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Comparison of the Effectiveness of Acceptance and Commitment Therapy and Reality Therapy in Reducing Depression and Anxiety in Families of COVID-19 Victims

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A B S T R A C T

Objective: The present study aimed to compare the effectiveness of Acceptance and Commitment Therapy (ACT) and Reality Therapy in reducing depression and anxiety in families of COVID-19 victims.

Methods and Materials: The research method was a quasi-experimental design with a pre-test and post-test with a control group, along with a three-month follow-up. The sample consisted of 45 individuals from families of COVID-19 victims, who were randomly assigned to two experimental groups and one control group (15 participants in each group). The two experimental groups received therapy in eight weekly sessions, each lasting 90 minutes. No intervention was provided to the control group. Participants completed the DASS21 questionnaire (1995) at three points: pre-test, post-test, and follow-up. The collected data were analyzed using inferential statistics (repeated measures analysis of covariance) in SPSS version 24.

Findings: The results showed that, in both experimental groups, the mean scores of depression and anxiety variables were higher at the post-test and follow-up stages compared to the pre-test stage. Furthermore, it was observed that the post-test mean score of the ACT group did not significantly differ from the Reality Therapy group in terms of depression and anxiety at the follow-up stage.

Conclusion: Based on the findings, it was concluded that both therapies were effective in reducing depression and anxiety.

Keywords: *Acceptance and Commitment Therapy, Reality Therapy, Depression, Anxiety*

1. Introduction

The COVID-19 disease, which began in early 2019, has affected nearly all countries worldwide and led to millions of cases across various age and gender groups. On one hand, individual and social preventive measures were taken to avoid infection and treat those affected, although they did not completely eliminate the disease or combat its associated mortality. On the other hand, the spread of the disease introduced numerous challenges in various sectors such as social, healthcare, treatment, and psychological domains, which significantly impacted family units. Considering that COVID-19 affected almost all crucial aspects of human life, including economic, political, social, and even military sectors of every nation, in other words, paralyzing them, the psychological effects of this viral disease on individuals' mental health across society hold significant importance (Lee, 2020). The rapid and widespread nature of the COVID-19 pandemic made controlling its spread a top priority for healthcare systems. As part of this priority, the media also attempted to encourage the public to follow health guidelines by emphasizing the risks. However, in some cases, the media significantly contributed to increasing mental distress (Jiang et al., 2020; Lee, 2020; Unicef, 2020). For instance, some media outlets used the term "end of the world," which led to heightened worry and anxiety among the public. Unfortunately, most of the news about COVID-19 was discouraging, raising anxiety levels. Moreover, if psychological interventions are delayed during a crisis, affected individuals may suffer significant psychological harm (Jiang et al., 2020; Lee, 2020; Unicef, 2020). Typically, the focus of media and healthcare systems is primarily on preventing the epidemic's spread, with most studies concentrating solely on clinical data, with little attention given to psychological disorders such as anxiety and depression (Jiang et al., 2020). Thus, mental health issues that arise simultaneously with the disease are largely overlooked. The fear and concern about contracting the disease, the psychological pressure of others' deaths, forced home confinement, quarantine adherence, and the increased likelihood of conflict and aggression among family members, along with changes in lifestyle, excessive irritability, and limited communication with loved ones due to fear of disease transmission, also exacerbate psychological issues (Arora & Bhatia, 2023; León & Guzmán-Saldaña, 2023). In past pandemics, the link between disease outbreaks and anxiety, stress, and post-traumatic disorders in individuals has been well-established (Giacomucci et al., 2022; Mazza et al., 2020). In China, 35.1% of the study participants exhibited generalized anxiety disorder, 20.1% suffered from depression, and 18.2% experienced sleep disorders during the COVID-19 pandemic. Another study found that 25% of students exhibited symptoms of mild to severe anxiety (Shahyad & Mohammadi, 2020).

Due to the high mortality rate of the disease, many families experienced the loss and death of some of their members. Moreover, to prevent the spread of the virus, many gatherings, including funeral ceremonies and other related religious and cultural events, were severely restricted, depriving families of social support. During the COVID-19 pandemic, individuals infected with the virus and their families faced social stigma, which could negatively affect other infected individuals, family members, friends, and even their communities (Mazza et al., 2020; Shahyad & Mohammadi, 2020; Zhou et al., 2021). Therefore, individuals who lost a family member due to this disease are at risk of complicated grief and other mental health disorders. Grief is of particular importance due to the complex psychological reactions it triggers after the death of loved ones (Arora & Bhatia, 2023). Generally, grief encompasses a range of emotions, thoughts, and behaviors experienced by individuals in response to loss or the threat of loss. While grief is a natural and universal phenomenon in all human societies, its expression varies among individuals, and different people experience loss, bereavement, and its consequences in diverse ways (León & Guzmán-Saldaña, 2023; Lightbody et al., 2022; Louw, 2020). The process of adapting to or coping with loss can significantly impact an individual’s future life, with many mourners displaying relative turmoil in their functioning during the first year after their loss (Menzies et al., 2020; Moya-Salazar et al., 2022; Wallace et al., 2020). Most researchers have noted that grief may lead to physical and psychological problems, including depression (Arslan & Buldukoğlu, 2021; Buckley et al., 2024; Chachar et al., 2021). The way grief is experienced depends on factors such as personality traits, gender, age, the degree of attachment to the deceased, and how the death occurred, and its intensity may vary (Fowley, 2021; Gesi et al., 2020; Kumar, 2021). Kübler-Ross makes a notable distinction regarding the nature of losses. She believes that how the surviving individual perceives the loss after the death of a loved one depends on factors such as the closeness (the bond and type of relationship) and the unexpected nature of the loss (Arslan

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& Buldukoğlu, 2021; Mansoori et al., 2023; Martínez-Medina, 2023).

To aid in improving mental health, various psychological approaches exist, and among them, we aimed to compare the effectiveness of two approaches—Acceptance and Commitment Therapy (ACT) and Reality Therapy—on individuals from families who lost loved ones to COVID-19, particularly those experiencing mood symptoms and grief. The Acceptance and Commitment Therapy (ACT) approach, developed by Steven Hayes in the 2010s, is one of the third-wave behavioral therapies. This approach is an effective contextual therapeutic method based on the theory of relational frame, which primarily views psychological problems as psychological inflexibility caused by cognitive fusion and experiential avoidance. ACT utilizes acceptance, mindfulness processes, commitment, and behavioral change techniques to create psychological flexibility (Hayes et al., 2006; Hayes et al., 2019).

