

THE EFFECTIVENESS OF MOTIVATIONAL PSYCHOTHERAPY ON UNIVERSITY STUDENTS' ANXIETY SENSITIVITY ASSOCIATED WITH THE COVID-19 PANDEMIC

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ABSTRACT

Purpose: The purpose of this study was to investigate the effectiveness of motivational psychotherapy on students' anxiety sensitivity during the COVID-19 pandemic.

Method: The method of this study was pretest-posttest experiment with a control group. The statistical population of the study included all the students of the Islamic Azad University of Qaenat in 2022. From this statistical population, 265 people were selected as a sample based on Cochran's formula and by means of the voluntary sampling method. They filled out the anxiety sensitivity questionnaire (pretest) and then, among those who met the criteria for entering the study, 40 people were selected as a sample by random sampling, and were randomly divided into two groups – experimental group and control group (each group consisting of 20 people). The experimental group underwent motivational psychotherapy for 8 sessions (Sahebdel and Tahan, 2022) and the control group did not receive any intervention. At the end, both groups answered the research tools again (posttest). Multivariate covariance analysis was used to analyze the data.

Findings: The results showed that there is a significant difference between the experimental and control groups in terms of anxiety sensitivity in the pretest and posttest ($p < 0.05$). Therefore, motivational psychotherapy has reduced students' anxiety sensitivity during the COVID-19 pandemic.

KEYWORDS

motivational psychotherapy, anxiety sensitivity, student, COVID-19 pandemic

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INTRODUCTION

From the very beginning of their evolution, humans have been subjected to various psychological and physical hazards, and have even suffered and endured abundant natural and unnatural disasters throughout the ages. Although the strongest power bestowed to humans for survival purposes is the inner mind, raising concerns about the coronavirus disease 2019 (COVID-19) have led to the spread of excessive fear and anxiety in the globalizing world, weakening the immune system. The COVID-19 outbreak started in China and spread rapidly in all populations around the world. The release of information on the number of cases of people infected and dying from this condition has also given rise to severe fear and anxiety in different sections of the society, and it has been ignored that the fear, anxiety and panic caused by this pandemic could drastically affect the human health and defense systems, and even their thinking (Coronavirus Disease Prevention and Control Headquarters, 2020).

Coronavirus is mainly transmitted through tiny respiratory droplets produced by breathing, talking, sneezing and coughing from those infected. On average, it takes about five to six days for a person to present with some symptoms after being infected. However, some patients do not show any symptoms. According to Van Kerkhove, the head of the WHO's Health Emergency Program, the virus multiplies in the respiratory tract and can

even cause a wide range of symptoms and infect many people. On March 11, the WHO announced the outbreak of the disease as well. As of March 9, 2020, more than 122,000 cases were confirmed in over 120 countries, with major outbreaks in China, Italy, South Korea, and Iran (Times, 2020). On January 30, 2020, the WHO issued a statement declaring the nCoV as a public health emergency of international concern, threatening the entire world, not just China (Times, 2020). Accordingly, the COVID-19 pandemic spread around the world and raised many concerns in various areas of health, economy, morbidity and mortality. This condition has also been accompanied by fear, anxiety and panic in the international community, shaping a series of new events in psychological spaces in the human mind and endangering mental health. The fear induced by COVID-19 and the resulting quarantine have been equally menacing for mental health, increasing the prevalence rates of depression, anxiety, physical disorders, and influencing social functioning in individuals (Huang, 2020).

On the other hand, some studies have established that anxiety sensitivity (AS) increases the probability of the fear of illness and anxiety disorders, and acts as a risk factor in this context. The recent theoretical models developed for this purpose have also put much more emphasis on how people deal with anxiety-provoking experiences and situations (McNally, 2002). AS also refers to the concept of individual differences, wherein people feel frightened of the somatic symptoms as-

sociated with heightened anxiety such as increased heart rate, shortness of breath and dizziness, originating from the idea that such symptoms could give rise to potentially damaging social, cognitive and physical consequences (Deacon, Abramowitz, Carol, & David, 2003). AS also leads to biases in the retrieval and processing of information related to anxiety trigger stimuli, which paves the grounds for mental disorders such as anxiety (McCabe, 1999). In fact, current research shows that AS may be a risk factor for anxiety-related problems (Zvolensky, Schmidt, Bernstein, & Keough, 2006). This cognitive variable can, thus, amplify the risk of symptoms such as anxiety, panic attacks and illness anxiety disorder (Hayward, Killen, Kraemer, & Taylor, 2000; Schmidt, Zvolensky, & Maner, 2006).

