

# The Efficacy of Mindfulness-Based Cognitive Therapy on Resilience among the Wives of Patients with Schizophrenia

KAMAL SOLATI

## ABSTRACT

**Introduction:** The wives of patients with schizophrenia experience high levels of stress due to their spouses' disease, which leads to certain problems and decreased adaptability and efficiency in them.

**Aim:** This study investigated the efficacy of Mindfulness-Based Cognitive Therapy (MBCT) on resilience in schizophrenia patients.

**Materials and Methods:** In this quasi-experimental study, 40 wives of patients with schizophrenia (20 assigned to experimental group and 20 to control group) whose husbands were kept in rehabilitation centers for mental disorders were enrolled according to convenience sampling. In the experimental group, the therapeutic protocol of MBCT was conducted. Accordingly, the patients were encouraged to process the experiences

in a non-judgmental manner as they have been formed, and to change their relationship with and embrace challenging thoughts and feelings. Meanwhile, the control group underwent no intervention. The research instrument was Connor-Davidson Resilience Scale. Data were analysed by ANCOVA in SPSS 16.

**Results:** At post-test, mean resilience score of the experimental group ( $77.95 \pm 4.71$ ) was much higher than that of the control group ( $71.75 \pm 5.81$ ). There was a significant difference in the mean resilience score at post-test between the experimental and control groups ( $p < 0.05$ ).

**Conclusion:** Training MBCT strategies was effective on resilience in the wives of schizophrenia patients. Therefore, this approach can be incorporated into mental health-related interventions for the families of patients with psychiatric disorders such as schizophrenia.

**Keywords:** Cognition therapy, Mental disorder, Psychological intervention

## INTRODUCTION

Schizophrenia can cause many difficulties for young patients. Around 21 million people worldwide suffer from schizophrenia. This disease is characterised by distorted thoughts, perceptions, emotions, speech, feelings about oneself, and behaviour. Hallucination and delusion are the common symptoms of schizophrenia. Schizophrenia leads to disability and affects academic and occupational functioning [1].

Schizophrenia is considered as a serious psychiatric disorder with highly debilitating symptoms [2], and is one of the most severe psychiatric disorders which is associated with disturbed thought content, way of thinking, perceptions, emotions, self-perception, motivation, behaviour, and interpersonal efficiency [3]. The family members of schizophrenia patients may experience high levels of stress. This requires certain psychological interventions such as promotion of coping skills [4-6].

Resilience is one of these techniques. Resilience is a process, outcome, or capability of successfully adapting to risky circumstances [7]; more clearly, resilience is a positivist reaction to adverse circumstances [8]. Besides that, resilience is some kind of self-restoration with positivist, emotional, affective, and cognitive outcomes [9]. The majority of stressful life events play a significant part in accelerating incidence of anxiety that may lead to other psychiatric disorders [10].

MBCT is an effective therapy to reduce stress and treat psychiatric disorders. This approach consists of simple techniques derived from meditation and yoga. The aim of this technique is to help patients gain knowledge about the present moment and contact the moment-to-moment changes happened to the body and mind. Consequently, these techniques may promote the ability to manage and cope with adverse life events [11].

MBCT increases the flexibility of cognitive activities, reduces rumination, overgeneralization in autobiographical memory, and critical self-assessment, and increases useful cognitive activities such as non-judgmental observation of mental content. According to

this approach, patients are encouraged to process the experiences in a non-judgmental manner as they have been formed and to change their relationship with and embrace challenging thoughts and feelings [12].

In addition to treating psychiatric disorders, this therapy can promote the quality of life among the family members of patients with psychiatric disorders [13,14]. Given that chronic and advanced psychiatric diseases cause high levels of stress for the families, especially the wives who are considered the main caregivers of the patients, take care of their spouses on a daily basis, monitor their medication, take them to hospital, and pay financial costs, it is necessary to monitor and conduct the mental health interventions developed for the family members of these patients [15]. Moreover, chronic disease can decrease quality of life and general health of the patients [16-20]. This study was conducted with the aim to investigate the efficacy of MBCT on resilience in the wives of patients with schizophrenia.

