

International Journal Of

# Recent Scientific Research

ISSN: 0976-3031 Volume: 7(5) May -2016

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THE OFFICIAL PUBLICATION OF INTERNATIONAL JOURNAL OF RECENT SCIENTIFIC RESEARCH (IJRSR) http://www.recentscientific.com/ recentscientific@gmail.com



Available Online at http://www.recentscientific.com

International Journal of Recent Scientific Research Vol. 7, Issue, 5, pp. 11110-11113, May, 2016 International Journal of Recent Scientific <u>Re</u>rearch

# **Research Article**

# THE EFFECTIVENESS OF MINDFULNESS-BASED COGNITIVE THERAPY ON DYSFUNCTIONAL ATTITUDES AND ANXIETY IN 115 EMERGENCYSTAFF IN GORGAN

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#### **ARTICLE INFO**

#### ABSTRACT

*Article History:* Received 05<sup>th</sup> February, 2016 Received in revised form 21<sup>st</sup> March, 2016 Accepted 06<sup>th</sup> April, 2016 Published online 28<sup>th</sup> May, 2016

Keywords:

Efficacy of Mindfulness Based Cognitive Therapy, Dysfunctional Attitude, Anxiety, 115 Personnel. Aim of this study was efficacy of mindfulness based cognitive therapy on dysfunctional attitude and anxiety. We have used experimental plan of pre-test-posttest in this research. Participants were staffs in 115 Emergency. We have used random sampling method and finally 30 were used among samples. These individuals were randomly placed in two experimental (15 individuals) and control (15 individuals) groups. The experiment group was placed under mindfulness-based cognitive therapy (8 sessions). In order to gather data, we used Beck&Wiseman Dysfunctional Attitude Scale and Spielberger Trait-state Anxiety Inventory. Data were statistically analyzed by descriptive and deduction static method(Mancova)and all calculations were executed by SPSS version 16. The results obtained from the present study indicated thatmindfulness-based cognitive therapy is effective on reduction of dysfunctional attitudes and anxiety in hospital emergency staff.

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# **INTRODUCTION**

A new field of morbid psychology, especially after World War II, was the territory of anxiety disorders. Recent Surveys revealed that anxiety disorders are the most frequent total population (Dadsetan, 2005). So that these disorders are most common psychiatric disorders in the general population. They attracted much attention in studies. have Espada, GiorgioWolsey 2010), showed that between met a cognitive beliefs and state of anxiety, there is a positive relationship. Amani, Shirie and Valipour (2013) in a study that examines the role of cognitive emotion of anxiety and depression in their susceptibility to anxiety Systems concluded that the sensitivity to anxiety and cognitive emotion regulation as two important factors involved in psychopathology, mental depression and anxiety during therapy should be special attention paid to them. These disorders can be considered as a set of separate mental disorders, yet related (Haljyn, 2003; quoted by Seyed Mohammadi, 2009). Anxiety as feelings of sadness, fear and anxiety may be a primary mental state or part of a response to the stressors. Coping strategies to anxiety can be divided in to drug treatment and psychological and behavior therapy. Methods of behavioral therapy to deal with stress and anxiety can be meditation, yoga, relaxation and bio feedback. Because the treatment based on the presence of mind deals on both physical and mental aspect it has a high efficacy for the

treatment of clinical disorders and physical illnesses that have been reported. As the techniques of mindfulness-based cognitive therapy help increase muscle relaxation and reduce anxiety, stress and anxiety are highly effective. It seems that mindfulness-based cognitive therapy has effects on functional attitude in addition to stress as Javaherie and et al (2009) showed in their study Mindfulness based cognitive therapy decreases depression, negative automatic thoughts and dysfunctional attitudes of students. From the perspective of Beck (1987) Dysfunctional Attitudes are "attitude that make people vulnerable to depression. These attitudes are activated immediately after the occurrence of negative life events and after activation stimulate pattern of processing information and have a negative bias In other words, they are identified with negative errors in thoughts and these attitudes may reduce a person's mental health (Toghyani et al., 2013).

