Research Paper: Effectiveness of Transference-focused Psychotherapy and Acceptance and Commitment Therapy in Promoting the Mental Health and Psychological Capital of Staff Working in Hospitals Covered by Social Security in Tehran Province

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ABSTRACT

Objective: This study aimed to compare the effectiveness of Transference-focused Psychotherapy (TFP) and Acceptance and Commitment Therapy (ACT) on promoting the mental health and psychological capital of staff working in hospitals covered by social security in Tehran Province.

Methods: The present study was a quasi-experimental research with pre-test and post-test. The statistical population of the present study was the personnel working in hospitals covered by social security in Tehran Province. A total of 120 personnel from three hospitals were randomly divided into two experimental groups and one control group (40 people in each group). All three groups answered the Mental Health Questionnaire (Symptom Checklist-90-R (SCL-90-R)) and Psychological Capital Questionnaire (PCQ) as a pre-test. Then, the transfer-oriented treatment group and the acceptance and commitment treatment group (during eight sessions) received the experimental intervention and the control group did not receive any kind of intervention. At the end of the sessions, all three groups answered the questions of the SCL-90-R and PCQ again. Multivariate analysis of covariance was used to analyze the collected data.

Results: The results of the present study showed that both TFP and ACT were effective in promoting the mental health of staff working in hospitals covered by social security. There was also a difference between the effectiveness of TFP and ACT in promoting the mental health of staff working in hospitals covered by social security. Thus, in the TFP group, the components of anxiety, morbid fear, psychosis, and paranoia gained significantly lower scores compared to the ACT group. Regarding the components of psychological capital, the ACT group scored significantly lower than the TFP group.

Conclusion: Both methods can be used by counselors and therapists to promote the mental health of staff working in hospitals covered by social security.

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Highlights

- Transmission-centered psychotherapy is a type of structured modified psychotherapy.
- ACT is rooted in a philosophical theory called functional contextualism.
- According to WHO, mental health is not only the absence of disease and disability, but also the state of complete physical, mental, and social health.
- Psychological capital is one of the hallmarks of positivism psychology.

Plain Language Summary

Hospital staff is among the most vulnerable social groups who need psychological support more than other sections of society due to their unique working conditions and physical and psychological pressures. Mental health promotion (anxiety, aggression, depression, sensitivity in interpersonal relationships, physical complaints, OCD, morbid fear, psychosis, paranoid) and psychological capital (hope, optimism, self-efficacy, and resilience) of these people require pecial attention and support. In this study, it was found that transfer-oriented psychotherapy and ACT effectively increase and promote the mental health and psychological capital of personnel working in social security hospitals in Tehran Province.

1. Introduction

Hospital staff is one of the most vulnerable social groups who need psychological support more than other social groups due to their special working conditions and physical and psychological pressures (Tracy et al., 2020).

Medical occupations due to factors, such as shift work, stress and long working hours, conflict with colleagues, observing the suffering and death of patients, professional responsibilities and issues related to the administrative system, lack of necessary facilities and technical equipment, lack of appreciation, short-time rest, role conflict, role ambiguity, etc. are faced with major job stresses. This type of stress in the long run leads to problems, such as job dissatisfaction, burnout, absenteeism, leaving the job, reduced quality of patient care, and reduced mental health of medical staff (Johnson et al., 2021). The category of mental health affects all aspects of human life and has both material and immaterial or intrinsic values for the individual and society.

According to the World Health Organization (WHO), mental health is one of the important axes of assessing the health of different communities and a state of health of each individual that causes the realization of potential talents, coping with normal stresses of life and doing useful work, and feeling productive and the ability to participate with society (Rostami, Ghezelsofloo, Mohammadloo & Ghorbanian, 2015). The concept of mental health includes the inner feeling of well-being and self-confidence, self-reliance, competition capacity, intergenerational dependence, self-fulfillment of potential intellectual, and emotional abilities, etc. A person with mental health is able to adapt to the environment while gaining individuality (Bell & Wade, 2021).

