Research paper

The Effectiveness of Cognitive-Behavioral Intervention on Grief Experience, Depression and Anxiety of Relatives of Covid-19 Victims

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Abstract

The present research aimed to investigate the effectiveness of cognitive-behavioral intervention on the grief experience, depression and anxiety of relatives of Covid-19 victims. In terms of objective, the research is an applied one and uses the mixed methodology (quantitative and qualitative). The statistical population included men and women over 18 years old in the city of Shiraz. The research used the non-random sampling technique. The people whose grief experience lasted over 4 months and scored above 68 were selected as samples. Following the interview and qualitative analysis, the control and experimental groups were compared using Beck's depression questionnaire and Good's existential anxiety questionnaire. The results of Mann–Whitney U test and Wilcoxon test showed that cognitive-behavioral therapy had a significant effect on the grief experience, depression and anxiety of the relatives of the victims of Covid-19.

Keywords: Anxiety, depression, grief experience, cognitive-behavioral therapy, Covid-19

Introduction

Covid-19, which is a virus from the Coronavirus family, is an emerging disease of this era. The disease was previously known as the acute respiratory syndrome and the Middle East respiratory syndrome (Huang, et al., 2020). The damage that Covid-19 causes is not limited to the fatalities of people. What is way more important is that the death of a single person affects an entire family and plunges it into rumination. The reason for this is that the family members are not able to mourn their loved one during the Covid-related lockdown in their area (Aguiar, et al., 2020). This causes such problems as depression and anxiety for the bereaved people (Amsalem, et al, 2021). Depression is a common psychological disorder that may affect the bereaved people after they lose a loved one (Li, et al., 2019). Depending on the factor which causes anxiety, this disorder has various types. One of them is existential anxiety. Most bereaved people face this type of anxiety as they seek to find meaning in life (Testoni, et al., 2020). Empirical evidence shows the cognitive behavioral model properly explains the structure and process of depression and anxiety. According to the evidence, the cognitive behavioral model can also serve as a very effective intervention tool to alleviate depression and anxiety with a lasting and long-term impact (Almén, et al., 2021). Therefore, this type of intervention can be used to alleviate the symptoms of grief, depression and anxiety experienced by the relatives of Covid-19 victims. The present research aims to find an answer to these two questions:

What does the narrative of the relatives of Covid victims about the grief experience look like? Does the cognitive behavioral treatment technique have a positive effect on the grief experience, depression and anxiety of the relatives of Covid-19 victims?

Method

This research's methodology is mixed (quantitative and qualitative). In the qualitative section, theme analysis method and in the quantitative section, semi-experimental method was used with a pre-test-post-test design for control group. Non-random method was used for sampling and 8 people who scored above 68 on the bereavement questionnaire were eligible. They were randomly divided into two groups. Before intervention, an interview was conducted. The research questionnaires were administered to both groups. Then the intervention (cognitive-behavioral therapy, 8 sessions of 1.5 hours, 2 sessions per week) was carried out and a post-test was conducted for both groups.

Tools

Grief Experience Questionnaire: GEQ was devised by Barrett and Scott (1989) on a 5-point Likert scale. In Iran, the results of an analysis of its major components by Mehdipour, et al. (2009) showed 7 factors with 34 items. The factors of this questionnaire revealed an appropriate convergent validity for the subscales of depression and somatization of the symptoms of psychological disorders and the general health questionnaire ($p < 0.01$). The coefficient of Cronbach's Alpha was 0.78 in present research.

Beck Depression Inventory-Second Edition: This was devised by Beck, et al (1996) on a four- point scale. In a research by Hamidi, et al. (2014), the questionnaire's validity was 0.80 ($p < 0.01$) using convergent validity method with general health questionnaire. In this research, the coefficient of Cronbach's Alpha was 0.83.

Good's Existential Anxiety Inventory: This was devised by Lawrence Good and Katrina Good (1974). Shirali and Dashtbozorgi (2019) examined and confirmed its content validity through 10 psychologists. The questionnaire's reliability was obtained using Cronbach's Alpha and was 0.84. It was 0.80 in this research.

Results

Data analysis on eight people using thematic analysis, basic themes (31 themes), organizing themes (7 themes) and comprehensive themes (2 themes) was conducted. This interview was carried out prior to the cognitive-behavioral intervention. Chi-square test of independence was used to check whether the cognitive-behavioral therapy protocol was effective in alleviating the grief experience in the bereaved families of those killed by Covid-19.

**Table 1. Results of Chi-square test of independence compared with abundance
in control and experimental groups**

Chi-square	Freedom degree	P
4.50	1	**0.03**

As shown in Table 1 and according to the chi-square value (4.50) with one degree of freedom and significance (P<0.05) obtained in two stages before and after the implementation of the protocol, there is a significant difference between the experimental group and the control groups.

Quantitative section

As the results of the Mann–Whitney U test show in Table 2, in the pre-test stage, there is no significant difference between the two control and experimental groups in any of the parameters of the present research at the alpha level of 0.05. However, in the post-test stage, except for the two variables of grief experience (trying to justify and judge the person with others), there is a significant difference between the two groups at the alpha level of 0.05 with regard to the rest of the variables.

Table 2. Results of Mann–Whitney U test and Wilcoxon test for comparison of the control and experimental groups ion research variables

Variable	Components	Mann–Whitney U statistic	Wilcoxon statistic	Z	P
Grief experience	Feeling of guilt 1	10	25	-0.52	0.60
	Trying to justify 1	8	23	-0.94	0.35
	Physical reactions 1	12	27	-0.10	0.92
	Feeling of being abandoned 1	12	27	-0.10	0.92
	Judgment of person or others 1	11	26	-0.31	0.75
	Embarrassment/shamefulness 1	10	25	-0.52	0.60
	Stigma 1	8	23	-0.94	0.35
Depression	Depression 1	3	18	-1.96	0.05
Anxiety	Existential anxiety 1	10	25	-0.52	0.60
Grief experience	Feeling of guilt 2	0	15	-2.61	0.01
	Trying to justify 2	5	20	-1.57	0.12
	Physical reactions 2	2	17	-2.19	0.03
	Feeling of being abandoned 2	0	15	-2.61	0.01
	Judgment of person or others 2	4	19	-1.78	0.08
	Embarrassment/shamefulness 2	0	18	-2.61	0.01
	Stigma 2	3	18	-1.98	0.05
Depression	Depression 2	2	17	-2.19	0.03
Anxiety	Existential anxiety 2	3	18	-1.98	0.05

Discussion and Conclusion

The present research is conducted to investigate the effectiveness of the cognitive-behavioral intervention on the grief experience, depression and anxiety of relatives of Covid-19 victims. The results showed there is a significant difference between the grief experience, depression and anxiety of relatives of Covid-19 victims in the experimental and control groups, and the cognitive-behavioral intervention is effective. This intervention can be used individually and in groups to tackle problems and can improve mental health. The present research faced some limitations. For example, there was no follow-up stage after treatment. This should be considered in future studies. Meanwhile, the sampling method was available sampling. It is

recommended that the cognitive-behavioral intervention be investigated in different cities due to cultural differences and be used as an effective tool to lessen the impact of grief on people.

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 Conflicts of interest
Authors found no conflict of interests.