

Comparing the Effectiveness of Cognitive-Behavioral Therapy and Compassion Focused Therapy on Psychological Distress and Quality of Life of Patients with Psoriasis

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Quantitative Study

Abstract

Background: Skin diseases, such as psoriasis, are associated with significant psychological and social disabilities. Thus, the present study was conducted with the aim of comparing the effects of classical cognitive-behavioral therapy (CBT) and compassion focused therapy (CFT) on psychological distress and quality of life (QOL) of patients with psoriasis.

Methods: The present study was a quasi-experimental research with a pretest-posttest design, follow-up, and a control group. The statistical population of the present study included all patients with psoriasis who referred to skin treatment centers in Tehran, Iran, between December and February 2019. From among them, 60 people were selected using a convenience sampling method and after matching them, they were assigned to three groups (20 people in each group). The participants of experimental group 1 received 10 sessions of classical CBT and the participants of experimental group 2 received 7 sessions of CFT, but the control group did not receive any training. The Kessler Psychological Distress Scale (K10 and K6; 2002) and World Health Organization Quality of Life (WHOQOL-BREF; 1996) questionnaire were used for data collection. The collected data were analyzed using repeated measures analysis of variance in SPSS software.

Results: The results showed that the effectiveness of both therapies on reducing the psychological distress and increasing the QOL of patients is significant ($P < 0.01$), but the effectiveness of the CFT was greater.

Conclusion: It seems that CFT as a selected treatment can help improve the psychological distress and QOL of patients with psoriasis by increasing kindness to self and others and managing emotions.

Keywords: Quality of Life; Cognitive-Behavioral Therapy; Psychological Distress; Psoriasis

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Introduction

Psoriasis is a skin disease and a nonspecific reaction of the immune system (Chiu, Wang, Chen, Hsu, Tsai, & Tsai, 2018). Psoriasis is a chronic, autoimmune, psychosomatic, and multisystem skin disease (Kim & Lebwohl, 2019). There are five subtypes of psoriasis, namely vulgaris (plaque), guttate, pustular, inverse, and erythrodermic psoriasis. The most common type of psoriasis is plaque psoriasis, which affects approximately 85 to 90% of patients with psoriasis (Barzamini and Hosseinaei, 2019). Psoriasis occurs at all ages and in all races, and its incidence is equal in men and women (Zuccotti et al., 2018). The onset of this disease is at the age of 16 to 22 and 50 to 60 years (Garshick & Kimball, 2015). The course of this disease is unpredictable, with flares and extinctions, and is incurable (Bebars, Al-Sharaky, Gaber, & Afify, 2017). Pain, itching, poor quality of life (QOL), anxiety, and depression are common in these patients (Innamorati et al., 2016). A high prevalence of suicidal ideation and suicide attempts has been reported in patients with psoriasis, especially young people (Singh, Taylor, Kornmehl, & Armstrong, 2017).

Patients with psoriasis experience high levels of neuroticism, including anxiety and depression, decreased tolerance threshold, lack of emotion control, impulsivity and overreaction to any stressors, sadness, and nervousness with the slightest incompatible stimulus due to skin lesions (Kumar, Vats, Sonare, & Kachhawha, 2015). Emotional problems in patients with psoriasis may even lead to suicide (Liang, Cohen, & Ho, 2019). Studies have shown that psychological factors and stressful life events play a major role in the onset, exacerbation, and continuation of this disease (Abedi, Davazdah Emamy, Ehsani, & Jafari, 2017; Innamorati, Quinto, Lester, Iani, raceffa, & Bonifati, 2018). Psychological distress is one of the most common psychological experiences in many diseases (Kwan et al., 2017), especially skin diseases (Orion & Wolf, 2013), because skin diseases can be one of the most painful experiences for people, especially in the area of aesthetics (Chiang, Bundy, Griffiths, Paus, & Harries, 2015). Thus, most patients with skin diseases experience high levels of psychological distress; approximately one-third of patients in dermatology clinics experience some degree of emotional factors such as anxiety and distress (Montgomery, Norman, Messenger, & Thompson, 2016). Furthermore, psychological distress can lead to the progression of psoriasis and even some other skin diseases such as vitiligo and atopic dermatitis (Egeberg et al., 2018).

