University of Hormozgan

Iranian Journal of Educational Research

Print ISSN: 1735 - 563X Online ISSN: 2980 - 874X

Homepage: http://ijer.hormozgan.ac.ir

Educational and Behavioral Research Center

The Comparison of Effectiveness of Gestalt Therapy and Acceptance and Commitment Therapy on Emotional Schemas and Post-Traumatic Growth

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Article Info

Article type:

Research Article

Article history:

Received 11Aug. 2023

Received in revised form 22 Nov. 2023

Accepted 18 Feb. 2024

Published online 01 Jun. 2024

Keywords:

Gestalt therapy,
Acceptance and commitment therapy,
Emotional schemas,
Post-traumatic growth,
Post-traumatic stress disorder

ABSTRACT

Objective: The aim of this research was to compare the efficacy of Gestalt therapy and acceptance and commitment therapy in enhancing emotional schemas and post-traumatic growth in adolescent girls diagnosed with post-traumatic stress disorder.

Methods: Employing an experimental design, the study was carried out with a pretest-posttest approach involving a control group, followed by a two-month follow-up period. Using purposive sampling, 60 girls were selected to participate, divided into two experimental groups (each consisting of 20 girls) and a control group (20 girls). The experimental groups received either Gestalt therapy (10 sessions of 90 minutes each) or ACT (10 sessions of 90 minutes each), while the control group did not undergo any intervention and remained on a waiting list. Data collection involved the application of the PTSD Symptom Scale-Interview (Foa et al., 1993), Leahy's Emotional Schemas Scale (2002), and the Posttraumatic Growth Inventory (PTGI) by Tedeschi and Calhoun (1996). Data analysis was conducted using repeated measures analysis of variance and Bonferroni test.

Results: The findings revealed that both therapeutic approaches exhibited a significant impact on emotional schemas and post-traumatic growth in adolescent females with post-traumatic stress disorder during the post-test and follow-up assessments ($P<0.05$). Moreover, Gestalt therapy demonstrated more pronounced enhancements in emotional schemas, whereas ACT showed greater improvements in post-traumatic growth ($P<0.05$).

Conclusions: Consequently, it can be deduced from the outcomes of this investigation that Gestalt therapy and ACT present viable treatment options for enhancing emotional schemas and post-traumatic growth among adolescent females grappling with post-traumatic stress disorder within therapeutic environments.

Cite this article: Abidizadegan, A., Mousavi, A. & Narimani, M. (2024). The comparison of effectiveness of gestalt therapy and acceptance and commitment therapy on emotional schemas and post-traumatic growth. *Iranian Journal of Educational Research*, 3 (2), 105-120.

DOI: https://doi.org/10.22034/3.2.105

Publisher: University of Hormozgan.

DOI: https://doi.org/10.22034/3.2.105

Introduction

Post-traumatic stress disorder is a prevalent and significant mental health condition identified by Girgenti et al. (2021), wherein an individual is exposed to a severe traumatic incident with potential harm to anyone, eliciting intense feelings of fear and helplessness as noted by Stein et al. (2021). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) has expanded the symptomatology of post-traumatic stress disorder to include adverse cognitive and emotional alterations such as intrusive thoughts, avoidance, and arousal, as outlined by the American Psychiatric Association in 2013. These traumatic events encompass various experiences including natural calamities like earthquakes (Hsieh et al., 2021), pandemics such as the coronavirus outbreak (Yu et al., 2021), migration challenges (Davison et al., 2021), wartime scenarios (Angosta et al., 2021), instances of sexual assault (Karataş et al., 2020), and occupations in high-risk medical settings (McDowell & Simpson, 2021).

But what is considered in this research is post-traumatic stress disorder in girls, which these girls suffer from due to reasons such as the spread of the coronavirus in the society, misbehavior by parents, and dysfunctional family environment (Hsieh et al., 2021), childhood sexual abuse and sexual assault by strangers or relatives (Karataş et al., 2020), lack of social support and family violence and aggression are associated with post-traumatic stress disorder. Such conditions can cause severe discomfort or disruption in a person's social or academic performance (Gholamrezaei et al., 2019).

