

# The Effectiveness of Mindfulness-based Cognitive Therapy on Increasing the Resilience Dimensions of Women Aged 20–40 in Isfahan City in 2016

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## Abstract

**Background and Aim:** The present study aimed at investigating the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) on increasing the psychological resilience dimensions of women aged 20-40 in Isfahan city in 2016. **Material and Methods:** This applied research was conducted on 30 women (15 subjects were assigned to experimental group and the remaining subjects were assigned to control group) visiting Ferdows Women's Garden in Isfahan city during 2016. The experimental group received the psychological interventions of MBCT in eight 90-min sessions. **Results:** Both groups responded the resilience questionnaire before and after the interventions. The findings revealed that the change in some resilience dimensions was more for the experimental group than the control one. Regarding the effectiveness of mindfulness, paying attention to the psychological problems of women is a matter of great importance. Non-psychological therapies alone fail to provide women with the ability to cope with stressful conditions. **Conclusion:** Therefore, promoting women's mental health may entail comprehensive attention.

**Key words:** Mindfulness, resilience, women

## INTRODUCTION

Mindfulness as one of the key components of psychological therapies emphasizes the growth of three qualities of refrain from judgment, targeted awareness, and focus on the present moment in the individual attention.<sup>[1]</sup>

This approach is rooted in the Buddhist viewpoint that considers the root of psychological suffering in the judgmental mind dividing the experiences into good and bad, leading to some levels of frustration, distress, anxiety, and depression.<sup>[2]</sup>

Mindfulness is a creative and conductive cognitive process, and it may occur when a person applies three key features of creating a new category, accepting new information, and understanding more and deeper viewpoints.<sup>[3]</sup>

Mindful individuals have unconscious feelings and increased awareness of psychological and physical emotions, and look clearly at the emotions and physical phenomena as they happen.<sup>[4]</sup>

Evidence suggests that training mindfulness has been effective in reducing the symptoms of

depression and anxiety.<sup>[5]</sup> Mindfulness has been proved to be an effective factor in the treatment of borderline personality disorders.<sup>[6]</sup>

In today's complex and industrial world, many people are struggling with stress, frustration, and other problems afflicting the psyche of man. There are also a number of physical illnesses that are rooted in mental disorders.<sup>[7]</sup> Specialists treat most of these problems with tranquilizers; however, the extent to which they have actual and permanent effect is not available.<sup>[8]</sup>

Along with increasing pressures, the threshold of tolerance is reduced as well.<sup>[9,10]</sup> Thence, it is imperative to examine whether there are ways to enhance resilience or not. Mindfulness is a full-fledged reinforcement of human life, body, mind, thoughts, emotions, and consciousness that influences there silence as well. As a further point, women

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have different roles in the community; hence, they can enact a significant role in improving the mental health of the family and, consequently, that of the community. Regarding the remarks outlined above, whether we can introduce mindfulness as an activity that can positively affect the mental and physical health of the family and consequently that of the society? Our present society is faced with torrents of information associated with the influx of different cultures, the economic status, livelihood, and difference of citizenship status. In fact, healthy families are the very requirement for providing the people of the community with the peace of mind. Accordingly, the present study sought to find whether mindfulness can affect the promotion of resilience level of women as the family internal managers.

## METHODOLOGY

The present research is a pre-test-post-test quasi-experimental study with control group.

### Statistical population and sampling method

The research population was women aged 20–40 in Isfahan. In this study, a sample of women visiting Recreation Women's Garden in Isfahan was chosen by availability sampling method.

A number of women visiting the aforementioned place were given the resilience questionnaire, and among them, 30 women with lower resilience scores were randomly chosen and assigned into two 15-subject groups, namely experimental and control.

### Data collection instrument

Connor–Davidson resilience scale (CD-RISC) as the best available measure for resilience was used to assess this variable in this research. The questionnaire comprises of 25 items, each rated on a 5-point scale (from totally incorrect to totally correct). In this scale, the higher score reflects the higher resilience.<sup>[11]</sup> Examined the scale validity using five groups of subjects including those with stress; generalized anxiety disorder, general psychiatric outpatients, primary care outpatients, and community sample. In addition, the scale sensitivity for clinical groups was examined. Factor analysis also yielded five factors in the given scale.<sup>[12]</sup> More notably, CD-RISC has been adapted for use in Iran by Mohammadi. Accordingly,<sup>[13,14]</sup> confirmed the appropriate validity and reliability of this scale for students and adolescents, respectively.

### Implementation

The training course considered for experimental group lasted 2 months. In this period, a 90–min session per week was dedicated to mindfulness exercises. After passing the

2-month course (8 sessions), both groups attended the post-test. In each session, the instructor dedicated 30 min to body scan, 10 min to stretching exercises, 20 min to the topic of the session and focus on individual activities and emotions, and 20 min to the assignments and topic of the previous session.