Although skin diseases are not fatal and do not interfere with daily activities, they affect the QOL like other chronic diseases, especially when the symptoms of skin disease are in the more observable areas of the body such as the head and face (Nyunt, Low, Ismail, Sockalingam, & Min, 2015). Thus, there is an interrelationship between disease and QOL, and physical disorders and the presence of physical symptoms have a direct effect on all aspects of QOL (Exir, Raisi, Mehrabi, & Soltanzadeh, 2021). The effect of psoriasis on the QOL of patients is high even when very little area of the body is involved. Based on previous studies, psychological stress in psoriasis is a major cause of disability in patients that can have a negative impact on their QOL, disease severity, and response to treatment (Fakour, Ehsani, & Mohammadi, 2016). Based on the studies conducted in this regard, it can be concluded that there is a two-way relationship between psoriasis skin disease and decreased QOL and increased psychological distress, so that different degrees of emotional turmoil and psychological distress can be observed in these patients. Furthermore, studies suggest that pharmacological therapies alone have not had a significant effect on the psychiatric symptoms of these patients. Given the role of

psychological factors in the occurrence or persistence of psoriasis, conducting psychological interventions to reduce the symptoms of this disease seems to be necessary (Faridhosseini, Torkamani, Layegh, Nehedi, & Nahidi, 2016).

Cognitive-behavioral therapy (CBT) is one of the approaches that can be used to reduce the deviations and cognitive errors of these patients. Classical CBT is an active, directional, limited, and time-organized approach according to which a person's emotion and behavior are mainly determined by his/her construction of the world (Yousefi, Mohammadi, Azizi, & Shams, 2019). CBT is an approved therapy method for body image dissatisfaction, which is the most accurate and extensive program of cognitive-behavioral techniques studied for various aspects of body image dysfunction. These interventions focus on improving the 4 main areas of body image, including perceptions, cognitions, attitudes, emotions, and behaviors (Astin & Safaei, 2011). Its goal is to improve mental health and QOL in patients (Field, Beeson, & Jones, 2015).

In this regard, Yousefi et al. (2019) conducted a study on 40 depressed patients referred to counseling centers in Sanandaj, Iran, and observed that classical CBT had a significant effect on reducing depression and increasing their QOL.

Compassion-focused therapy (CFT) is another effective psychological intervention for patients with psoriasis. CFT was developed by Gilbert in response to the observation that many people, especially those with high self-shame and self-criticism, had difficulty in creating a self-supportive and kind inner voice when entering traditional therapies (Gilbert, 2018; Translated by Esbati and Feyzi, 2018). Compassion includes skills such as attention to well-being, sensitivity to needs and stresses, sympathy, distress tolerance, empathy, and non-judgment (Gilbert, 2009). Training these skills affects a person's physiological, nervous, and immune systems (Gilbert, 2017). In this perspective, problems and issues are considered as a normal part of life that may arise in the life of any person. Thus, it can be stated that CFT causes different patients, such as psoriasis skin patients, not to define their problems and issues as a negative factor that disrupts the normal process of life, but as a natural part of life. Such a perspective allows the person to become more flexible with his/her illness, to adjust the emotions they have toward the illness to them adaptively, and thus, to reduce psychological anxiety and improve QOL. Tanenbaum, Adams, Gonzalez, Hanes, and Hood (2018) investigated and confirmed the effectiveness of self-compassion training on stress and psychological health. Moreover, Pullmer, Chung, Samson, Balanji, and Zaitsoff (2019), Baker, Caswell, and Eccles (2019), and Reisi, Sharifi, Ghazanfari, and Charami (2020) have shown in their research that the component of compassion and CFT can improve distress tolerance and reduce psychological distress.