Over recent decades, many researchers have further highlighted the need for psychological interventions in order to assess the mental health status of people exposed to stressful life events, such as the prevalence of COVID-19. They have also reflected on a wide range of psychological treatments, including stress management, biofeedback and muscle relaxation, assumed to be effective in promoting the quality of life (QoL) and mental health. Consequently, motivational psychotherapy (MP) has been introduced as one of the latest procedures and has been simultaneously investigated with regard to psychological risk factors.

The motivational psychotherapy approach is based on the belief that psychological disorders are the result of lies that we re-

peat to ourselves. In this approach, by emphasizing the present tense and writing life scenarios, help is provided to clients in order to change their stereotypical roles and discard ugly lies. Motivational psychotherapy offers a new solution in which the clients get to know the principle of lying and how their illness is formed, and try to gradually achieve changes through internal stability by changing their body language (Sahebdel and Tahan, 2022).

Given the high prevalence rate of COVID-19 and the associated health problems in mental and physical domains, it is thus necessary to develop treatment strategies such as the MP in order to improve AS rates among university students. Considering the fact that there is little research on the effects of COVID-19 on different segments of the population, especially university students to the best of the authors' knowledge, this study was to address the question of whether the MP was effective in university students' AS related to the COVID-19 pandemic.

METHOD

The research method was quasi-experimental, using a pretest/posttest design with a control group.

STATISTICAL POPULATION

The statistical population of the study included all students enrolled in the Islamic Azad University Qaenat in Qaen



in 2022, based on the statistics obtained from 870 individuals.

SAMPLES AND SAMPLING

The statistical sample was determined based on the Cochran formula for 870 people, selected using the stratified random sampling method. In this way, a total number of 265 university students was first selected and the research tools were distributed among them (as a pre-test). Afterwards, 40 cases were randomly selected as the sample among those with scores higher than 32 in the modified AS, and then randomly divided into experimental and control groups. **Inclusion Criteria:** Willingness to participate in the study, along with obtaining a score higher than 32 from the ASI, were the inclusion criteria in this study.

Exclusion Criteria: Noncooperation in the study, together with participation in simultaneous interventions, were among the exclusion criteria in this study.

DATA COLLECTION TOOLS

Anxiety sensitivity (AS): The modified ASI, as a self-report questionnaire based on a five-point Likert scale (more precisely, very low=0, low=1, moderate=2, high=3, very high=4), which contains 16 items, reflecting the idea that anxiety is experienced in an unpleasant manner and it is likely to result in undesirable consequences. The degree of experiencing the fear and

anxiety symptoms was accordingly determined by scores higher than 32, in a range from 0 to 64 (Floyd, Garfield, & LaSota, 2005). This questionnaire also comprised three factors, including fear of physical concerns (eight items: No. 1, 2, 3, 4, 5, 6, 7, and 8), fear of no cognitive control (four items: No. 9, 10, 11, and 12), and fear of being witnessed by others (four items: No. 13, 14, 15, and 16) (Zinbarg, Barlow, & Brown, 1997).

The assessment of psychometric properties of the ASI has thus far shown its excellent internal consistency (Cronbach's $\alpha = 0.80-0.90$). The test-retest reliability values after two weeks and three years amounted to 0.75 and 0.71, respectively, indicating that it is a consistent scale. Its reliability in Iranian samples was additionally calculated based on internal consistency, test-retest reliability, and split-half reliability coefficients for the total scale as 0.93, 0.95 and 0.97, respectively. The validity of this scale was also measured using concurrent validity, the correlation between the sub-scales and the total scale, and factor analysis. Additionally, concurrent validity was determined using the Symptom Checklist-90 (SCL90), whose correlation coefficient was satisfactory and varied from 0.74 to 0.88 (Beyrami, Akbari, Ghasempour, & Azimi, 2012).

