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ORIGINAL PAPER

The Effect of a Spirituality-Based Program on Stress, Anxiety, and Depression of Caregivers of Patients with Mental Disorders in Iran

Fateme Khosravi[1] · Malek Fereidooni-Moghadam[1] · Tayebe Mehrabi[1] · Seyed Roohollah Moosavizade[2]

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Abstract
One of the important issues regarding caring for patients with mental disorders is the high prevalence of stress, anxiety, and depression in their caregivers. This study aimed to investigate the effect of a spirituality-based program on stress, anxiety, and depression of caregivers of patients with mental disorders. This clinical-trial study involved 60 family caregivers of patients with mental disorders who were referred to the clinic of Shahid Ayatollah Modarres Psychiatric Hospital in Isfahan, Iran, during 2019–2020. Accordingly, the samples were selected using convenient sampling method and then divided into two groups of experimental and control by simple random allocation. Next, the spirituality-based intervention was performed for the intervention group, and the needed data were collected in both intervention and control groups before, immediately after, and one month after the intervention. The data collection tool used in this study was DASS-21 questionnaire. No significant differences were observed between the two groups in terms of the mean scores of stress, anxiety, and depression ($p > 0.05$) before the intervention. However, some significant differences were found in terms of the stress, anxiety, and depression scores between the two groups immediately ($p < 0.001$) and one month after the intervention ($p < 0.001$). The spirituality-based program seemed to affect stress, anxiety, and depression of caregivers of patients with mental disorders positively. So, it is suggested to perform this intervention as an inexpensive and available supportive method for family caregivers of patients with mental disorders.

Keywords Spirituality · Anxiety · Depression · Stress · Family caregivers · Mental disorders

✉ Malek Fereidooni-Moghadam
Fereidooni_moghadam@yahoo.com

[1] Faculty of Nursing and Midwifery, Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

[2] Department of Education, Isfahan University of Medical Sciences, Isfahan, Iran

Introduction

Mental disorders have a significant prevalence and burden among medical illnesses (Noorbala et al., 2014). Approximately 919 million people are suffering from psychiatric disorders worldwide (Noorbala et al., 2014). Moreover, one out of three or four people probably suffers from mental disorders during his/her life time according to the World Health Organization report (Heydari et al., 2014). Generally, the prevalence rate of mental disorders was reported to be 23.6% in Iran (Noorbala et al., 2014), and 19.9% in the Isfahan province (Ahmadvand et al., 2012).

Families are considered as the primary source of caring for patients suffering from severe mental disorders (Acharya et al., 2017; Asadi et al., 2018), since more than 60% of patients discharged from mental health institutions return to their families (Karimirad et al., 2017). As the units of receiving and providing care, families of patients with mental disorders are the most significant subjects of the health system and regarded as an important element in patient's recovery (Karimirad et al., 2017). Family provides home, financial support, companionship, emotional support, and health care to a patient (Karimirad et al., 2017). Based on a systemic perspective, the family is a system where a dysfunction or sickness of a member affects other members (Friedman et al., 2003). Caring for a patient with chronic mental illness can bring some special consequences such as adverse effects on both physical and mental health statuses (Sharif Ghaziani et al., 2015) Thus, variety and severity of caring may cause psychological problems among the family caregivers of patients (Goodarzi et al., 2018). Among these problems, the incidence of psychological problems, including stress, anxiety, and depression, can be named.

Previous studies conducted on the effect of care for patients with psychiatric disorders indicated higher levels of depression, psychological pressures, lack of attention to their health, psychotropic drugs abuse, and primary care services in the caregivers of these patients compared to the general population (Omranifard et al., 2007). Moreover, distress, anxiety, and depression were reported to be more prevalent in those with greater contribution to these patient's care (Ghanei et al., 2011). In this regard, Omranifard et al. (2007) reported that 71% of psychiatric caregivers admitted to the ward had some degrees of depression, most of whom were suffering from severe depression and 79% of them had varying degrees of anxiety. They concluded that depression and anxiety are more common among caregivers working in psychiatric wards than the society and recommended paying critical attention to this disease's diagnosis and treatment, because of the destructive effect of caregiver depression on the care of hospitalized patients (Omranifard et al., 2007).

