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Original Article

The Effectiveness of Reality Therapy on Anger Rumination, Depression, and Quality of Life among Individuals Bereaved Due to COVID-19

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Abstract

Background and Aim: The COVID-19 pandemic has left an indelible mark on the world, not only through the loss of life but also through the profound grief and psychological distress experienced by the survivors. This study aimed to investigate the effectiveness of reality therapy on anger rumination, depression, and quality of life among individuals bereaved due to COVID-19.

Materials and Methods: The research method was quasi-experimental with pre-test, post-test, and follow-up design, including a control group. The statistical population comprised all first-degree survivors of COVID-19 victims in Nishapur City. A total of 30 participants were selected through purposive sampling and then randomly assigned to two experimental and control groups, each of which consisted of 15 subjects. The experimental group underwent an intervention of reality therapy over eight sessions, each lasting 1.5 hours, while the control group received no intervention. Data were collected using the Anger Rumination Scale (ARS), the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF), and the Beck Depression Inventory (BDI-II). The data were analyzed using multivariate covariance analysis (MANCOVA) via SPSS24 software.

Results: The results of Bonferroni post-hoc tests comparing time effects indicated that the differences in the mean scores of qualities of life, anger rumination, and depression between the pre-test and post-test phases and also between the pre-test and follow-up phases were statistically significant. However, the differences in mean scores between the post-test and follow-up phases were insignificant ($P > 0.05$).

Conclusion: Reality therapy was effective in improving anger rumination, depression, and quality of life among survivors of COVID-19 victims, and this effectiveness persisted during the follow-up period. Psychologists and counselors can use reality therapy to enhance anger rumination, depression, and quality of life among individuals bereaved due to the COVID-19 pandemic.

Keywords: Reality therapy, Anger rumination, Quality of life, Depression, COVID-19, Bereavement

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Introduction

According to the World Health Organization, by 2023, over 769 million confirmed cases of COVID-19 and more than 6.9 million deaths had been reported worldwide (1). The COVID-19 pandemic has left an indelible mark on the world, not only through the loss of life but also through the profound grief and psychological distress experienced by the survivors. Millions of people across the globe have lost loved ones due to this virus and have faced a unique and complex grieving process, compounded by the isolating nature of the pandemic and the sudden and often unexpected nature of the deaths (Danar et al., 2022). Psychological issues related to grief in the context of the pandemic have been a topic of ongoing discussion, highlighting the challenges faced by bereaved individuals (2). The COVID-19 pandemic has been described as a widespread mourning event characterized by disruptions in end-of-life experiences, grieving processes, and coping mechanisms (3).

Anger Rumination is a cognitive-emotional process focusing on past experiences and frustrations related to anger (4). It is identified as a significant psychological challenge for many individuals who have lost loved ones due to COVID-19 (5). Anger rumination is a specific aspect of rumination that centers on anger-related experiences, distinct from depressive rumination, and is associated with increased aggressive tendencies (6). It is related to deficits in cognitive inhibition and the ability to remove negative information from working memory (7). This process involves focusing on past anger-provoking situations, which can lead to the prolongation and intensification of anger experiences (8). Individuals with high levels of anger rumination tend to perceive situations as more provocative and are more likely to suppress their anger compared to those with lower levels of anger rumination (9).

Research has shown that grief during the COVID-19 pandemic is associated with various mental health challenges, including depression (10). Depression is a mood disorder that can significantly disrupt daily life activities and lead to persistent feelings of sadness and anger (11,12). Depression is characterized by a wide range of symptoms, including intense sadness, feelings of guilt, withdrawal from social interactions, sleep disturbances, loss of appetite, decreased libido, and loss of interest in activities (13). Depression can lead to cognitive impairment, increased stress, and a decline in living conditions (14), and it is often accompanied by pathological symptoms, suicidal behavior, reduced quality of life, and social maladjustment (15).

The quality of life of individuals can significantly decline after the loss of a loved one, affecting their mental health and overall well-being (16). Quality of life is a multidimensional concept that encompasses aspects such as physical, psychological, and social functioning, as well as material well-being (17). The World Health Organization defines quality of life as an individual's perception of their position within the context of the culture and value systems in which they live and related to their goals, expectations, standards, and concerns (18). Quality of life is influenced by physical health, social support, mental well-being, and life satisfaction. There is a close correlation between quality of life and mental health, with good quality of life crucial for psychosocial adjustment (19).