A major advantage and distinction of this method, compared to other therapeutic approaches, is that it addresses human suffering. Many therapeutic methods start with the assumption that negatively evaluated emotions and thoughts are problems that must be eliminated. In contrast, this therapy does not make unwanted thoughts and feelings the primary goals of treatment. Instead, efforts to avoid these unwanted private events are considered ineffective (Hayes et al., 2006; Hayes et al., 2019).

Reality Therapy is based on common sense and emotional struggles, emphasizing reality, responsibility, and recognizing what is right and wrong and how these are related to the individual's daily life. Reality Therapy is a mix of existential philosophy and behavioral techniques resembling self-control behavioral therapy. In this educational approach, the goal is to help individuals resolve their issues by increasing personal responsibility and improving communication with important people in their lives. According to this approach, an individual is not only responsible for their behaviors but also for their thoughts and emotions (Akbarinejad et al., 2014; Anonymous, 2018; Baha'dori et al., 2021; Glasser, 2015). The focus of this approach is on the present moment and helping individuals understand that their actions are primarily chosen to satisfy basic needs. The therapist's job is to guide individuals toward better and more responsible choices (Glasser, 2015). Considering the therapeutic capabilities of ACT and Reality Therapy, their effectiveness in reducing depression and anxiety among families who lost loved ones to COVID-19 can be assessed.

The topic of mental health has been extensively researched in the last two decades, with studies expanding from individual life issues to social and professional interactions (Amani et al., 2018). Depression and anxiety, as mood and affective disorders, exist in all human societies and among various segments of the population. They are now prevalent and have caused immense suffering for countless individuals. Few people go through life without experiencing periods of worry, such as depression and anxiety. These mood disorders can lead to decreased activity and energy, preventing individuals from progressing and enjoying life (Baha'dori et al., 2021; Hajikarim et al., 2019). Various treatments in psychology are available to reduce these mood disorders. ACT is the treatment for human suffering, aiming to change the way individuals view their suffering. In this approach, unwanted thoughts and feelings are not the primary targets of treatment. Rather, attempts to avoid these unwanted private events are considered ineffective (Hayes et al., 2006; Hayes et al., 2019).

Therapists using the ACT approach teach individuals the concept of commitment, where commitment, at its most basic level, is a behavioral action aligned with an individual's values. Following this plan, the individual commits to using mindfulness strategies when facing cognitive and emotional barriers.

Several studies have shown the effectiveness of Acceptance and Commitment Therapy and Reality Therapy in reducing psychological problems, including the effectiveness of ACT in reducing depression symptoms (Sabour & Kakaberai, 2016), the effectiveness of ACT in reducing stress, depression, and exam anxiety in students with thalassemia (Okati et al., 2020), the effectiveness of ACT in reducing depression and anxiety in patients with hypertension (Miri et al., 2021), the effectiveness of ACT in reducing depression and anxiety in students with social anxiety (Moulavi, 2014), and the effectiveness of ACT in increasing psychological flexibility in divorced women (Hadian et al., 2023). Additionally, the effectiveness of group Reality Therapy in reducing depression, anxiety, and stress in patients with type-2 diabetes (Shomali et al., 2020), the effectiveness of Reality Therapy on reducing anxiety in women (Akbarinejad et al., 2014), and the effectiveness of group Reality Therapy in reducing death anxiety in elderly women (Mosadegh & Mohammadi, 2017) have also been highlighted.

A study found that both ACT and Reality Therapy significantly reduced irrational thoughts in women. Furthermore, the comparison of the effectiveness of the two

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approaches showed that ACT had a significantly greater impact on irrational beliefs among female heads of households compared to Reality Therapy (Nikoukar et al., 2022).

Based on the theoretical foundations provided, this study aims to evaluate the effectiveness of Acceptance and Commitment Therapy and Reality Therapy in reducing depression and anxiety in families who lost loved ones to COVID-19 and to compare the effectiveness of these two approaches in alleviating depression and anxiety in these families. The research hypotheses are as follows:

- The Acceptance and Commitment Therapy approach has a significant effect on reducing depression and anxiety in families of COVID-19 victims.
- The Reality Therapy approach has a significant effect on reducing depression and anxiety in families of COVID-19 victims.
- The effectiveness of Acceptance and Commitment Therapy and Reality Therapy in reducing depression and anxiety differs from one another in families of COVID-19 victims.

2. Methods and Materials

2.1. Study Design and Participants

This study is an applied research that utilized a quasi-experimental design (pre-test, post-test, follow-up, and control group). In this research, a pre-test was first conducted for all three research groups (Acceptance and Commitment Therapy group, Reality Therapy group, and control group), during which the dependent variable was measured. Subsequently, group therapy sessions were conducted for the two intervention groups (Acceptance and Commitment Therapy group and Reality Therapy group), and as a post-test, participants from all three groups were re-assessed regarding the dependent variables. The statistical population of this study consisted of individuals from families of COVID-19 victims in Mashhad during 2022 and 2023. A total of 45 individuals (15 participants in each group) were selected as the sample through convenience sampling. Then, using random assignment, 15 participants were assigned to each of the two intervention groups and one control group.

The first intervention group received Acceptance and Commitment Therapy (ACT), and the second intervention group received Reality Therapy in 8 sessions. After the intervention sessions, post-tests were conducted twice: once at the end of the sessions and once three months after the sessions were completed. The control group was placed on a waiting list and did not receive the intervention. The topics discussed in each ACT group therapy session were based on Hayes' therapeutic protocol (Hayes et al., 2006; Hayes et al., 2019), and the topics in the Reality Therapy group were based on Glasser's group therapy protocol (Glasser, 2015). Both therapeutic protocols used in this study were reviewed and evaluated by at least three faculty members specializing in psychology and counseling, and they were approved before being implemented.

2.2. Measures

2.2.1. Depression and Anxiety

To collect data in this study, the Depression, Anxiety, and Stress Scale (DASS-21, short form) was used, which was developed by Lovibond and Lovibond in 1995. The long form of this scale consists of 42 items, while the short form has 21 items. The Persian version of this scale was validated by Sahabi et al. (2005) for the Iranian population and is used for adults. Content validity was assessed qualitatively, and reliability was determined using internal consistency with Cronbach's alpha.