## MATERIALS AND METHODS

In this quasi-experimental, controlled study with pre-test post-test, study population consisted of the wives of all patients with chronic schizophrenia. These patients were kept in rehabilitation centers for mental disorders and their wives received the healthcare services of the Social Security Organization of Shahrekord, southwest Iran. In Iran, the psychiatric patients who cannot afford to live receive the services of Social Security Organization. The duration of the study was from April 2016 to May 2016. The study protocol was approved by the Ethics Committee of the university (code no. 93-7-14).

The participants were selected by multistage sampling. First, two of four centers for psychiatric patients in Shahrekord were selected, and then 80 patients selected from the two centers according to random systematic sampling.

After coordination with authorities, we invited the patients' wives to the center to explain the research protocol for them. Then, the pretest was conducted. Forty wives who attained the lowest

scores on resilience were enrolled into the study. The participants were assigned odd and even numbers, odd-numbered participants considered to be controls, and even-numbered ones assigned to experimental group.

The inclusion criteria were having spouse suffering from chronic schizophrenia and at least secondary education level. The exclusion criteria were having history of acute psychiatric disorders, taking psychiatric and psychedelic medications, and having substance abuse. Besides that, we took some measures to have two age- and education-matched groups. We had no dropout in this study.

To measure resilience, Connor-Davidson Resilience Scale was used. Connor and Davidson developed this scale according to an analysis of the relevant studies published between 1979 and 1991. Connor-Davidson Resilience Scale consists of 25 items rated by five-point Likert scale (from *completely incorrect*: 1 to *completely correct*: 5). They reported the test-retest reliability and Cronbach's alpha coefficient of this scale to be 0.73 and of 0.87, respectively [21].

In this study, to measure the reliability of the scale, the researcher calculated its Cronbach's alpha coefficient after conducting a pilot study and determining the items' variance and reported it to be 0.84 to conduct the intervention in the experimental group. MBCT was conducted according to Segal ZV et al., protocol [22].

MBCT was conducted on the experimental group within one 1.5-h session a week for eight weeks. Then, post-test was administered to both groups. This intervention was conducted by a trained clinical psychologist. The control group underwent no intervention. The data were analysed by ANCOVA in SPSS 16.

## RESULTS

[Table/Fig-1] shows demographic characteristics. The majority of the wives in both groups were 33 years and over. According to [Table/Fig-1], the number of wives with under high school completion certificate in both groups (65%) was higher than those with high school completion certificate in both groups (35%).

According to the findings, the mean resilience scores of pretest were approximately the same in the two groups, but the mean resilience post-test score of the experimental group was much higher than the control group. The descriptive data on resilience are shown in [Table/Fig-2].

Besides that, a significant difference was seen in the mean resilience post-test score between the experimental and control groups

Variable		Intervention		Control	
		Frequency	%	Frequency	%
Statistical indices of education	High school completion	7	35	7	35
	Under high school completion	13	65	13	65
	Total	20	100	20	100
<b>Age (yr)</b>					
Statistical indices of age	22-27	2	10	2	10
	27-33	6	30	6	30
	33 and over	12	60	12	60
	Total	20	100	20	100

[Table/Fig-1]: Frequency distribution of intervention and control groups based on education level and age.

( $p < 0.05$ ). Therefore, it can be argued that training of MBCT strategies was effective on the resilience in the wives of schizophrenia patients in the experimental group. The effect size ( $\eta^2$ ) in the resilience of these women was estimated to be 0.23 at post-test, i.e., 23% of the variance in resilience score at post-test was due to MBCT.

The observed statistical power of 1 represents that the sample size was sufficient to test the hypothesis [Table/Fig-3].

## DISCUSSION

The aim of this study was to investigate the efficacy of MBCT on resilience among the wives of patients with schizophrenia. MBCT

Variable	Group	Pretest (ANCOVA)		Post-test (ANCOVA)	
		Mean	Standard deviation	Mean	Standard deviation
Resilience	Experimental	70.55	6.41	77.95	4.71
	Control	71	5.51	71.75	5.81

[Table/Fig-2]: Mean (standard deviation) scores of resilience at pretest and post-test in the experimental and control groups.