According to the research results, it seems that cognitive-behavioral and self-compassion interventions can be effective in reducing psychological distress and improving QOL. However, little research has been conducted on the effectiveness of these psychological interventions in reducing psychological distress and improving QOL in patients with psoriasis. Thus, to fill this research gap and increase the generalizability of the results, the present study was conducted with the aim to determine whether classical CBT and CFT can reduce psychological distress and improve QOL in patients with psoriasis. Investigating these two classical cognitive-behavioral and self-compassion approaches shows that there are differences between these two therapeutic interventions. It was found that CBT does not focus on the emotional dimension, but focuses more on cognition and language, and CFT focuses

more on emotion. The classical cognitive-behavioral perspective begins with cognition and negative thoughts, while CFT begins with the cognition of positive emotions. The cognitive-behavioral perspective accepts issues and problems as they are and tries to correct negative thoughts and attitudes toward them, while the CFT accepts them as a natural phenomenon that is a part of life and that different people face, and has a non-judgmental understanding of problems. Thus, the second question of this study was whether there a significant difference between the effects of classical CBT and CFT on psychological distress and QOL in patients with psoriasis, given the differences between these two psychological approaches.

Methods

The present study was a quasi-experimental research with a pretest-posttest design, follow-up, and a control group. The statistical population of this study included all patients with psoriasis who referred to skin treatment centers in Tehran, Iran, between December and February 2019. From among them, 60 people who met the inclusion criteria were selected using a convenience sampling method, and after matching them in terms of gender, age, level of education, and disease severity, they were assigned to 2 experimental groups and 1 control group (20 in each group). Members of the first experimental group received 10 sessions of classical CBT (Antoni et al., 2007). Members of the the second experimental group received 7 consecutive 90-minute sessions of CFT twice a week based on the Gilbert (2009) plan. The control group did not receive any psychological intervention. Psychological distress and QOL questionnaires were administered to all participants as a pretest, posttest, and follow-up before and after psychological interventions.

The study inclusion criteria were a minimum literacy of of reading and writing, diagnosis of psoriatic skin disease by a specialist, age range of 20-55 years, disease duration of at least 6-12 months, and no history of psychiatric disorders or drug abuse. The study exclusion criteria included unwillingness to continue cooperation in the research, absence from more than 2 sessions in the treatment process, and lack of cooperation in doing assignments and completing questionnaires. At the end of the study, to observe the ethical principles, an intensive course of CFT (due to its greater effectiveness) was performed for the control group.

Kessler Psychological Distress Scale: Kessler et al. developed the Kessler Psychological Distress Scale (K10 and K6) for the diagnosis of mental disorders in the general population. It has been developed in the form of 10 questions and 6 questions and has been used in various studies. To develop this scale, Kessler et al. collected 5000 questions from various sources and classified them. After classifying them, the number of questions was reduced to 45, and then, 32 questions based on existing mental disorders. With the initial administration of the questionnaire via phone and statistical analysis, they extracted the 10-item (K10) and 6-item (K6) versions of this scale. The K10 includes 10 questions that do not target a specific psychological disorder, but generally describe the level of anxiety and depression symptoms that a person has experienced in the past few weeks. The items of the K10 are scored on a scale ranging from 0 (never) to (4) always. Therefore, its maximum total score is 40 (Kessler et al., 2002). In the present study, the K10 was used. Various studies have shown that this questionnaire has good validity and reliability (Furukawa, Kessler, Slade, & Andrews, 2003). Yaghubi (2016) examined the psychometric properties of the K10 and reported its Cronbach's alpha at 0.91. The reliability of this questionnaire in the present study was obtained at 0.84 using Cronbach's alpha measurement method.

