The Effectiveness of Intervention based on Strengthening Family Coping Resources Approach on Resilience in Family Caregivers of Patients with Schizophrenia

Somaye Kazemian[1] (PhD), Narges Zarei[1] (MSc), Masoume Esmaeeli[1] (PhD)

1. Department of Counseling, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran

Submitted: 18 March 2019
Accepted: 25 April 2019

Int J Behav Sci. 2019; 13(1): 26-32

Corresponding Author:
Narges Zarei,
Department of Counseling,
Faculty of Psychology and Educational Sciences,
Allameh Tabataba'i University,
Tehran, Iran
E-mail: nargeszarei57@yahoo.com

Abstract

Introduction: Due to the importance of family caregivers in the home caring of patients with schizophrenia and the imposition of their care responsibility, it seems that in order to strengthen their mental health and improve taking care of patients with schizophrenia, measures should be taken to improve the resilience of family caregivers. The aim of the present research was to determine the effects of interventions based on the strengthening family coping resources approach on the resilience of family caregivers of patients with schizophrenia.

Method: This experimental study was carried out on 60 family caregivers of patients with schizophrenia admitted to Ibn-e-Sina Psychiatric Hospital of Mashhad, Iran in 2018 - 2019. They were randomly divided into two groups of intervention (n=29) and control group (n=31). In the intervention group, according to the guideline of the strengthening family coping resources developed by Kaiser et al., interventions based on this approach were implemented during 15 sessions of 120-150 minutes twice a week, and the control group received routine care. Data were collected by the Connor and Davidson Resilience Scale (2003) in two stages before and after intervention. Data were analyzed by SPSS-22 software, independent t-test and paired t-test.

Results: Among the participants, 40 were female (66.3%) and 20 (33.3%) number of the patients were mothers. In the pre-intervention stage, there was no significant difference between the mean of total resiliency score in both intervention and control groups ($p = 0.45$). This is while there was a significant difference between the mean changes in the total resiliency score in the intervention and control groups ($p<0.001$).

Conclusion: Interventions based on the strengthening family coping resources approach can be effective in enhancing resilience in family caregivers of patients with schizophrenia.

Keywords: Resilience, Strengthening Family Coping Resources, Caregiver, Schizophrenia

Introduction

Due to the frequent recurrences of schizophrenia, reduction in their social performance, and long term disabilities caused by schizophrenia, they are not be able to live in the society independently and they are dependent on the support and care they receive from their families [1]. Accordingly, one of the results of de-institutionalization, and the mental health action plan of the World Health Organization (WHO) that was based on transferring care of patients with schizophrenia (after the stabilization of the disease) from psychiatric institutes to society, was to take care of patients in their own families [2].

From family caregivers' point of view, taking care of patients with schizophrenia has heavy emotionally, physically, timely, financially and socially responsibilities. In addition to the experience of stigma, it reduces their performance and quality of life and negatively influences on their resilience [3]. However, studies have shown that some families

experience better sense of mental wellbeing in taking care of patients with schizophrenia than other families. This is caused by several factors such as cognitive assessment processes of the disease in finding how to interpret and understand the disease and adapting to relevant issues [4]. Results of studies have shown that taking care of patients with schizophrenia has positive effects on families (such as kindness, personality development, self-confidence) in addition to the negative effects (such as traumatic experiences, interpersonal conflicts, stigma) [5]. The understanding of these positive effects is rooted in the resilience of family members [1, 6, 7].

From Patterson's point of view, resilience is considered as a process of managing challenging situations [8] that is based on the ability of individuals to discover positive meanings of life challenges and also to have positive adjustment with those challenges [9]. In other words, resilience is considered to be as an ability to promote the psychological health of individuals in positive exposure with difficulties, threats, traumas and stressful situations [10]. The concept of resilience for family caregivers of psychiatric disorders is explained in different ways and there is a common feature for all of these explanations as follows: "coping with difficulties not only to survive but also to thrive and become a more powerful and flexible person" [11].

Resilience indicators for caregivers of patients with schizophrenia include acceptance, hardiness, hope, self-efficacy, resourcefulness, sense of coherence and mastery that may promote and strengthen their health and quality of life by helping them overcome stress [6]. Studies have also shown that high levels of resilience in patients with psychiatric disorders may palliate mental distresses caused from stigma [10], reduce experienced caregiving responsibilities and improve the quality of life in caregivers [11, 12]. It is also considered as an important part of treatment process for patients with psychosis [7].