The goals followed in these exercises include: (1) Identification of automatic guide, (2) coping with barriers, (3) presence of mind, (4) live in the present, (5) acceptance and presence authorization, (6) thought is not reality, (7) self-care, and (8) use of the learned lessons to reach the sense of self-satisfaction. As stated, promoting the psychological level of the individual is the key goal considered in all exercises.

## RESULTS

The research hypotheses were analyzed and tested (using SPSS software V.20) to investigate the extent to which the desired goals were met. The results obtained from the intervention were presented using descriptive statistics methods. Then, the required statistical assumptions and Levene's test were analyzed for examining the distribution normality of the scores acquired by the sample group and the variance homogeneity, respectively. Furthermore, the effect of pre-test was controlled through ANCOVA Molavi (2007), quoted by.<sup>[15]</sup> In general, the results supported the research hypotheses.

According to Table 1, the highest and lowest mean scores of the sense of personal competence in the pre-test were related to the control group ( $24.4 \pm 3.71$ ) and experimental group ( $19.33 \pm 2.66$ ), respectively. In post-test, on the other, the highest and lowest scores of this variable belonged, respectively, to the experimental group ( $27.86 \pm 2.38$ ) and control group ( $24.93 \pm 3.24$ ).

The highest and lowest mean scores of trust in one's instincts in the pre-test were related to the control group ( $18.26 \pm 2.18$ ) and experimental group ( $17.20 \pm 2.90$ ), respectively. While in the post-test, the highest score of trust in one's instincts/tolerance of negative emotion belonged to the control group ( $18.86 \pm 2.77$ ) and the lowest one belonged to the experimental group ( $18.66 \pm 2.9$ ).

The control group ( $11.6 \pm 1.99$ ) and experimental group ( $11.26 \pm 1.43$ ), respectively, achieved the highest and lowest mean scores for positive acceptance of change/safe relations in the pre-test. In the post-test, on the other, the highest and lowest mean scores of this variable were achieved by the experimental group ( $16/80 \pm 2/48$ ) and control group ( $12/73 \pm 2/03$ ), respectively. The highest mean score of control in the pre-test belonged to the control group ( $7/86 \pm 1.61$ ) and lowest one belonged to the experimental group ( $7.66 \pm 1.95$ ), while in the post-test, the highest score was for experimental group ( $9.20 \pm 2.27$ ) and the lowest score for the control group ( $8.06 \pm 2.21$ ). The highest mean score of spiritual faith in the

pre-test was obtained by the experimental group ( $5.66 \pm 1.75$ ) and the lowest one was obtained by the control group ( $5.60 \pm 0.813$ ); in the post-test, on the contrary, the highest score belonged to the control group ( $5.66 \pm 1.32$ ) and the lowest one belonged to the experimental group ( $5.33 \pm 1.91$ ).

As demonstrated in Table 2, the significance level of this statistic is  $>0.05$ , indicating that its distribution has no significant difference with normal distribution; therefore, the distribution of this attribute is normal.

As shown in Table 3, the significance level of this statistic is  $>0.05$ , indicating that its distribution has no significant difference with normal distribution; hence, it has a normal distribution.

Homogeneity of error variance of the dependent variables in both groups was determined by Levene's test.

As it is seen in Table 4 portraying the analysis of the samples' variance, it can be found that the significance level for each resilience dimension equals to 0.05; therefore,

it can be concluded that the variance of the samples is homogeneous in both groups. Accordingly, the requirement of the variance homogeneity of samples for implementing ANCOVA is met and the analysis can be consequently conducted.

As shown in Table 5, there is a significant difference (with pretest control) between the participants of both groups in terms of the scores of resilience dimensions. The extent of impact on dimensions is different; therefore, it can be concluded that mindfulness training influences some of the dimensions of women's resilience. According to the results yielded, the hypothesis suggesting that mindfulness training affects the sense of personal competence is confirmed ( $F = 44.34$  and  $P = 0.001$ ); the hypothesis suggesting that mindfulness training affects the trust in one's instincts is rejected with the statistical power of 0.337% ( $F = 2.54$  and  $P = 0.122$ ); the hypothesis suggesting that mindfulness training affects the positive acceptance of change is confirmed with the statistical power of 0.994 ( $F = 21.41$  and  $P = 0.001$ ); the hypothesis suggesting that mindfulness training affects the control is rejected with the statistical power of 0.303

**Table 1:** Comparison of the means of resilience dimensions in pre-test and post-test for control and experimental groups