2.3. Interventions

2.3.1. Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) is a therapeutic approach aimed at increasing psychological flexibility through mindfulness and values-based action. The therapy encourages individuals to accept their thoughts and feelings rather than trying to control or avoid them, while also committing to actions that align with their values. In this protocol, participants engage in exercises designed to promote acceptance, mindfulness, and value-driven behavior, ultimately leading to greater emotional well-being.

Session 1: The group leader introduces the process of the sessions, explains how group members were selected, and provides a brief introduction to each member. The group rules are established, and members complete the Reflection Inventory Form (RIF). The assignment for the session is: "How do you typically improve your mood when you're feeling bad?"

Session 2: This session focuses on the concept of acceptance. The group leader explains various metaphors related to acceptance and introduces the concept of creative hopelessness—acknowledging that certain attempts to

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control feelings and thoughts often fail. The assignment for this session is: "Where do your thoughts and feelings come from? How much can you control your thoughts?"

Session 3: The group explores the functioning of the mind and how thoughts are generated. A technique is introduced that helps individuals list the pros and cons of their thoughts. Mindfulness exercises are also practiced to help individuals focus on the present moment. The assignment for this session is: "Write down your negative thoughts."

Session 4: This session introduces the concept of cognitive defusion, helping participants see that they are not defined by their thoughts. The group practices the technique of "thought diffusion," where participants observe their thoughts without attaching significance to them. The assignment is: "Use the body technique to externalize your thoughts."

Session 5: The group discusses the concept of self-as-context, encouraging participants to view themselves from an objective perspective. The technique of the "dual standards" exercise is introduced, which encourages participants to act as their own counselor. The assignment is: "What activities have made you feel useful and valuable?"

Session 6: The focus shifts to clarifying values. The group leader introduces the metaphor of "my value city" to help participants explore and define their personal values. The assignment is: "Complete a list of your core life values."

Session 7: This session is dedicated to implementing values-based behavior. Participants are encouraged to commit to actions that reflect their core values. The group works on making actionable plans to integrate their values into daily life.

Session 8: The final session includes group feedback on the sessions, with participants completing the RIF again to assess any changes in their emotional well-being. The group reflects on the progress made and discusses how to maintain the changes in the future.

2.3.2. Reality Therapy

Reality Therapy is a therapeutic approach that emphasizes personal responsibility and focuses on problem-solving and meeting basic needs through effective choices and behaviors. The therapy helps individuals identify and fulfill their needs in healthy, constructive ways, while focusing on the present and future rather than the past. This protocol encourages participants to recognize the importance of relationships and personal responsibility in achieving a fulfilling life.

Session 1: The group leader explains the process of the therapy, describes how group members were selected, introduces the members, and sets the group rules. Participants complete the RIF. The session's focus is on establishing a safe and structured environment for group work.

Session 2: The group explores the six basic relationships and needs that contribute to emotional well-being. The concept of the "key to happiness" is introduced, emphasizing that satisfying relationships are central to mental health. The assignment is: "Which of your primary relationships are you struggling with?"

Session 3: This session introduces the concept of change and emphasizes that individuals must take responsibility for their actions. The group discusses the importance of giving up external control and focuses on changing oneself rather than others. The session encourages participants to make proactive changes in their lives.

Session 4: The group learns about the concept of the "quality world"—a mental image of the ideal world, where individuals can identify the values and goals they want to pursue. The assignment is: "What exists in your quality world? What does it look like?"

Session 5: This session focuses on the creative power of the mind and how it can be used to make better choices. Participants explore how their mind influences their behavior and identify physical or emotional reactions when faced with life choices. The assignment is: "When you face a dilemma, what physical or psychological changes occur? Write them down."

Session 6: The focus is on being present and taking responsibility for one's life choices. The session emphasizes the importance of making decisions based on personal values and the present moment, rather than relying on past experiences. The assignment is: "Which of the important people in your life is the easiest to change?"

Session 7: The group discusses the importance of having a vision for personal growth and change. Participants are encouraged to identify the areas in their lives where change is most needed and focus on how to achieve it. The session emphasizes setting clear, achievable goals for the future.

Session 8: The final session involves group feedback and reflection on the participants' progress throughout the therapy. Participants complete the RIF again to measure changes, and the group reflects on how they can continue to apply the concepts learned in the sessions to their everyday lives.

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2.4. *Data Analysis*

For data analysis in this study, inferential statistical indices were used. First, to assess the equivalence of groups regarding the dependent variables in the pre-test, the Kolmogorov-Smirnov statistical test was performed. Additionally, to assess the effectiveness of the ACT and Reality Therapy approaches, a multivariate analysis of variance (MANOVA) with repeated measures was used. The analyses were conducted using SPSS software, version 24.

3. Findings and Results

This section presents the means and standard deviations of the scores obtained by the participants on the study variables. **Error! Reference source not found.** displays the mean and standard deviation of the scores for the experimental and control groups in the variables of depression and anxiety across two interventions: Acceptance and Commitment Therapy (ACT) and Reality Therapy.

Table 1

Mean and Standard Deviation of the Scores for the Experimental and Control Groups in the Pre-test and Post-test Phases

Approach	Variable	Phase	Mean (Experimental Group)	Mean (Control Group)	SD (Experimental Group)	SD (Control Group)
Acceptance and Commitment	Depression	Pre-test	5.97	6.25	2.03	5.90
		Post-test	4.90	6.18	1.80	6.02
		Follow-up	4.55	6.15	1.65	5.85
	Anxiety	Pre-test	7.35	7.25	2.55	6.93
		Post-test	6.85	7.20	2.47	6.80
		Follow-up	6.73	7.22	2.31	6.75
Reality Therapy	Depression	Pre-test	6.43	6.87	2.20	6.55
		Post-test	6.20	6.93	2.15	6.65
		Follow-up	6.15	6.98	2.10	6.67
	Anxiety	Pre-test	8.07	8.25	2.75	7.95
		Post-test	7.90	8.33	2.36	8.05
		Follow-up	7.92	8.40	2.40	8.10

As shown in **Error! Reference source not found.**, for Acceptance and Commitment Therapy, the mean and standard deviation for depression in the pre-test for the experimental group were 5.97 and 2.03, respectively, while for the control group, they were 6.25 and 5.90. In the post-test, the experimental group had a mean of 4.90 and a standard deviation of 1.80, while the control group had a mean of 6.18 and a standard deviation of 6.02. For the follow-up (three-month period), the experimental group had a mean of 4.55 and a standard deviation of 1.65, while the control group had a mean of 6.15 and a standard deviation of 5.85.

