were analyzed through the Chi-square and the paired- and the independent sample t tests by using the SPSS software (v. 18.0).

This study was approved by the Ethics Committee of Rafsanjan University of Medical Sciences, Rafsanjan, Iran. The approval code was IR.RUMS.REC.1394.184. Informed consent was obtained from all participants. Respondents were assured of anonymity, and were told that they could discontinue the participation if they felt uncomfortable.

#### **R**ESULTS

The mean age of the participating family caregivers in the intervention and the control groups was 47.38±10.44 and 50.57±16.48, respectively. Most of the caregivers in both

groups were female, had high-school diploma or higher degrees, were able to read and write in Persian, and were housewives. Besides, most of them were children who cared for their parents for three years or more. The Chi-square test revealed no significant difference between the groups respecting the participants' gender, educational and employment status, caregivers' kinship with care receivers, and length of care giving (Table 1).

The means of pretest self-efficacy scores in the intervention and control groups were 29.80±4.80 and 28.39±6.41, respectively. The independent-sample t-test revealed that the difference between the groups regarding the pretest self-efficacy score was not statistically significant (P=0.36). After the study, these two scores changed into 32.73±4.75 and 27.85±5.98, respectively. The results of the independent-samples t-test showed a significant difference between the groups regarding the posttest score of self-efficacy (P=0.002); (Table 2).

On the other hand, within-group comparisons by running the paired-sample t-test revealed that the posttest value of

Table 1: Study participants' demographic characteristics

Variables	Group Intervention	Control Group	P value
Age (year)	Mean±SD	Mean±SD	0.40*
	47.38±10.44	50.57±16.48	
Gender	N (%)	N (%)	0.46**
Male	5 (19.2)	3 (10.7)	
Female	21 (80.8)	25 (89.3)	
Educational status	N (%)	N (%)	0.67**
Primary	11 (42.3)	10 (35.7)	
Secondary	4 (15.4)	7 (25)	
Diploma or higher	11 (42.3)	11 (39.3)	
Employment status	N (%)	N (%)	0.17**
Housewife	16 (61.5)	22 (78.6)	
Other	10 (38.5)	6 (21.4)	
Kinship	N (%)	N (%)	0.23**
Child	17 (65.4)	15 (53.6)	
Spouse	2 (7.7)	7 (25)	
Daughter-in-law	7 (26.9)	6 (21.4)	
Length of care giving	N (%)	N (%)	0.74**
<3 years	12 (46.2)	12 (42.9)	
3–5 years	6 (23.1)	9 (32.1)	
>5 years	8 (30.7)	7 (25)	

<sup>\*</sup>Independent-sample t test; \*\*Chi-square test

self-efficacy in the intervention group was significantly higher than the pretest value. The pretest-posttest mean difference in this group was 2.93. Moreover, in the control group, posttest value of self-efficacy was 0.54 point lower than the pretest self-efficacy value. The results of the paired-sample t-test indicated that this small difference was statistically significant (P=0.005); (Table2).

#### **DISCUSSION**

This study examined the impact of SC on the self-efficacy of AD family caregivers. The findings indicated that after the study intervention, the mean score of self-efficacy in the intervention group was significantly higher than that of the control group (P=0.002). This finding is congruent with the findings of some previous studies. For example, the results of a previous study showed that the implemented training program was effective in improving family caregivers' self-efficacy in managing the behavioral problems of the elderly people who suffered from dementia.31 Also, the results of another study found that their psychoeducational program significantly improved AD caregivers' self-efficacy.13 Moreover, another study reported that a participatory educational program significantly improved the self-efficacy of the family caregivers of people with dementia.33Another study also found that partnership based education of the family caregivers of patients who underwent coronary artery bypass graft significantly promoted their self-efficacy and self-esteem.34

Our findings revealed that SC education promoted AD family caregivers' self-efficacy. The results of a previous study showed that group SC significantly enhanced the AD caregivers' quality of life.<sup>17</sup> Besides, the results of a study illustrated that SC and family interdependence improved AD family caregivers' coping abilities and well -being. Given the potential effects of these factors on self-efficacy, the findings of these studies support our findings.35 Another study also found spiritual self-care training effective in reducing psychological stress and enhancing distress tolerance among the mothers of preterm infants.<sup>32</sup> Although their study population was different from ours, their findings are in line with our findings.

The results of Green's study (2015) showed that care givers of patients with Alzheimer's who have spiritual care also have depression symptoms.<sup>36</sup> These findings are inconsistent with those of this study. This difference may be due to cultural and religious sovereignty over Iran's space home care in the community. This is different from other regions of the world.

In another study, it was noted that due to their numerous outcomes, spiritual and religious contents create positive attitudes towards self, environment, and future; hence, people who receive such interventions have feelings of peace and do not consider themselves as vulnerable.<sup>37</sup>

Adegbola at el. also reported a significant positive correlation among spirituality, self-efficacy and quality of life among adults with sickle cell disease. In other words, adults with

**Table 2:** Between and within group comparisons regarding the mean self-efficacy scores

Between group comparisons						
<b>Measurement time point</b>	<b>Group Intervention</b>	Control Group	Mean	P value		
	Mean±SD	Mean±SD	differences			
Before	29.80±4.80	28.39±6.41	1.41	P=0.37*		
After	32.73±4.75	27.85±5.98	4.88	P=0.002*		
Within group comparisons						
<b>Measurement time point</b>	Before	After	Mean	P value		
	Mean±SD	Mean±SD	differences			
Group Intervention	29.80±4.80	32.73±4.75	2.93	P=0.005**		
Control Group	28.39±6.41	$27.85\pm5.98$	-0.54	P=0.005**		

<sup>\*</sup>Independent-sample t test; \*\*Paired-sample t test; Significant at P=0.05

stronger spiritual beliefs had higher self-efficacy and better quality of life. <sup>38</sup> In addition, the results of a study showed a significant positive correlation between spirituality and self-efficacy. <sup>39</sup>

All these findings support the results of the present study. The most important limitation of the present study was that the severity of AD among the family members of the study participants was not similar. Such difference in the severity of AD might have affected the study participants' level of self-efficacy.

#### CONCLUSION

The findings of this study showed that the caregivers of Alzheimer's patients self-efficacy was improved after the implementation of spiritual care training. Spirituality-based interventions are simple, inexpensive, safe, and easily-applicable. Consequently, care providers are recommended to use such interventions to empower family caregivers. It is recommended that other researchers should evaluate the effects of spiritual care on the other problems of caregivers.

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