Another occupational factor whose maintenance and promotion are important for the medical staff is psychological capital (Fernández-Valera, de Pedro, De Cuyper, García-Izquierdo & Soler Sanchez, 2020). It is a positive psychological state, which is defined by characteristics, such as belief in one's ability to achieve success, perseverance in pursuing goals, creating a positive self-image, and enduring difficulties. In recent years, many studies have been conducted on the relationship of psychological capital with some occupational and organizational problems, such as being absent from work (Guo et al., 2021). Psychological capital is mainly obtained from theory and research in the field of positive psychology and has been used in the field of occupation (Broad & Luthans, 2020). Hope, optimism, self-efficacy, and resilience are the components of psychological capital (Luthans & Youssef-Morgan, 2017).

Today, different treatment methods are used to increase and promote mental health and psychological capital. One of these methods is Transference-focused Psychotherapy (TFP). It is a structured modified psychodynamic treatment, and is derived from the object relations

model of borderline personality disorder (Gaztambide, 2019). TFP aims to help individuals endure the turbulent and sharp emotions using a structured environment and contract therapy, along with the use of techniques of clarification, confrontation, and interpretation by focusing on transference relationships in the here and now. Then, by maintaining a non-judgmental and neutral subject, provide a space to tolerate their representations and communications or attachment patterns. The key features of this contemporary treatment model of object relations are: (a) Determining the treatment framework by setting an oral contract, (b) Focusing on disturbed interpersonal behaviors both in patients' lives and in their relationship with the therapist, (c) Using the process of interpretation to correct internal representations of oneself and others, and (d) causing real-world changes in interpersonal behaviors, especially in the field of work and close/romantic relationships (Clarkin, Cain & Lenzenweger, 2018).

In this method, through confrontation and exposure, patients are taught to deal with their worries for a long time by thinking about scary events. Exposure is done by calling up an image of a frightening expectation and focusing on it. Many studies have pointed to the high effectiveness of TFP in reducing the symptoms of anxiety disorders, but there is scant research on its effectiveness in promoting mental health and psychological capital. TFP reduced self-destructive behaviors and traumatic personality traits (Verheugt-Pleiter & Deben-Mager, 2006). Clarkin, Levy, Lenzenweger and Kernberg (2007) compared TFP with dialectical behavioral therapy and supportive modified psychodynamic psychotherapy and showed that all three treatments had different effectiveness in reducing depression and anxiety and in improving overall functioning and social adjustment. Levy et al. (2006) considered structural improvements to be specific to TFP. Gelso (2014) and van Asselt et al. (2008) compared three years of TFP and schema therapy. The effectiveness of TFP was demonstrated in reducing disturbance symptoms, although the rate of withdrawal and its effect size were higher and lower than those of the schema therapy, respectively. In another study, although TFP, dialectical behavioral therapy, and supportive psychotherapy were effective in reducing depression and anxiety and improving overall performance, adaptability to stressful conditions, and resilience (symptom changes), it was only the TFP that always significantly reduced aggression and personality (structural changes) in the form of maintaining increased attachment after one year of treatment (Diamond & Hersh, 2020).

Another effective treatment approach in promoting mental health is Acceptance and Commitment Therapy (ACT). In this therapy, instead of emphasizing the correction of inefficient cognitions and beliefs, patients are taught to accept their emotions and to have more flexibility (at the present) (Hayes, 2019). In this regard, the patient is taught that trying to avoid or control his/her disturbing mental experiences is ineffective or has the opposite effect and exacerbates them and s/he should try to accept them completely. In the next step, the present-moment awareness of the patient is emphasized and the patient becomes aware of his/her mental and physical status, thoughts, feelings, and behavior in the present moment. In the third step, the patient is taught to separate herself/himself from these mental experiences (Cognitive Defusion) and act independently of these experiences. The fourth step focuses on trying to reduce the excessive focus on the self-embodiment of the life story (such as being a victim) that patient has created in her/his mind. In the fifth step, the patients are helped to recognize the personal values and can practically turn them into specific behavioral goals (clarifying values). Finally, the patient is motivated to take action committed to the goals and values set, while accepting mental experiences (Narimani & Vahidi 2014).