In fact, resilience is not considered as a natural ability, rather it is acquisitive and can be developed that equips individuals for coping with future challenges [9]. Central structures of the resilience theory include risk/vulnerability and positive/protective factors [13] and due to the model of supportive resilience factor, it seems that some coping strategies can support individuals to overcome stressful situations successfully [14] and acts as a mediator for the relationship between positive emotions and resilience [15]. Studies have shown that psychological well-being is influenced by personality factors such as resiliency [16] and using problem-oriented coping styles such as acceptance and positive interpretation of disease may have supportive effects on the resilience of family caregivers and the symptoms of patients with brain metastasis [17]. Kiser et al. has designed some interventions based on strengthening family coping resources in order to support families with traumatic backgrounds to achieve two main purposes of reducing the effect of chronic trauma on family caregivers and increasing the supportive functions received from family by improving coping strategies and evaluating the non-predictable and non-manageable nature of family stresses and threats [18]. Due to the novelty of this approach, there were few studies in this context. It shows that family trauma is related to the level of resilience [8], as well as executing these interventions on families with chronic traumas such as taking care of children with psychological disorders, mental disability may reduce symptoms that are relevant to traumas of the mentioned children [19], improve their family performance and also reduce parental stress [20] that are not considered as the purpose of the present research.

Due to the key importance of family caregivers in the home caring of patients with schizophrenia and accepting its responsibility, it is necessary to do some proceedings to promote resilience of family caregivers in order to empower their mental health. This issue can help them overcome the responsibility of taking care of these patients through the ability of understanding positive effects of caregiving. The purpose of the present research was to determine the effectiveness of approach-based interventions to strengthen coping resources of families and resilience of family caregivers in patients with schizophrenia.

Method

This study was an experimental study that was carried out (from May to August, 2018) on family caregivers of hospitalized patients with schizophrenia in Ibne-e-Sina Psychiatric Hospital of Mashhad, Iran. After conducting a pilot study on 20 family caregivers, the sample size was estimated 29 people in each group that considering 15% sample attrition, 33 people were allocated to each group (66 people in total). The mean and standard deviation of total resilient scores in each group were calculated and inserted in the formula of comparing two population means with 95% coefficient of confidence and 85% test power. They were randomly placed in intervention and control groups by using the table of random numbers. Thirty three individuals were considered for each group (totally 66 individuals), due to the 15% of sample size losses. After the approval of the Ethics Committee of Medical Sciences University of Mashhad, 66 qualified family caregivers were registered in order to participate in the present study (all participants signed an informed consent).

Inclusion criteria included the age range of 18-60 years old, first-degree relatives of patients (who are considered as the main responsible individuals in taking care of patients), having at least high school degree, having no psychiatric disorder, having no hearing and vision impairments (that may disrupt the training process), and being at least six months passed after diagnosis of the patient's disorder. Exclusion criteria of the present research included unwillingness to participate in the study and patients being discharged from hospital.

All ethical issues related to the present study such as describing the purposes of the study, acquiring an informed consent from the participants, and also encoding questionnaires to preserve privacy of patients

were considered all over the study. Participants were also made sure that they could exit from the study whenever they wish to do so.

Data were obtained by demographic information (including four questions relevant to gender, age, level of education and the relation of the caregiver with patient) and Connor and Davidson resilience scale.

Connor and Davidson resilience scale (2003) includes 25 items with 5 sub-scales such as the idea of individual competence (items 10, 11, 12, 16, 17, 23, 24, 25), confidence in personal instinct and tolerating negative emotions (7, 14, 15, 18, 19, 20), positive acceptance of changes and safe relationships (1, 2, 4, 5, 8), control (13, 21, 22) and spiritual effects (3, 9) that are graded by a 5-degree Likert scale (0=completely incorrect, 1=rarely incorrect, 2=sometimes correct, 3=often correct, 4=always correct). The test score range is 0 to 100. Higher scores indicate higher resilience and 50 is considered as a cut-point of the questionnaire [21]. Psychometric properties of the Persian version of the questionnaire were confirmed on Iranian students [22], as well as in order to determine the validity of the translation of the present study, the main version of this scale was translated into Persian by three clinical psychologists who were specialized in English, and it was retranslated to English by three other professionals. Then, researchers prepared the Persian version of the scale after matching the translated texts and was also reviewed by 10 faculty members of the Medical Sciences University of Mashhad in order to determine the validity of the translation and was confirmed with CVI=0.89 and CVR=0.87. The total reliability of this scale was also confirmed by 20 family caregivers who had participated in a pilot study with internal consistency and 0.78 Cronbach's alpha.