Similarly, for anxiety, the mean and standard deviation for the experimental group in the pre-test were 7.35 and 2.55, respectively, and for the control group, they were 7.25 and 6.93. In the post-test, the experimental group had a mean of 6.85 and a standard deviation of 2.47, while the control group had a mean of 7.20 and a standard deviation of 6.80. For the follow-up, the experimental group had a mean of 6.73 and a standard deviation of 2.31, while the control group had a mean of 7.22 and a standard deviation of 6.75.

For Reality Therapy, the mean and standard deviation for depression in the pre-test for the experimental group were 6.43 and 2.20, respectively, while for the control group, they were 6.87 and 6.55. In the post-test, the experimental group had a mean of 6.20 and a standard deviation of 2.15, while the control group had a mean of 6.93 and a standard deviation of 6.65. For the follow-up, the experimental group had a mean of 6.15 and a standard deviation of 2.10, while the control group had a mean of 6.98 and a standard deviation of 6.67.

For anxiety, in the pre-test, the experimental group had a mean of 8.07 and a standard deviation of 2.75, while the control group had a mean of 8.25 and a standard deviation of 7.95. In the post-test, the experimental group had a mean of 7.90 and a standard deviation of 2.36, while the control group had a mean of 8.33 and a standard deviation of 8.05. For the follow-up, the experimental group had a mean of

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7.92 and a standard deviation of 2.40, while the control group had a mean of 8.40 and a standard deviation of 8.10.

In this study, Acceptance and Commitment Therapy and Reality Therapy are considered as independent variables, and depression and anxiety are the dependent variables. The pre-test scores of these variables are treated as control variables.

One of the assumptions of analysis of covariance (ANCOVA) is the normal distribution of variables in the population. This assumption is examined using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results from these tests are interpreted as follows: if the significance level is greater than 0.05, the normality assumption is met. Otherwise, this assumption is not satisfied. The results of testing the normality assumption, using the Kolmogorov-Smirnov and Shapiro-Wilk tests for the post-test and post-test dependent variables in both the experimental and control groups, show significance levels greater than 0.05, indicating that the normality assumption is satisfied.

To address the research hypothesis, which is based on the effectiveness of Acceptance and Commitment Therapy and Reality Therapy in reducing depression and anxiety in families of COVID-19 victims, a multivariate analysis of covariance (MANCOVA) was conducted. The results are presented in **Error! Reference source not found.**.

Table 2

Results of the Multivariate Analysis of Covariance for Post-test 1 (Anxiety and Depression Variables)

Effect	Test	Value	F Ratio	Hypothesis df	Error df	Significance Level	Eta Squared	Power
Group	Pillai's Trace	0.987	143.159	2	37	0.000	0.987	1.00
	Wilks' Lambda	0.013	143.159	2	37	0.000	0.987	1.00
	Hotelling's Trace	77.414	143.159	2	37	0.000	0.987	1.00
	Largest Root	77.414	143.159	2	37	0.000	0.987	1.00

As seen in **Error! Reference source not found.**, in the post-test phase, after controlling for pre-test scores, the significance levels of all tests (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Largest Root) indicate that there is a significant difference between the experimental and control groups for at least one of the dependent variables ($F = 143.159$, $P < 0.001$). Therefore, the main hypothesis of this study is confirmed. Additionally, as shown in the table, the effect size is 0.987, meaning that 98% of the individual differences in the post-test scores for anxiety and depression are attributed to the effects of the two therapeutic approaches, Acceptance and Commitment Therapy and Reality Therapy. The statistical power is 1, indicating no Type II error.

Results from the Bonferroni post-hoc test comparing the experimental and control groups at the research stages are presented in **Error! Reference source not found.**.

Table 3

Results of the Multivariate Analysis of Covariance for Post-test 2 (Follow-up Phase)

Test Name	Value	Hypothesis df	Error df	F Value	Significance Level	Eta Squared
Pillai's Trace	0.250	4	51	4.241	0.005	0.250
Wilks' Lambda	0.750	4	51	4.241	0.005	0.250
Hotelling's Trace	0.333	4	51	4.241	0.005	0.250
Largest Root	0.333	4	51	4.241	0.005	0.250

As shown in **Error! Reference source not found.**, in the follow-up phase, significant differences were observed between the experimental and control groups in terms of anxiety and depression ($F = 4.241$, $P < 0.05$). This indicates that the therapeutic interventions have a lasting effect on the participants. The effect size (Eta Squared = 0.250) shows a moderate effect, explaining 25% of the variance in the follow-up scores. The statistical power is 0.98, suggesting a very low probability of Type II error.

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Table 4

Results of ANCOVA Analysis on the Effect of Acceptance and Commitment Therapy on Depression and Anxiety in Families of COVID-19 Victims in Experimental and Control Groups

Test Power	Eta Squared	Significance Level	F	Mean Squares	Df	Sum of Squares	Sources of Variance	Variable
1	0.019	0.471	20.53	40.53	1	40.53	Pre-test	Depression
1	0.386	0.000	15.71	20.05	58	119.09	Post-test	
0.67	0.006	0.000	11.74	92.31	1	92.31	Pre-test	Anxiety
1	0.616	0.000	43.24	7.86	58	456.28	Post-test	

As shown in Table 4, the significance level of the post-test effect on depression in families of COVID-19 victims is significant ($p < 0.01$). Since the significance level in the pre-test is greater than 0.01, the pre-test did not affect the post-test scores. However, the effect of the independent variable is significant at the $p < 0.01$ level, indicating that the Acceptance and Commitment Therapy (ACT) approach had an effect on reducing depression in the families of COVID-19 victims. A significant difference in depression levels between the experimental and control groups was found with a confidence level above 99%. Furthermore, the eta squared value of 0.38 suggests that 38% of the variance in depression scores in the post-test phase is explained by the intervention.