Considering thatcloseto30million people in the United States are involved in this disorder and in general prevalence of this disorder in women is twice that of men (Labbafinejad and Bsaq Zadeh, 2012) There for eitisofutmost importance so that it seems that aim of MBCT is awareness of thoughts, feelings, physical senses that may have a role in shaping the start of a period and the other aim is to change patient relationship with his thoughts. The aim of this study is to evaluate the effectiveness of mindfulness-based cognitive therapy of

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dysfunctional attitudes and anxiety in 115 emergency staff. Researchers with this general aim intend to answer the question that whetherdys functional attitudes and anxiety Mindfulness therapy is effective or not?

# **MATERIALS AND METHODS**

This quasi-experimental study with pretest-posttest control group was conducted in an interventional manner in ordertoe valuate the efficacy that the Anxiety State Spielberger questionnaire were distributedamong270emergencypersonnel and 30people who score higher in anxiety has been chosen and placed in two groups(15 experimental were and 15controlsubjects). Dysfunctional attitude and Anxiety State Spielberg erquestionnaire were distributed among them as pretest. Scores were kept after collection and after the intervention was made on the experimental group on a weekly basis after the treatment sessions that was 8 sessions pretest papers re-distributed and the results of pretest and post test scores were analyzed.

#### Inclusion criteria in the study sample

- Inclusion criteria in the study sample is that the only people who could participate in this research are those who scored highly in the Anxiety State Spielberger questionnaire which is considered as Measure of research for anxiety in this study.
- The absence of harm to self or others' thoughts and also the absence of acute psychosis and violent behavior in them through physical and psychiatrist examination tests have been proven.

# Exclusion criteria

During the study, whenever the volunteers wished, they could have resigned.

#### The data collection tools

- 1. Dysfunctional Attitude Scale Weissman and Beck (DAS-26): This scale is provided by Weissman and Beck (1978), based on Beck's theory of cognitive structure content in depression. Thes cale of 4 subscales success-perfection, require the approval of others, need please others and vulnerability-performance to evaluation. In this scale the respondents agree or disagree with each statementonascale7-pointLikerttypemeasures. In Mousavi and Ebrahimi study (2012), internal consistency of the version of 26 question DASS through alpha was 0.92 which is highly desirable and more powerful version of40 questions Compared to the alpha obtained for the short version DAS (for example, Chykvta and Stiles (2004), was 0.85, Vich et al., 2003 was0.86 Kaviani and colleagues (2005) of 0.75, was more favorable (Ibrahim, 2012).
- 2. The Anxiety–State Spielberger questionnaire: This questionnaire has 40 questions from question1 to20state anxiety (open) with four options (never, sometimes, often, very high) and from21 to40questionswithfour choices of trait anxiety (almost never, sometimes, often, almost always). The correlation of the scale with the scale of anxiety Tyler ranged from 0.79 to 0.83 and the correlation between emotional traits ranged from 0.52 to

0.58. The Anxiety State Spielberger questionnaire has high internal consistency. Middle alpha in various forums on the mode scale was0.92and for attribute has been reported 0.90. For selecting questions that measures a particular question the best collection is the one that has the largest amount of internal consistency coefficient by Alpha. Reliability of test questions that constitute the state and trait anxiety for questions 1 to 20 anxiety equals 0. 889and for questions 21 to 40 anxiety equals 0. 864. Due to the high positive correlation coefficient, none of the test questions were not removed (Fathi Ashtianiand Dastany, 2009).

#### Ethical considerations

In this study, mindfulness-based cognitive therapy to reduce the effectiveness of the dysfunctional attitudes and anxiety were used. The sample group was invited to participate in this study and there was no obligation to do so. And all moral considerations, including volunteer subjects were observed. And during the study, when candidate asked could withdraw from the study.

# RESULTS

According to the findings of this study, 50% of samples (n = 15) was the test group and 50% (n = 15) was the control group.

