



Research paper

A Comparison of the Effectiveness of ACT and ER on Health Anxiety and CER of Recovered Covid-19 Patients

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Abstract

The study was aimed to compare the effectiveness of acceptance and commitment therapy (ACT) and emotional regulation (ER) on health anxiety and cognitive-emotional representations (CER) of Recovered Covid-19 Patients. The research method was a semi-experimental pre-test-post-test design with a control group. The research population included all those infected with the Covid-19. A sample of 75 were selected, assigned randomly in the experiment and control groups. The test of health anxiety and CER was performed. The ACT and ER were implemented in 8 sessions. The data were analyzed through the multivariate covariance test. The use of ACT had an effect on health anxiety in the post-test stage, but had no effect on reducing the CER in this stage. ER had an effect on both of them. The ER had a more effective result than the Act and it can be used in clinical centers to improve these patient's problems

Keywords: Acceptance and commitment therapy, Covid-19, emotion, health anxiety

Introduction

Health anxiety is caused by ineffective beliefs about health status and the possibility of disease occurrence, which has an important effect on activities related to disease prevention (Fathabadi, et al., 2018). In fact, beliefs determine how to interpret and give meaning to events and regulate the quality and quantity of behaviors and emotions (Khani, et al., 2017). Therefore, the usual way of treating anxiety can rely on changing the beliefs, perception of patients, which is manifested in the treatment method of "psychological flexibility". Studies have shown that, psychological flexibility alleviates the destructive effects of covid-19 on mental health, and ACT is an example of psychological flexibility therapy based on accepting physical and psychological pain as a part of normal life. Among other models that are used in the treatment of anxiety is "Emotion Regulation Training". Naserinia and Borjali's study (2019) showed that emotion-focused therapy reduced anxiety in the experimental group and has useful practical implications in improving the psychological symptoms of corona patients. The aim of the present study was to compare the effectiveness of ER of the Gross model and ACT in the treatment of health anxiety in those who had recovered from corona disease. Hypotheses: 1. Emotion regulation training has an effect on health anxiety and cognitive-emotional representations. 2. Treatment based on commitment and paternity has an effect on health

anxiety and CER. And 3, the research seeks to answer the question that which of these two treatment methods is more effective on health anxiety and CER.

Method

The research method was a semi-experimental pre-test-post-test design with a control group. The statistical population was made up of all those who recovered from corona disease and were referred to the health centers of Tabriz city. A sample of 75 people from among the statistical population, who had symptoms of depression and anxiety through clinical interview, were selected by available sampling method and randomly assigned into two experimental and one control groups. After obtaining permission and receiving the ethics code from Urmia University, the participants were asked to complete the pre-test questionnaires virtually and via email. The tools were Illness Perception Questionnaire and Health Anxiety Questionnaire. Then group therapy was held in 8 sessions, twice a week, online (due to the corona situation) through the Sky room platform, for both experimental groups. Then, the participants completed the post-test. For the control group few short therapy sessions were held, after the completion of the study. Data were analyzed using multivariate covariance test.

Tools

Illness Perception Questionnaire (IPQ-R): This questionnaire has 9 items. The scores range from zero to ninety. The item 9 is an open answer. The retest reliability coefficient is reported as 0.42-0.75. The construct validity of this questionnaire was 0.71, (Broadbent, et al., 2006) Cronbach's alpha of the scale was 0.70 in this research.

Health Anxiety Questionnaire (F-SHAD): This test has 18 items, with the scores range from zero to 54. The test-retest reliability of this questionnaire reported 0.90 by Salkovskis, et al. (2002). Nargesi, et al. (2016) obtained Cronbach's alpha coefficient of 0.75 for the total score and 0.60, 0.59 and 0.70 for the subscales of that.

Treatment based on acceptance and commitment: this treatment was conducted in for the first experimental groups, online, twice a week during 8 sessions. No changes have been made to the original source. (Hayes, 1986).

Emotion regulation treatment based on the Gross model: This training was conducted for the second experimental group, online, in 8 sessions, twice a week. No changes have been made to the original source. (Gross, 2002).

Results

In order to check the assumptions of covariance analysis, M box test, Kolmogorov Smirnov and Levin's test were used. Table 1 presents mean and SD of participants' scores (control and experiment groups) in pre-test and post-test.