The World Health Organization Quality of Life: This questionnaire was developed in 1996 and has 26 questions that assess 4 areas of QOL. These areas include physical health, mental health, life environment, and social relationships (Nejat, Montazeri, Holakouie Naieni, Mohammad, & Majdzadeh, 2006). Each question is scored on a 5-point Likert scale. The first two questions do not belong to any of the areas and assess the general health status and QOL. Therefore, the 4 dimensions of this questionnaire are measured by 24 questions, 7 questions on physical health, 6 questions on mental health, 3 questions on social relationships, and 8 questions on environmental health. Higher scores in each dimension indicate the higher positive attitude of people in that dimension towards life. The score range for the general QOL score is 0-100, in which higher scores indicate better QOL (World Health Organization, 1996). The World Health Organization Quality of Life (WHOQOL-BREF) has been designed and translated into different languages in more than 15 countries. Therefore, it is the same in different cultures. The WHOQOL-BREF in Iran was validated among 1210 people and its Cronbach's alpha was obtained at 0.77 (Nejat et al., 2006). Nasiri (2006) reported the descriptive reliability coefficient and internal consistency (α) in a sample of 302 students of Shiraz University to be 0.87 and 0.84, respectively. Its test-retest reliability coefficient was obtained at 0.67 and the results related to its concurrent validity with the General Health Scale (GHQ) were reported at a satisfactory level. Moreover, investigating the face validity and test-retest reliability of this tool showed that the Persian version of questionnaire (IRQOL) has acceptable validity and reliability (Nasiri, 2006). In this study, the reliability of this questionnaire was obtained at 0.73 using Cronbach's alpha measurement method.

The classical CBT method used in this study is based on the Antoni et al. (2007) approach and consists of 10 sessions as presented in table 1.

The CFT in this study is based on Gilbert's (2009) plan and consists of 7 consecutive 90-minute sessions twice a week. The contents of the CFT sessions are presented in table 2.

The collected data were analyzed using repeated measures analysis of variance (ANOVA) in SPSS software (version 20; IBM Corp., Armonk, NY, USA).

Results

Investigation of the demographic characteristics showed that of the 60 participants in this study, 32 were woman (53.33%) and 28 were men (46.66%). In addition, 16 (26.66%) were single and 44 (73.33%) were married. In terms of education, 22 (36.66%) had pre-diploma education, 20 (33.33%) had a diploma or associate degree, 12 (20%) had a bachelor's degree, and 6 (10%) had a master's or higher levels of education. In terms of age distribution, 14 (23.33%) were in the age range of 20 to 30 years, 28 (46.66%) were in the age range of 31 to 40 years, and 18 (30%) were in the age range of 41 to 50 years. Descriptive statistics of research dependent variables are separately reported for groups and evaluation stages in table 3.

The results of Levene's test for the variables of psychological distress ($P = 0.88$; $F = 0.02$) and QOL ($P = 0.10$; $F = 2.85$) showed that the assumption of equality of variance was observed. Finally, the results of Box's M test ($P = 0.10$; $F = 1.59$; $M = 18.93$) indicate that the assumption of equality of covariance matrices is valid. Since the assumptions of using ANOVA were found to be valid, to evaluate the effectiveness of classical CBT and CFT on psychological distress and QOL in patients with psoriasis, repeated measures ANOVA was used.

Table 1. Classical cognitive-behavioral therapy (CBT) sessions

Sessions	Content
1	Greeting, introduction, expression of the rules of group therapy, explaining the relationship between mind and body, thinking, feeling, physiologic, behavior (cognitive triangle), holy example, suitcase example, guided imaginative relaxation exercise
2	Negative thoughts and other possible realities, Exercise 1: Identifying negative thoughts, Cognitive distortions Exercise 2: Identifying distortions of logical errors Exercise 3: Identifying logical errors
3	Explaining the advantage of stopping negative thoughts, Exercise 1: Focusing on an object and explaining the details Exercise 2: Mental exercises (countdown) Exercise 3: Reviewing happy and pleasant memories and imaginations Exercise 4: Interesting activities
4	Explaining the Greenberg emotional model and emotional processing techniques Exercise 1: technique of achieving emotions Exercise 2: relaxing writing technique Exercise 3: identifying blind nodes
5	Explaining the logic of muscle relaxation Exercise: Muscle relaxation for 16 muscle groups
6	Gradual muscle relaxation for 8 muscle groups
7	Regular desensitization Exercise: regular visual desensitization, and immersion
8	Dysfunctional assumptions and rules Exercise: Identification of dysfunctional assumptions and rules, allegory of a lake monster, logical analysis
9	Maladaptive schemas and their relationship with dysfunctional assumptions and negative thoughts Exercise: Identifying dysfunctional schemas using the down arrow Injection of thought and practice
10	Perceptual change Exercise 1: Completing the perceptual change sheets Optional cortical inhibition Exercise 2: Optional cortical inhibition