 
 Table 1 Mean and standard deviation scores of pre-test and post-test anxiety and its components

		րլ	·e-test	post-test		
Variables Group		mean	Standard deviation	mean	Standard deviation	
Mode	Control	54.53	4.64	49.33	4.31	
Anxiety	Test	52.73	7.22	41.53	4.41	
Trait	Control	47.53	3.29	47.73	4.68	
Anxiety	Test	48.07	4.36	43.53	3.09	
Anxiety	Control	99.40	6.50	95.13	5.08	
	Test	92.80	7.30	84.20	4.97	

Information of table 1 reveals mean and standard deviation scores of anxiety and its components these findings showed:

- Pretest anxiety scores in the experimental group (52.73) and control (54.53) and post-test scores of state anxiety in the experimental group (53/41) and control group was (49.33). The scores test compared to Pretest scores declined, the changes in the experimental group were more.
- Pretest Trait Anxiety scores in the experimental group(48.07) in the control group(47.53) and post-test scores in the experimental group(43.53) and control group was (47.73) that did not change a lot in control group but in the experimental group after treatment, mindfulness-based cognitive, mean of trait Anxiety post-test scores declined compared to scores of pretest.
- Average anxiety score in the experimental group was 92.80and the control grouptestwas13/95. In the case of test anxiety scores in the experimental group, after the mindfulness-based cognitive therapy the score of 84.20 has dramatically reduced and this score decreased to 20.84 inpre-test from 92.80 in post-test. But the mean score in control group reduced to 95.13 in post-test from

99.40 in pretest that has slight change compared to scores of test group in post-test.

Table 2 Mean	and standard	deviation of	dysfunctional
attitude	of the pre-tes	st and post-tes	st score

Variables Group			pre-test	post-test		
		mean	Standard deviation	mean	standarddeviation	
dysfunctional	Control	122.02	11.41	119.67	11.73	
attitude	Test	121.27	10.83	92.40	10.27	

Data in the above table presents that mean of dysfunctional attitude in test group in pretest was 121.27 and in control group was 122.02. There was a significant decline for score mean of dysfunctional attitude in test group in post-test after mindfulness-based cognitive therapy and it became 92/40 in post-test from the score of 121.27 in pretest. But mean of this amount in control group had a slight decrease from 122.02 in pretest to 119.67 in post-test compared to post-test scores of test group.

 
 Table 3 Evaluation of variables normality using Kolmogorov-Smirnov (KS)

	variables	Z	significant level
Pre-test	Anxiety	.905	.386
Pie-test	Dysfunctional attitudes	1.00	.270
<b>D</b>	Anxiety	.590	.877
Post-test	Dysfunctional attitudes	1.004	.266

With regard to the way of processing and using of raw data for this study, scale observed variables for anxiety and dysfunctional attitude is of distance. To assess the normality of these variables, using SPSS, Kolmogorov-Smirnov goodness of fittest (KS) took the results of which are shown in the table above. If the level of significance is larger than 0.05 (p>0.05) with 95% confidence normal distribution is confirmed. As can be seen, the test results how normal distribution of variables and parametric test scan be used to check the hypotheses.

# Table 4 Levene test results to determine the homogeneity of variances

Levene test variable	F value	df1	df <sub>2</sub>	Significant level
Anxiety	1.627	1	28	.213
Dysfunctional Attitude	4.067	1	28	.053

Table 5 Analysis of covariance (ANCOVA)

Sources	sum of squares (SS )	Degrees of freedom (df)	Mean square (MS)	F	Significance level	Power
Pretest	134.902	1	134.902	4.105	.053	.132
Group	612.821	1	612.821	18.646	.000	.408
Error	887.365	27	32.865			
Total	58801.000	30				

that the amount was not significant between the groups. It means that the research group scores of anxiety and unconscious attitudes at post-test have a variance equal efficiency. So, it is also necessary to establish test of covariance.