Emotional schemas are a very powerful factor in explaining emotional disorders. In the emotional schema model, people differ from each other in terms of the interpretation and evaluations they make of their emotional experience and it may be with different strategies such as experiential avoidance, ineffective cognitive strategies, and social support. or try other strategies to deal with their emotions (Leahy, 2019). Emotional schemas are the interpretation of emotions and the use of coping strategies. Emotional schemas play an important role in the pathology and treatment of anxiety disorders, especially post-traumatic stress disorder (Leahy, 2019).

Based on the research background of dysfunctional emotional schemas with various psychological problems, including generalized anxiety (Farokhzadian et al., 2020), depression (Gómez-Odriozola & Calvete, 2020), difficulty in regulating emotions (Leahy, 2012) and incompatible schemas (Cockram et al., 2010). On the other hand, it can be said that although emotional schemas

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have been mentioned as a risk factor for creating, developing and maintaining post-traumatic stress disorder (Naderi et al., 2016), a variable that can be Positive psychological changes after coping with challenging life circumstances are known (Tedeschi & Calhoun, 2004) and are an important enabler to cope with symptoms of post-traumatic stress disorder, post-traumatic growth (Peters et al., 2021).

One of the topics raised in health psychology is to investigate the positive effects of psychological trauma on people who have faced unfortunate events and determine the variables that facilitate these positive effects (Ghaderi et al., 2019). Post-traumatic growth is the result of a person's experience of a traumatic event, in which a person achieves a growth beyond his previous level of performance and experiences long life changes and deeper insight. According to this model, a traumatic event deeply disrupts a person's sense of security and invulnerability, his goals and how to control his emotional stress, and after this emotional shock, a reminder activity with the aim of searching for meaning. According to what happened, the management of feelings and excitement begins (Cormio et al., 2017).

Gestalt therapy is one of the most important interventions whose effectiveness has been investigated and confirmed for people suffering from post-traumatic stress disorder. Based on the research background, group counseling with Gestalt therapy helps people affected by traumatic events to forget the past experience and start a new life. In Gestalt therapy, the emphasis is on accepting our feelings. The basic premise of Gestalt therapy is that if people are fully aware of what is happening around them, they have the ability to "self-manage" in their environment, and the therapy provides a suitable basis for awareness and the process of establishing contact (Mohammadi & Hafezian, 2019). Also, a study has shown that teenagers who have suffered from the divorce of their parents can start a new life with Gestalt therapy (Romadhon & Sanyata, 2020). Gestalt therapy offers mechanisms that lead a person to face trauma-related conflicts from the past and resolve them in the present, some of which can be present in the here and now, body movements, non-verbal behaviors and insisting on recounting the traumatic event (Cohen, 2003). Gestalt therapy, along with commitment and acceptance therapy, has shown to be a beneficial intervention for individuals experiencing post-traumatic stress disorder. Acceptance and commitment therapy falls under the category of third wave therapies (Viskovich & Pakenham,

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2020), which originated from the evolution of cognitive-behavioral therapy with the aim of fostering psychological flexibility (Werner et al., 2020). The process of problem control and logical analysis of issues involves the identification and reduction of cognitive errors (Sloshower et al., 2020). Psychological flexibility entails the generation and endorsement of a solution that is more adaptive among the available choices, rather than one that merely avoids unsettling thoughts, emotions, urges, and memories (Wharton et al., 2019).

It is evident that both Gestalt therapy and acceptance and commitment therapy can alleviate the challenges faced by individuals with stress disorders. However, a notable research gap lies in determining the comparative effectiveness of these interventions in alleviating issues and enhancing the positive capacities of individuals with post-traumatic stress disorder. Thus, considering the aforementioned points, the research query arises: Is there a distinction in the efficacy of Gestalt therapy versus acceptance and commitment therapy on emotional schemas and post-traumatic growth in adolescent females with post-traumatic stress disorder?