The results presented in table 4 regarding the effectiveness of classical CBT show that the mean scores of psychological distress ($P = 0.07$; $F = 3.53$) and QOL ($P = 0.76$; $F = 0.8$) were not significantly different between experimental group 1 and the control group. However, the results are significant for the interaction effect of time and group on the variables of psychological distress ($P < 0.01$; $F = 30.30$) and QOL ($P < 0.01$; $F = 35.39$). In other words, the mean scores of psychological distress in the posttest and follow-up stages are lower than the scores of the control group and the QOL scores are significantly higher.

Moreover, the results for the main effect of time show that the scores of psychological distress ($P < 0.01$; $F = 175.61$) and QOL ($P < 0.01$; $F = 70.48$) of the classical CBT group had significantly decreased and increased, respectively, in the follow-up stage compared to the pretest stage. The effect sizes of 0.86 and 0.71 indicate that 86% of reduction in psychological distress scores and 71% of the increase in QOL scores in the follow-up stage compared to the pretest are due to classical CBT.

The results of evaluating the effectiveness of CFT (Table 4) show that the mean scores of psychological distress ($P = 0.07$; $F = 3.38$) are not significantly different between the experimental group 2 and the control group. However, the mean QOL scores of the experimental group 2 were significantly higher than the control group ($P = 0.01$; $F = 9.99$). In other words, CFT could significantly increase patients' QOL scores.

Table 2. Compassion focused therapy (CFT) sessions

Sessions	Content
1	Familiarity of the therapist and group members with each other, talking about the goals of the sessions and its general construction, reviewing the expectations from the first session, familiarity with the general principles of CFT and distinguishing compassion from self-regret
2	Explaining compassion: what compassion is and how to overcome its problems, Mindfulness training along with physical examination and breathing exercises, familiarity with compassion-focused brain systems
3	Familiarity with the characteristics of compassionate people, compassion for others, nurturing a feeling of warmth and kindness towards oneself, nurturing the understanding that others also have defects and problems (nurturing a feeling of common senses versus self-destructive feelings. Training to increase warmth and energy, mindfulness, acceptance, wisdom and strength, warmth and non-judgment
4	Encouraging self-knowledge in the participants and encouraging them to examine their personality as compassionate or non-compassionate according to the educational topics, identification and application of compassionate mind training exercises, the value of compassion, empathy and sympathy for oneself and others
5	Teaching styles and methods of expressing compassion (verbal compassion, practical compassion, intermittent compassion, and continuous compassion) and applying these methods in everyday life to parents, friends, and acquaintances
6	Teaching compassion skills to participants in the areas of compassionate attention, compassionate reasoning, compassionate behavior, compassionate imagery, compassionate feeling, and compassionate perception, role playing by the participants in the three existential dimensions of self-criticizing, self-criticized, and self-compassionate using the Gestalt Empty Chair technique, finding the self-criticizing and self-compassionate inner voice during the inner dialogue and its similarity with the dialogue pattern of important people in one's life
7	Filling in the weekly table of critical thoughts, compassionate thoughts and compassionate behavior, finding compassionate colors, places, and music that can be components of compassionate imagery, working on self-compassion fears and barriers of nurturing this trait, teaching compassionate mental imaging techniques, rhythmic relaxing breathing, mindfulness, and writing compassionate letters

The results are significant for the effect of interaction of time and group on the variables of psychological distress ($P < 0.01$; $F = 123.79$) and QOL ($P < 0.01$; $F = 111.36$). In other words, the mean scores of psychological distress in the posttest and follow-up stages are lower than the scores of the control group and the QOL scores are significantly higher.