Therefore, one of the important stresses in the family appears to be the high incidence of mental illness in a family member that may consequently impair their health status or their overall quality of life. Although some people argue that playing a caregiver role is associated with positive rewards and reinforcements (Kristjanson & Aoun, 2004; Pahlavanzadeh et al., 2010), their physical and mental health statuses deteriorate if left untreated with no intervention (Pahlavanzadeh et al., 2010). However, resolving caregivers' information, physical, socioeconomic, and mental health problems by the health system will lead to caregivers'

mental well-being, which will subsequently be beneficial not only to caregivers but also to patients themselves. Therefore, patient's caregivers should also be known as important for the patient during any mental illness's treatment (Amusoltani et al., 2017). Accordingly, the families require information, support, training, and skills to better cope with their own stress and reduce to that which can bring the enhanced disease progression and the reduced relapse of the disorder (Veltman et al., 2002).

In this regard, conducting therapeutic interventions such as training, support, and psychotherapy can exert a considerable effect on reducing depression, anxiety, and stress of family caregivers health status by providing the basis for improving the quality of care and their levels of physical and mental health statuses (Gutitrrez et al., 2007). Accordingly, several interventions have been developed in the form of training, support groups, and multiple others to support caregivers (Jutten et al., 2017).Among the interventions, educational and supportive interventions can be used for family caregivers who have stated the need for such interventions (Farzi et al., 2012). One of these supportive interventions is spiritual intervention.

Spiritual intervention means opening the mental space to achieve a deep connection with God or any other superior power, which subsequently provides a source of positive emotions, most of which bring positive effects on mental health, because human is a material and spiritual being, who besides material needs, also has spiritual needs (Potter & Perry, 2008). Although spirituality is a powerful element, it is often neglected in health care (Abbasi & Akrami, 2012). Given the close relationship of mental health with spirituality, according to the spiritual therapy view, life is meaningful under any circumstance. Hence, meaningfulness, purposefulness, and hopefulness in life are among the components of the mental health consolidation (Bolahri et al., 2012). Moreover, sense of having a purpose or meaning in life facilitates people's ability to cope with severe stressful conditions (Kiani et al., 2016). Therefore, spiritual intervention besides other nursing interventions can can help to provide a balance among body, mind, and spirituality, and promote health status (Omidvari, 2009).

In recent years, spiritual intervention has been considered an effective treatment modality (West, 2000). Various results in this regard suggest significant relationships between spiritual health and mental health, anxiety, distress, and depression (Larson, 2004). Spiritual therapy interventions will help patients' relatives to change their ideas about illness and its behavioral symptoms and signs, and to reduce the severity of stress and psychological stress on caregivers, in order to provide them with a better mental health status (Watson et al., 1998). On the other hand, it was shown that the coordination between the strategies and the belief values of authorities brings the continuation of therapeutic effects (Yaghubi et al., 2014). Thus, mental health mental health needs to call for the support of religion for the support of religion, in order to reach all its goals at all levels of primary, secondary, and tertiary prevention and intervention (Vaillant et al., 2008). Accordingly, some studies have shown that religious-spiritual coping strategies can be effective on depression, spiritual well-being, and physical health (Kiani et al., 2016). Lotfi Kashani et al. (2013) in their research reported that spirituality-based intervention can be effective on reducing depression, anxiety, and stress in women with breast cancer (Lotfi

Kashani et al., 2013). Moreover, Kamari and Foladchang (2016) stated that spiritual therapy training could be effective on increasing the life expectancy and life satisfaction among adolescents.

According to the personal experiences of the authors, a part of the treatment of patients in psychiatric wards of hospitals is dedicated to group meetings, in order to provide counseling to caregivers and families of mentally ill patients. Additionally, by considering the roles of family and family caregivers in providing support and care to patients both physically and psychologically, and considering the limited studies conducted on the effect of spirituality-based interventions on stress, anxiety, and depression in families with mental illness in our country, this study aimed to investigate the effects of spiritual intervention on stress, anxiety, and depression in patients with mental disorders.