STUDY PROCEDURE

After obtaining the required permits, a total number of 870 Islamic Azad University Qaenat students was selected out of those enrolled in 2021 (based on the statistics

obtained from 265) using the Cochran formula and the stratified random sampling method. The research tools were first distributed among them (as a pretest), then 40 students were randomly selected as the sample among those with high scores in the AS, and they were randomly assigned to experimental and control groups. The experimental group then underwent eight sessions of MP developed by Sahebdel and Tahan (2022) (each session lasting 45 minutes, in a period of four weeks), while the control group received no interventions. Finally, both groups completed the research tools once again (as a posttest). The collected data was analyzed using the SPSS Statistics software. The descriptions of the MP sessions are as follows:

Session 1

Rapport> Rapport, initial introduction, discussion about the purpose of the therapy, building trust.

Session 2

Describing> Helping clients describe themselves by emphasizing incompatible aspects of their personality, this description includes all the characteristics of clients, including cognitive, emotional, moral, and so on.

Session 3

Lies> Explaining the concept of lies and how lies are formed. Describing and explaining the nature of lies. Finding the

root cause of lies. Separation of ugly and beautiful lies. Pathology of lies.

Session 4

Roles in the script of life> Describing the script of life and analyzing his/her role in the script of life. Identifying mental illness as a role. Pathology of roles.

Session 5

Four walls> Identification of four walls. Explaining the concept of four walls and trying to break the first wall using techniques such as encouragement, body language, change from outside to inside, confrontation with fear. Breaking bad habits, practicing the phrase: "I can", breaking up ugly lies, changing appearance.

Session 6

Rich mind> Explaining the concept of rich mind and helping clients have a rich mind, getting rid of trivial matters. Trying to control anger and calm. Searching for bigger goals.

Session 7

Self-mastery> Practicing self-mastery, gaining the power to change, overcoming ugly lies: "I can't". Practicing new roles. Practicing mastering habits and behaviors.

Session 8

Personal circle> Practicing personal circle and getting rid of the hell of others.



Practicing loving oneself. Reducing traumatic mental conflicts about others. Getting rid of jealousy, revenge and anger. Following personal goals.

Session 9

Commitment> Celebrating success, having commitment to change.

DATA ANALYSIS METHOD

The data analysis was conducted in two sections. In the descriptive section, descriptive indices such as mean, median, percentage and mode were employed to examine the demographic characteristics of the subjects. The analysis of covariance (ANCOVA) was also used to test the study hypotheses.

RESULTS

In the present study, the 20 people (50%) in the experimental group and 20 people (50%) in the control group were randomly allocated. Of these study participants, 18 were men and 22 were women.

The first assumption of the test is the assumption of normality of the variables,

which was performed using the Kolmogorov-Smirnov test.

The results of Table 1 showed that the significance levels of both variables are much larger compared to the significance level of alpha 0.05, so the assumption of normality of the data is accepted.

The second assumption is the homogeneity of variances, which was performed based on Levene's test.

The results of Levene's test showed that the significance levels of all variables in the pretest and posttest stages are greater than the significance level of 0.05. Therefore, the null hypothesis that the variances are homogeneous is accepted.

The covariance analysis of motivational psychotherapy on anxiety sensitivity is mentioned in the following text.

The findings presented in Table 7 showed that the training of the independent variable (motivational psychotherapy) was able to create a significant difference in the mean scores of the dependent variable (anxiety sensitivity) in the posttest stage at the error level ($p<0.05$). It is, therefore, concluded that by controlling the intervening variables, the mean scores of anxiety sensitivity variable have changed.