Sources of variance	Total square	df	Mean square	F	Sig	Eta <sup>2</sup>	Observed power
Pretest	140.88	1	140.88	5.14	0.02	0.13	0.63
Group (intervention)	163.40	1	163.40	5.93	0.001	0.23	1

[Table/Fig-3]: ANCOVA results of mindfulness-based cognitive therapy effect on resilience in the wives of schizophrenia patients.

can be considered an economical approach to prevent recurrence and improve quality-adjusted life-year [23]. MBCT is used in many psychological interventions for the people who have stress [14,24-26]. This therapy helps people to manage their reactions to stress and promote their coping skills in challenging circumstances [27].

This study demonstrated that after MBCT intervention, the mean resilience score was significantly different between the wives of schizophrenia patients in the experimental group and their counterparts in the control group, and the mean resilience pre-test score was higher in the experimental group. It can be then argued that MBCT was effective on resilience in the experimental group.

Consistent with the present study, Whitebird RR et al., study showed that MBCT could be useful to promote mental health, relieve depression, increase social support, and reduce disease-induced stress in the family members of patients with dementia [28]. Another study was conducted to investigate effect of MBCT intervention on psychological stress and resilience in patients with chronic disease and mental health disorders. The results showed that, MBCT could cause relief of psychological distress in patients with chronic disease [29]. Coholic DA et al., indicated that MBCT had the potential to promote the development of self-awareness and increase resilience aspects, including problem solving skills, feelings of self-esteem, and coping and social skills [30]. A study demonstrated that MBCT intervention could prevent depressive relapse through enhancing resilience [31].

A study was conducted to investigate the efficacy of MBCT on depression symptoms in patients with multiple sclerosis and their caregivers, and demonstrated that this approach was an effective therapy for these patients and their families [32].

Moreover, Carletto S et al., study indicated that the conduction of mindfulness-based stress reduction was effective in reducing stress symptoms and ameliorating mood disorders in patients [33]. Obviously, stress is a main cause of reducing mental health and welfare. Chronic depression is a main cause of stress and anxiety as well as decline in tolerance [34].

The caregivers and family members of schizophrenia patients tolerate stress for several reasons. Chronic stress puts at risk the mental health of the family members and makes the adherence to the therapeutic regimen challenging for the patients [35]. Therefore, family-centered interventions aimed to reduce stress especially in the wives of schizophrenia patients become significant because the families can affect the patients' health and contribute to development of psychiatric disorders among their family members.

Moreover, given the effect of MBCT on resilience in the wives of patients with schizophrenia, the studies on improvement and promotion of tolerance using MBCT have shown that this therapy can be effective on resilience and in tolerating disease-induced stress [36]. Hoge EA et al., reported that in addition to improving coping skills, mindfulness-based meditation increased the resilience in the people under psychological stress [27]. MBCT identifies thoughts and help

identify suspension of people's judgment and beliefs. This attitude can lead to freedom from mental conflict and distress. Hence, this therapy can promote resilience and adaptability [37]. Another study demonstrated that mindfulness-based interventions are effective in improving cognitive functioning, flexibility, and resilience to stress among children and adolescents [38]. Mindfulness exercises are effective in promoting current awareness through certain techniques such as deliberately paying attention to breathing and the body and concentrating attention to the conditions governing cognitive system and information processing. These exercises can promote the resilience to psychological interventions through relieving stress and negative feelings and enhancing coping skills [39].

## LIMITATION

One of the limitation of this study is that, the intervention was conducted only on the patients' wives but not other members of the families who may affect the process of the treatment. Also, the study was related to holding of the sessions. Some of the participants attended the sessions less frequently and were less active, which may affect the findings. Another limitation of the present study is convenience sampling that could affect the results.

## CONCLUSION

MBCT is effective on resilience among the wives of patients with schizophrenia and hence can prevent psychiatric disorders. Therefore, it is recommended to incorporate this therapy into counseling of the families of patients with schizophrenia or other chronic psychiatric diseases.

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### PARTICULARS OF CONTRIBUTORS:

1. Associate Professor, Department of Psychiatry, Shahrekord University of Medical Sciences, Shahrekord, Chaharmahal and Bakhtiari, Iran.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Kamal Solati,  
Associate Professor, Department of Psychiatry, Shahrekord University of Medical Sciences,  
Shahrekord, Chaharmahal and Bakhtiari, Zipcode-8815713471, Iran.  
E-mail: kamal\_solati@yahoo.com

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