Materials and Methods

This clinical-trial study with experimental and control groups involved 60 family caregivers of patients with mental disorders, including both male and female subjects, who were admitted to the psychiatric hospitals of Isfahan city in 2019. The population of this study was all family caregivers of the patients with psychiatric disorders who were hospitalized in a psychiatric ward with the diagnosis of a specialist physician. The samples were selected using a convenient sampling method in terms of the inclusion criteria. After obtaining informed consent, the participants were randomly divided into two experimental and control groups, each one consisting of 30 patients. To allocate the subjects randomly, the researcher numbered the names of the caregivers and then placed the even numbers in the experimental group and the odd numbers in the control group. For all the caregivers participating in this study, the goals, schedule, benefits of attending the meetings, how to leave the study, and the consequences of the research were completely described and their questions were answered as well. Thereafter, the informed consent to participate in the study was obtained from them.

The start date of the sessions was determined and the experimental group was informed about that in the final sampling sessions. Accordingly, this information was provided to the samples orally and in the case of those subjects who were not able to speak, the information was provided by phone and SMS. The training in these sessions was face to face, using some teaching aids such as laptops and slides containing spirituality, verses, and hadiths. The intervention lasted for a two-month duration. The intervention group underwent 6 sessions of spirituality program training during 60 min and two training classes per week. Before each session, the researcher reminded the time to the experimental group of the class using a phone message and phone call. In an effort to encourage people to continue attending these spirituality program sessions, the researcher used incentives such as pens, notes, and prizes, for encouragement and participation. In addition, in order to ensure the presence of people in the meetings, at the beginning of the sampling, the participants were provided with the necessary explanations about the existence of facilities such as means of transportation. The experimental

group members were also encouraged to practice some spiritual skills to manage their stress, anxiety, and depression outside the sessions as homework. The content was compiled based on the authentic sources of Quranic verses, hadiths, and the narration of the infallibles and through consultation with both seminary and university professors.

The control group's subjects received no spirituality-based educational intervention in this study and they only participated in two standard group training sessions related to general mental disorders.

The inclusion criteria were the followings: (1) having consent to participate in the study, (2) having the ability of communication, (3) non-addiction of patient's family, (4) lack of physical or cognitive impairments impeding them from attending meetings, (5) age more than 18 years old, (6) more than 6 months passed from the definitive diagnosis of the patient's psychiatric disorder according to the psychiatrist and DSM-IV criteria, and (7) no experience of a traumatic or stressful incidences over the past 6 months in the family caregivers.

The exclusion criteria were the followings: (1) unwillingness to continue, (2) absence in more than two sessions, and (3) severe psychological problems or stress during the sessions.

A sample size of 20.53 was obtained according to similar studies and the formula below. As well, given the probability of loss in this number, 30 samples were finally considered in each study group.

After collecting two-part demographics, stress, anxiety, and depression questionnaires from the cases, they were randomly allocated into the experimental and control groups. The experimental group was then informed about the starting dates of sessions. Prior to holding each session, the researcher reminded the experiment group of the class time via phone calls. The intervention group received six sessions of 60 min for spirituality-based training, along with two training sessions per week during one month (Table 1).

For the control group, two training sessions on mental disorders were held without addressing the components of spirituality-based programs, in order to eliminate the potential effects of being enrolled in the group. After the completion

Table 1 Titles of the spirituality-based program

Session	Title
First session	Familiarity of members with each other, knowing the reasons for forming the group, and getting acquainted with the rules of the group
Second session	Awareness of the implicit and personal meanings of spirituality and its definition by each member, familiarity with the concepts of worship; prayer, the results of prayer, and its role in life incidence
Third session	Self-awareness and its role in life and self-esteem
Fourth Session	Gratitude, appreciation, and paying attention to the positive changes caused by gratitude in difficult life experiences, familiarity with patience concept
Fifth Session	The importance of forgiveness and its effects on life
Sixth Session	Summarize the content and answer to the questions

of the study, the family caregivers of the control subjects were provided with CDs and pamphlets trained in the spirituality-based program.

The data collection tool in this study was a two-part questionnaire, the first part of which consists of demographic data, including eight questions (age, gender, marital status, educational status, occupation, and duration of disease).

