

## ***The Effectiveness of Compassion-Focused Therapy on Physical, Mental Health, And Quality of Life in Vitiligo***

### **Abstract**

Vitiligo is a skin and autoimmune disease that appears with the appearance of white spots in different sizes and different parts of the skin. This study aimed to determine the effectiveness of compassion-focused therapy on physical health, mental health, and quality of life among patients with vitiligo. The present study was a pre-test-post-test experimental study with a control group and a one-month follow-up. The statistical population included all patients with vitiligo skin disease referred to Razi Dermatology Hospital in 2019, from which 40 participants were selected using the convenience sampling method. The participants were randomly divided into two groups and responded to SF-36 and WHOQOL in three phases namely pre-test, post-test, and follow up phase. The experimental group participated in 8 two-hour group sessions focused on compassion therapy based on the Gilbert therapy package, but the control group did not receive any intervention until the end of the follow-up phase. The results of the analysis of covariance indicated that compassion-focused therapy can increase the physical health, mental health, and quality of life of patients with vitiligo as a treatment. Compassion-focused therapy can be used to increase the physical health, psychological health, and quality of life of patients with vitiligo.

**Keywords:** *Mental Health, Vitiligo, Patients, Quality of Life, Compassion-Focused Therapy*

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### **Introduction**

Vitiligo is a skin disease that is characterized by the appearance of white spots on the skin (1). This skin discoloration takes place as a result of the destruction of epidermal melanocytes (2). Damaged skin could involve light or white spots, and these pigments could affect various parts of one's skin such as hands and face, in addition to eyes, and even inside the mouth or lips (3). Although the out break of Vitiligo in the world people is estimated to be 1%, this percentage rises 2 to 3 times in some populations (4). This disease has a significant impact on the quality of life of those affected by it, including their mental well-being and physical health(5). Vitiligo is usually psychologically devastating for those suffering from it, and patients often experience stigma and social isolation due to this disease. They are too more inclined to mental ailments, such as anxiety, depression, and low self-esteem, and experience distress, humiliation, and discrimination in their social relationships, which could ultimately lead to disruption in their quality of life (6).

Vitiligo could also affect the patients' physical health, including their sleep. The most common psychiatric problem reported among these patients includes sleep disorders accompanied by depression. An increase in psychological symptoms, such as symptoms of depression and anxiety, as well as physical symptoms, such as itching on skin spots, could cause sleep disorders (i.e., sleep deprivation, or oversleeping) in these patients (7). To this date, treatment options used for patients with Vitiligo have been very limited, with no lasting effects, and mainly based on the use of immunosuppressive drugs and topical inhibitors such as UltraViolet (UV) lights (5). Other therapeutic interventions used to treat this disease

involve psychological therapies, such as group therapy, meditation, and Cognitive-Behavioral Therapies (CBT). Among these therapies, CBT-based interventions are proven to be more effective in comparison to other psychological approaches (8).

Among various types of CBT-based interventions in Compassion-Focused Therapy (CFT), which is a type of combination, motivational, and multidimensional therapy, aimed at those with high levels of shame and self-criticism (9). The goal of CFT is to cultivate compassionate traits such as empathy, distress tolerance, a non-judgmental attitude, and ways to relate to self and others (10). Despite the need for rigorous research in the field of psychological therapies for patients with a diagnosis of Vitiligo, the interventions that seek to address the psychological problems experienced by these patients are very limited. CBT-based interventions that have assisted these patients as self-help, have been associated with a significant decrease in the patients' reported anxiety, depression, concerns about their appearance, and change in their coping styles(11).

Research concerning the effectiveness of CFT as an intervention among these patients has been very limited, and most of these studies have focused on the variables pertaining to the patients' mental health, such as signs of anxiety and depression(10). To this date, there has not been a study that has specifically investigated the effectiveness of CFT on the Vitiligo patients' physical health (physical pains, ability to carry out daily activities, fatigue, irritability, energy, and sleep), and their mental health (self-confidence, thinking, attention, concentration, and learning)(12). Therefore, the aim of this study specifically inquire the effectiveness of (CFT) on

physical health, mental health, and the quality of life in patients diagnosed with Vitiligo.