Material and Methods

The approach utilized in this study was semi-experimental, employing a pre-test, post-test design along with a control group and a 2-month follow-up period. The study focused on a statistical population comprising adolescent females aged between 14 and 19 years seeking assistance from the welfare services of Bushehr city and the Aramesh counseling center, totaling 91 individuals in the year 2020. Among these, 60 individuals displaying more severe symptoms of post-traumatic stress disorder provided informed consent for their involvement through purposive sampling. Subsequently, 20 participants were assigned to each of the three groups: Gestalt therapy, acceptance and commitment-based therapy, and a control group consisting of 20 individuals. Informed consent to participate in the research, obtaining a score of 35 in the scale of symptoms of post-traumatic stress disorder by Foa et al. (1993), obtaining a minimum score in post-traumatic growth and obtaining a maximum score in emotional schemas are among the inclusion criteria. Absence of more than 2 training sessions and simultaneous participation in other psychological sessions were the exclusion criteria. In this research, descriptive statistics such as mean and standard deviation and inferential statistics including analysis of variance with repeated

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measurements were used. Also, Bonferroni's post hoc test and SPSS version 24 software were used to compare Gestalt therapy with acceptance and commitment based therapy.

Instruments

Posttraumatic stress disorder symptom scale (PSS-I) Foa et al (1993): This scale is a 17-question self-administered tool that covers all dimensions of this disorder based on the symptoms presented in DSM-IV (Foa et al., 1993). The scoring method is a 4-point Likert scale (from 0 points at all to very much 4 points). The total score of the questions ranges from 0 to 51 (Foa et al., 1993). In case of having 1 or more symptoms of re-experiencing, 3 or more symptoms related to avoidance, 2 or more symptoms related to motivational reactions or intense arousal, post-traumatic stress disorder is diagnosed (Vizeh et al., 2012). A score of 35 is considered as the cut-off point. In Iran, in research to check the reliability of the scale, the internal consistency method was used, and the Cronbach's alpha coefficient was 0.77 (Mazloom & Yaghubi, 2016). In this study, the internal consistency method was used to check the reliability of the scalet, and Cronbach's alpha was 0.82.

Leahy's Emotional Schema Scale (ESS): This scale is a shortened version of 50 questions, and the Persian version of this scale was prepared and validated by Khanzadeh et al. (2012). In this research, the current scale has measured understandable and control schemas, rumination, general agreement, rationality, acceptance and simplicity of emotions. In Iran, the reliability of the scale was checked by Cronbach's alpha method and the coefficients ranged from 0.60 to 0.79 (Khanzadeh et al., 2012). In the present study, the internal consistency method was used to check the reliability of the list, and Cronbach's alpha was 0.88.

Posttraumatic Growth Inventory (PTGI): This list contains 21 questions and 5 subscales, and the scoring of this list is based on a 6-choice Likert scale in the form of score 0 (not at all), score 1 (very little), score 2 (low), score 3 (moderate), score 4 (a lot) and a score of 5 (very much) is done (Tedeschi & Calhoun, 2004). Cronbach's alpha coefficient of this scale has been calculated as 0.91 in Iran (Mousavi et al., 2019). In the present study, the internal consistency method was used to check the reliability of the list, and Cronbach's alpha was 0.91.

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Therapy sessions

Table 1. Gestalt therapy sessions adapted from the research of Keshavarz Afshar et al. (2015), Haji Hosseini et al. (2015).