The second part is the Persian version of Depression, Anxiety, and Stress Scale (DASS-21) used to evaluate the stress, anxiety, and depression scores of the participants. The individual must specify the status of a symptom during the past week to fill in the questionnaire. Of note, each one of the three sub-scales of DASS-21 consists of seven questions (21 questions in total), with the final score obtained by the sum of the questions' scores on that sub-scale. Each question was scored in a range from zero (not applicable to me at all) to 3 (totally true about me). As DASS-21 is a short form of the original 42-item scale, the final score must be doubled for each sub-scale (Lovibond & Lovibond, 1995). Thereafter, the following scores were given to Stress: Normal (0–14), Mild (15–18), Moderate (19–25), Severe (26–33), and Very Severe (34–42); Anxiety as Normal (0–7), Mild (8–9), Moderate (10–14), Severe (15–19), and Very Severe (20–24); and Depression as Normal (0–9), Mild (10–13), Moderate (14–20), Severe (21–27), and Very Severe (28–42). In Iran, Samani and Jokar (2007) in their study examined both the validity and reliability of DASS-21 among 638 students of Shiraz University and Shiraz University of Medical Sciences. The test–retest reliability coefficient was estimated as 0.80 for depression, 0.81 for depression, 0.78 for anxiety, and 0.82 for the whole scale ($p < 0.001$) (Samani & Joukar, 2007). After data collection, the data were analyzed using SPSS 22 by ANOVA, Chi-square, Mann–Whitney *U*, and independent samples *t*-test.

Ethical Considerations

The Ethics Committee of Isfahan University of Medical Sciences approved this study (Ethics Code: 015, 2019). The sampling was started after obtaining the permission from the studied hospital. Thereafter, written informed consent was obtained from all the participants included in the study (both control and test groups). All the objectives and methods of the research were also explained to the participants. Finally, the participants were informed of the right to withdraw from the study at any time and ensured about the confidentiality of their information by the researcher.

Results

Most of the participants (53.3%) were men in the intervention group and women in the control group (56.7%), with the mean ages of 41.1 and 36.8 years old in the intervention and control groups, respectively. Other demographic characteristics of the participants are given in Table 2. As shown in this table, the demographic characteristics of the participants did not differ significantly in the two study groups ($p > 0.05$).

Table 2 Frequency distribution of demographic information of family caregivers of patients with mental disorders

Variable		Group		Test result
		Control Number (percent)	Intervention Number (percent)	
Gender	Female	17 (56.7)	16 (53.3)	Chi = 0.1, *df* = 1, *p* = 0.795
	Male	13 (43.3)	14 (46.7)	
Occupational status	Housekeeper	14 (46.7)	11(36.7)	Chi = 2.3, *df* = 4, *p* = 0.701
	Employee	10 (33.3)	8 (26.7)	
	Unemployed	2 (6.7)	5 (16.7)	
	Retired	1(3.3)	2 (6.7)	
	Self-employed	3 (10.0)	4 (13.3)	
Marital status	Single	4 (13.3)	7 (23.3)	Chi = 3.0, *df* = 3, *p* = .459
	Married	23 (76.7)	17 (56.7)	
	Divorced	1(3.3)	1 (3.3)	
	Widowed	2 (6.7)	5 (16.7)	
Level of education	Under Diploma	10 (33.3)	12 (40.0)	*Z* = .1; *p* = .923
	Diploma	13 (43.3)	8 (26.7)	
	Associate's Degree	2 (6.7)	3 (10.0)	
	Bachelor's Degree	4 (13.3)	6 (20.0)	
	Master's Degree and Higher	1 (3.3)	1(3.3)	

The results indicate that the means and standard deviations of depression among the caregivers of the patients with mental disorders were 10.7 ± 4.4 in the experimental group and 8.9 ± 3.5 in the control group before the intervention. Independent *t*-test showed no significant difference ($p = 0.084$). In addition, the means and standard deviations of depression immediately after the intervention were 3.1 ± 1.2 and 7.5 ± 0.4 in the intervention and control groups, respectively. Mann–Whitney *U* test showed a significant difference ($p < 0.001$). By passing one month from the intervention, the means and standard deviations of depression in the families of patients with mental disorders were 3.2 ± 1.2 in the intervention group and 7.5 ± 4.0 in the control group, with a statistically significant difference ($p < 0.001$) according to the result of Mann–Whitney *U* test (Table 3).