ACT as one of the third generation therapies, has more effectiveness than many other therapies due to the emphasis on functional cycles and consideration of motivational aspects along with cognitive aspects. A study showed the effectiveness of ACT along with coping techniques in reducing the severity of symptoms of a generalized anxiety disorder (Zhang et al., 2018). Another study on nurses working in Imam Sajjad Hospital in Tehran showed that ACT significantly reduced burnout and experiential avoidance in nurses (Bahrainian, Khanjani & Masjedi Arani, 2016). Findings of a study on patients with esophageal cancer showed that the ACT increased the psychological capital of these patients (Barghi Irani, Zare & Abedin, 2015). Bastami, Goodarzi, Dowran and Taghva (2016) showed that ACT can be effective in reducing the severity of depressive symptoms in military personnel with type 2 diabetes.

TFP is one of the new approaches that little research has been done on its effectiveness in the form of short-term interventions, especially in the hospital environment in Iran. On the other hand, the ACT is one of the relatively new approaches of third-wave cognitive-behavioral therapies that emphasizes helping people to have a more satisfying life, even in the presence of undesirable thoughts, emotions, and feelings (Thompson, Destree, Albertella & Fontenelle, 2021).

Recently, psychological research has studied ACT and its important applications in adapting to stressful conditions (coronary conditions) and promoting mental health (Xu, Shen & Wang, 2021). The main advantage of this method over other psychotherapies is to consider the motivational aspects along with the cognitive aspects, in order to make the treatment more effective and continuous. The novelty of this treatment method and the high applicability of this treatment approach in promoting the mental health of hospital staff are among the reasons for choosing this treatment approach. As a result, more research is needed on the deeper dimensions of these treatments.

We found no research in Iran on the effectiveness of TFP on mental health promotion. On the other hand, no study has been conducted to compare the effectiveness of the TFP and ACT on the mentioned variables. In this regard, and considering the protective role of variables, such as mental health and psychological capital against job stress of hospital staff during the COVID-19 pandemic, which doubles the importance of using the most effective approaches in the promotion of mental health and psychological capital, such as hope, resilience, and optimism, this study was done to compare the effectiveness of TFP and ACT in promoting mental health and psychological capital of hospital staff.

2. Materials and Methods

This is a quasi-experimental study with a pre-test/post-test design. The study population consisted of the personnel working in the hospitals covered by social security in Tehran Province. From nurses, paramedics, and physicians who had direct contact with COVID-19 patients and worked in three hospitals (Milad, Fayyaz Bakhsh, and Kashani), 120 were selected using a purposive sampling method. The sample size was determined to be 40 for every three groups using GPower software and considering an effect size of 0.5, α=0.05, a test power of 0.8, and given that the minimum sample size in previous similar studies was 15 for each group. The samples were randomly (by drawing lots without replacement with new samples) assigned to two experimental groups and one control group (40 in each group). Inclusion criteria were working in social security hospitals in Tehran Province, age between 18 and 55 years, having at least a diploma, no hospitalization or suffering from severe psychological disorders, no addiction to drugs or alcohol, not on the

Table 1. The summary of ACT protocol

Sessions	Protocols
First	Pre-test evaluations, introduction and acquaintance with group members, statement of group goals and rules, determination of outlines and general structure of sessions, acquaintance with the therapist, treatment commitments, familiarity with ACT, receiving feedback, homework assignment
Second	Assessing the subjects' problems from the perspective of acceptance and commitment, extracting experiential avoidance, fusion, and personal values, preparing a list of advantages, disadvantages, and methods of controlling problems, not trying to avoid negative emotions, receiving feedback, assigning the home task of identifying avoidant situations and allowing negative thoughts without fighting them or deliberately preventing them.
Third	Checking the assignments, specifying inefficient tasks, controlling negative events using metaphors, cognitive defusion training, psychological and self-visual awareness, receiving feedback, assigning home tasks
Fourth	Checking the assignments, separating evaluations from personal experiences and taking a position, observing thoughts non-judgmentally so that it can lead to mental flexibility and positive emotions, receiving feedback, assigning home tasks
Fifth	Checking the assignments, being in the present and considering oneself as a context, teaching mindfulness and distress tolerance techniques in order to accept negative emotions, receiving feedback, assigning home tasks
Sixth	Checking the assignments, identifying the life values of the subjects and measuring the values based on their importance, preparing a list of barriers to the realization of values and creating positive emotions, Checking the completion of home tasks
Seventh	Checking the assignments, providing practical solutions to overcome barriers while using metaphors, planning for a commitment to pursue values, creating a meaningful sense in life, receiving feedback, and assigning home tasks
Eighth	Checking the assignments, receiving subjects' feedback on past sessions, asking subjects to explain the results of the sessions and apply the techniques learned in the real world to create a sense of meaning, post-test evaluations

verge of divorce, willingness to participate in research, the relevance of education to occupation, and not attending other counseling and psychotherapy sessions. Exclusion criteria were suffering from physical and mental illnesses that can affect the results, absent for more than two sessions for various reasons, such as relapse, unwillingness to continue participation, not performing home tasks, and occurrence of unforeseen events (such as illness, death of a loved one, etc.).