Given these challenges, there is an increasing need for effective therapeutic interventions to address the psychological distress experienced by individuals grieving due to COVID-19. While therapists cannot change the inevitability of death, they can help clients integrate their experiences of loss into a coherent narrative that holds personal meaning (20). Reality therapy, developed by William Glasser, is a counseling and psychotherapy approach that focuses on helping individuals regain control over their lives by examining their wants, needs, values, and behaviors (21). Glasser's approach emphasizes self-control, responsible decision-making, and the importance of individuals being aware of their needs and making appropriate choices (22). This therapy encourages individuals to take ownership of their actions and situations without making excuses for passivity (23).

Overall, the global impact of the COVID-19 pandemic has left a trail of grief and loss across the world. Among its countless effects, one of the most profound ones has been the emotional toll on families and individuals who have lost loved ones to the virus. This population, often referred to as survivors of COVID-19-related deaths, faces a unique set of emotional challenges, including

anger rumination and depression, which significantly affect their quality of life. Many communities have acknowledged that the death of a family member brings severe psychological stress and tension to other family members and relatives. As a result, it is essential to provide therapeutic programs for survivors of COVID-19 to help them manage the stress and grief of losing their loved ones.

It is also crucial for mental health professionals to identify and address negative thoughts to prevent rumination, catastrophizing, and severe emotional shock while also improving their quality of life, thus making a significant contribution to the mental health of society. In this regard, various therapeutic frameworks have been proposed, with reality therapy being a counseling and psychotherapy method that helps survivors explore their wants, needs, values, and the ways that can assist them in fulfilling these needs. Reality therapy supports individuals in regaining control over their lives. In light of the above, the present study aimed to examine the effectiveness of reality therapy on anger rumination, depression, and quality of life among individuals grieving due to COVID-19.

Methods

This study was conducted under the ethical code IR.PNU.REC.1400.282. It is a quasi-experimental research with a pre-test-post-test design, a follow-up phase, and a control group. The statistical population included all survivors of individuals who passed away due to COVID-19 in the city of Neyshabur, specifically parents, spouses, and children aged 20 and older. The sample consisted of 30 survivors selected through purposive sampling, who were then randomly assigned to two groups: an experimental group (15 participants) and a control group (15 participants).

Inclusion criteria for the study were the loss of a first-degree relative due to COVID-19, low scores in quality of life, high scores in depression and anger rumination, not receiving psychological treatment before the study, being at least 20 years old, and agreeing to participate in the study. Exclusion criteria included missing more than two intervention sessions and not completing the questionnaires.

Before initiating the study, all participants were given detailed information about the research objectives, questionnaires, and how to respond to the questions. The research process was explained, and participants were assured of the confidentiality of their information and identity. After selecting and assigning participants to the experimental and control groups, all participants completed the research questionnaires during the pre-test stage. The participants in the experimental group then attended reality therapy intervention sessions. These group therapy sessions were held once a week for eight sessions. The control group did not receive any intervention. At the end of all intervention sessions, the research instruments were administered again during the post-test phase for experimental and control groups. A follow-up was conducted two months later, during which both groups once again completed the questionnaires.

Materials

Anger Rumination Scale (ARS)

The Anger Rumination Scale, developed by (24), is a 19-item instrument that measures the tendency to think about current anger-provoking situations and recall past anger experiences. The questionnaire uses a 4-point Likert scale, with response options ranging from "very rarely" (scored as 1) to "very often" (scored as 4). A higher score indicates a greater level of anger rumination. The overall anger rumination is scored by summing the scores of the four subscales. Sukhodolsky et al. reported a Cronbach's alpha of .93 and a test-retest reliability of .77 for this scale. In a study by (25), Cronbach's alpha for the entire scale and its subscales—anger thoughts, revenge thoughts, anger memories, and understanding causes—were reported as .70, .89, .79, .70, and .78, respectively.

WHO Quality of Life (WHOQOL-BREF)

The WHO Quality of Life questionnaire is a 26-item self-assessment tool developed by the World Health Organization that measures four domains: physical health, psychological health, social relationships, and environmental health. The first two questions assess overall satisfaction with general health and the individual's perception of their quality of life. The remaining questions evaluate feelings and behaviors across various dimensions of life quality. The

questionnaire uses a 5-point Likert scale, with responses ranging from "very dissatisfied" (scored as 1) to "very satisfied" (scored as 5). An Iranian study (26) demonstrated the reliability and validity of the WHOQOL-BREF in Iranian populations, including both healthy and clinical samples. Internal consistency and Cronbach's alpha for all domains exceeded 0.70, and reliability tested on 30 participants showed an overall Cronbach alpha of 0.87, indicating high validity.