In the intervention group, interventions were performed for 15 sessions and three modules. The interventions were based on strengthening the family coping resource approach according to the instructions of Kiser et al.'s multi-family model (Table 1) [18]. Sessions were held weekly (two sessions per week; Sundays and Thursdays) for about 120 to 150 minutes in the Psychiatric Hospital of Mashhad. According to Table 1, issues of each session would be discussed in a group by a clinical psychologist and a psychic nurse as a mediator. Then, some practices were considered for the next session in order to execute the provided issues. The control group received the regular cares of the hospital ward. Data were obtained before and after interventions.

Data were analyzed by SPSS-22 software. Kolmogorov-Smirnov test was used in order to examine normal distribution of quantitative data and its results helped to determine the proper parametric and non-parametric tests. Chi-square test, fisher exact test and independent T-test were used before the intervention in order to examine the heterogeneity of the quantitative and qualitative variables. Independent T-test was used in order to compare the dependent variable between groups and paired T-test was used to compare dependent variable within the groups. The results demonstrated the level of confidence as 95% and the level of significance was considered as $\alpha=0.05$.

Results

Sixty six individuals participated in this study and 60 participants received final evaluations (31 individuals in control group and 29 individuals in intervention group)., Two individuals from the control group were eliminated from the research because of not participating in the post-test and 4 individuals were also eliminated from the intervention group due to their unwillingness to continue participating in the study and their absence.

Most participants (66.7%) of the present research were females (40 individuals), 33.3% of participants were the mothers of the patients (20 individuals), 38.3% had secondary school degree (23 individuals) and they had an average age of 11.7±36.9 years old. No significant statistical difference was observed in comparison between intervention and control groups in terms of demographic information of family caregivers of patients with schizophrenia who participated in the present research ($p>0.05$). In this regard, both control and intervention groups were homogeneous (Table 2).

The results of the independent T-test in comparison between control and intervention groups indicated that there was no significant statistical difference between the total mean score of resilience and its sub-scales in the intervention and control groups in the pre-intervention phase ($p>0.05$). However, the results of the independent T-test showed that there was significant statistical difference between mean changes of resilience total score and its sub-scales in intervention and control groups ($p<0.05$) (Table 3).

The results of T-paired test in comparison within the groups showed that there was significant statistical difference between the total score of resilience and some sub-scales such as idea of individual competence, trust in individual instincts and tolerating negative emotions in intervention and control groups after interventions ($p<0.05$). However, the results of T-paired test showed that there was significant statistical difference between the mean score of other sub-scales such as positive acceptance, safe relationships and spiritual effects in the intervention group after receiving intervention ($P<0.05$) but this difference was not statistically significant in the control group ($p>0.05$) (Table 3).

Table 1. Executing sessions according to the instructions of Kiser et al. interventions based on reinforcement of coping resources (2010)