Table 1 Kolmogorov Smirnov test related to research variables

Normality tests	Groups	Kolmogorov-Smirnov		Groups	Kolmogorov-Smirnov	
		Statistic	Sig		Statistic	Sig
Anxiety sensitivity	Experimental	0.175	0.277	Control	0.163	0.871

DISCUSSION AND CONCLUSION

The aim of the present study was to investigate the effectiveness of motivational psychotherapy on anxiety sensitivity relating to the coronavirus pandemic among students during the pandemic. The results showed that motivational psychotherapy reduces anxiety sensitivity relating to the COVID-19 pandemic in people. These findings are consistent with the results of studies conducted by Tahan and Sabriyan (2023), Kashdan et al. (2008), Rector, Szacun-Shimizu and Leybman (2007), and Deacon and Abramowitz (2006), which are in line with the results of this study, with the difference that in this study, motivational psychotherapy was discussed in the variable of anxiety sensitivity, and the results showed that this method of treatment is effective.

Participating in group meetings and creating a sense of solidarity can bring fa-

vorable changes to people's psychological status. Humans sense the world outside them, develop perceptions in the brain, and choose how to respond. Ellis points out that humans do not live in the real world at all, but have perceptions of reality, and this perception of reality is different in different people, and humans often rely on other people's perceptions to satisfy their needs. They are interested in reality. According to cognitive therapists, human behavior and actions, thoughts and feelings are determined by their perception of reality, and not the reality itself. The common belief that people and their behavior can be controlled belongs to the field of control psychology, and with this belief, people spend a lot of energy and time trying to make others do things they do not want to do and in front of others. They also spend similar amounts of energy and time resisting efforts trying to make them do things they do not want to do (Sahebdel and Tahan, 2022).

Table 2 The results of Levene's test for the purpose of checking the homogeneity of variances

		Levine's	DF1	DF2	Sig
Anxiety sensitivity	pretest	0.247	1	38	0.387
	posttest	0.186	1	38	0.457

Table 3 The results of covariance analysis of motivational psychotherapy on emotional anxiety sensitivity

	Source of squares	Sum of Square	DF	Mean of Square	F	Sig
Anxiety sensitivity	Pretest	270.45	1	270.45	90.06	0.001
	Groups	239.94	1	239.94	166.39	0.001
	error	75.07	38	3		
	Total	585.46	40			



Along with physical illnesses, the COVID-19 pandemic has also given rise to numerous socioeconomic problems in various populations. Many people, especially university students, suffer from the fear and anxiety of contracting the disease, because the modes of transmitting the CoV to humans have been thus far introduced and the first strategy to prevent this condition was protocolled as quarantine and not being in close contact with others (WHO, 2020). The psychological problems caused by COVID-19 have additionally led some people to develop obsessive-compulsive disorder (OCD), phobia, fear and anxiety about the disease. In this sense, personality traits, defense mechanisms, emotion regulation strategies and AS can significantly contribute to the disease and poor mental health. On the other hand, AS raises some biases in retrieving and processing information related to anxiety trigger stimuli (Ibn Nasir & Khaleghipour, 2018). Deacon and Abramovitz (2006) accordingly established that high levels of AS could induce panic, fear and social anxiety.

Kashdan, Zvolensky, and McLeish (2008) also reported that high AS was associated with escaping and avoidance, and could even increase the incidence rates of various diseases. As diseases and their prevalence have existed as one of the issues facing human communities, illness anxiety and its resulting deaths have always been recurrent among people all over the world. Therefore, paying much more attention to the mental dimension of care under chronic conditions is of utmost importance. Given the rising trend in the prevalence rate of COVID-19, reflections on AS among

individuals and their relationships with mental health, as well as the provision of therapeutic strategies in order to improve such variables, are essential. It, therefore, seems that examining such problems, mainly AS in individuals and the identification of therapeutic procedures to modify them, can be among the effective steps in boosting other aspects of health and QoL.

One of the limitations of the study was the increase in the spread of the coronavirus, and the requirement to implement the health protocol of COVID-19 when holding meetings, which prompted the researcher to hold the meetings virtually. It is, therefore, suggested to use motivational psychotherapy as an independent and efficient method to correct and treat people's anxiety sensitivity during the coronavirus epidemic and afterwards.

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Disclosure

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Research involving animals

Not applicable.

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