Session	Subject	Content
1	Acquaintance and introduction	In the first session, the members and the leader of the group got to know each other, clarified the principles and regulations of the Gestalt therapy approach and related solutions, explained the concept of post-traumatic growth, emotional schemas and post-traumatic stress disorder by the group therapist. .
2	Accept responsibility for your choices	The therapist asked the people of the sample group to repeat the phrase "I accept responsibility for it" after every sentence he says. The purpose of this method is to help the people of the sample group so that he alone is responsible for his thoughts, feelings and actions. Therefore, the people of the sample group could say "I am anxious and I accept the responsibility for it".
3	thought and feeling	He paid close attention to all the things that are going on in the person, that is, everything that the people of the sample group thought, felt, did, remembered or with their sense organs. receives and considers all these as behavioral data so that the consultant and the people of the sample group can put the experimental events into practical terms and propose principles to change them.
4	concentrate	Subjects in the sample group were instructed to pay attention to specific sensations they were dealing with, such as heart palpitations, etc. The purpose of this exercise was to put the people of the sample group in the place of signs and discover what message each of the signs, such as heartbeat, wants to convey to him and what to tell him.
5	Going back and forth time here and there	The counselor helped the people in the sample group to bring the avoidance behaviors to the level of consciousness, so that a state of balance is created in the person, because when the person is informed about his desires, impulses and unwanted emotions, he can have a more suitable balance with the environment.
6	Imaginary journeys	The people in the sample group were asked if they would like to try an experiment to see what they might learn from it, and the people in the sample group were told that they could stop whenever they wanted, and the goal was to determine what An aspect of it was consistent with the knowledge of the sample group or not.
7	exaggeration	In this technique, the people of the sample group were asked to repeat the behavior or emotion several times and even in some cases turn the behavior into a dance or make the voice louder or more focused. For example, the sample person said that my legs are shaking, in the counseling session he was asked to get up and stand and exaggerate this shaking, and then the people of the sample group were asked to express the feeling of their shaking hands and feet, in order to help themselves. They become aware and also the need to avoid becomes saturated.
8	Dream	According to Perls, a dream is a projection of a person, and different parts of a dream represent different aspects of a person's existence. When working with dreams, the counselor asked the people of the sample group to recount their dream or a part of it using present tense verbs as if it happened now. The purpose of this technique was to know and discover the missing parts of the people of the sample group.
9	symbolic representation	After the dream or a part of it was narrated by the people of the sample group, the consultant asked him to display parts of it and do this by talking between these parts. In this way, the problem that the people of the sample group have will become more clear and understandable.
10	Listening to metaphors	By listening to the metaphors, the counselor obtains important clues to the internal conflicts of the sample group people, and behind these metaphors it can be said that there was a suppressed inner listening. An example of metaphors: "I feel like my soul is torn into pieces." "Sometimes I feel like I don't have a point of support to rely on."

Table 2. Treatment sessions based on acceptance and commitment adapted from McKay et al. (2012).

Session	Content
1	Introducing the leader and group members to each other, explaining the basic rules of the group (informed consent and confidentiality), starting the meeting with a short mindfulness exercise and explaining the concepts of post-traumatic growth, emotional schemas and post-traumatic stress disorder.
2	General examination of the assignments of the first session and providing feedback, practicing mindfulness, understanding constructive frustration, examining examples of coping behaviors.

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3	Examining assignments and giving feedback, practicing mindfulness, examining the consequences of past confrontational behavior, and discussing constructive frustration using metaphors such as quicksand and digging a well.
4	Examining assignments and giving feedback, practicing mindfulness, focusing on values, identifying barriers to valuable action, and role-playing based on the Monsters on the Bus exercise.
5	Examining the assignments of the previous session and giving feedback, practicing mindfulness in order to continuously develop this skill, focusing on the cognitive fault and its related metaphors.
6	Review assignments and give feedback, follow up on committed actions, focus on failure and evaluate negative labeling.
7	Reviewing homework and giving feedback, reviewing how the homework was done on the valued goal during the past week, creating a new goal for the week ahead, and focusing on anger as a coping behavior.
8	Dealing with primary suffering related to schemas, mental imagery and practical exercises with a focus on letting go of old control strategies.
9	Revision of many topics and skills from the previous session as an opportunity to practice and adhere to new behaviors and teach communication skills.
10	The beginning of the session with an extensive mindfulness exercise, practice of alternative responses based on values, examination of potential obstacles and planning strategies in order to pursue committed actions and post-treatment evaluation and appointment for the follow-up phase and completion of treatment sessions.

Results

Table 3 shows the mean and standard deviation of emotional schemas and post-traumatic growth.

