



## THE EFFECT OF MINDFULNESS TRAINING ON ANXIETY: A CASE STUDY: PSYCHOLOGY UNDERGRADUATE STUDENTS OF TEHRAN UNIVERSITY

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### ABSTRACT

The purpose of this study was to examine the effects of mind training on anxiety. The research method was quasi-experimental. The statistical population of this study included 20 psychology students from Tehran University (10 female and 10 male). From this statistical population, we selected 20 of students with above-average levels of anxiety and divided them into two groups of girls and boys using a targeted sampling method. Data were collected using the STAI questionnaire. Data were analyzed with EXCEL software. As a result, there was a significant difference in the study variables between Group 1 and Group 2, indicating that mindfulness-based stress reduction program training was effective in reducing anxiety.

**KEYWORD:** Mindfulness, Fear, Thoughts, Memories, Worries

### 1 INTRODUCTION

Anxiety is the most common category of mental health problem in the general population. The onset of this disorder occurs primarily in childhood and is associated with significant disruption of school performance, relationships, and family performance. However, it is reasonable to surmise that signs of anxiety include nervousness, restlessness, anxiety and worry, increased heart rate, sweating, and muscle tension. In addition, fear causes problems for individuals and society. These problems not only limit and distort the lives of those affected but also create more social problems for families, communities, and governments. Force. The prevalence of anxiety disorders, the





limitations and disruptions they pose to people's functioning, and the costs they impose on society have led to treatment and prevention being considered one of the major areas of mental health. One of the latest treatments to reduce anxiety. Stress reduction therapy is based on mindfulness. Additionally, mindfulness therapy was first introduced in 1979 by Jon Kabat Zinn at the University of Massachusetts Medical Center. One of his goals for this program was to teach people how to practice mindfulness-based meditation to improve their health and reduce stress. Mindfulness is a form of awareness that comes from paying attention to your goals, being in the present moment, and not judging the unfolding experience. A key component of mindfulness is paying extra attention to everyday activities to help people understand their physical and emotional state. Studies investigating mindfulness-based stress reduction programs have shown that mindfulness training reduces anxiety symptoms in a wide range of people. Mindfulness is a practical technique for staying in the present moment. For thousands of years, believers of various religions have practiced mindfulness and benefited immensely. More than 90% of our actions, thoughts, and feelings are automatic. Have you ever walked into a room and wondered why you entered it? What was I doing in this room? Or, for example, you rewind the song to better understand the lyrics, but rewinding is again distracting and you are not listening carefully to that part of the song. All this means that our minds wander elsewhere and are not paying attention to the present moment. In other words, it's not in the present. Mindfulness helps us be more present. Furthermore, mindfulness is consciously pay attention to the present moment with curiosity and acceptance without judging or criticizing yourself or your experiences. As you read this text, spend a few seconds paying attention to the sounds around you. Now notice the red things around you. In this exercise, we consciously focused our attention on two things. First the noise, then the red color of the surroundings. This meant that I did two short mindfulness exercises. However, the first condition of mindfulness is paying attention to something. You should be wondering what to watch out. The answer is that in mindfulness it doesn't matter what the source of your attention is. The second condition of mindfulness is that we must pay attention to what is present in the present moment. For example, remembering a trip two weeks ago or thinking about what to do in the afternoon is not mindfulness because you are not in the present moment. When we experience something, we subconsciously react based on





what we have learned in the past. How many times have you probably been thinking or talking about one topic and changed your mind about it a few minutes later? Indians liken the human mind to a monkey constantly jumping from one branch to another. Mindfulness can help calm these monkeys down a bit. People like to judge their experiences (good or bad). It is natural for this to happen during mindfulness. For example, say he is listening to the sounds around him and one of the sounds he hears is a car horn. Then I say to myself, "Wow, savages are honking at this time of the afternoon," or, when I'm concentrating on washing the dishes, "How could the water is, let me warm it up." I will persuade you. Please raise it a little." Practicing mindfulness will undoubtedly distract you many times, and negative thoughts will enter your mind. In such a case, it is important not to blame yourself but to be kind to yourself. For example, don't say to yourself the following phrases:

- why am I always distracted
- can't do this
- How busy my mind is!

One of the main problems most people who practice mindfulness have been that they believe that mindfulness is about staying in the present moment, and after a few mindfulness practices, people get annoyed and say, "I can't be in the present. I notice it every time. it is natural to get distracted while practicing mindfulness and this is inevitable. But we can refocus on the practice every time we notice our distraction.