Variable	Group	Pre-test	Post-test
		Mean±SD	Mean±SD
Sense of personal competence	Control group	24.40±3.71	24.93±3.24
	Experimental group	19.33±2.66	27.86±2.38
Trust in one's instincts	Control group	18.26±2.18	18.86±2.77
	Experimental group	17.20±2.90	18.60±2.09
Positive acceptance of change	Control group	11.60±1.99	12.73±2.03
	Experimental group	11.26±1.43	16.80±2.48
Control	Control group	7.86±1.61	8.06±2.21
	Experimental group	7.66±1.95	9.20±2.27
Spiritual faith	Control group	5.60±0.813	5.66±1.32
	Experimental group	5.66±1.75	5.33±1.91

**Table 2:** The results of distribution normality of resilience dimensions in the pre-test and post-test (control group)

Variable	Period	Kolmogorov-Smirnov	Significance level
Sense of personal competence	Pre-test	0.765	0.602
	Post-test	0.530	0.942
Trust in one's instincts/tolerance of negative emotion	Pre-test	0.889	0.408
	Post-test	0.475	0.978
Positive acceptance of change/safe relations	Pre-test	0.948	0.330
	Post-test	0.552	0.920
Control	Pre-test	0.600	0.864
	Post-test	0.854	0.459
Spiritual faith	Pre-test	1.23	0.076
	Post-test	1.02	0.245

**Table 3:** The results of distribution normality of resilience dimensions in pre-test and post-test (experimental group)

Variable	Period	Kolmogorov–Smirnov	Significance level
Sense of personal competence	Pre-test	1.03	0.232
	Post-test	0.732	0.658
Trust in one’s instincts/tolerance of negative emotion	Pre-test	0.749	0.629
	Post-test	0.823	0.507
Positive acceptance of change/safe relations	Pre-test	0.923	0.362
	Post-test	1.02	0.241
Control	Pre-test	0.650	0.792
	Post-test	0.662	0.777
Spiritual faith	Pre-test	0.443	0.990
	Post-test	0.915	0.373

**Table 4:** Levene’ test (homogeneity of error variance) in both groups

Variable	Levene’ test	Significance level	Degrees of freedom (1)	Degrees of freedom (2)
Sense of personal competence	1.14	0.327	28	1
Trust in one’s instincts	0.238	0.789	28	1
Positive acceptance of change	0.117	0.889	28	1
Control	1.66	0.199	28	1
Spiritual faith	2.81	0.068	28	1

( $F = 2.23$  and  $P = 0.146$ ); and the hypothesis suggesting that mindfulness training affects the spiritual faith is rejected with the statistical power of 0.083 ( $F = 0.308$ ,  $P = 0.583$ ).

## DISCUSSION AND CONCLUSION

In terms of the effect of mindfulness on the resilience dimensions, it was observed that some scores of resilience dimensions of participants in the post-test were significantly different ( $P < 0.001$ ). In this sense, it was approved that mindfulness affects the sense of personal competence and positive acceptance of change in the subjects of the experimental group in the post-test. However, it failed to confirm that mindfulness affects the trust in one’s instincts, control, and spiritual faith of the participants in the experimental group during the post-test.

Sense of personal competence refers to the self-knowledge and self-management ability. Enjoying self-esteem, intuition, and mental health is directly related to this component. A mindful person discovers its true character and witnesses the ups and downs of his/her mind as the result of his/her own experiences. According to Table 5, the hypothesis suggesting that mindfulness training is effective in the individuals’ sense of personal competence is confirmed. Trusting on individual instincts represents a person’s positive attitude toward him/herself despite the unfavorable conditions in different occasions. These behaviors may vary due to socioindividual

differences and even personal experiences; however, the given training has failed to influence this variable; hence, the hypothesis is rejected as well. Positive acceptance of change refers to both valuing and welcoming new experiences and the need to recognize and understand the novel occasions. The fact is that a mindful person consciously responds to his/her emotions. This is a crucial reason for the promotion of positive emotions in such people and proves the hypothesis that mindfulness training affects the positive acceptance of change. Control refers to the ability to manage and the extent of people’s control over the stressful factors in life and the people successful adaptation with the adverse environmental conditions. The fact is that a mindful person may face difficulties due to the imbalance in his or her conflicts and as the given intervention has failed to affect this variable, the respective hypothesis is rejected. One of the reasons for the rejection of this hypothesis is that such a person, in one hand, wants to change, and, on the other, wants to maintain the status qua; hence, a kind of imbalance is created. The spiritual faith is a sort of inner consciousness and a sense of interconnectedness between self and the surrounding world. Spirituality is a kind of intrinsic intelligence derived from pre-determined values and beliefs. In general, the acquired traits are easier to change than inherent traits, and such changes may need direct interventions that emphasize the relationship between the individual and the creator and spirituality. As the given training has failed to penetrate into the participants’ system of values, the hypothesis that mindfulness training influences the spiritual faith is not supported. According

