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The Effect of Positive Group Psychotherapy on the Mood and Perfectionism of Medical Students

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Abstract

Purpose: The present study was conducted to investigate the effect of positive group psychotherapy on the mood and perfectionism of medical students.
Methods: The present study is a semi-experimental pre-test-post-test design with a control group. The statistical population includes medical students in Tehran who agreed to participate in the study. Of these, 30 were selected through convenience sampling and randomly assigned to two groups (15 in the experimental group and 15 in the control group). Frost's Multidimensional Perfectionism Questionnaire and Watson et al.'s (1988) Positive Affect Questionnaire were used to collect data. Positive group psychotherapy was administered by the researcher in 8 sessions for 4 weeks, two 60-minute sessions per week for the experimental group. The control group did not receive any intervention during this period. The results of the experiments were calculated using SPSS software.
Results: The findings of the study show that positive group psychotherapy has an effect on the level of medical students' mood and significantly improves it. Also, positive group psychotherapy has an effect on the level of medical students' perfectionism and significantly reduces it.
Conclusion: Using positive group psychotherapy methods can be effective in treating many mental problems and disorders, including perfectionism and improving the mood of people affected by negative events.

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Introduction

Today, despite the rapid growth and development of societies, countless problems confront humanity every day, making them wonder where these problems originate and how they can be removed from their path. Emotions and mood are aspects of human behavior that play an important role in human life (1). Mood is divided into two basic emotional dimensions: positive mood and negative mood. Positive mood is a state of active energy, high concentration, and enjoyable engagement. Positive mood encompasses a wide range of positive mood states, including happiness, feelings of empowerment, enthusiasm, interest, desire, and self-confidence (2). Medical students experience high levels of stress and mental strain during their academic years, which can have negative effects on their educational and learning processes and affect their mood (3). Various studies have shown that the factors that contribute to people's success and achievement are the positive feelings and emotions they create within themselves. In contrast, unsuccessful people are those who cultivate negative feelings and emotions within themselves (4).

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Mood affects not only the content of cognition and behavior (what we think and do), but also the process of cognition, that is, how we think. The initial belief was that a positive mood simply creates a superficial, calm, and slow way of thinking, meaning that if a pleasant mood is formed, we do not need to make much special effort, but an unpleasant mood is a warning that we must be careful (5). However, new findings show that a positive mood does not make people shallow, slow, or naive thinkers. Rather, it seems that pleasant and positive emotions create a specific way of thinking in which internal thoughts, desires, and beliefs become more limited, in this way of thinking, people tend to pay less attention to external information and also tend to match and coordinate the details of new conditions and situations with their previous knowledge about the world around them (6).

Also, mood and emotional disorders may cause perfectionism in individuals. Perfectionism and normality have severe emotional consequences. Perfectionism leads to feelings of guilt, anxiety, inferiority, low self-esteem, and resentment, and normality is associated with satisfaction, happiness, pleasure, peace, and a healthy sense of self-worth (7). Perfectionism is defined as a person's persistent tendency to set perfect and unattainable standards and strive to achieve them, which is accompanied by critical self-evaluations of personal performance. Perfectionism is a construct that has both a positive and adaptive aspect and a negative and maladaptive aspect. Perfectionism has been defined as the holding of very high standards for critical evaluation of one's own and others' performance and a set of self-defeating thoughts and behaviors (8). In other words, perfectionism is a belief that is characterized by a set of very high standards for performance and a tendency toward an all-or-nothing approach. Therefore, perfectionism is defined as a personality trait in the form of adopting high standards along with strict, meticulous evaluation and excessive criticism, which can disrupt individuals' mental structures (9). One of the effective methods for eliminating these negative mindsets in medical students is positive group psychotherapy.

This method is an approach to psychotherapy that has gained its credibility and value empirically and is associated with the creation and expansion of positive emotions. Positive psychotherapy seeks to reduce and alleviate psychological harm and disorders and increase happiness by increasing meaning in the lives of clients. A positive approach based on realism (neither pure optimism nor pure pessimism) in psychology can guide individuals' satisfaction with life (10).

In recent years, the positive psychology approach has attracted the attention of psychologists, focusing on human capabilities rather than abnormalities and disorders. Positive psychologists have begun to design new interventions. Positive psychology interventions are therapeutic practices or intentional activities that aim to foster positive emotions, behaviors, or cognitions. Positive psychotherapy is also more cost-effective in terms of time and money, and training a positive psychotherapist requires less time and money (11). Arabzadeh et al. (2023) compared the effectiveness of cognitive behavioral intervention and positive psychotherapy on negative mood among cancer patients who underwent surgery. It was concluded that cognitive behavioral intervention (CBT) and positive psychotherapy are effective in reducing negative mood in cancer patients who underwent surgery; Also, the effectiveness of cognitive behavioral intervention (CBT) and positive psychotherapy on reducing negative mood in cancer patients undergoing surgery is different (12).