As indicated in Table 6, for the anxiety variable, the significance level of the pre-test is less than 0.01, suggesting that the pre-test influenced the post-test scores, and this effect was adjusted. Additionally, the significance level of the independent variable's effect is also less than 0.01, meaning that the ACT approach had a significant effect on anxiety reduction in the experimental group. A significant difference in anxiety scores between the experimental and control groups was found with a confidence level above 99%. The eta squared value of 0.61 shows that 61% of the variance in post-test anxiety scores is explained by the intervention.

Thus, it is clear that Acceptance and Commitment Therapy is effective in reducing depression and anxiety in families of COVID-19 victims. Multivariate Analysis of Covariance (MANCOVA) was used to answer this hypothesis.

Table 5

Results of ANCOVA Analysis on the Effect of Reality Therapy on Depression and Anxiety in Families of COVID-19 Victims in Experimental and Control Groups

Test Power	Eta Squared	Significance Level	F	Mean Squares	Df	Sum of Squares	Sources of Variance	Variable
0.71	0.23	0.027	5.46	1.50	1	1.50	Pre-test	Depression
0.75	0.18	0.0001	15.86	3.34	1	3.34	Post-test	
0.01	0.01	0.64	80.16	1	80.16	Follow-up		
0.081	0.013	0.061	4.7	21.20	1	17.401	Pre-test	Anxiety
0.997	0.018	0.043	2.4	42.22	58	23.229	Post-test	
0.02	0.03	0.08	135.16	1	135.16	Follow-up		

As shown in Table 5, the post-test effect on anxiety in families of COVID-19 victims is significant ($p < 0.05$), indicating that Reality Therapy had a significant effect on reducing anxiety in these families. Reality Therapy was also effective in reducing depression levels in families of COVID-19 victims. To address this hypothesis, a univariate ANCOVA was performed on the mean happiness scores between the experimental and control groups in the post-test phase, and the results are presented in Table 5.

As seen in Table 5, after adjusting for the pre-test scores, a significant difference between the experimental and control groups regarding depression in families of COVID-19 victims was found. Thus, the null hypothesis of no difference between the groups is rejected, and it can be concluded that Reality Therapy is effective in reducing depression in these families. Further results on the effects of Acceptance and Commitment Therapy and Reality Therapy on dependent variables (depression and anxiety) between the experimental and control groups three months after the intervention are presented. Based on the results, since the F value for depression and anxiety variables, based on ACT and Reality Therapy approaches, is significant at the 0.05

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level, the null hypothesis is rejected, and the research hypothesis is confirmed with 95% confidence. In other words, Acceptance and Commitment Therapy (ACT) and Reality Therapy significantly impact reducing depression and anxiety in families of COVID-19 victims. The eta squared value shows that 1% of the changes in depression and 2% of the changes in anxiety are attributed to the effects of ACT and Reality Therapy.

Table 6

Results of Comparison of the Effectiveness of Acceptance and Commitment Therapy and Reality Therapy (Post-test 1 and 2)

Variable	Approach	Mean	Standard Deviation	Levene's F	Levene's p	t	Df	p
Depression	ACT	2.43	0.51	1.32	0.25	12.20	127	0.001
Reality Therapy	1.85	0.59						
ACT (Follow-up)	2.45	0.51	1.35	0.25	12.20	127	0.001	
Reality Therapy (Follow-up)	1.89	0.59						
Anxiety	ACT	2.50	0.51	1.32	0.25	12.20	127	0.001
Reality Therapy	1.90	0.59						
ACT (Follow-up)	2.45	0.51	1.35	0.25	12.20	127	0.001	
Reality Therapy (Follow-up)	1.92	0.59						

The results from Table 6 show that there is no significant difference between Acceptance and Commitment Therapy and Reality Therapy in reducing depression and anxiety. The analysis of post-test mean scores from both experimental groups three months after the intervention (follow-up phase) also reveals no significant difference in the effectiveness of ACT and Reality Therapy.

4. Discussion and Conclusion

The aim of the present study was to compare the effectiveness of Acceptance and Commitment Therapy (ACT) and Reality Therapy in reducing depression and anxiety in families of individuals who died from COVID-19. The results indicated that ACT was effective in reducing depression and anxiety. Similar studies have also supported the findings of this research. This finding aligns with the prior results (Moradi, 2022; Okati et al., 2020; Sadeghi Nisiani et al., 2022; Shomali et al., 2020) In explaining this result, it can be said that the diverse interventions in ACT, such as creative hopelessness, acceptance, present moment focus, self-as-context, cognitive defusion, clarification of values, and committed action based on values, along with the use of various mindfulness techniques and metaphors to simplify concepts, such as acceptance, clarification of values, and committed action, have contributed to the reduction of depression and anxiety in individuals. Depressed and anxious individuals are prone to distancing themselves from a values-based and meaningful life due to experiencing negative emotions such as hopelessness, helplessness, frustration, fear, anger, sadness, nervous tension, meaninglessness, and obsessive thoughts. ACT helps individuals by promoting mindful acceptance to adapt to situations, encouraging them to identify personal values, and committing to moving forward in the direction of those values despite challenges, thus enabling them to break free from the vicious cycle of negative emotions (Sadeghi Nisiani et al., 2022; Sarabadani et al., 2023). In group sessions, acceptance, psychological awareness, cognitive defusion, and clarification of values were taught. Cognitive defusion allowed participants to view their problems from an external perspective and speak more openly about their issues. These teachings help individuals differentiate between themselves and their cognitive events while also helping them identify and clarify their personal values, transforming them into specific behavioral goals. In subsequent sessions, participants reassessed the positive and negative aspects of their strategies and tried to develop a realistic and judgment-free view of themselves (Moradi, 2022; Sadeghi Nisiani et al., 2022).

Furthermore, the findings of this study regarding the effectiveness of Reality Therapy in reducing depression and anxiety are consistent with the previous results (Asli Azad et al., 2021; Ebrahimi & Ebrahimi, 2021; Hosseinzadeh et al., 2020). Reality Therapy, an innovative approach in counseling, aims to help individuals by increasing their responsibility and improving their relationships with significant others while releasing external control (Asli Azad et al., 2021; Ebrahimi & Ebrahimi, 2021). In Reality Therapy, the therapist guides individuals toward making better, more responsible choices (Glasser, 2015). Emphasizing personal responsibility, relinquishing external control, improving relationships with important others to satisfy basic needs, and adopting a different perspective on

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cognitive events—key components of Reality Therapy—can reduce negative cognitive events.