As it can be seen in Table 5,F into account for the effect of pretest is4.105(not statistically significant). In other words, the post-test scores were not affected by the pre-test scores. But mindfulness-based cognitive therapy (001/0 <Pand646/18 = F) is statistically significant after adjustment, the average of the two groups based on the pre-test score. Considering the average of the two groups (Table2) indicates that the score of test group in pretest decreased compared to control group. Therefore it can be concluded that Mindfulness cognitive therapy reduces staff's dysfunctional attitudes. Eta-squared values show that about 41% of the dysfunctional attitudes variance of emergency personnel can be explained through Mindfulness based cognitive therapy.

As can be seen in Table6 calculated F for the effect of pre-testis 417/0(not statistically significant). In other words, the post-test scores were not affected by pre-test scores. But the effects of mindfulness-based cognitive therapy (001/0 < Pand161/47 = F) after adjustment, the average of the two groups based on the pre-test score is statistically significant. Considering the average of the two groups (Table1) indicates that the score of test group in post-test decreased compared to control group. Therefore it can be concluded that Mindfulness cognitive therapy reduces staff's anxiety. Eta-squared values show that about 64% of the anxiety variance of emergency personnel can be explained through Mindfulness based cognitive therapy.

# **DISCUSSION AND CONCLUSION**

The results showed that post-test scores are not affected by pretest scores. But the effects of mindfulness-based cognitive therapy after adjustment, the average of the two groups based on the pre-test score is statistically significant. It can be said that emergency personnel variance of dysfunctional attitudes and anxiety can be explained through cognitive therapy Mindfulness. So, mindfulness-based cognitive therapy is effective on dysfunctional attitudes and anxiety. It is isaligned and consistent with the findings of Schultz et al. (2013), Corey et al. (2013), Javaheri and colleagues (2009), Cho (2010), Espada, Giorgio Wolsey (2010), Amis (2011), Abdie Bayrami (2010), Agha Yousefi (2014), the time (2014), Shaykh al-Eslamie and Seyed Esmail Qomi (2015) That each study evaluated the effectiveness of mindfulness-based cognitive therapy on quality of life and control patients with arson, examining mindfulness-based cognitive therapy Mindfulness and decreasing effect on automatic thoughts and dysfunctional

**Table 6** Analysis of covariance (ANCOVA)

Sources	sum of squares $(SS)$	Degrees of freedom $(df)$	Mean square $(MS)$	F	Significance level	Power
Pretest	14.281	1	14.281	.417	.524	.015
Group	1613.477	1	1613.477	47.161	.000	.636
Error	923.719	27	34.212			
Total	255488.000	30				

According to Table 4, the F value for equality of variances of the variables in the test and control groups in post-test shows attitudes, the effects of anxiety associated with chronic pain, Meta cognitive beliefs of state anxiety, Initial maladaptive schemas and negative life events in prediction of depression and anxiety, The effects of teaching mindfulness-based techniques to students to reduce test anxiety, Mindfulness and Addiction: the effectiveness of mindfulness on stress reduction, Anxiety and depression in drug abuse The impact of cognitivebehavioral stress management training on anxiety, depression and cognitive impairment in patients with multiple sclerosis, comparison of the effects of mindfulness-based stress reduction program of study skills their students' test anxiety. For explaining the hypothesis it can be said that Segal, Tyzdal and Williams (2002), with the integration of mindfulness meditation in traditional cognitive therapy, "Mindfulness-based cognitive therapy" had been developed. Mindfulness-based cognitive therapy programs, along with mindfulness meditation with cognitive aspects of depression are combined to keep negative thoughts out of focus (because thoughts are not real). Like many other studies, this study also faced with limitations regarding the low number of samples, the generaliz ability of the results may be limited. Other limitation of the study is the lack of follow-up period due to time constraints. Therefore, it is recommended that in future studies arrange an ineffective group program for participants in the control group. This research with larger and more controlled sample should be repeated so the results can be re-evaluated.

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#### How to cite this article:

Basira Fendereskinejad *et al.*2016, The Effectiveness of Mindfulness-Based Cognitive Therapy on Dysfunctional Attitudes And Anxiety In 115 Emergencystaff In Gorgan. *Int J Recent Sci Res.* 7(5), pp. 11110-11113.