Khaleghipour et al. (2023) presented a study titled "The mediating role of positive psychological functioning in the relationship between mood, overcompensation, and emotional suppression with resilience in patients with gastrointestinal cancer: A descriptive study." The results showed that positive psychological functioning has a mediating role in the relationship between mood and resilience (β=0.621) and in the relationship between overcompensation and resilience (β=0.412) (P<0.001). Also, mood (β=0.421), overcompensation (β=0.365), suppression (β=0.647) and positive psychological functioning (β=0.723) have a direct effect on the resilience of patients with gastrointestinal cancer. The study findings showed that positive psychological functioning mediates the effect of mood on resilience in cancer patients. Therefore, it seems that cancer patients with positive psychological functioning can increase their resilience to cope with negative consequences of cancer (13).

Seyed Ebrahimi (2020) conducted a study to examine the effectiveness of mindfulness-based cognitive therapy and positive thinking on improving mental health, perfectionism, and cognitive emotion regulation strategies in family caregivers with major depressive disorder. The results showed that there was a statistically significant difference between the two cognitive therapy groups based on mindfulness and positive thinking and the control group on mental health, adaptive self-regulation and maladaptive self-regulation, and positive perfectionism and negative perfectionism. Adaptive self-regulation in the cognitive therapy group based on mindfulness and mental health in the positive thinking group were higher at the end of the post-test than in the cognitive therapy group based on mindfulness. It can be concluded that in terms of effectiveness, mindfulness-based cognitive therapy training had the greatest impact on adaptive self-

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regulation and positive thinking on improving mental health (14).

Amonoo et al. (2019) examined the impact of positive intervention and its health outcomes and stated that using pleasurable exercise techniques such as expressing gratitude and writing gratitude letters, which are part of positive psychology structures, leads to improvements in positive relationships with others. In fact, positive thinking skills help people become better at controlling and changing negative or incorrect thoughts, and the main goal of this therapy is for people to achieve the best results even from the worst situations (15).

In his study, Dilater (2016) examined the role of positive thinking in reducing anxiety in anxious and non-anxious students. His research population consisted of 1,100 anxious and healthy students who visited the university clinic. He found that he did not identify a specific schema associated with anxiety. He concluded that positive thinking training had an effect on reducing anxiety in anxious students (16).

Methods

The method of the present study is a semi-experimental pre-test-post-test design with a control group. The statistical population of this study includes medical students in Tehran, who agreed to participate in the study. Of these, 30 people were selected using a convenience method (non-generalizable) and based on demographic variables such as age, and randomly assigned to two groups (15 in the experimental group and 15 in the control group). The following questionnaires were used to collect information:

- Frost Multidimensional Perfectionism Questionnaire (FROST-MPS): It has 35 questions and measures perfectionism in six dimensions, including worry about mistakes, doubt about actions, parental expectations, parental criticism, personal standards, and orderliness. It is scored on a 5-point Likert scale from strongly agree (5) to strongly disagree (1). To obtain the score for each subscale, the scores of all statements related to the subscale in question must be added together. Frost et al. (1993) reported that the internal consistency coefficient of the test subscales was between 0.73 and 0.93, and the internal consistency coefficient of the entire test was 0.90 (17).
- Positive Affect Questionnaire: This scale was developed by Watson et al. (1988). In this scale, 20 categories representing 20 emotions (10 positive emotions and 10 negative emotions) are presented in the form of words, and the respondent's opinion about these emotions is evaluated in four dimensions: past, present, future, and overall, on a 5-point scale. In this study, 10 questions were used to express positive mood. The external reliability of this scale was reported by Watson (1988) with a Cronbach's alpha coefficient of 0.88 for positive affect and 0.87 for negative affect. The Cronbach's alpha coefficient of this scale in the study by Bakhshipour and Dejkam (2005) was 0.85, indicating its internal consistency (18).

Positive group psychotherapy was administered by the researcher to the experimental group in 8 sessions over 4 weeks, two 60-minute sessions per week. During this period, the control group did not receive any intervention. After the sessions ended, the questionnaire questions were read to the subjects again as a post-test, the raw scores were calculated and recorded, and finally, the results of the tests were calculated using SPSS software.

Results

Levine's test was used to check the assumption of normal distribution of variables.