## Method

### *Participant*

All patients with vitiligo who were referred to Razi Dermatology Hospital in Tehran in 2021 were included in this research. The study's sample included 40 patients who were chosen by convenience sampling and randomly allocated to experimental and control groups following a preliminary interview and based on the inclusion and exclusion criteria (20 people in each subgroup). The inclusion criteria consist of clinical evidence-based diagnosis such as the appearance of skin lesions and, if needed, skin sampling and validation of vitiligo by a dermatologist, being in the age range of 20 to 45 years, having at least a basic education, at least six months of history of the disease, no diagnostic criteria for obvious psychiatric disorders based on a clinical interview, no addiction or alcohol use, no history of hospitalization in psychiatric wards, not using psychiatric drugs and no history of participation in treatment programs related to the treatment method focused on compassion during the past six months and completing a form of informed consent that the study was voluntary. Not attending three therapy sessions or completing the questionnaires were additional grounds for exclusion.

### *Measure*

1) *World Health Organization Quality of Life Questionnaire*: There are 26 items on this questionnaire (from 1998) that assess a person's overall quality of life. Generally, there are four subscales in this questionnaire, each with seven items (3-4-10-10-15-16-17-18), mental health with six items, and physical health with three (5-6-7-11). 19-26), 3 items (20-21-22), and 8 items for social connections and living environment (8-9-12-12-13-14-23-24-25). Each item's score ranges from 1 (strongly low, never, strongly dissatisfied) to 5 (extremely high, always, extremely satisfied)(13). In this survey, questions 3, 4, and 25 are scored backward. Physical health had a Cronbach's alpha of 0.79, mental health had a Cronbach's alpha of 0.82, social interactions had a Cronbach's alpha of 0.81, and the living environment had a Cronbach's alpha of 0.83 (13). Nasiri standardized the short version (26 items) of the WHOQLQ in Iran in 2006, and it has been judged to have excellent reliability and validity.

2) *Quality of Life Questionnaire (SF-36)*: Physical activity, physical role, physical discomfort, public health, vitality, social functions, emotional role, and mental health are among the 36 items and 8 subscales included in this questionnaire. This scale is based on a 5-point Likert scale with 1 being extremely terrible and 5 being very good. Each subscale has two to ten elements. Two general subscales, physical health,

and mental health are generated by combining the subscales. A person's score can vary from zero (indicating the low quality of life) to 100 (indicating the excellent quality of life) (indicating good quality of life). Physical functions had an internal consistency of 0.92, role disorders owing to physical health 0.87, pain 0.83, role disorders related to emotional health 0.86, public health 0.69, vitality 0.72, social functions 0.52, and the role of emotion 0.86, according to Cronbach's alpha (14). In 2007, Rahimi standardized this questionnaire in Iran. Internal consistency of this questionnaire was determined using Cronbach's alpha for the entire scale as 0.88.

### *Procedure*

This study was carried out in the following manner: First, a letter of introduction was requested from the necessary faculty to be sent to the Dasht-e Razi Specialized Hospital's Deputy of Education. Following the education department's approval, the researcher went to the hospital and described to the hospital authorities the importance of the study, the procedure of its execution, and the advantages of the interventions that would be provided to the patients. After getting informed approval from the hospital management and making proper arrangements, 40 people were randomly classified into two groups of 20 individuals and tested and controlled among the patients who applied to take part in the therapy sessions based on the criteria for entering and leaving the study, by available sampling method. Compassion-focused therapy was delivered in 8 two-hour sessions in a group and weekly for the experimental group after patients were randomly assigned to experimental and control groups and a pre-test was administered to both groups. During the presentation of the therapy package to the individuals in the experimental group, patients in the control group did not intervene and were placed on a waiting list. Both groups completed the study questionnaires again at the conclusion of the therapy sessions (post-test). Because it is critical to follow ethical norms in any research, the following factors were taken into account in this study: 1) The researcher gave a brief introduction to the research units and outlined the study's goals. 2) The research units were promised that personal information would be kept private. 3) The customers' beliefs, culture, and religion were honored. 4) The customers' freedom to participate in the study was highlighted. 6) Patients' privacy was protected and offered to them. The intervention's safety was ensured. 7) When gathering and evaluating data from the research, keeping track of the information and statistics gathered, and using scientifically accurate and reliable sources. After the post-test phase, therapy sessions were organized for the control group participants to observe ethical and professional concerns in the research and to thank and appreciate them for their involvement in the research process. To examine the data,