First, 230 staff in three hospitals, including nurses, paramedics, and physicians, voluntarily answered the questions of the Mental Health Questionnaire (Symptom Checklist-90-R (SCL-90-R)) of the Psychological Capital Questionnaire (PCQ). Then, 125 people with lower scores on these questionnaires were selected from them and randomly assigned to the experimental and control groups. Before starting the treatment process, one of the subjects due to personal problems and four people due to coronary heart disease were excluded, and eventually, 120 subjects were divided into three groups.

All three groups answered the SCL-90-R and PCQ in the pre-test phase. Then, both TFP and ACT groups received interventions in eight sessions, while the control group did not receive any intervention. At the end of the intervention, all three groups completed the questionnaires again.

Measures

The SCL-90-R has 90 items and nine subscales, including somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (Salimi, Azad Marzaabadi & Abedi, 2013). It has also seven other items, which are important clinically and added to assist with the classification of subscales. The items of this tool are rated on a 5-point Likert scale: 0=not at all, 1=a little bit, 2=moderately, 3=quite a bit, and 4=extremely. A high score on each subscale (≥3) indicates a person's serious problem in that area. Its indices include Global Severity Index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI). A mean score ≥1 on these indices indicates positive cases, and a score ≥3 indicates a distressed state. It has been used in Iran and in other countries. Its validity in other languages ranges from 0.72 to 0.90 with reliability ranging from 0.36 to 0.73. For its Persian version, reliability of 0.27 to 0.66 has been reported (Salimi, Azad Marzaabadi & Abedi, 2013).

The PCQ was developed by Luthans (2002) to measure psychological capital. It has 24 items and four subscales of hope, resilience, optimism, and efficiency. Each subscale contains six items rated on a 6-point Likert scale (1=strongly disagree, 2=disagree, 3=somewhat disagree,

Table 2. The summary of TFP protocol

Sessions	Protocols
First	Pre-test evaluations, introduction and acquaintance with group members, statement of group goals and rules, determination of outlines, the general structure of sessions, and the treatment framework, acquaintance with the therapist, familiarity with TFP, setting up a treatment contract
Second	Identifying, observing, and systematically analyzing the types of transference issues using the techniques of clarification, confrontation, and interpretation in order to strengthen the therapeutic alliance
Third	Clarifying the positive emotions of the subjects to strengthen the therapeutic alliance and encourage them to express emotions
Fourth	Careful study and analysis of the subjects' defenses, drawing their attention to defensive behaviors to increase awareness and thinking about what has happened especially during transference, doubts in the defenses, and challenges with the defenses.
Fifth	Trying to activate the subjects' self-observation ability to build unity and strengthen thoughts about psychological conflicts
Sixth	Paying attention to chronic and problematic transference and trying to eliminate it during treatment to prevent various types of outflow in the form of countertransference behavior
Seventh	Determining and identifying the dominant object relations that are experienced or demonstrated in the relationships here and now, observing and interpreting the links between pairs of object relations, paying attention to the paths that subjects interact with the therapist, identifying subjects' representations of themselves and others, observing and interpreting role shifts (transformation of self-representations into representations of the subject and vice versa that is manifested in behaviors)
Eighth	Review of the learned techniques, receiving feedback from the subjects about the intervention, and post-test evaluations

4=somewhat agree, 5=agree, and 6=strongly agree). To obtain the PCQ score, first, the score of each subscale was obtained separately and then their average was considered as the total PCQ score. The results of factor analysis have confirmed the validity of the PCQ structure. The six-factor model of this tool has better fitting. The x^2/df value of this test is 24.6 and the values of the Goodness of Fit Index (GFI) and model are 0.97 and 0.08, respectively. The reliability of PCQ in Iran using Cronbach's alpha was reported 0.85 by Bahadori Khosroshahi et al. (2012).