## 2 LITERATURE REVIEW

Lindquist & Song (2015) examined the effects of training in a mindfulness-based stress reduction program on depression, anxiety, and stress in nursing students and found that participants who received a mindfulness-based stress reduction program were more likely to have Anxiety and stress. However, other studies have shown that mindfulness-based stress reduction programs are effective in reducing symptoms of generalized anxiety disorder, depression, and worry (Williams, et al. 2000). In another study, they





concluded that certain aspects of mindfulness, such as attention and non-judgment, are predictors of anxiety, obsession, and stress. In this regard, results from other studies examining the effects of mindfulness-based stress reduction training programs on psychiatric disorders showed that the programs were effective in reducing anxiety (Morrison, et al. 2014). As previously mentioned, mindfulness-based stress reduction programs teach people to focus nonjudgmentally on the present, letting go of ruminations about the past and worries about the future (Meyer, et al., 1990). Ruminations are disturbing thoughts that are repeated in response to negative events. These ruminations create and perpetuate negative emotions in a person. Rumination has been suggested as an example of repetitive negative thinking and is thought to be a metacognitive process that occurs in many psychiatric injuries. Cognitive impairment occurs as negative emotions heighten, accompanied by a chain of thoughts and ideas (Topper, et al., 2010). Thoughtfulness and concern are similar in some ways. Both carry a negative charge and carry negative personal or situational contexts. Both rumination and worry cause psychological and mental problems in a person, which in turn increase negative mood and decrease positive mood. Both cause a lack of concentration and attention in individuals, and both cognitive behaviors tend to be abstract (Black, et al, 2016).

### 3 METHODOLOGY

The current investigation method is experimental, and the design used is a two-group system. The statistical population of this study were male and female students from 18 to 22 years of age with a bachelor's degree in psychology from the University of Tehran, divided into two groups of girls and boys. A two-stage sampling procedure was appropriate, and in the first stage, all persons in the statistical population completed STAI anxiety questionnaire.

After receiving informed consent to participate in the study and assurance not to disclose personal information, all 20 subjects with moderate to high anxiety were selected as the sample group for the study, boys and girls. were divided into two groups. In the boys' group, an experiment was conducted in an introductory session to open the





students' minds to this path for the purpose of a mindfulness-based stress reduction workshop. After 3 sessions, the STAI Anxiety Questionnaire was completed and the results showed a decrease in anxiety.

The first meeting of both the girls' and boys' groups was an introduction and acquaintance. They were taught about stress reduction in three sessions and retested using questionnaires. Results showed that anxiety was also reduced in this group. The results were analyzed using EXCEL software.

## 4 RESULTS

### 4.1 SPIELBERGER ANXIETY QUESTIONNAIRE (X-STAL)

This questionnaire includes two separate scales to measure two different concepts of anxiety. scale of trait anxiety (hidden) and situational anxiety (overt). Each of them contains 20 questions that measure the intensity of mental anxiety in the form of a four-point Likert scale. In order to obtain a person's score in each of the two overt and covert scales, the sum of the scores of twenty statements of each scale is calculated. If the average overt and hidden anxiety of a person is more than 43, he/she has moderate to high anxiety.

Table 1. The first twenty questions of obvious anxiety (state of anxiety)

Questions	Answers
1 I feel relaxed	Not at all To a certain extent Medium very much
2 I feel safe	
3 I am excited	
4 I feel nervous and stressed	
5 I feel relaxed and refreshed	
6 I feel anxiety and discomfort	
7 Right now, I am worried that I will be miserable soon	
8 I feel satisfied	
9 I feel panic	
10 I feel comfortable	
11 I feel confident	





12	I feel nervous
13	I am angry
14	I feel indecisive
15	I have physical peace
16	I feel satisfied and happy
17	I am worried
18	I feel confused
19	I walk with a feeling of stability
20	I feel satisfied

Table 2. The twenty second question of hidden anxiety (vein of anxiety)

Questions	Answers
1	I feel happy
2	I feel angry and restless
3	I feel satisfied with myself
4	I wish I could be as happy as others
5	I feel like a failure
6	I feel refreshed and comfortable
7	I am calm, cool-headed and gentle
8	I feel that the problems have piled up so much that I cannot overcome them
9	I worry a lot about many things that are not really important
10	I have troubled thoughts
11	I don't have self-confidence
12	I feel safe
13	I make decisions easily
14	I feel inadequate
15	I am satisfied
16	Some unimportant thoughts come to my mind and bother me
17	I'm very disappointed and I can't get it out of my mind
18	I am an orderly and diligent person
19	I do not feel safe





20 When I think about past worries and interests, I feel anxious and confused

## 4.2 SPEILBERGER STATE–TRAIT ANXIETY INVENTORY (STAI-Y)

The Spielberger Anxiety Questionnaire consists of 40 questions, the first 20 measuring anxiety and the second 20 measuring anxiety. The Anxiety Scale (Manifest Anxiety) consists of 20 items that rate a person's emotions in "this moment and time of reaction". The Anxiety Strip scale also includes 20 sets that measure people's general and common emotions.

For each utterance, subjects were presented with different options depending on their anxiety and had to choose the option that best represented the intensity of their feelings. These options are 1 - very low, 2 - low, 3 - high and 4 - very high. Statements of lack of anxiety reverse the weights of the ratings.

Expressions that are reversed in evaluation are as follow:

Anxiety Scale:

20-19-16-15-11-10-8-5-2-1

Fear Stripe Scale:

39-36-34-33-30-27-26-23-21

To obtain an individual's score on each of the two scales, the total score would be 20 terms on each scale. Therefore, the scores on each of the two scales of the Mood and Anxiety lines can be placed in the range of 20 to 80.