Additionally, based on the findings of this study, it was determined that the effectiveness of ACT compared to Reality Therapy in reducing depression and anxiety in the families of COVID-19 victims was not significantly different. Both treatments were effective in reducing mental distress. This finding aligns with the prior results (Sepas et al., 2022), who found no significant difference in the effectiveness of the two approaches.

No other similar studies evaluating the effectiveness of these two approaches specifically for families of individuals who died from COVID-19 were found.

The main goal of ACT is to enhance psychological flexibility, which involves being fully present and aware in the moment without resistance, while committing to behavior that aligns with the individual's values. In other words, despite all challenges, stressors, and fears, the individual focuses on their values and life goals and lives according to those values. This results in a sense of self-worth. All techniques and methods in ACT aim to increase an individual's psychological flexibility (Hayes et al., 2006; Hayes et al., 2019).

ACT helps clients understand the futility of control strategies and increases their flexibility using metaphors, paradoxes, experiential exercises, clarifying values, and mindfulness methods along with more traditional behavioral interventions (Hayes et al., 2006; Hayes et al., 2019). The criterion for assessing the success of ACT is functional success, meaning that ACT aims to bring the individual's behavior in line with their desired values and goals in their current context (Keshavarz Afshar et al., 2018).

Another effective process in ACT is replacing control with willingness and acceptance. In these processes, individuals are encouraged to accept unpleasant internal experiences without attempting to control them. This reduces the perceived threat of these experiences and diminishes their impact on the individual's life (Okati et al., 2020; Thomas et al., 2014). Mindfulness processes used in ACT help individuals adopt a different perspective on cognitive events, allowing them to observe these events and view them as separate from themselves (Hayes et al., 2019; Keshavarz Afshar et al., 2018). Acceptance and Commitment is a non-judgmental and balanced awareness that helps individuals clearly see and accept their emotions and physical phenomena as they occur. By teaching this to participants, they learn to accept their feelings and thoughts. This acceptance leads to reduced attention to and sensitivity toward self-related matters, improving their overall adjustment (Hasannezhad Reskati et al., 2018). ACT, instead of focusing on eliminating harmful factors, helps clients accept their controlled thoughts and release themselves from the rigid rules that cause their issues. This also allows them to stop struggling with these thoughts (Hasannezhad Reskati et al., 2018; Hayes et al., 2006).

Reality Therapy, based on the Choice Theory, is a unique counseling approach. This therapy emphasizes that individuals choose their actions. They choose problematic behaviors because, in the context of an unpleasant relationship or a lack of relationship, it is the best they can do. In therapy, clients are helped to choose new relationships that better fulfill one or more of their basic needs. In other words, they are encouraged to enhance their ability to receive love, power, freedom, fun, and survival. Emphasizing personal responsibility, relinquishing external control, improving relationships with significant others to meet basic needs, and adopting a new perspective on cognitive events—key components of Reality Therapy—can reduce negative cognitive events (Baha'dori et al., 2021; Glasser, 2015).

The focus on the present moment, attention to effective methods, and commitment and responsibility for change in methods and behaviors are key elements of both approaches that contribute to reducing negative cognitive events such as depression and anxiety. These aspects are often lacking in individuals affected by the death of a family member due to COVID-19. Based on the results of this study, a more serious consideration of these two approaches in critical situations for individuals affected by such tragedies is warranted.

It is recommended that psychologists and counselors consider ACT and Reality Therapy as modern, effective, and distinct methods to empower individuals from families affected by COVID-19 deaths to cope with negative cognitive events like depression and anxiety and enhance their positive emotional, behavioral, and cognitive components.

This study was not without limitations, the most important being convincing families to participate, as some families did not agree to join the study despite all efforts. Another limitation was the lack of attention to other moderating and intervening variables during the study. Future research should consider investigating the long-term effects of the findings in this study. Research conducted over a longer period would allow for an examination of the level of depression and anxiety in individuals affected by COVID-19 deaths in the next one to two years. Additionally, it is

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recommended that the effectiveness of other psychological approaches, using other standardized questionnaires, be evaluated to assess the reduction of depression and anxiety in these families by future researchers.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

References

Akbarinejad, H., Etemadi, A., & Nasirnejad, F. (2014). Effectiveness of Group Reality Therapy on Anxiety in Women. *Psychological studies*, *10*(2), 73-87. https://sid.ir/paper/505382/fa

Amani, A., Isanejad, O., & Alipour, E. (2018). Effectiveness of Acceptance and Commitment Group Therapy on Marital Distress, Marital Conflict and Optimism in Married Women. *Shenakht Journal of Psychology and Psychiatry*, *5*(1), 42-64. https://doi.org/10.29252/shenakht.5.1.42

Anonymous. (2018). Effectiveness of Group Therapy Reality in Reducing Depression, Anxiety and Increased Compliance to Treatment in Patients with Diabetic Type 1. *Journal of Advances in Medical and Biomedical Research*, *26*(117), 174-185. https://doi.org/10.30699/jambs.30.142.7

Arora, S., & Bhatia, S. (2023). Addressing Grief and Bereavement in Covid-19 Pandemic. *Illness, Crisis & Loss*, 10541373221145536. https://doi.org/10.1177/10541373221145536

Arslan, B. Ş., & Buldukoğlu, K. (2021). Grief Rituals and Grief Reactions of Bereaved Individuals During the COVID-19 Pandemic. *OMEGA - Journal of Death and Dying*, *87*(4), 1293-1307. https://doi.org/10.1177/00302228211037591

Asli Azad, M., Khaki, S., & Farhadi, T. (2021). Efficiency of Online Reality Therapy on Anxiety and psychological Distress in the Covid-19 Improved. *Psychological Achievements*, *28*(2), 1-20. https://doi.org/10.22055/psy.2021.35651.2620

Baha'dori, Z., Jahangiri, A., & Bakhshipour, A. (2021). Effectiveness of Reality Therapy on Psychological Hardiness of Female Heads of Households. *Family Psychology Journal (Iranian Psychological Association)*, *8*(2), 1-17. https://www.sid.ir/fileserver/jf/4023614000201.pdf