Module	Session	Goals	Object	Time
Module I: Rituals and Routines	Session 1	Evaluating Trauma and Family Functioning	Examining the history of facing with the diagnosis of the family member as a patient with schizophrenia and distress of family caregivers toward this issue, and also the effect of caregiving of a patient with schizophrenia on family caregivers	150 minutes
		Telling Family Stories	Strengthening the sense of belonging to the group trough telling stories of family caregivers, identifying and estimating traditions and customs of family caregivers, making interaction between families, sharing experiences and understanding social support in group	
	Session 2	Ritual Family Tree	Preparing a chart of each family customs and being aware of the importance of each family's traditions, and encouraging each family to have an exact planning	120 minutes
	Session 3	Family Diary	Identifying the importance of common daily life, identifying the efficacy and inefficacy of family routines, discussing about some family routines that support the health and function of the family	120 minutes
Module II: Protective Coping Resources	Session 4	Feeling Safe I	Identifying safe feelings of family caregivers and helping family caregivers to strengthen a safe feeling toward the family member with schizophrenia, facilitating intimate family interactions, encouraging families to talk about negative events, telling more family stories and sharing experiences, increasing awareness of limitations and predictability of safe feeling	120 minutes
	Session 5	Feeling Safe I		
	Session 6	People Resources	Increasing awareness about how to identify and apply social supports, increasing awareness about how to support other family members in order to cope with stresses and threats, facilitating the problem solving in family by discussing and sharing	120 minutes
	Session 7	Life Choices	Planning reinforcement, encouraging families to do planning in their life choices, and providing proper opportunities for development, planning for the future of family	120 minutes
	Session 8	Spirituality and Values	Paying attention to spirituality in a broader context with questions such as "what is the philosophy of life? What are the sources of hope? What is self-actualization? Helping family caregivers in order to increase their awareness on spiritual meaning of life, helping family caregivers in order to evaluate the spirituality and enriching the meaning of their experiences of life, helping family to discuss and accept the shared values	120 minutes
	Session 9	Things Get in the Way	Facilitating the discussion between family caregivers about activities that are planned within the family, encouraging family to express emotions from	120 minutes
	Session 10	Celebration	Highlighting positive effects of joking and laughing in family interactions and reducing stress, performing planned celebrations, reviewing purposes of family caregivers and evaluating them, encouraging to plan for customs and routines	120 minutes
Module III: Trauma Resolution and Consolidation	Session 10	Telling About What Happened	Helping family caregivers to understand the importance of talking about trauma, training and evaluating not to refuse what happened, cooperating with families in decision making and developing the skill of telling stories about their caregiving, planning about how to behavior in coping with family distresses in sharing their stories or talking about their problems	120 minutes
	Session 11	When Bad Things Happen I	Sharing painful issues relevant to caregiving of patient, increasing the ability of family caregivers in sharing stories and talking about important family issues, helping family caregivers to create new stories in caregiving of patients	120 minutes
	Session 12	When Bad Things Happen II		120 minutes
	Session 13	Marking the Trauma	Increasing the capacity of family for making positive meaningful experiences, developing the story telling skill and discussing about problems successfully	120 minutes
	Session 14	Good Things Happen Too	Planning for interesting programs and celebrations, training how to plan and hold successful family plans, strengthening some skills such as regulating expectations, planning and making specific meaning for events, highlighting the effect of joking and laughing in family interactions and reducing stress	120 minutes
	Session 15	Celebration	Practicing for planned celebrations, enriching celebrations, reviewing purposes and group evaluation, encouraging for planning traditions and customs	150 minutes

Table 2. Demographic characteristics of family caregivers in patients with schizophrenia in two groups of intervention and control

Group		Intervention n=29	Control n=31	Test Result
Variable		n (%)	n (%)	
Sex	Female	20 (69)	20 (64.5)	$p^{*} = 0.78$
	Man	9 (31)	11 (35.5)	
Level of Education	Third Grade Middle School	12 (41.4)	11 (35.5)	$P^{**} = 0.81$
	Diploma	9 (31.0)	12 (38.7)	
	Academic Education	8 (27.6)	8 (25.8)	
Relative to the Patient	Mother	8 (27.6)	12 (38.7)	$p^{**} = 0.82$
	Father	6 (20.7)	7 (22.6)	
	Spouse	6 (20.7)	3 (9.7)	
	Sister	4 (13.8)	4 (12.9)	
	Brother	3 (10.3)	2 (6.5)	
	Child	2 (6.9)	3 (9.7)	
Age		Mean ± SD	Mean ± SD	$P^{***} = 0.73$
		36.4 ± 12.8	37.4 ± 10.7	

*Fisher Exact Test
**Chi-Square Test

Table 3. Comparison of resiliency and its different dimensions in family caregivers of schizophrenic patients in both intervention and control groups