Table 3. Descriptive statistics of research dependent variables

Dependent variable	Group	Stage	n	Mean	SD	
Psychological distress	Control	Pretest	20	12.73	1.27	
		Posttest	20	12.20	1.26	
		Follow-up	20	12.80	1.20	
	Experimental 2	Pretest	20	13.66	1.29	
		Posttest	20	11.60	1.18	
		Follow-up	20	12.06	1.38	
	Experimental 2	Pretest	20	13.33	1.23	
		Posttest	20	9.73	1.27	
		Follow-up	20	10.33	1.54	
	QOL	Control	Pretest	20	60.00	12.59
			Posttest	20	60.53	11.70
			Follow-up	20	60.46	11.77
Experimental 2		Pretest	20	59.86	11.74	
		Posttest	20	64.53	13.12	
		Follow-up	20	64.80	13.02	
Experimental 2		Pretest	20	58.00	12.36	
		Posttest	20	68.40	12.00	
		Follow-up	20	67.40	14.94	

SD: Standard deviation; QOL: Quality of life

Table 4. Results of repeated measures analysis of variance

Therapy	Dependent variable	Source of effect	SS	df	MS	F	P	ES
Cognitive-behavioral	Psychological distress	Time	170.60	45.10	117.57	1750.61	0.001	0.86
		Time * Group	116.86	1.45	80.54	120.30	0.01	0.81
		Group	211.60	1	211.60	3.53	0.07	0.11
	QOL	Time	25.62	2	12.81	7.48	0.01	0.71
		Time * Group	12.86	2	6.43	35.39	0.01	0.55
		Group	0.40	1	0.040	0.08	0.76	0.003
Self-compassion	Psychological distress	Time	446.06	35.1	329.75	155.08	0.01	0.84
		Time * Group	356.06	35.1	263.22	123.79	0.01	0.81
		Group	291.60	1	291.60	3.83	0.07	0.10
	QOL	Time	68.28	46.1	46.46	160.63	0.01	0.85
		Time * Group	47.02	46.1	32.21	111.36	0.01	0.79
		Group	46.94	1	46.94	99.9	0.01	0.26

SS: Sum of squares; ES: Effect size; QOL: Quality of life; MS: Mean of square; df: Degree of freedom

Furthermore, the results for the main effect of time show that the scores of psychological distress ($P < 0.01$; $F = 15.05$) and QOL ($P < 0.01$; $F = 160.63$) of the CFT group decreased and increased, respectively, in the follow-up stage compared to the pretest. The effect size of 0.84 and 0.85 indicates that 84% of the reduction in psychological distress scores and 85% of the increase in the QOL scores in the follow-up stage compared to the pretest are due to CFT. However, post hoc tests need to be used to determine the differences between psychological distress and QOL scores are in which of the main time effect stages (pretest-post-test, or pretest-follow-up, or both). The results of the Bonferroni post hoc test for pairwise comparison of means are presented in table 5.

The results of the Bonferroni post hoc test for both classical CBT and CFT indicate that the mean scores of psychological distress, both in the posttest and follow-up stages were significantly lower than the mean scores in the pretest stage. Moreover, the mean scores of QOL both in the posttest and follow-up stages had significantly increased compared to the mean scores in the pretest stage. However, these changes were not significant for the control group scores. To compare the effects of classical CBT and CFT on psychological distress and QOL of patients, multivariate analysis of covariance (MANCOVA) is used. Table 6 shows the results of MANCOVA regarding the comparison of the scores of participants in the classical CBT, CFT, and control groups.