Table 2. Assumption of normal distribution of variables

Group	Number	Mean±SD	Levin	
		Age	Perfectionism	mood
Experimental	15	1.514±21.65	0.142	0.275
Control	15	1.514±21.65		

The results show that in the two experimental and control groups, the condition of equality of variance is acceptable from the perspective of the research variables.

Based on the descriptive findings, the dispersion indices and central tendency of the research variables are shown in Tables 2 and 3, separated by group and type of test.

Table 3. Mean and standard deviation of variables before positive group psychotherapy in the experimental and control groups

Variables	Mean (standard deviation) Experimental group	Mean (standard deviation) Control group
Perfectionism	(2.10)72.60	(2.70)74.14
Mood	(1.60)22.21	(2.02)24.41

The results show that the average scores of perfectionism and mood in the control and experimental groups are almost equal, and the results show that the experimental and control groups do not differ significantly from each other.

The findings in the table show that the average scores of the variables in the experimental group are lower than those in the control group. In other words, positive group psychotherapy has reduced the average scores in the variables of perfectionism and creative enhancement, while no significant difference has been observed in the control group.

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Table 4. Mean and standard deviation of variables after positive group psychotherapy in the experimental and control groups

Variables	Mean (standard deviation) Experimental group	Mean (standard deviation) Control group
Perfectionism	(2.52)67.54	(4.00)73.81
Mood	(1.16)21.61	(2.02)19.27

The results of testing the first hypothesis that "group psychotherapy has a positive effect on mood" are presented as follows:

Table 5. Results of univariate analysis of covariance on pre-test-post-test of mood scores.

Source of changes	Sum of squares	Degree of freedom	Mean squares	F	Significance level
Pre-test	18	1	18	7.00	0.05
Group	100.07	1	100.07	31.56	0.001
Error	94.84	27	2.62		
Total	207880.04	30			

Based on the results obtained, after adjusting for pre-test scores, there is a significant effect on the between-group factor (F=31.56, P=0.001). The scores show that the average of the experimental group that was exposed to counseling has increased significantly. Therefore, it can be concluded that positive group psychotherapy has an effect on mood and significantly increases it. Therefore, the first hypothesis of the study is confirmed.

The results of the test of the second hypothesis that "positive group psychotherapy has an effect on perfectionism" are presented in Table 6.

Source of changes	Sum of squares	Degree of freedom	Mean squares	F	Significance level
Pre-test	6.47	1	6.47	0.50	0.33
Group	125.48	1	125.48	13.32	0.001
Error	310.87	27	10.30		
Total	136415.22	30			

The results show that after adjusting for pre-test scores, there is a significant effect on the between-group factor (F=13.32, P=0.001). The scores show that the mean of the experimental group exposed to the treatment has decreased significantly. Therefore, it can be concluded that group psychotherapy has a positive effect on perfectionism and significantly increases it. Therefore, the second hypothesis of the study is confirmed.

Discussion

The aim of this study is to investigate the effect of positive group psychotherapy on the mood and perfectionism of medical students. The findings of the study are presented as follows: Based on the results obtained, the average mood level of the experimental group that was exposed to counseling increased significantly. Therefore, it can be concluded that group psychotherapy has a positive effect on mood level and increases it significantly (11). Therefore, the first hypothesis of the research is confirmed. The results show that the average perfectionism of the experimental group that was exposed to the treatment decreased significantly. Therefore, it can be concluded that group psychotherapy has a positive effect on perfectionism and increases it significantly (9). Therefore, the second hypothesis of the study is confirmed.

Negative thoughts and observations in the face of psychological pressures and vulnerability in constant contact with patients threaten the mentality of medical students. The cause of these individuals' mental problems is mainly unpleasant thoughts that affect their emotions and behaviors in the form of cognitive errors (9).

Conclusion

Using positive group psychotherapy methods can be effective in treating many mental problems and disorders. In addition to teaching how to manage negative thoughts, positive group psychotherapy also emphasizes skills related to preventing inappropriate thoughts and correcting situations. In these interventions, positive emotions, cognitions, or behaviors are induced in the patient. Positive people accept the realities of life easily and believe that life is meaningful (12). This belief is usually supported by their values. These individuals have remarkable abilities to adapt quickly to major changes. Positive group psychotherapy helps medical students become more aware of their thoughts and problems in dealing with negative events, and to pay attention to targeted programs based on cognition and thinking, as well as directing their behavior, in order to regulate and manage their thoughts and abilities. Among the limitations of the study, we can mention the limitation of the statistical population to medical students in Tehran, which makes it difficult to generalize the results. For future research, it is suggested that the relationship between personality traits (Big Five personality factors) and temperament and perfectionism should also be examined.

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Authors contribution

The author conceptualized the study objectives and design.

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Ethics
None

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