		Intervention	Control	Dependent T-test Results
		Mean ± SD	Mean ± SD	
Total of Resilient	Pre-test	43.2 ± 10.7	40.8 ± 13.3	t=0.76 df=58 p=0.45
	Post-test	50.2 ± 13.0	37.7 ± 11.9	t=3.9 df=58 p<0.001
	Difference in the Assessment Stage	7.0 ± 7.9	3.1 ± 4.2	t=6.1 df=42.2 p<0.001
	Paired T-test Result	t=4.7 df=28 p<0.001	t=4.1 df=30 p<0.001	
Imagination of Individual Competence	Pre-test	13.5 ± 4.1	14.1 ± 5.3	t=0.5 df=58 p=0.62
	Post-test	15.5 ± 5.2	12.3 ± 4.9	t=2.4 df=58 p=0.02
	Difference in the Assessment Stage	2.0 ± 2.9	1.8 ± 3.0	t=4.9 df=58 p<0.001
	Paired T-test Result	t=3.7 df=28 p<0.001	t=3.3 df=30 p=0.003	
Confidence in Individual Instincts and Negative Affective Tolerance	Pre-test	10.3 ± 3.5	8.8 ± 4.5	t=1.5 df=58 p=0.14
	Post-test	11.7 ± 3.7	7.8 ± 4.4	t=3.7 df=58 p=0.001
	Difference in the Assessment Stage	1.4 ± 2.7	0.93 ±1.9	t=3.9 df=58 p<0.001
	Paired T-test Result	t=2.8 df=28 p=0.009	T=2.7 df=30 P=0.01	
Positive Acceptance of Change and Safe Relationships	Pre-test	8.9 ± 2.2	8.1 ± 3.4	t=0.93 df=58 p=0.35
	Post-test	10.4 ± 3.0	8.2 ± 3.7	t=2.5 df=58 p=0.01
	Difference in the Assessment Stage	1.5 ± 2.4	0.03 ± 1.0	t=3.2 df=37.0 p<0.004
	Paired T-test Result	t=3.3 df=28 p<0.003	t=0.17 df=30 p= 0.86	
Control	Pre-test	4.9 ± 1.4	4.1 ± 2.1	t=1.7 df=58 p=0.09
	Post-test	5.7 ± 1.8	3.8 ± 1.8	t=3.8 df=58 p<0.001
	Difference in the Assessment Stage	0.79 ± 1.5	0.22 ± 1.0	t=3.0 df=49.5 p=0.004
	paired T-test result	t=2.8 df=28 p=0.009	t=1.2 df=30 p=0.24	
Spiritual Effects	Pre-test	3.3 ± 0.9	4.1 ± 2.1	t=2.01 df=58 p=0.06
	Post-test	4.2 ± 1.2	3.9 ±1.6	t=0.73 df=58 p=0.47
	Difference in the Assessment Stage	0.9 ± 1.4	0.06 ± 0.8	t=3.2 df=43.9 p= 0.003
	Paired T-test Result	t=3.4 df=28 p=0.002	T=0.44 df=30 p=0.7	

Discussion

The purpose of the present research was to determine the effectiveness of interventions based on strengthening family coping resources approach on the level of resilience for family caregivers of patients with schizophrenia. Results have shown that the average resilience total score and its subscales had significantly increased in the intervention group compared to the control group.

In the present study, the first interventions based on strengthening family coping resources approach were carried out on the resilience of family caregivers of patients with schizophrenia. However, because this intervention was executed during the hospitalization of patients, family caregivers of control group showed significant improvement in the level of total resilience and subscales such as idea of individual competence, trust in individual instinct and tolerating negative emotions after intervention due to the reduction of stress levels, while this improvement was not significant in comparison to the intervention group. On the other hand, some qualified caregivers refused to participate in the study because of living in other cities of the province, commuting problems and the length of sessions.