Interventions

The ACT protocol was presented at eight sessions according to Hayes, Luoma, Bond, Masuda and Lillis (2006). The summary of ACT contents is presented in Table 1. The short-term TFP was presented at eight sessions according to the protocol proposed by Caligor et al. (2007), which is shown in Table 2.

Data analysis

Data were analyzed by SPSS software. The Kolmogorov-Smirnov test was used to check the normality of data distribution in pre-test and post-test phases, and Levene's test was used to check the equality of variances. In order to compare the mean scores of the experimental and control groups in pre-test and post-test, Multivariate analysis of Covariance (MANCOVA) was used.

3. Results

Information about the demographic variables (gender, age, occupation, education, and work experience) of the respondents is summarized in Table 3.

The data in this table show that 69 participants in the study were women and 51 were men. The highest frequency of age is related to participants 49 to 35 years with 49 people (40.67%) and the lowest frequency with 29 people (24.47%) aged 50 years and more. Also, 33 participants in the study were paramedic staff, 68 were nurses, and 19 were physicians. Thirty-five participants in the study had a bachelor's or master's degree, 46 had a bachelor's degree, 20 had a master's degree, and 19 had a Ph.D. Finally, 37 people had 1 to 10 years of work experience, 61 people had 10 to 20 years of work experience, and 22 people had more than 20 years of work experience.

Table 3. The respondents' gender, age, occupation, education, and work experience status

Variables		No. (%)
Gender	Female	69(57.5)
	Male	51(42.5)
Age (y)	20-34	42(34.86)
	35-49	49(40.67)
	50 and older	29(24.47)
Job	Paramedic	33(27.39)
	Nurse	68(56.84)
	Doctor	19(15.77)
Education	Diploma and associate degree	35(29.45)
	Master	46(38.18)
	MA	20(16.6)
	PhD.	19(15.77)
Work experience	1-10 years	37(30.71)
	10-20 years	61(50.63)
	20<	22(18.66)

Table 4. Mean±SD of SCL-90-R and PCQ scores in two pre-test and post-test phases

	Variables	Stage	Mean±SD		
			TFP	ACT	Control
SCL-90-R	Anxiety	Pre-test	12.97±9.24	14.55±12.65	18.25±8.28
		Post-test	4.35±4.37	12.65±11.01	18.05±6.67
	Hostility	Pre-test	9.37±6.26	9.42±5.95	11.57±4.81
		Post-test	2.98±3.03	6.35±8.86	10.67±5.12
	Depression	Pre-test	28.17±11.99	21.45±11.25	27.07±9.94
		Post-test	10.56±8.01	14.72±11.76	26.22±9.55
	interpersonal sensitivity	Pre-test	19.17±9.67	16.10±9.16	17.62±6.43
		Post-test	5.97±4.80	11.45±10.86	16.22±5.88
	somatization	Pre-test	23.80±13.48	18.25±11.87	27.60±11.39
		Post-test	9.89±8.87	12.92±13.21	19.57±12.09
	obsessive-compulsive disorder	Pre-test	22.67±12.92	14.87±9.26	22.22±10.06
		Post-test	8.74±7.84	10.32±9.89	21.07±9.69
	phobic anxiety	Pre-test	12.15±6.90	12.17±7.78	15.37±5.91
		Post-test	4.17±3.49	9.52±8.95	14.50±6.20
	psychoticism	Pre-test	19.20±9.93	15.75±8.35	21.40±7.98
		Post-test	6.89±5.62	10.32±8.89	20.02±7.49
	paranoid ideation	Pre-test	13.35±7.06	11.92±6.51	11.67±4.88
		Post-test	4.84±3.78	7.01±7.29	10.75±4.95
PCQ	Hope	Pre-test	26.12±6.87	23.57±7.78	23.75±7.68
		Post-test	31.89±4.21	29.50±7.05	24.25±7.96
	Optimism	Pre-test	24.07±5.14	22.15±5.65	22.82±5.66
		Post-test	30.51±4.02	28.82±6.15	23.55±5.90
	Self-efficiency	Pre-test	26.22±7.39	24.12±6.70	24.47±7.96
		Post-test	31.58±5.69	33.70±6.93	24.97±8.71
	Resilience	Pre-test	24.60±6.36	24.03±6.43	23.50±6.95
		Post-test	30.92±4.90	30.15±6.80	24.05±7.17

TFP: Transference-focused Psychotherapy; ACT: Acceptance and Commitment Therapy.