descriptive statistics such as mean and standard deviation indices were utilized, and at the inferential level, the analysis of covariance and the Bonferroni post hoc test was used to confirm the hypotheses. SPSS software 24 was the statistical program utilized in this investigation.

*Compassion Treatment Therapy Package:* The ideas, foundations, and practices of compassion-focused treatment were covered in 8 two-hour sessions based on Gilbert's book on compassion-focused therapy (15). Table 1 summarizes the procedure for performing therapy sessions.

**Table 1.** A summary of the content of compassion-focused treatment sessions

Sessions	Objectives	Sessions content	Home training	Expected behaviour
Session 1	Familiarity with the common standards of treatment	Performing pre-test, familiarizing the therapist and group members with each other, discussing the aim of the sessions and its overall structure, reviewing the expectancy of the treatment plan, grouping, reviewing the structure of the sessions, familiarity with the general rule of compassion-focused therapy, appraisal the level of shame, self-criticism, and self-efficacy of members, conceptualizing self-efficacy education.	Recording cases of shame and self-criticism in daily activities and challenges	Identifying and being aware of self-critique
Session 2	Understanding the components of self-critical compassion	reconnoiter and presenting the components of compassion, analyzing each component of compassion in the individuals and recognizing its characteristics, familiarity with the characteristics of people with compassion, and checking on the self-compassion of the individuals.	Recording self-care components in daily activities	Identifying and being aware of the components of self-efficacy
Session 3	Training and educating the members on self-compassion	A review of the tasks of the past session, developing a feeling of warmth and kindness towards oneself, developing and understanding that others moreover have flaws and issues (developing a sense of human commonalities) in the face of self-destructive feelings and shame, teaching self-compassion, forming and creating more emotions and diverse in relation to people's issues to extend care and attention to their wellbeing.	Recording self-care components in daily activities	Self-compassion nurturing
Session 4	Self-knowledge and identification of self-critical factors	investigating the past session's exercises, encouraging subjects to self-knowledge and examining their personality as a "compassion" or "non-compassion" person, identifying and applying "cultivating a compassion mind" exercises (self-compassion value, empathy, and compassion ratio), instructing oneself and others, teaching the physiotherapist metaphor, accepting mistakes and forgiving oneself for mistakes to accelerate change.	Recording daily mistakes and recognizing their reasons	Self-compassion nurturing

Session 5	Correction and expansion of compassion	investigating the exercises of the previous session, familiarity, and application of "exercises for cultivating compassion mind" (forgiveness, acceptance without judgment, teaching the metaphor of the flu, and training of tolerance), training to accept problems, accepting the changes ahead and enduring challenging conditions due to the changing nature of life and people facing different challenges	Forgiveness and acknowledgment without judgment in challenging daily activities and recording these cases	Self-compassion improvement and development
Session 6	Teach styles and methods of expressing compassion	investigating the past session, practical practice of creating compassion images, teaching styles and methods of expressing compassion (verbal compassion, practical compassion, intermittent compassion, and continuous compassion), applying these strategies in daily life and for family and friends, teaching emotion growth Valuable and transcendent	Applying compassion in daily activities	The feeling of worth and self-compassion
Session 7	Techniques for expressing compassion	Investigating the practice of the past session, learning to write compassion letters to oneself and others, educating the strategy of "recording and taking notes daily of real situations based on compassion and one's performance in that situation."	Write compassion letters to yourself and those around you	Improving self-compassion and self-worth
Session 8	Assessment and application	Preparing and practice abilities; Review and practice the abilities presented in the previous sessions to assist the subjects cope with distinctive life situations in different ways. Solutions for maintaining and applying this treatment strategy in daily life, summarizing and concluding and answering members' questions and evaluating all sessions, thanking and appreciating members for participating in sessions, conducting post-tests, and coordinating follow-up sessions in the next month.	Recording what you learned from the process	Self-compassion nurturing and development

between the age, education, marriage, job, and sex of the two groups at a 0.05 significance level (table2).