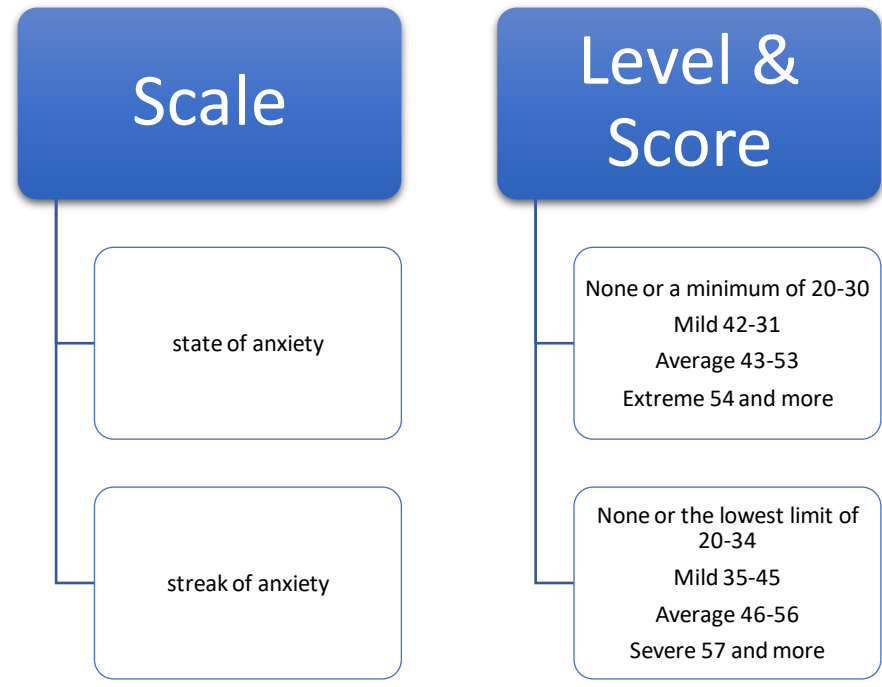
These buttons are accessible for manually evaluating the scale. To create good keys for each scale, attention should be paid to the format of the tests and the values printed on the keys. This exists for each answer of 20 statements. For respondents who omitted one or two terms on each scale, scales can be determined relative to the total





score in the following manner. Taking the mean of the weighted scores, multiplying the resulting value by 20, and rounding the number to the nearest integer given above indicates the adequacy of the determination of the subject's anxiety level if three or more terms are omitted. sex is suspected.

**Figure1. Interpretation of Spielberger anxiety questionnaire scores**



**5 DISCUSSION**

**5.1 EVALUATION OF SCORES OF TWO GROUPS**

In this section, the grades of the first and second groups are checked.

**Table 3. The score of the first group**

person	Score before treatment 1/ Score before treatment 2	Score after treatment 1/score after treatment 2
1	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
2	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35







2	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
4	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
5	Average 43-53 / Average 46-56	None or the lowest limit-20-30 / None or the lowest limit-20-34
6	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
7	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
8	Average 43-53 / Average 46-56	Mild-42-31 / Mild-45-35
9	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
10	Average 43-53 / Average 46-56	Mild-42-31 / Mild-45-35

Table 3. The score of the second group

person	Score before treatment 1/ Score before treatment 2	Score after treatment 1/score after treatment 2
1	Average 43-53 / Average 46-56	None or the lowest limit-20-30 / None or the lowest limit-20-34
2	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
3	Average 43-53 / Average 46-56	Mild-42-31 / Mild-45-35
4	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
5	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35
6	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
7	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
8	Severe - 54 and more/Severe - 57 and more	None or the lowest limit-20-30 / None or the lowest limit-20-34
9	Average 43-53 / Average 46-56	None or the lowest limit-20-30 / None or the lowest limit-20-34
10	Severe - 54 and more/Severe - 57 and more	Mild-42-31 / Mild-45-35

As can be seen in the table above, before the treatment, seven out of ten people in the first group had severe anxiety and three people had moderate anxiety, and the anxiety score with the first twenty questions of seven people was reported as 43-53 and three people as 31-42. In the second twenty questions, seven people got a score of 57 or





more and three people got a score of 46-56. After treatment, six reported moderate anxiety and four reported mild anxiety.

In the second group, before treatment, eight out of ten people had severe anxiety and two had moderate anxiety before treatment. After treatment, five reported moderate anxiety and five reported mild anxiety.

## 6 CONCLUSION

The purpose of this research is to investigate the effect of mindfulness training on anxiety and working memory considering the role of intellectual concern. The findings of this research showed that the stress reduction program based on mindfulness has significantly reduced students' anxiety. In this research, twenty students were examined twice before and after the treatment. The findings of the research proved that most of the students experienced severe or moderate anxiety before the treatment, but after the treatment, this anxiety decreased to moderate and mild levels. As a result, this method is called fruitful. Although this method requires more and numerous experiments, it can be investigated in theory. This method can bring the modern science of psychology into a new stage so that new scientific methods can be investigated on it.

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