In terms of anxiety, the means and standard deviations of the caregivers of patients with mental disorders were 11.1 ± 3.2 in the intervention group and 8.4 ± 3.7 in the control group before the intervention, which was statistically significant ($p = 0.016$) according to the result of Mann–Whitney *U* test. As well, immediately after the intervention, the means and standard deviations of anxiety were obtained as 3.0 ± 1.5 in the intervention group and 7.3 ± 3.6 in the control group with a significant difference ($p < 0.001$). By passing one month from the intervention, the means and standard deviations of anxiety in the patients with mental disorders were 3.3 ± 1.5 in the intervention group and 7.3 ± 3.6 in the control group, showing a significant difference according to the result of independent *t*-test ($p < 0.001$) (Table 4).

Table 3 Mean and standard deviation of depression in patients' family caregivers with mental disorders before and after the intervention in the intervention and control groups

Depression	Group		Intergroup t-test result
	Control ($n=30$) Mean ± standard deviation	Intervention ($n=30$) Mean ± standard deviation	
Before intervention	8.9 ± 3.5	10.7 ± 4.4	Independent t-test $df=58$, $t=1.8$, $p=0.084$
Immediately after the intervention	7.5 ± 4.0	3.1 ± 2.1	Mann–Whitney test $Z=-4.6$; $p<0.001$
One month after the intervention	7.5 ± 4.0	3.2 ± 2.1	Mann Whitney test $Z=-4.5$, $p<0.001$
In-group test result	Duplicate sizes $f=4.5$, $df=2{,}58$, $p=0.016$	Friedman Chi = 54.8, $df=2$, $p<0.001$	

Ultimately, the results of the caregivers' stress scores indicated that the means and standard deviations of family stress in the patients with mental disorders were 12.4 ± 2.9 in the intervention group and 9.4 ± 4.4 in the control group prior to performing the intervention. Of note, independent t-test showed a statistically significant difference ($p=0.004$). Immediately after the intervention, the means and standard deviations of stress were obtained as 3.3 ± 2.5 in the intervention group and 8.9 ± 4.7 in the control group, showing a significant difference ($p<0.001$). By passing one month from the intervention, the means and standard deviations of stress in the patients with mental disorders were 3.6 ± 2.4 in the intervention group and 8.9 ± 4.7 in the control group, which was statistically significant according to the result of Mann–Whitney U test ($p<0.001$) (Table 5). Correspondingly, the stress scores of the family caregivers in the intervention group were from 12.4 (mild) to about 3 (normal) at before the intervention to immediately and one month after the intervention, respectively. However, in the control group, this score dropped from 9.4 to about 8.9. Therefore, it can be claimed that the spirituality-based intervention has a positive effect on family caregivers' stress (Table 5).

Discussion

This study aimed to examine the effectiveness of a spiritual intervention on stress, anxiety, and depression of caregivers of patients with mental disorders. According to the study, the spirituality-based intervention has a significant positive effect on reducing depression scores among the caregivers of patients, so that the scores of patient caregivers' decreased in the intervention group in this study immediately and one month after the intervention ($p<0.001$). However, in the control group, the caregivers' depression scores did not change significantly immediately or one month after the intervention in comparison to pre-intervention scores ($p=0.016$). Additionally, our study indicated that the spirituality-based intervention could affect

Table 4 Mean and standard deviation of anxiety in patients' family caregivers with mental disorders before and after the intervention in the intervention and control groups

Anxiety	Group		Intergroup test result
	Control ($n=30$) Mean ± standard deviation	Intervention ($n=30$) Mean ± standard deviation	
Before the intervention	8.4 ± 3.7	11.1 ± 3.2	Mann–Whitney test $Z=-2.4$ $p=0.016$
Immediately after the intervention	7.3 ± 3.6	3.0 ± 1.5	Independent t-test $df=39$, $t=-5.9$, $p<0.001$
One month after the intervention	7.3 ± 3.6	3.3 ± 1.5	Independent t-test $df=39$, $t=-5.6$, $p<0.001$
In-group test result	Duplicate sizes $df=5.8,2$, $F=3.4$, $p=0.039$	Friedman $df=2$, Chi $=55.8$, $p<0.001$	