Table 3. Mean and standard deviation of emotional schemas and post-traumatic growth

Variable	Phase	Gestalt therapy		ACT		Control	
		Mean	SD	Mean	SD	Mean	SD
Comprehensible and controllable	Pretest	31.75	1.16	31.60	1.14	31.60	1.04
	Posttest	22.45	1.63	26.75	2.07	31.40	1.31
	Follow up	22.60	1.75	26.85	3.007	31.50	1.35
Rumination	Pretest	11	0.97	10.90	0.96	10.90	0.96
	Posttest	8.15	0.81	9.15	1.13	10.80	1.10
	Follow up	8.25	1.02	9.25	1.11	10.95	1.14
General agreement	Pretest	15.25	0.64	15.10	0.71	15.30	0.65
	Posttest	10.70	0.92	11.25	1.51	15.15	0.87
	Follow up	10.80	0.89	11.35	1.63	15.15	0.93
Being rational	Pretest	10.80	1.005	10.80	1.005	10.80	1.005
	Posttest	8.85	0.81	9	1.21	10.70	0.92
	Follow up	8.95	0.99	9.10	1.41	10.85	0.93
Acceptance	Pretest	8.95	0.68	8.95	0.68	8.90	0.71
	Posttest	6.60	1.56	7.30	1.17	8.80	0.61
	Follow up	6.70	1.65	7.35	1.18	8.85	0.58
As simple as emotions	Pretest	10.95	0.94	11.05	0.94	11	0.97
	Posttest	8.85	0.82	9.45	1.23	10.90	0.91
	Follow up	8.10	0.96	9.50	1.23	10.95	0.88
Relationship with others	Pretest	15.35	0.74	15.25	0.78	15	0.79
	Posttest	16.80	1.005	18.95	1.76	15.10	0.91
	Follow up	16.70	1.03	18.90	1.71	15	0.97
New priorities and goals	Pretest	15.15	0.81	15.20	0.76	15.25	0.78
	Posttest	18.15	1.42	19.85	1.92	15.30	0.80
	Follow up	18	1.41	19.75	1.91	15.30	0.80
Inner strength	Pretest	11.90	0.78	11.90	0.78	12.05	0.68
	Posttest	13.73	1.55	14.15	1.63	12.15	0.67
	Follow up	13.65	1.59	14	1.74	12.15	0.67

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Spiritual changes	Pretest	4.70	0.57	5	0.72	4.70	0.65
	Posttest	8.10	0.91	8.50	1.10	5.05	1.09
	Follow up	8	0.97	8.45	1.05	5.10	1.07
Perception of the value of life	Pretest	10.80	0.76	10.75	0.78	10.75	0.78
	Posttest	10.85	0.74	12.90	0.85	10.90	0.91
	Follow up	11.80	0.76	12.85	0.93	10.95	0.94

To check the normality, the Shapiro-Wilks test was used, and the dependent variables were normal. The assumption of homogeneity of variances (post-test) was checked with Levine's test, this assumption was confirmed in the post-test stage (P < 05). The results of the M-box test were not statistically significant to check the other assumption of this test, i.e. equality of variance-covariance, and this means establishing the assumption of equality of variance and covariance matrices. Also, Mauchly's sphericity test showed a significant level value of 0.001 for emotional schemas and post-traumatic growth. Therefore, the assumption of sphericity is rejected. Table 4 shows the results of repeated measurement variance analysis on emotional schemas and post-traumatic growth.

Table 4. The results of repeated measurement variance analysis on emotional schemas and post-traumatic growth