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Table 4 presents the mean and Standard Deviation (SD) of the SCL-90-R and PCQ scores in two pre-test and post-test phases. As can be seen, the mean post-test scores of SCL-90-R and PCQ in the two groups of ACT and TFP were higher than in the control group, and the mean post-test scores in the TFP group were lower than in the ACT group. MANCOVA was used to examine the research hypothesis that the effectiveness of ACT and TFP is different in improving mental health and psychological capital. Before using the test, its presumptions were examined. Kolmogorov-Smirnov test was used to check the normality of data distribution in pre-test and post-test phases. The significance level for the components of SCL-90-R and PCQ was greater than 0.05. Therefore, the distribution was normal. Levene's test was used to check the equality of variances. The results showed that the F-statistic for experimental and control groups was not significant (P>0.05).

Table 4 presents the results of MANCOVA for comparing the effects of ACT and TFP on mental health. As can be seen, after controlling the effect of pre-test scores, there was a significant difference between all three groups in the components of anxiety (F=27.09, P<0.001), hostility (F=28.03, P<0.001), depression (F=15.39, P<0.001), interpersonal sensitivity (F=6.09, P<0.001), somatization (F=10.41, P<0.001), obsessive-compulsive disorder (F=16.67, P<0.001), phobic anxiety (F=20.20, P<0.001), psychoticism (F=23.48, P<0.001), and paranoid ideation (F=3.8, P<0.05). Therefore, it can be said that there was a significant difference between the three groups in terms of mental health components in the post-test phase. Tukey's Post Hoc Test was used to

Table 5. Results of MANCOVA for comparing the effect of TFP and ACT on mental health

Variables	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Anxiety	3584.89	1	1792.44	27.09	0.001	0.189
Hostility	1010.73	1	505.60	18.03	0.001	0.134
Depression	3408.33	1	17.04	15.39	0.001	0.117
Interpersonal sensitivity	804.21	1	402.10	6.09	0.003	0.050
Somatization	2959.60	1	1478.33	10.41	0.001	0.082
Obsessive-compulsive disorder	3382.08	1	1691.04	16.67	0.001	0.125
Phobic anxiety	1851.188	1	925.94	20.20	0.001	0.148
Psychoticism	3130.43	1	1565.21	23.48	0.001	0.168
Paranoid ideation	203.73	1	101.86	3.8	0.036	0.028

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Table 6. Results of MANCOVA for comparing the effect of TFP and ACT on psychological capital

Variables	Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Hope	998.21	1	449.10	10.05	0.037	0.079
Optimism	673.46	1	336.73	11.20	0.001	0.088
Self-efficiency	932.09	1	466.04	9.57	0.001	0.076
Resilience	726.06	1	393.03	8.94	0.001	0.071

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determine between which groups these differences were reported. The results showed a significant difference between the ACT and TFP groups in the components of anxiety, phobic anxiety, psychoticism, and paranoid ideation (P<0.01), where the score of these components was lower in the TFP group than in the ACT group. No significant difference was reported between these two groups in terms of other mental health components (P>0.01).

Table 5 presents the results of MANCOVA for comparing the effects of ACT and TFP on psychological capital. As can be seen, after controlling the effect of pre-test scores, there was a significant difference between all three groups in the components of hope (F=10.05, P<0.05), optimism (F=11.20, P<0.001), self-efficacy (F=9.57, P<0.001), and resilience (F=8.94, P<0.001). Therefore, it can be said that there was a significant difference between the three groups in terms of psychological capital components in the post-test phase. The results of Tukey's post hoc test showed a significant difference between the ACT and TFP groups in all four components of psychological capital (P<0.01), where the scores of these components were higher in the ACT group than in the TFP group

4. Discussion

The purpose of this study was to compare the effectiveness of TFP and ACT on promoting the mental health and psychological capital of staff working in hospitals in Iran. The results showed a significant difference between the ACT and TFP groups in the components of anxiety, phobic anxiety, psychoticism, and paranoid ideation. They assessed the effectiveness of long-term TFP in people with depression, anxiety, and somatic disorders, and concluded that TFP significantly reduced the symptoms of mentioned diseases in patients.