Table 1: Mean and SD of variables in pre and post test

Subscales	Groups	ACT		Emotion		Control	
		Mean	SD	Mean	SD	Mean	SD
Illness perception	Pre-test	53.53	5.13	56.60	6.13	52.46	7.57
	Post-test	43.53	3.87	42.33	4.83	47.86	9.51
Healthy anxiety	Pre-test	43.53	6.09	44.60	7.91	40.60	6.28
	Post-test	20.66	2.66	24	3.87	36.80	7.10

In order to achieve the objectives of the study, it should be investigated whether each of the dependent variables is affected separately from the independent variable or not. For this purpose, the multivariate covariance analysis test was used, the results of which are presented in the table below.

Table 2: Results of between-subject effects of multivariate covariance analysis

Subscales	Sum of squares	DF	F	P-value	IF
Illness perception	32.02	1	1.49	0.23	0.06
Healthy anxiety	1297.46	1	15.99	<0.001	0.77

The results of analysis in Table 2 showed that, the use of ACT has an effect on health anxiety (Sig=0.000 and F=15.99) in the post-test stage. Also, Table 2 showed that there was a significant difference between the post-test scores of disease perception and health anxiety. In other words, both methods of ER and ACT had an effect on the variables of health anxiety and disease perception.

Discussion and Conclusion

In ACT, behavioral commitment exercises along with the techniques of detachment and acceptance as well as detailed discussions about the individual's values, goals and the need to specify values all, lead to a severe reduction of depression and anxiety. In relation to ER, people who are not able to properly manage their emotions against the tension caused by Covid-19, experience more stress, depression and anxiety. Using adaptive strategies such as positive re-evaluation and refocusing on positive planning increases positive emotions in people, this result in reducing health anxiety and fear caused by Corona. Due to the low sample size of the study, due to the cost and time control, the error value may be high and the power of the study may be low. Although, the allocation of participants in the study groups was random, the selection of the available sample reduces the generalizability value of the study. It is suggested that health and clinical psychologists, use this type of treatment to reduce the scores of the anxiety.

References

- Broadbent, E., Petrie, K. J., Main, J., & Weinman, J. (2006). The brief illness perception questionnaire. *Journal of Psychosomatic Research*, 60(6), 631-637. doi:10.1016/j.jpsychores.2005.10.020

- Fathabadi, J., Izaddost, M., Taghavi, D., Shalani, B., & Sadeghi, S. (2018). The role of irrational health beliefs, health locus of control and health-oriented lifestyle in predicting the risk of diabetes. *Payesh*, 17(2), 169-178. [persian]. <http://payeshjournal.ir/article-1-56-fa.html>
- Khani Jeihooni, A., Hidarnia, A., Kaveh, M. H., Hajizadeh, E., & Askari, A. (2017). RETRACTED: The effect of an educational program based on health belief model and social cognitive theory in prevention of osteoporosis in women. *Journal of Health Psychology*, 22(5), NP1-NP11. [persian]. <https://www.sid.ir/paper/33892/fa>.
- Gross, J. (2002). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1-26. <https://doi.org/10.1080/1047840X.2014.940781>
- Hayes, S. C. (1986). A practical guide to acceptance and commitment therapy. New York, NY: Springer. <https://link.springer.com/book/10.1007/978-0-387-23369-7>
- Nargesi, F., Izadi, F., Kariminejad, K., & Rezaii, S. A. (2017). The investigation of the reliability and validity of Persian version of Health anxiety questionnaire in students of Lorestan University of Medical Sciences. *Journal of Educational Assessment*, 7(27), 160-147 [persian]. <https://www.sid.ir/paper/214567/fa>
- Naserinia, S., & Barjali, M. (2019). The effectiveness of emotion-focused therapy on obsessive and anxiety symptoms in corona patients. *Quarterly Journal of Clinical Studies in Psychology*, 10(39),155-135. [persian]. https://jcps.atu.ac.ir/article_12395.html
- Salkovskis, P. M., & Warwick, H. (2002). The Health Anxiety Inventory: development and validation of scales for the measurement of health anxiety and hypochondriasis. *Psychological Medicine*, 32(5), 843-853. doi:10.1017/s0033291702005822

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Conflicts of interest

There is no conflict of interests for researchers.



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