The results of some interventions such as cognitive-behavioral therapy based on good mood guide in caregivers of patients with depression [23] and resilience strengthen program based on strengthening communications, participating in group activities and discovering social and family resources in family caregivers of elderly people with dementia [24], strengthen and improve the resilience of family caregivers which confirms the results of the present study. The emphasize on recreational activities, interactions and social support through strengthening inside-family and outside-family relationships which can act as a useful coping strategy are considered as common features between these interventions and the present intervention. Studies have shown that receiving official social support from mental health professionals (that may be provided by sharing information and interacting with them) and unofficial social support from other family members and family caregivers of patients with psychological disorders (that may be provided by strengthening relationships and participating in groups with similar problems) may lead to positive experiences of caregiving in family caregivers of patients with schizophrenia as an effective coping strategy [25]. By making balance between the risk factors of caregiving responsibility and supportive factors of caregiving positive experience, the level of resilience of family caregivers strengthens while facing difficulties [26]. Interventions based on strengthening family coping resources approach also encourages the skill of using coping strategies through strengthening family relationships and attention to the social context [20] in order to be used by family caregivers in response to the challenges and to strengthen and preserve family resources, reducing stressor resources and negative emotions and achieving a balance in family function [27]. However, social support and coping styles are influenced by cultural-social values and cultural differences [28]. In some cultures with collectivism such as Iran, most families refuse disclosing their family member's illness and do not express their emotions and needs arising from caregiving of these patients and as a result, lose social support. However, their participation in groups with similar problems may reduce their caregiving burden and psychological distress through reinforcing self-disclosure and achieving support from other group members [29]. It may also help them strengthen their resilience through promoting friendly relationships and quality of friendship with others [30]. According to the review of carried out studies, no study showed contradictory results in this context.

One of the limitations of the present study was the existence of inadequate fundamental and profound beliefs about the disease and the rigidity of some members in order to change the ineffective beliefs and characteristics of the symptoms of patients in terms of proportionality with the norms of the society and its psychological impact on caregivers, which could affect the results of this study. On the other hand, this study was conducted when patients were admitted to the hospital and therefore, family caregivers had less psychological burden. So, it is suggested that, in future studies, the knowledge of family caregivers about schizophrenia (using existing tools) and the symptoms of schizophrenia patients in terms of the severity of the disease (using the PANSS Scale) should be measured before the intervention. On the other hand, it is recommended that this intervention be repeated on family caregivers of patients with schizophrenia discharged from the hospital.

Conclusion

The results of the present study revealed that interventions based on strengthening family matching resources approach may be effective on reinforcing and promoting resilience in family caregivers of patients with schizophrenia who are hospitalized in Ibne-e-Sina psychiatric hospital. It is suggested to use these interventions in promoting the resilience of family caregivers of patients with schizophrenia.

Acknowledgment

The authors would like to thank all of the instructors of Allameh Tabataba'i University of Tehran and Mashhad University of Medical Sciences, the officials of Ibn-e-Sina Psychiatric Hospital and also the respected family caregivers participating in this study for their sincere cooperation in implementing this project.

References

1. Amagai M, Takahashi M, Amagai F. Qualitative study of resilience of family caregivers for patients with schizophrenia in Japan. Mental Health in Family Medicine. 2016;63(4.9):55-74.
2. Chen L, Zhao Y, Tang J, Jin G, Liu Y, Zhao X, et al. The burden, support and needs of primary family caregivers of people experiencing schizophrenia in Beijing communities: a qualitative study. BMC psychiatry. 2019;19(1):75.
3. Fitryasari R, Yusuf A, Nursalam, Tristiana RD, Nihayati HE. Family members' perspective of family Resilience's risk factors in taking care of schizophrenia patients. International Journal of Nursing Sciences. 2018;5(3):255-61.
4. Caqueo-Urizar A, Rus-Calafell M, Craig TK, Irarrazaval M,