In TFP, active and relentless confrontation with the patients' defenses forces them to experience their true feelings at every moment. Therefore, the effectiveness of TFP can be due to patients' exposure to anxiety conflicts. Such exposure causes the reorganization of the self and letting go of the sick defenses. Gregory et al. (2010) showed that psychodynamic psychotherapy reduced pathological symptoms, including depression and anxiety. Svartberg et al. (2004) and Bateman and Funaji (2008) reported that TFP for 10-18 months produced lasting effects, includ-

ing pathological reduction. Some other studies have also demonstrated the effectiveness of psychodynamic psychotherapy in reducing symptom severity and pathology and improving quality of life and interpersonal issues, and related the superiority of this type of treatment to its communication aspects. They suggested it as the most suitable method for people with borderline personality disorder, who have problems and emotional instabilities in interpersonal relations (Haskayne et al., 2014).

Along with the effectiveness of psychodynamic psychotherapy, studies have shown that structured and tailored forms of these approaches, such as TFP can lead to better results (Paris, 2010). It has been shown that increasing the level of insight during treatment is associated with positive outcomes (Kulligan et al., 2000; Grand et al., 2003). For example, Leachnering et al. (2004) found that TFP has an effect size of 90% for mental disorders and 80% for social functioning. Abbass (2002) examined the effect of TFP on somatization disorder, anxiety, depression, and social adjustment. Their results showed that this treatment was effective in most disorders compared to the control group. Our results are consistent with the results of these studies. TFP focuses on rebuilding a person's past relationships as well as his/her current relationships with family and others.

In therapy sessions, the patient has the opportunity to get to know other members of the group, be exposed to a social situation, and be able to express anger, wants, and needs. This shows the subject's motivation after a few sessions of treatment. Kernberg, Yeomans, Clarkin & Levy (2008) believes that TFP helps improve interpersonal relationships. In this method, attention is paid to the therapist's evaluation of the patient's behavior and how the therapist feels about what the patient is saying. The reason for the superiority of TFP over ACT is because of using psychoanalytic techniques mentioned by Gill and Hoffman (1982), such as interpretation, transference analysis, and technical neutrality. The use of interpretation, especially in the early stages, i.e. clarifying the patient's subjective experience (clarifying what is in the patient's mind instead of clarifying the information) and confrontation based on tactful attention to the contradictions in patient's communication, between what the patient says at one point in contrast to another, between verbal and non-verbal communication, or between the patient's communication and what is evoked in the countertransference.

Non-verbal aspects of behavior are very important in TFP. In this method, the therapist's overview of the patient's total treatment and total life situations may determine that the patient introduces an issue arbitrarily and then, focuses on the development of transference. Technical neutrality is an appropriate technique that is widely used by therapists because it counteracts the tendency of patients to activate intrapsychic conflicts. The use of countertransference in psychotherapy sessions is considered as a main therapeutic method and as an important source of information about effective emotional issues of the patient. Anxiety and feeling guilty are common countertransference feelings that patients experience to learn to tolerate their emotions. Setting clear expectations of treatment reduces a therapist's anxiety about what s/he can do for the patient and helps raise awareness of the feelings of countertransference. The treatment contract is useful because the responsibilities of the therapist and the patient are delineated (Kernberg et al., 2008).

In short-term TFP, attention is paid to how people deal with stressors. According to psychodynamic theory, depression and anxiety are characterized by the use of certain maladaptive defensive mechanisms. In this therapy, active and relentless confrontation with the patient's defenses forces him/her to experience his/her true feelings at every moment. This treatment tries to lead the patient to use more adaptive, more developed, and more rational defense mechanisms such as humor (Hersh et al., 2021). This type of developed defense makes the person accept the condition of the disease and experience less fear and anxiety. On the other hand, the emphasis of many short-term psychodynamic psychotherapies, including TFP, is on structured techniques and protocols, while the role of communication has been neglected. By the TFP, a space is created, in which in addition to awareness and insight into repetitive and unhealthy patterns, patients experience a new communication with the therapist that have not experienced before, and the barriers to the realization of their potentials are removed.