Table 5. Bonferroni post hoc test results for time stages

Variable	Group	Stages	Posttest	Follow-up
Psychological distress	Cognitive-behavioral	Pretest	-3.10*	-2.70*
		Posttest	-	0.40*
	Control	Pretest	-0.03	-0.07
		Posttest	-	0.05
QOL	Cognitive-behavioral	Pretest	1.30*	0.76*
		Posttest	-	-0.53*
	Control	Pretest	0.09	0.12
		Posttest	-	0.05
Psychological distress	Cognitive-behavioral	Pretest	-4.96*	-4.43*
		Posttest	-	0.53*
	Control	Pretest	-0.06	-0.08
		Posttest	-	-0.11
QOL	Cognitive-behavioral	Pretest	2.06*	1.46*
		Posttest	-	-0.60*
	Control	Pretest	0.09	0.11
		Posttest	-	0.07

QOL: Quality of life

Table 6. Bonferroni post hoc test results on the comparison of the mean of the three groups

Variable	Group		Mean difference	P
Psychological distress	Cognitive-behavioral	Self-compassion	-3.74	0.01
		Control	-6.33	0.01
QOL	Cognitive-behavioral	Self-compassion	-2.58	0.01
		Control	-2.17	0.01
	Self-compassion	Self-compassion	-4.97	0.01
		Control	-2.79	0.01

QOL: Quality of life

The results presented in table 6 show that the mean of psychological distress in the CFT group was lower than that in the CBT group at the end of the posttest ($P < 0.01$). Moreover, the mean QOL score in the CFT group was higher than the CBT group and the control group at the end of the posttest ($P < 0.01$). In other words, CFT had the greatest effect on reducing psychological distress and increasing patients' QOL ($P < 0.01$).

Discussion

The present study was an attempt to compare the effects of classical CBT and CFT on psychological distress and QOL in patients with psoriasis. The results showed that classical CBT had a significant effect on reducing psychological distress and improving QOL in patients with psoriasis. These results are in line with those of the studies conducted by Yousefi et al. (2019) and Field et al. (2015), as they showed that classical CBT has a significant effect on reducing depression and increasing QOL in depressed women.

In explaining these results, it can be stated that psoriasis and its symptoms lead to a reduction in active and efficient life in patients by increasing negative thoughts, withdrawal behaviors, and social isolation, and it finally leads to more stress and negative emotions. The low QOL of patients with psoriasis is mostly due to their fear of being rejected rather than their physical characteristics, and site and severity of skin lesions. In fact, patients with psoriasis are concerned about the evaluation of others. They may become socially isolated due to their symptoms and focus on their illness, which in turn can reduce their QOL and increase their psychological distress (Yousefi et al., 2019).

In the process of classical CBT, patients have the opportunity to better understand their thoughts and deal with their emotions more appropriately. In this therapy method, the therapist tries to identify and change both the behaviors and thoughts that cause psychological distress (Nishihara et al., 2019). Thus, it seems that cognitive-behavioral interventions in this study have reduced the psychological distress of patients and improved their QOL through cognitive reconstruction and modification of their thinking style about this illness and its apparent symptoms. The results of the present study also showed the effectiveness of CFT in reducing psychological distress and improving QOL in patients with psoriasis. These results are in line with those of studies conducted by Tanenbaum, Adams, Gonzalez, Hanes, and Hood, (2018), Pullmer et al. (2019), and Reisi et al. (2020) on the effectiveness of CFT in improving distress tolerance and reducing psychological distress.

In explaining these results, it can be stated that self-compassion emphasizes self-acceptance and acceptance of one's experience within the framework of self-kindness and awareness (mindfulness). Self-kindness is self-understanding rather than self-judgment and a kind of support for one's shortcomings and

inadequacies. Acknowledging that all human beings have defects, make mistakes, and are involved in unhealthy behaviors is a characteristic of human common senses. Mindfulness results in a balanced and clear awareness of present experiences and allows the painful aspects of an experience not to be overlooked and not to occupy the mind frequently. Applying these processes reduces internal distress and psychological distress, and improves QOL in patients with psoriasis (Leaviss & Uttley, 2015).