Table 5 Mean and standard deviation of stress in patients' family caregivers with mental disorders in the intervention and control groups before and after the intervention

Stress	Group		Intergroup test result
	Control ($n=30$) Mean ± standard deviation	Intervention ($n=30$) Mean ± standard deviation	
Before the intervention	9.4 ± 4.4	12.4 ± 2.9	Independent t-test $df=50$, $t=3.1$, $p=0.004$
Immediately after the intervention	8.9 ± 4.7	3.3 ± 2.5	Mann Whitney test $Z=-4..5$, $p<0.001$
One month after the intervention	8.9 ± 4.7	3.6 ± 2.4	Mann–Whitney test $Z=-4.4$, $p<0.001$
In-group test result	Duplicate sizes $df=58,2$, $F=1.6$, $p=0.205$	Friedman $df=2$, Chi $=49.5$, $p<0.001$	

the anxiety of the caregivers, due to the reason that in this study, anxiety scores of the caregivers in the intervention group decreased immediately or one month after the intervention compared to the scores of before intervention ($p<0.001$). However, in the control group, the anxiety scores of the caregivers did not differ significantly immediately before and one month after the intervention compared to the pre-intervention scores ($p=0.039$). Moreover, the results of the present study reveal that this spirituality-based intervention has a significant effect on the stress scores of the caregivers of the patients, as the stress scores of the family caregivers decreased immediately and one month after the intervention compared to the pre-intervention scores ($p<0.001$). On the other hand, in the control group, the stress scores of the caregivers did not differ significantly immediately nor one month after the intervention compared to the pre-intervention scores ($p=0.005$). According to the results of this study, it was found that the spirituality-based intervention, as a therapeutic approach, is effective on reducing depression, anxiety, and stress of caregivers of patients with mental disorders.

Having a mental patient in the family can bring many consequences both inside and outside the family. Thus, it is crucial to prepare the family to tackle these factors. The family caregivers of mental illness patients mostly face some identical mental problems, and in this respect, the caregivers' manner of confrontation is important. One of the ways to fight against this issue is applying spirituality. Therefore, one can benefit from patients' spiritual beliefs as a spiritual and supportive source of their spiritual well-being (Nakau et al., 2013).

Spirituality is known as an effective source of coping with physical and psychological responses (Meraviglia, 2002), which could lead to more psychological adjustment for an individual by providing supportive resources, and indirectly through affecting his/her hope (Simoni et al., 2002). It can be argued that spirituality is a way to create meaning in problematic circumstances. Spiritual and religious beliefs are sources of meaning and hope among human beings. Moreover, spiritual beliefs bring meaning to the lives of patients with mental disorders and their caregivers, and

provide them with hope and comfort (Gibson, 2003). The results of the current study are in line with those of Heidari et al. (2009) and Salehi and Mosalman (2015), who found reverse and significant relationships between positive attitude, personal worship, and religious beliefs and anxiety. They also stated that God recitation could be considered as an effective force on coping with stress (Heidari et al., 2009; Salehi & Mosalman, 2015). Gall (2003) conducted a study to examine the relationship between religious and non-religious sources in response to elderly diseases and as a result, they found a relationship between religious sources and dealing with these diseases. Moreover, they found that having belief in God improves one's understanding of disease and adaptation to that, and that religious coping behavior used by the elderly has a positive effect on activating general adjustment. So, the researchers recommended that health care counselors and providers could use religious programs to tailor the care plan for the elderly (Gall, 2003). Moreover, Salsman et al. (2005) in their research aimed to examine the relationship between optimism, social support, and psychological adjustment and religiosity, and reported that one's performance and the use of positive or negative moderator indicators are effective on both religiosity and psychological adjustment. In addition, religiosity was found to be associated with higher life satisfaction. In other words, there were some significant relationships between religion, spirituality, and psychological adjustment and optimism (Salsman et al., 2005).