In all psychodynamic therapies, common therapeutic elements are the processing of past relationships and the creation of new and positive interpersonal relationships, increasing awareness, and expressing emotions (Bernstein et al., 2015). In the present study, the therapist confronted the subjects with their repressed emotions and tried to provide the necessary ground for the expression and experience of the accumulated emotions (especially fear and anxiety) in the subjects during eight sessions of treatment. Regarding the greater effectiveness of TFP in reducing phobic anxiety, psychoticism, and paranoid ideation, it can be explained that TFP is effective in both neurotic people and those with borderline personality disorder according to Kernberg et al. (2008). also showed that TFP significantly reduced depression, anxiety, and somatization disorders.

In our study, there was a significant difference between ACT and TFP groups in the psychological capital components of hope, optimism, self-efficacy, and resilience, where the scores of patients in the ACT group were higher. This is consistent with the results of Jaafari et al. (2018) who showed the effectiveness of ACT in promoting hope in women with breast cancer undergoing chemotherapy, with the results of Valizadeh (2016) who showed the effectiveness of ACT in promoting resilience, with the results of who showed the effectiveness of ACT in improving the resilience of marines showing that ACT increased all communication variables in couples. The main goal of ACT is to maximize a person's potential for having meaning in life. ACT helps accept what is beyond a person's personal control and commit to something that enriches his/her life. The goal of ACT is to help patients to create a rich, complete, and meaningful life while accepting the suffering that life inevitably brings with it (Izadi et al, 2012).

ACT can reduce experiential avoidance and help individuals to recognize and commit to pursuing valuable goals. It promotes resilience, hope, optimism, and self-efficacy by reducing experiential avoidance, getting rid of unpleasant thoughts, not judging, and being aware of the present moment (Reyes, Muthukumar, Bhatta, Bombard & Gangozo, 2020). In the ACT, a person learns to accept many of the hardships and thoughts, and feelings that come with his/her job, while setting goals and actions in line with his/her values with full awareness of his working conditions. Putting the thoughts and feelings aside increases one's psychological flexibility and, consequently, resilience, optimism, and hope (components of psychological capital). This made this treatment be more effective in promoting psychological capital compared to TFP.

Lack of follow-up due to the COVID-19 pandemic and vaccination of medical staff (which could affect the results) was one of the limitations of the present study. Therefore, it is recommended that the results be followed up for two years after the interventions. The present study used group therapies; hence, it is recommended that the therapies are conducted individually and the results are compared with the results of group therapies. Finally, it is recommended that ACT and TFP be used in hospitals and medical centers to promote the mental health and psychological capital of staff, especially in the current COVID-19 pandemic.

5. Conclusion

According to the obtained results, it can be said that the TFP led to a higher promotion of the mental health of the staff working in the hospitals covered by social security. According to the findings, it can be concluded that TFP was able to cause symptomatic changes in a short time and enhanced the mental health capacity of the subjects, especially improving the symptoms of anxiety, morbid fear, psychosis, and paranoia. TFP, as a form of structured psychodynamic psychotherapy, was associated with symptom improvement.

The results of the study showed that ACT improved psychological capital and its four subscales, namely self-efficacy, hope, resilience, and optimism. ACT is an evidence-based psychological intervention that combines acceptance and awareness strategies in a variety of ways with commitment and behavior change strategies. This is done with the aim of increasing psychological flexibility. The ACT group members learned that hardships and adversity in the path of life goals and values are inevitable. By applying appropriate skills, such as acceptance skills and cognitive assimilation, and by committing to the values of life, many problems and difficulties can be overcome, including the difficult conditions of COVID-19. The results of the present study provide support for TFP and ACT. According to the results of the present study, since in positive psychology, it is believed that the constructs of positive psychology, including hope and optimism, can protect people against the effects of stressful life events, it seems that preventive programs based on the ACT are helpful.

Ethical Considerations

Compliance with ethical guidelines

The study was approved by the Ethics Committee of Islamic Azad University - Shahrood Branch (Code: IR.IAU.SHAHROOD.REC.1400.060).

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Authors' contributions

All authors equally contributed to preparing this article

Conflict of interest

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