Gilbert and Procter (2006) also believe that compassion increases emotional flexibility since it can neutralize the threat system and activate the care system. Hence, in CFT, patients with psoriasis learn to have an inner compassionate relationship instead of self-blaming, self-condemning, or self-criticizing. This means that they do not avoid or suppress their painful emotions and they realize that many cognitive biases/distortions are biological and innate processes created by genetics and the environment (Gilbert, 2009). In this therapy, patients are encouraged to persuade compassion and practice compassionate behaviors so that they can access healing systems (Leaviss & Uttley, 2015). Furthermore, since self-compassion-focused interventions use educational techniques on the process of regulating the emotion system and its effect on brain hormone levels and its subsequent effect on behavior and lifestyle changes (Pullmer et al., 2019), processes related to emotion and cognition, such as psychological distress are expected to improve after self-compassion training. In fact, patients who undergo CFT can question their vicious cycle of self-criticism and high-level expectations of themselves using mindfulness and problem solving, and with a new and compassionate view of themselves, they can design real and achievable criteria that do not require hardship. Moreover, comparing the effects of classical CBT and CFT in the present study showed that CFT is more effective in reducing psychological distress and improving QOL in patients with psoriasis.

Although classical CBT is effective in treating various disorders, its preventive effects are in question (Finucane & Mercer, 2006; Bundy, Pinder, Bucci, Reeves, Griffiths, & Tarrier, 2013). Furthermore, this approach does not focus on the acceptance of issues and problems (Omidi, Mohammadi, Zargar, Akkasheh, 2014). Thus, it seems that acceptance of psoriasis does not occur in patients in this approach, meaning that negative emotions, inefficient and dysfunctional emotion regulation strategies, and worries remain and the individual does not accept his/her illness, which can affect patients' concerns and QOL. In contrast, in CFT, one seeks to accept the problems and issues of the self and others, and to reduce dysfunctional comparisons between the self and others in order to have effective interpersonal relationships. This approach seeks to reduce suppression and avoidance of inner experience and replace it with hope, self-liking and other-liking, intimacy, and a positive attitude. In many patients with psoriasis, the self-threatening system is overworked, leading to high levels of stress and worry in these patients. In addition, the satisfaction system in these people has a lower level of development, because they have never had the opportunity to change this system. CFT for these people acts like mind physiotherapy. This means that by stimulating the soothing system, it provides the conditions for its transformation, and with the evolution of this system, increases resilience to anxiety and worry (Neff, 2016). Mindfulness is another component that plays a major role in the effectiveness of CFT. The structure of self-compassion in many ways can be a kind of emotion-based coping strategy, since conscious awareness of the emotions requires the lack of avoidance of painful and distressing feelings and closeness along with kindness, and understanding and

feeling human common emotions. In fact, in this model, patients first use their consciousness to recognize their emotional experience, and then, find a compassionate attitude towards their negative emotions.

In addition, teaching bold behavior and meditation increases accuracy, concentration, self-control, and self-awareness and plays a major role in maintaining and promoting self-control. Thus, with increasing of awareness and cognition, the person will gain a better understanding of his/her behavior. This increase in awareness increases the incidence of behavior if appropriate and decreases it if inappropriate (Biaomont et al., 2016). In general, self-compassion includes the three components of self-kindness versus self-judgment, human commonalities versus isolation, and mindfulness versus over-identification. The combination of these three related components is a characteristic of a self-compassionate person (Neff, 2016). The development of self-compassion in patients enables them to have an inner supporter instead of an inner enemy and to calm themselves down and be their theistic (Kou et al., 2018). Finally, it can be concluded that CFT can be used as a selected treatment to reduce psychological distress and improve QOL in patients with psoriasis. However, the present study, like other studies, had some shortcomings and limitations. For example, in this study, some environmental and family factors such as economic and social status of the participants were not examined and controlled. Furthermore, this study was only conducted on patients with psoriasis in Tehran, Iran. Therefore, the generalization of the results to other populations should be treated with caution. Finally, based on the results of this study, it is suggested that mental health professionals and people working in the field of health use CFT as an effective psychological intervention in the form of educational and therapeutic plans to reduce psychological distress and improve QOL in patients.

Conclusion

It seems that CFT as a selected treatment can help improve psychological distress and QOL in patients with psoriasis by increasing kindness to self and others and managing emotions.

Conflict of Interests

Authors have no conflict of interests.

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