Buckley, A., Dodd, A., & Guerin, S. (2024). Grief and bereavement in the time of COVID-19: a thematic analysis exploring psychotherapists' observations of clients' experiences. *Counselling Psychology Quarterly*, *37*(1), 93-111. https://doi.org/10.1080/09515070.2023.2186834

Chachar, A. S., Younus, S., & Ali, W. (2021). Developmental Understanding of Death and Grief Among Children During COVID-19 Pandemic: Application of Bronfenbrenner's Bioecological Model [Perspective]. *Frontiers in Psychiatry*, *12*. https://doi.org/10.3389/fpsyt.2021.654584

Ebrahimi, M., & Ebrahimi, S. (2021). The Effectiveness of the Reality Therapy on the Rumination, Concern and Tolerance of Distress in Mothers of Autistic Children. *JPEN*, *7*(2), 11-20. http://jpen.ir/files/site1/user_files_4397d4/eng/moshak-A-10-420-3-203fcd6.pdf

Fowley, C. (2021). Grief in Times of Corona (Envoi). *Qualitative Inquiry*, *27*(7), 771-772. https://doi.org/10.1177/1077800420960140

Gesi, C., Carmassi, C., Cerveri, G., Carpita, B., Cremone, I. M., & Dell'Osso, L. (2020). Complicated Grief: What to Expect After the Coronavirus Pandemic [Mini Review]. *Frontiers in Psychiatry*, *11*. https://doi.org/10.3389/fpsyt.2020.00489

Giacomucci, S., Marquit, J., Walsh, K. M., & Saccarelli, R. (2022). A mixed-methods study on psychodrama treatment for PTSD and depression in inpatient substance use treatment: A comparison of outcomes pre-pandemic and during Covid-19. *The Arts in Psychotherapy*, *81*, 101971. https://doi.org/10.1016/j.aip.2022.101971

Glasser, W. (2015). *Reality Therapy: A New Approach* (A. Karbakhsh, Ed.). Rasa Publications. https://books.google.com/books/about/Reality_Therapy.html?id=3f5nffIGdlAC

Hadian, S., Hosseinzadeh Taghvaei, M., Havasi Soomar, N., Ebrahimi, M. I., & Ranjbaripour, T. (2023). Comparing the Effectiveness of Acceptance and Commitment Therapy and Reality Therapy on Psychological Flexibility and Responsibility in Divorced Women. *Avicenna Journal of Neuro Psycho Physiology*, *10*(2), 73-80. https://doi.org/10.32592/ajnpp.2023.10.2.105

Hajikarim, A., Ghamari, M., & Amiri Majd, M. (2019). Comparison of the Effectiveness of ACT and Reality Therapy Group Interventions on Work-Family Conflict and Psychological Well-Being of Married Employed Women. *Scientific Journal of Kurdistan University of Medical Sciences*, *24*(3), 20-33. https://doi.org/10.29252/sjku.24.3.20

Hasannezhad Reskati, M., Mirzaian, B., & Hosseini, S. H. (2018). A systematic review and meta-analysis of acceptance and commitment therapy on mental health and quality of life of

E-ISSN: 2980-9681

women with breast cancer. *J Mazandaran Univ Med Sci*, *28*(167), 192-207. http://jmums.mazums.ac.ir/article-1-11771-en.html

Hayes, S., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, Processes, and Outcomes. *Behavior Research and Therapy*, *44*(1), 1-25. https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S., Strosahl, G., & Wilson, K. (2019). *Acceptance and Commitment Therapy: Processes and Implementation of Mindful Change* (A. Ohadi, Ed.). (Translator Team). https://books.google.com/books/about/Acceptance_and_Commitment_Therapy.html?id=5_xAm0VF4X8C

Hosseinzadeh, Z., Ghorban Shirodi, S., Khalatbari, J., & Rahmani, M. A. (2020). The Comparison of the Effectiveness of Emotionally Focused Couple Therapy and Couple Therapy with Reality Therapy Approach on Couple's Functional Flexibility and Distress Tolerance. *Applied Psychology*, *14*(2), 122-101. https://doi.org/10.52547/apsy.14.2.101

Jiang, X., Deng, L., Zhu, Y., Ji, H., Tao, L., Liu, L., & et al. (2020). Psychological crisis intervention during the outbreak period of new Coronavirus pneumonia from experience in Shanghai. *Psychiatry research*, *286*, 112903. https://doi.org/10.1016/j.psychres.2020.112903

Keshavarz Afshar, H., Rafei, Z., & Mirzae, A. (2018). The effectiveness of acceptance and commitment therapy (ACT) on general anxiety. *Payesh*, *17*(3), 289-296. http://payeshjournal.ir/article-1-47-fa.html

Kumar, R. M. (2021). The Many Faces of Grief: A Systematic Literature Review of Grief During the COVID-19 Pandemic. *Illness, Crisis & Loss*, *31*(1), 100-119. https://doi.org/10.1177/10541373211038084

Lee, S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, *44*(7), 393-401. https://doi.org/10.1080/07481187.2020.1748481

León, K. C., & Guzmán-Saldaña, R. (2023). Approaching grief during the pandemic by COVID-19. *Mexican Journal of Medical Research ICSA*. https://doi.org/10.29057/mjmr.v11i21.8960

Lightbody, S., Catt, L., Ahmad, A., Glover, D., Whitney, J., & Hasan, S. (2022). Bereavement in the Time of COVID-19: Learning from Experiences of those Bereaved as a Result of Deaths in an Acute Hospital Setting in 2020. *OMEGA - Journal of Death and Dying*, 00302228221113214. https://doi.org/10.1177/00302228221113214

Louw, D. J. (2020). The aesthetics of Covid-19 within the pandemic of the corona crisis. From loss and grief to silence and simplicity-a philosophical and pastoral approach. *Acta Theologica*, *40*(2), 125-149. http://www.scielo.org.za/scielo.php?pid=S1015-87582020000300009&script=sci_arttext

Mansoori, J., Khodabakhshi-Koolaee, A., Falsafinejad, M. R., & Kashani Vahid, L. (2023). Bereavement for a Loved Person: A Look at the Opinions and Process of Coping With Grief in the COVID-19 Era. *PCP*, *11*(3), 223-238. https://doi.org/10.32598/jpcp.11.3.746.4