Urzua A, Boyer L, et al. Schizophrenia: Impact on Family Dynamics. Current psychiatry reports. 2017;19(1):2.
5. Shiraishi N, Reilly J. Positive and negative impacts of schizophrenia on family caregivers: a systematic review and qualitative meta-summary. Social psychiatry and psychiatric epidemiology. 2019;54(3):277.٩٠-
6. Zauszniewski JA, Bekhet AK, Suresky MJ. Effects on resilience of women family caregivers of adults with serious mental illness: the role of positive cognitions. Archives of psychiatric nursing. 2009;23(6):412-22.
7. Subandi M. The role of family empowerment and family resilience on recovery from psychosis. Gadjah Mada University. 2013.
8. Figley CR, Burnette CE. Building bridges: Connecting systemic trauma and family resilience in the study and treatment of diverse traumatized families. Traumatology. 2017;23(1):95.
9. Foster K, O'brien L, Korhonen T. Developing resilient children and families when parents have mental illness: A family-focused approach. International journal of mental health nursing. 2012;21(1):3-11.
10. Chen X, Mao Y, Kong L, Li G ,Xin M, Lou F, et al. Resilience moderates the association between stigma and psychological distress among family caregivers of patients with schizophrenia. Personality and Individual Differences. 2016;96(1):78-82.
11. Zauszniewski JA, Bekhet AK, Suresky MJ .Resilience in family members of persons with serious mental illness. The Nursing clinics of North America. 2010;45(4):613-26.
12. Karimirad MR, Seyedfatemi N, Noghani F, Dehkordi AH, Barasteh S. The Relationship between Resilience and Quality of Life in Family Caregivers of Patients with Mental Disorders. J Clin Diagn Res. 2018;12(11):CC05-CC8.
13. Zauszniewski JA, Bekhet AK, Suresky MJ. Indicators of resilience in family members of adults with serious mental illness. Psychiatric Clinics. 2015;38(1):131-46.
14. Steinhardt M, Dolbier C. Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. Journal of American College Health. 2008;56(4):445-53.
15. Gloria CT, Steinhardt MA. Relationships among positive emotions, coping, resilience and mental health. Stress and Health. 2016;32(2):145-56.
16. Souri H, Hejazi E, Ejei J. The correlation of resiliency and optimism with psychological well-being. International Journal of Behavioral Sciences. 2013;7(3):271-7.
17. Saria MG, Courchesne N, Evangelista L, Carter J, MacManus DA, Gorman MK, et al. Cognitive dysfunction in patients with brain metastases: influences on caregiver resilience and coping. Supportive Care in Cancer. 2017;25(4):1247-56.
18. Kiser L. Strengthening Family Coping Resources: Intervention for Families Impacted by Trauma. Newyork and London: Routledge; 2015.
19. Kiser LJ, Donohue A, Hodgkinson S, Medoff D, Black MM. Strengthening family coping resources: The feasibility of a multifamily group intervention for families exposed to trauma. Journal of traumatic stress. 2010;23(6):802-6.
20. Kiser LJ, Backer PM, Winkles J, Medoff D. Strengthening Family Coping Resources (SFCR): Practice-based evidence for a promising trauma intervention. Couple and Family Psychology: Research and Practice. 2015;4(1):49.
21. Connor KM, Davidson JR. Development of a new resilience scale: The Connor- Davidson resilience scale (CD- RISC). Depression and anxiety. 2003;18(2):76-82.
22. Khoshouei MS. Psychometric evaluation of the Connor-Davidson resilience scale (CD-RISC) using Iranian students. International Journal of Testing. 2009;9(1):60-6.
23. McCann TV, Songprakun W, Stephenson J. Efficacy of a self-help manual in increasing resilience in carers of adults with depression in Thailand. International journal of mental health nursing. 2016;25(1):62-70.
24. Bang M, Kim O. Effect of the family resilience reinforcement program for family caregivers of the elderly with dementia. Korean Journal of Adult Nursing. 2016;28(1):71-82.
25. Chen F-p, Greenberg JS. A positive aspect of caregiving: The influence of social support on caregiving gains for family members of relatives with schizophrenia. Community mental health journal. 2004;40(5):423-35.
26. Saema EI, Ei-Nabi AAA, Fathalla HE-D. Resilience, burden, and quality of life in Egyptian family caregivers of patients with schizophrenia. Egyptian Nursing Journal. 2018;15(2):196.
27. Batra B, Ghildiyal R, Mathews MM. Coping strategies among caregivers of patients with schizophrenia: a descriptive study. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS). 2014;1(14):20-9.
28. Knight BG, Sayegh P. Cultural values and caregiving: the updated sociocultural stress and coping model. The journals of gerontology Series B, Psychological sciences and social sciences. 2010;65b(1):5-13.
29. Vaghee S, Salarhaji A, Vaghei N. Comparing the effect of in our own voice-family with psychoeducation on stigma in families of schizophrenia patients. Nursing Practice Today. 2015;2 (4):139-51
30. Hejazi E, Solimani H. The quality of friendship, friendship reciprocity and resilience. Journal of Behavioral Sciences. 2011;4(4):319-25