**Table 5: Results of one-way ANCOVA of the means of resilience dimensions in both groups**

Variable	Source of changes	Sum of squares	Degree of freedom	Mean of squares	Test statistic	Significance level	Squares	Statistical power
Sense of personal competence	Pre-test	101.824	1	101.824	18.62	0.001	0.408	0.986
		242.462	1	242.462	44.34	0.001	0.622	1
Trust in one's instincts	Pre-test	12.952	1	12.952	2.18	0.151	0.075	0.297
		15.140	1	15.140	2.54	0.122	0.086	0.337
Positive acceptance of change	Pre-test	0.566	1	0.566	0.095	0.761	0.003	0.064
		128.167	1	128.167	21.41	0.001	0.442	0.994
Control	Pre-test	4.451	1	4.451	0.891	0.354	0.032	0.149
		11.171	1	11.171	2.23	0.146	0.076	0.303
Spiritual faith	Pre-test	0.607	1	0.607	0.215	0.646	0.008	0.076
		0.869	1	0.869	0.308	0.583	0.011	0.083

to the definition of resilience, it can be concluded that mindfulness may enhance problem-solving and social quality by promoting the women's resilience. Moreover, mindfulness may shed some light on the importance of psychology and cognitive adaptability.<sup>[16]</sup> In a research conducted by Tehrani,<sup>[17]</sup> yoga, which is one of the stretching exercises in the mindfulness intervention, has proved to be effective in increasing concentration, creativity, and patience, as well as the flexibility of the body and mind. Limitations of the study summarily include: (1) This research was focused only on the women aged 20–40 years, hence, the findings fail to be generalized over the women of other age ranges; (2) the sample was exclusively the women in Isfahan city; therefore, it is necessary to be cautious in extending this research to women of other cities; and (3) impossibility of holding follow-up meetings due to lack of time. Finally, future works are recommended to (1) Investigate the effect of mindfulness training on specific groups (e.g. patients with physical and motion disability, and patients with refractory diseases such as cancer and MS), adolescent groups, children, and even family therapy; (2) Perform such studies on men and compare the results with the findings of the present study; and (3) As continuity in training and repetition of the learned lessons are likely to change the behavior and attitude of the individuals, it is better to carry out this study over a longer period and provide the condition to follow-up the effects of training for at least 6 months after the training course.

## REFERENCES

- Linehan MM. Cognitive-Behavioral Treatment of Borderline Personality Disorder. New York: Guilford Press; 1993.
- Khani PM, Tamanaiefar SH, Tabesh AJ. Mindfulness-Based Cognitive Therapy for Depression. Tehran: Faradid Publication; 2005.
- Langer EJ. Mindfulness. New York: Addison-Wesley Publishing; 1989.
- Brown KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. *J Pers Soc Psychol* 2003;84:822-48.
- Omran S. The Effect of Mindfulness-Based Cognitive Therapy (MBCT) on Depression, Anxiety, and Mindfulness (Awareness of Daily Experiences) in Women with Breast Cancer in Isfahan City. M.A: Thesis. Isfahan University; 2014.
- Ivanovski B, Malhi GS. The psychological and neurophysiological concomitants of mindfulness from meditation. *Acta Neuropsychiatry* 2007;19:76-91.
- Casta PT, Mccara RR. Personality disorder and the five factor model of personality. *J Per Disord* 2007;17:362-71.
- Mirza BP. Health and Yoga. New York: Yoga Quarterly; 2008. p. 11-31.
- Katerndahl DA. Impact of spiritual symptoms and their interactions on health services and life satisfaction. *Ann Fam Med* 2008;6:412-20.
- Clark WL, Well TL. (5 Edition) personal career development profile. *Rehabilit Couns Bull* 2007;50:247-50.
- Connor KM, Davidson JR. Development of a new resilience scale: The connor-davidson resilience scale (CD-RISC). *Depress Anxiety* 2003;18:76-82.
- Ashtiani MF. Psychological Tests, Personality Assessment, and Mental Health. Besat, Tehran: Basat Publication; 2009.
- Samani S, Jokar B, Sahragard N. Resilience on mental health and life satisfaction. *Iran J Psychiatry Clin Psychol* 2007;13:290-5.
- Ghamrani A. The Effect of Training Appreciation on Hopefulness, Resilience, Optimism, and Happiness among Regular and Shahed and Esargar High School Students. PhD thesis in psychology, Faculty of Psychology and

Educational Sciences, University of Isfahan; 2010.

15. Colman H, Zhang L, Sulman EP, McDonald JM, Shooshtari NL, Rivera A, *et al.* A multigene predictor of outcome in glioblastoma. *Neuro Oncol* 2010;12:49-57.
16. Akin A, Akin U. Mediating role of coping competence on the relationship between mindfulness and flourishing. Turkey. *Suma Psicol* 2015;22:37-43.
17. Tehrani SH. Stress during pregnancy and afterwards. *J Hayat Nurs Midwifery Fac* 2006;3:22.

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