Beck Depression Inventory-II (BDI-II)

The BDI-II is a revised version of the Beck Depression Inventory, designed to align with the diagnostic criteria for depression as outlined in the DSM-IV. It is a self-report inventory consisting of 21 items, measuring the severity of depression symptoms over the past two weeks on a 4-point Likert scale (0 to 3). Scores range from 0 to 63, with 0 to 13 indicating minimal depression, 14 to 19 mild depression, 20 to 28 moderate depression, and 29 to 63 severe depression. The reliability of this scale, assessed through a one-week test-retest method, was found to be .91, while internal consistency yielded a Cronbach's alpha of .91. In an Iranian sample of 94 participants, the test-retest reliability after one week was .94. The BDI-II demonstrated a correlation of .71 with the Hamilton Depression Rating Scale and .93 with the first edition of the Beck Depression Inventory, indicating good validity (27).

Intervention Procedure

In Table 1 group reality therapy sessions were shown and conducted once a week for eight sessions, following Glasser's protocol (28).

Results

Demographic Description

In the present study, 30 participants were included, of which 63.33% were women (19 participants) and 36.66% were men (11 participants). In terms of age, the mean and standard deviation for the experimental group were 37.24 and 6.59, respectively, and for the control group, 34.51 and 5.64.

Descriptive Indicators

Table 2 presents the mean and standard deviation for the research variables in control and experimental groups, separated by pre-test, post-test, and follow-up.

In order to investigate the effectiveness of reality therapy on anger rumination, depression and quality of life of the survivors of the deceased due to COVID-19, multivariate covariance analysis was used. The results of multivariate covariance analysis are presented in Table 3.

As shown in the Table 4, the significance level of all multivariate tests is 0.001 or less than 0.05, indicating a significant difference between the control and experimental groups in at least one of the research variables.

Table 1. Summary of reality therapy sessions

Session	Description
1	Establishing emotional connection, showing intimacy, affection, interest and acceptance towards clients, determining the limits of participation and sharing, making unrealistic promises.
2	Emphasis on behavior and not feelings, awareness of behavior, learning the mutual relationship between feelings and behavior
3	Emphasis on the present teaching that the events of the past are the past and it is not possible to change them and only the present and future can be changed, relating the past to the present and the future, recognizing the positive and constructive aspects of character. Knowing the obstacles to doing the right things, knowing the successful methods and behaviors of the past and encouraging oneself to repeat them.
4	Judging the behavior - guiding clients to judge their own behavior and the actions that lead to failure, a critical look at the behavior and evaluating its usefulness in relation to themselves and others, accepting responsibility for the behavior
5	Preparing plans and programs to help clients by designing useful and practical programs to transform unsuccessful behavior into successful behavior, concluding a contract, not blaming, examining work obstacles.
6	Preparing plans and programs to help clients by designing useful and practical programs to transform unsuccessful behavior into successful behavior, concluding a contract, not blaming, examining work obstacles.

7	Committing to carry out the plan, not accepting any excuses and excuses, and removing any kind of negative and humiliating comments from the consultant, renewing the commitment, or pondering and revising the previous plan.
8	Summary of review sessions

Table 2. Mean and standard deviation of research variables

Source of variance	Group	Pre-test		Post-test	
		Mean	Standard deviation	Mean	Standard deviation
Quality Of Life	Experimental	65	3.42	65.06	5.04
	Control	65.2	84.4	96.73	4.99
	followed up	66.06	4.8	98.73	4.99
Depression	Experimental	29.13	1.72	28.6	2.97
	Control	28.13	2.26	12.6	2.19
	followed up	28.33	2.43	9.8	1.74
Rumination of Anger	Experimental	50.06	3.26	50.26	4.55
	Control	48.6	3.62	23.86	2.64
	followed up	48.2	3.93	21.93	2.34

Table 3. The results of the multivariate covariance analysis test for the research variables in the experimental and control groups

Effect	value	F	Error df	P-value	Partial Eta Squared
Pillais Trace	0.989	671.242	23	0.001	0.572
Wilks Lambda	0.11	671.242	23	0.001	0.572
hotelling's Trace	87.553	671.242	23	0.001	0.572
Roy's Largest Root	87.553	671.242	23	0.001	0.572

Table 4. Benferroni post hoc test results for pairwise comparison of the mean time of measuring the total score of the variables