Additionally, Rahmanian et al. (2017) conducted a study entitled "The effect of group spirituality therapy on enhancing life expectancy and lifestyle of patients with breast cancer" and as a result, they showed a positive effect of group spirituality on improving life expectancy in these patients (Rahmanian et al., 2017). Furthermore, Lotfi Kashani et al. (2013) showed that spiritual intervention, as a therapeutic approach, is effective on reducing depression, anxiety, and stress in women with breast cancer (Lotfi Kashani et al., 2013). Bolahri et al. (2012) showed that group spiritual therapy could effectively reduce both depression and anxiety in patients with breast cancer. These results were consistent with those of the present study, indicating that the spiritual intervention program could reduce anxiety, depression, and stress in family caregivers of patients with mental disorders (Bolahri et al., 2012).

Besides the studies examining the effects of spirituality and spirituality-based interventions on individuals' moods, cases and components of spiritual intervention (e.g. gratitude and prayer) have been examined in some studies as well. In a study entitled "The relationship between gratitude and social support with death anxiety in the elderly," Poordad and Momeni (2019) showed a negative and significant relationship of gratitude and social support with death anxiety in the elderly (Poordad & Momeni, 2019). In other words, gratitude can attract people from the past or even the future to the present, make them enjoy from their present time, and experience less anxiety. Generally, some scholars argue that appreciative people mostly have a more positive attitude toward life, consider the world as an enjoyable place, and focus on the positive aspects of life (Watkins et al., 2003), which lead to high levels of social support and low levels of stress and depression (McCullough et al., 2002; Seligman et al., 2005; Wood et al., 2008). In addition, in a study performed to determine the effect of stress management with spirituality content on stress, anxiety, and

depression in women with fibromyalgia, Khayatan Mostafavi et al. (2018) showed that several factors such as patience and trust in God could relax the person and consequently reduce anxiety, depression, and stress in a more operational manner. In a study entitled "The relationship between adherence to prayer and anxiety according to demographic variables among the students" (Khayatan Mostafavi et al., 2018), Akbari (2009) reported the decreased levels of individuals' anxiety due to the increased adherence to prayer (Akbari, 2009). In another study, Sargolzaee (2000) found that the greater the time spent on religious activities, the lower the levels of depression, anxiety, and likelihood of substance abuse (Sargolzaee, 2000). In a study entitled "Prayer and worship and its effect on mental health," Ahangar (1993) found a significant relationship among prayer, worship, and anxiety reduction (Ahangar, 1993). Since one of the main contents of the sessions was prayer and worship in the spiritual intervention of the present study, the results of these studies were somewhat similar to those of ours.

Overall, it was found that religion and spirituality by providing a framework for understanding the meaning and cause of negative events, as well as a promising perspective on life, can affect individuals' adaptation to stressful situations. Indeed, religious commitment acts can shield against stress and then moderates the detrimental consequences of caregiving stress on caregivers' health status (Koenig, 2010). Accordingly, religion and religious coping have been suggested as sources of enhancing adaptation of individuals to deal with the stressors of patient's care (Tarakeshwar et al., 2005). Furthermore, it was demonstrated that those considering themselves as more religious receive greater support, approval, and encouragement from their friends and family, and these social-spiritual bonds can affect people's health and well-being by increasing their senses of security and belonging.

Conclusion

Overall the results of this study indicate that this spirituality-based intervention has significant positive effects on reducing stress, anxiety, and depression in patients with mental disorders. Due to the high prevalence of stress, anxiety, and depression, as well as care burden on caregivers, and given the significance of maintaining and promoting their mental health status in providing better care for these patients, it is suggested to perform this intervention as an inexpensive and available supportive resource.

Limitations and Strengths of the Study

The limitations of the study include its small sample size and limited sampling in one geographical area, so the generalizability of the results in new environments should be done with cautious. On the other hand, examining the three important signs of psychological problems, including depression, stress, and anxiety is among

the current study's strengths. In addition, according to these results, conducting similar interventions in other clinical fields is recommended.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Human and Animal Rights All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Bioethics Committee of the Isfahan University of Medical Sciences 015, 2019 (No. 015, 2019).

Informed Consent Informed consent was obtained from all individual participants included in the study.

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