Martínez-Medina, C. B. (2023). Prolonged Grief Disorder Treatment: an Approach to COVID-19 Grief. *Salud mental*, *46*(3), 165-175. https://doi.org/10.17711/sm.0185-3325.2023.021

Mazza, M. G., De Lorenzo, R., Conte, C., Poletti, S., Vai, B., Bollettini, I., Melloni, E. M. T., Furlan, R., Ciceri, F., Rovere-Querini, P., & Benedetti, F. (2020). Anxiety and depression in COVID-19 survivors: Role of inflammatory and clinical predictors. *Brain, behavior, and immunity*, *89*, 594-600. https://doi.org/10.1016/j.bbi.2020.07.037

Menzies, R. E., Neimeyer, R. A., & Menzies, R. G. (2020). Death Anxiety, Loss, and Grief in the Time of COVID-19. *Behaviour Change*, *37*(3), 111-115. https://doi.org/10.1017/bec.2020.10

Miri, M., Vaziri, S., Ahi, G., & Shahabizadeh, F. (2021). Effectiveness of Acceptance and Commitment Therapy on Depression and Anxiety in Hypertension Patients. *Qom University of Medical Sciences Journal*, *15*(1), 66-75. https://doi.org/10.52547/qums.15.1.66

Moradi, S. (2022). The effectiveness of realistic acceptance and commitment therapy (RACT) on distress tolerance and resilience of divorced women. *Applied Family Therapy Journal (AFTJ)*, *3*(5), 581-596. https://doi.org/10.61838/kman.aftj.3.5.34

Mosadegh, M., & Mohammadi, Y. (2017). The Impact of Group Reality Therapy on Reducing Death Anxiety in Elderly Women. Iranian Psychological Association Congress,

Moulavi, P. (2014). The Impact of ACT on Reducing Anxiety and Depression in Students with Social Phobia. *Journal of Ardabil University of Medical Sciences and Health Services*, *14*(4), 412-423. https://sid.ir/paper/60080/

Moya-Salazar, J., Zuñiga, N., Cañari, B., Jaime-Quispe, A., Chicoma-Flores, K., & Contreras-Pulache, H. (2022). The End of Life Accompanied by COVID-19: A Qualitative Study on Grief During the First OutBreak In Peru (Part I). *OMEGA - Journal of Death and Dying*, 00302228221134424. https://doi.org/10.1177/00302228221134424

Nikoukar, Y., Jafari, A., Fathi-Aghdam, G., & Pouyamanesh, J. (2022). Comparison of the Effectiveness of Acceptance and Commitment Therapy (ACT) and Reality Therapy on Irrational Beliefs of Female Heads of Households Under the Welfare Organization. *Women and Family Studies Quarterly*, *15*(55). https://www.sid.ir/paper/406120/fa

Okati, M., Shirazi, M., & Sanagoei-Moharrer, G. (2020). Effectiveness of Acceptance and Commitment Therapy on Reducing Stress, Depression, and Exam Anxiety in Students with Thalassemia. *Disability Studies*, *10*(1). https://www.sid.ir/paper/987100/fa

Sabour, S., & Kakaberai, K. (2016). Effectiveness of Acceptance and Commitment Group Therapy on Depression, Stress, and Pain Indices in Women with Chronic Pain. *Rehabilitation Research in Nursing*, *2*(4). https://doi.org/10.21859/ijrn-02041

Sadeghi Nisiani, S., Ghanifar, M. H., & Shahabizadeh, F. (2022). Comparison of the effectiveness of acceptance and commitment therapy (ACT) and compassion-focused therapy (CFT) on functional somatic syndromes and psychological distress in patients with physical symptoms disorder. *Journal of Adolescent and Youth Psychological Studies (JAYPS)*, *3*(2), 17-30. https://doi.org/10.61838/kman.jayps.3.2.2

Sarabadani, A., Hasanzadeh, R., & Ghanadzadegan, H. (2023). The effectiveness of acceptance and commitment therapy on distress tolerance and cognitive emotion regulation in women with generalized anxiety disorder. *Applied Family Therapy Journal (AFTJ)*, *4*(2), 96-114. https://doi.org/10.61838/kman.aftj.4.2.6

Sepas, L., Shaker, A., & Khademi, A. (2022). Comparison of the Effectiveness of ACT and Reality Therapy on Reducing Anxiety Sensitivity in Women with MS in Urmia. *Consultation and Psychotherapy Culture Quarterly*, *13*(51), 85-113. https://qccpc.atu.ac.ir/article_14119.html

Shahyad, S., & Mohammadi, M. (2020). Psychological Impacts of Covid-19 Outbreak on Mental Health Status of Society Individuals: A Narrative Review. *Journal of Military Medicine*, *22*(2), 184-192. https://www.magiran.com/paper/2107277

E-ISSN: 2980-9681

Shomali, M., Mohammadi, N., & Barkhordari, A. (2020). Effectiveness of Group Reality Therapy on Depression, Anxiety, and Stress in Type 2 Diabetic Patients. *Health Psychology*, *3*(35), 189-202. https://hpj.journals.pnu.ac.ir/article_7348.html

Thomas, N., Shawyer, F., Castle, D. J., Copolov, D., Hayes, S. C., & Farhall, J. (2014). A randomised controlled trial of acceptance and commitment therapy (ACT) for psychosis: Study protocol. *BMC psychiatry*, *14*(1), 198. https://doi.org/10.1186/1471-244X-14-198

Unicef. (2020). Social stigma associated with the coronavirus disease (COVID-19). https://www.unicef.org/documents/social-stigma-associated-coronavirus-disease-covid-19

Wallace, C. L., Wladkowski, S. P., Gibson, A., & White, P. (2020). Grief during the COVID-19 pandemic: considerations for palliative care providers. *Journal of Pain and Symptom Management*, *60*(1), e70-e76. https://www.sciencedirect.com/science/article/pii/S0885392420302074

Zhou, T., Guan, R., & Sun, L. (2021). Perceived organizational support and PTSD symptoms of frontline healthcare workers in the outbreak of COVID-19 in Wuhan: The mediating effects of self-efficacy and coping strategies. *Applied Psychology: Health and Well-Being*, *13*(4), 745-760. https://doi.org/10.1111/aphw.12267

E-ISSN: 2980-9681