Variable	Source	F	P	Effect size	Power
Comprehensible and controllable	Factor	389.52	0.001	0.87	0.999
	Factor * Group	119.71	0.001	0.80	0.999
	Group	107.74	0.001	0.79	0.999
Rumination	Factor	107.42	0.001	0.65	0.999
	Factor * Group	30.60	0.001	0.52	0.999
	Group	20.06	0.001	0.41	0.999
General agreement	Factor	379.90	0.001	0.87	0.999
	Factor * Group	87.08	0.001	0.75	0.999
	Group	66.48	0.001	0.70	0.999
Being rational	Factor	92.44	0.001	0.62	0.999
	Factor * Group	22.15	0.001	0.43	0.999
	Group	10.97	0.001	0.28	0.999
Acceptance	Factor	60.88	0.001	0.52	0.999
	Factor * Group	14.83	0.001	0.34	0.999
	Group	14.52	0.001	0.34	0.999
As simple as emotions	Factor	166.21	0.001	0.74	0.999
	Factor * Group	47.77	0.001	0.63	0.999
	Group	22.41	0.001	0.44	0.999
Relationship with others	Factor	113.23	0.001	0.66	0.999
	Factor * Group	43.34	0.001	0.60	0.999
	Group	37.26	0.001	0.57	0.999
New priorities and goals	Factor	159.11	0.001	0.74	0.999
	Factor * Group	44.05	0.001	0.61	0.999
	Group	41.71	0.001	0.59	0.999
Inner strength	Factor	43.12	0.001	0.43	0.999
	Factor * Group	9.57	0.001	0.25	0.999
	Group	9.09	0.001	0.24	0.999
Spiritual changes	Factor	289.73	0.001	0.84	0.999
	Factor * Group	51.69	0.001	0.64	0.999

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	Group	54.33	0.001	0.65	0.999
Perception of the value of life	Factor	110.72	0.001	0.66	0.999
	Factor * Group	28.78	0.001	0.50	0.999
	Group	15.34	0.001	0.35	0.999

The results of Table 4 show that Gestalt therapy and therapy based on acceptance and commitment have created a significant difference in the three measurement stages of the three groups.

In the following, to investigate the difference between the effectiveness of Gestalt therapy and therapy based on acceptance and commitment on emotional schemas and post-traumatic growth, Bonferroni's post hoc test was used (to compare the effectiveness of the intervention groups), and the results are shown in Table 5.

Table 5. Pairwise comparison with Bonferroni's post hoc test of emotional schemas and post-traumatic growth

Variable	Base group and comparison group	Mean difference	P
Comprehensible and controllable	Gestalt therapy and ACT	-2.80	0.001
	Gestalt therapy and control group	-5.90	0.001
	ACT and Control group	-3.10	0.001
Rumination	Gestalt therapy and ACT	0.63	0.08
	Gestalt therapy and control group	-1.75	0.001
	ACT and Control group	-1.11	0.001
General agreement	Gestalt therapy and ACT	-0.31	0.79
	Gestalt therapy and control group	-2.95	0.001
	ACT and Control group	-2.63	0.001
Being rational	Gestalt therapy and ACT	-0.10	0.99
	Gestalt therapy and control group	-1.25	0.001
	ACT and Control group	-1.15	0.001
Acceptance	Gestalt therapy and ACT	-0.45	0.31
	Gestalt therapy and control group	-1.43	0.001
	ACT and Control group	-0.98	0.002
As simple as emotions	Gestalt therapy and ACT	-0.96	0.004
	Gestalt therapy and control group	-1.91	0.001
	ACT and Control group	-0.95	0.005
Relationship with others	Gestalt therapy and ACT	-1.47	0.001
	Gestalt therapy and control group	1.250	0.001
	ACT and Control group	2.67	0.001
New priorities and goals	Gestalt therapy and ACT	-1.67	0.002
	Gestalt therapy and control group	1.81	0.001
	ACT and Control group	2.98	0.002
Inner strength	Gestalt therapy and ACT	-0.26	0.001
	Gestalt therapy and control group	0.96	0.001
	ACT and Control group	1.23	0.001
Spiritual changes	Gestalt therapy and ACT	-0.38	0.36
	Gestalt therapy and control group	1.98	0.001
	ACT and Control group	2.36	0.001
Perception of the value of life	Gestalt therapy and ACT	-0.68	0.015
	Gestalt therapy and control group	0.61	0.03
	ACT and Control group	1.30	0.001

[DOI: 10.22034/3.2.105]

According to the results of Table 5, the results showed that the average difference between Gestalt therapy and the control group is greater than the difference between the average treatment based on acceptance and commitment and the control group, which indicates that Gestalt therapy has more effectiveness in reducing emotional schemas. Also, the difference between the average treatment based on acceptance and commitment with the control group is greater than the average difference between Gestalt therapy and the control group, which indicates that the treatment based on acceptance and commitment has been more effective in increasing post-traumatic growth.