Variable	Source of variations	Sum of squares	df	Mean of squares	F	P-value	Eta
Quality Of Life	Pretest	1154.057	1	1154.057	32.959	0.0001	0.55
	Group	1143.925	1	1143.952	32.669	0.0001	0.548
	Error	44.98	27	32.669			
Depression	Pretest	771.383	1	771.383	21.742	0.0001	0.446
	Group	722.396	1	722.396	20.36	0.0001	0.431
	Error	957.95	27	35.480			
Rumination of Anger	Pretest	113.613	1	113.613	32.684	0.0001	0.548
	Group	327.994	1	327.994	94.358	0.0001	0.778
	Error	93.845	27	3.476			

Discussion

This study aimed to examine the effectiveness of reality therapy on anger rumination, depression, and quality of life among individuals grieving due to COVID-19. The results indicated that group reality therapy was effective in reducing anger rumination and depression and improving the quality of life for survivors of individuals who died from COVID-19. The findings showed that reality therapy was effective in addressing anger rumination among those grieving due to COVID-19.

In explaining the effectiveness of reality therapy on anger rumination, which aligns with the findings of the studies by (29), (30), and (31), it can be said that participating in group reality therapy sessions allows survivors to process their emotions in a supportive environment, gain insight into their thoughts and behaviors, and develop coping strategies for more effective anger management. The group therapy setting also enables survivors to connect with others who are experiencing similar grief and anger, providing a sense of validation and support that can be beneficial to the healing process. Sharing experiences and feelings with others in the group helps survivors feel less isolated and more at ease, knowing they are not alone in their struggles (32).

Additionally, reality therapy's focus on personal

responsibility and choice can be specifically helpful in addressing anger rumination. By encouraging individuals to recognize their control over their responses to situations, even if they cannot control the situations themselves, reality therapy helps break the cycle of rumination. This approach empowers grieving individuals to shift their focus from past events or perceived injustices to constructive action in the present (33).

The findings also indicated that reality therapy is effective in addressing depression among individuals grieving due to COVID-19. This finding is consistent with the results of the studies by (29), (34), and (35).

In explaining the effectiveness of reality therapy on depression, it can be said that reality therapy, as a form of psychotherapy, emphasizes the importance of identifying individuals' needs and developing practical plans to meet those needs (36). Reality therapy is an approach that helps patients examine their values and strategies that assist them in meeting their needs (37). This approach can be particularly useful in addressing the feelings of hopelessness and helplessness that are commonly associated with depression.

Reality therapy focuses on creating realistic strategies to meet individuals' needs, empowering individuals, and creating a sense of control over their lives, which can be effective in combating symptoms of depression (38). It encourages individuals to identify their needs and develop realistic plans to meet them, which can help reduce feelings of hopelessness and helplessness related to depression. By focusing on the present and future rather than ruminating on past losses or failures, individuals can develop a more positive outlook and regain a sense of purpose. This therapy also emphasizes the importance of forming and maintaining meaningful relationships, which can be crucial in combating social isolation often experienced by those with depression (39).

The findings also indicated that reality therapy is influential in improving the quality of life among individuals grieving due to COVID-19. This finding is consistent with the results of the studies by (29), (40), and (41).

We can explain that by using the principles of reality therapy, individuals can gain greater awareness of their desires, engage in self-management, assessment, and planning, and ultimately address challenges constructively to find solutions (42). By focusing on personal responsibility and goal setting, reality therapy can empower bereaved individuals to rebuild their lives and find meaning and purpose despite their loss, which can enhance their quality of life.

Improvements in quality of life can be attributed to several factors within the framework of reality therapy. First, the intervention encourages individuals to identify and prioritize their basic needs, including survival, love and belonging, power, freedom, and fun. By addressing these fundamental aspects of well-being, individuals can experience a more balanced life. Second, reality therapy promotes the development of a "quality world" – a personal vision of how one wants his life to be. This envisioning and striving for a better future can significantly enhance an individual's perception of their quality of life (22).

Conclusion

The results of this study indicated that reality therapy effectively addressed issues such as anger rumination, depression, and quality of life among individuals grieving due to COVID-19. This therapeutic approach also positively influenced life satisfaction and interpersonal relationships. However, a significant limitation of the research was the lack of random selection of participants and also the recruitment of participants from a specific geographic area, which affected the generalizability of the findings. To overcome this limitation, future studies should involve a larger population and utilize random sampling methods.

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Conflict of Interest

The authors declare no conflict of interest.

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