Discussion

The aim of this study was to assess the comparative efficacy of Gestalt therapy and acceptance and commitment-based therapy in addressing emotional schemas and promoting post-traumatic growth in adolescent females diagnosed with post-traumatic stress disorder. Findings indicated that both Gestalt therapy and acceptance and commitment-based therapy had a significant impact on enhancing emotional schemas in adolescent females afflicted with post-traumatic stress disorder, with this effect persisting during the follow-up period. Moreover, Gestalt therapy demonstrated superior efficacy in reducing emotional schemas. These outcomes are consistent with the findings of Romadhon and Sanyata (2020), Wharton et al. (2019), Mohammadi and Hafezian (2019) and Kazemipour et al. (2021).

According to Perez's point of view, another goal of Gestalt therapy is integration. Those who are integrated act as an orderly whole, which includes feelings, perceptions, thoughts, and bodies, whose processes are not separated from psychological components. When people's internal states and their behavior are in harmony with each other, then less energy is wasted in the organism and they are more able to meet their needs in a proper way. Those who are less integrated are empty inside them and there is a gap, which prevents them from fully using the resources inside them. Gestalt therapy helps a person to move away from the defensive layers of the mind and live in the present. Because one of the causes of post-traumatic stress disorder and the worsening of its symptoms is living in the past and paying attention to its negative consequences. Due to the fact that Gestalt therapy is more effective on emotional schemas than commitment and acceptance therapy, it is for this reason that Gestalt therapy considers the individual's problems to be caused by the distance between the present and the future and emphasizes that the present is more

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important than the past and or the future A teenage girl suffering from symptoms of post-traumatic stress disorder has gained self-awareness by recognizing the cause of unpleasant situations and being aware of her current situation and freeing herself from anxiety and fear of the future and can achieve peace with herself and her living environment.

Emotional schemas are identified as a risk factor contributing to the manifestation of symptoms associated with post-traumatic stress disorder (Naderi et al., 2016). Through the application of Gestalt therapy, individuals are able to actively cultivate an understanding rooted in the present moment, facilitating the elimination of adverse emotions and the redirection of focus towards ongoing activities. Consequently, within the framework of Gestalt therapy, individuals are steered towards an experiential encounter with the "here and now," enabling liberation from historical anxieties stemming from post-traumatic stress disorder. This process stands as a pivotal element in diminishing emotional schemas, which wield a significant influence on the perpetuation of post-traumatic stress disorder. Consequently, it can be inferred that Gestalt therapy represents a progression from acceptance and commitment therapy, as it centers on fostering the interconnectedness and internal experiences of adolescent females grappling with post-traumatic stress disorder in the present moment, as opposed to their self-perceptions within social contexts. Through this approach, individuals attain insights and assume accountability for their actions to instigate change. While mindfulness is a fundamental technique within acceptance and commitment therapy, emphasizing awareness of the present moment, Gestalt therapy places particular emphasis on the current endeavors of the individual, endeavoring to detach from the origins of distressing circumstances, and embracing the immediacy of the present. Thus, Gestalt therapy may prove to be more efficacious than acceptance and commitment-based interventions in reducing emotional schemas and demonstrating enhanced efficacy in addressing the challenges faced by young women afflicted with post-traumatic stress disorder.

Furthermore, findings indicate that both gestalt therapy and acceptance and commitment-based therapy exert a substantial positive impact on enhancing post-traumatic growth among adolescent girls suffering from post-traumatic stress disorder, with this effect persisting during subsequent monitoring phases.

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Given the prevalence of this disorder and the potential adverse psychological, physical, and social ramifications associated with its diagnosis and treatment for adolescent females, psychological interventions grounded in acceptance and commitment principles and Gestalt therapy hold promise in ameliorating the gravity of these detrimental effects. By deploying therapeutic interventions aimed at fostering post-traumatic growth and ameliorating emotional schemas, the psychological well-being of affected individuals can be significantly enhanced. Counselors and clinical psychologists stand to benefit from the insights garnered from this study, applying them in a pragmatic manner within counseling facilities and psychological services.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of the Islamic Azad University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

[DOI: 10.22034/3.2.105]

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