## Results

In the present study, 40 patients with vitiligo participated. The number female (percent) and male (percent) in experimental group 14 (0.70), 6 (0.30) and in control group were 13 (0.65) and 7 (0.35) respectively.

The maximum age range in the compassion-focused therapy category was 29-36. The age range of participants in the study was from 20 to 45 years. Table 1 presents the demographic details about the age, education, marriage, job, and sex of the subjects in both groups. There was no significant difference

**Table 2:** Demographic information of the research subjects

Variable	CFT	
Control	Mean	SD*
Mean	SD*	
Age	31.35	6.515
32.5	6.501	
education	3.95	1.432
3.85	1.424	
marriage	1.80	0.616
1.90	0.641	
Sex	1.32	0.465
1.34	0.475	
Job	1.72	0.451
1.65	0.479	

As be seen in Table 3, the scores of the subjects in the experimental group compared to the control group are associated with changes in the post-test.

**Table 3:** Descriptive indicators of the experimental and control groups

Variable	Level	pre-exam				post-exam			
		Mean	SD	Skewness	Kurtosis	Mean	SD	Skewness	Kurtosis
Physical health	Experiment	17.15	1.927	-0.186	-1.196	20.80	2.142	0.003	-0.921
	Control	16.15	2.110	-0.181	-0.624	18.45	3.634	-0.134	-1.426
Mental health	Experiment	11.60	2.624	-1.825	5.213	19.45	1.468	0.109	-0.618
	Control	13.55	1.820	-0.002	-0.529	13.10	1.683	0.121	-0.739
Quality of Life	Experiment	54.70	5.536	-0.129	-1.674	78.35	5.547	0.010	-1.347
	Control	56.95	3.692	-.393	-1.090	60.35	3.345	0.083	0.324
Living Environment	Experiment	10.40	2.664	0.152	-1.022	28.60	2.458	-2.390	7.637
	Control	4.35	1.663	0.368	-0.257	5.05	1.605	-0.492	-0.075

As the results of Table 3 show, the mean scores of physical health, mental health, and quality of life in the post-test stages in the experimental group increased more than in the control group. There is a significant difference between the mean scores of physical health, mental health, and quality of life in the two groups of test and control. The results of the multivariate analysis of covariance for the effectiveness of

compassion-based therapy on the improvement of research variables in the post-test stages are presented in Table 3.

**Table 4:** Results of analysis of covariance on the effect of compassion-based therapy

Variable	Sum of squares	df	Mean squares	F	P	Effect size
Physical health	50.396	1	50.396	5.517	0.024	0.130
Mental health	378.331	1	378.331	159.995	0.000	0.812
Quality of Life	3582.390	1	3582.390	308.979	0.000	0.893
Living Environment	318.837	1	318.836	75.770	0.000	0.672

The results of covariance analysis showed that the effect of compassion therapy on physical and mental health and quality of life is significant ( $p < 0.05$ ).

The observed F value for the Levin test didn't indicate a significant difference between physical health, mental health, quality of life, and living environment scores' variance in patients with vitiligo at  $\alpha = 0.05$  level. (Table 4) indicated that the observed F in the  $\alpha = 0.05$  level had a significant difference between the mean score of post-test regarding mental health in experimental and control groups. Thus, it could be concluded that compassion-focused therapy influenced increasing the mental health, quality of life, and living environment of patients with vitiligo in the experimental group.

Considering that the analysis of covariance was significant in both experimental and control groups, the Bonferroni post hoc test was used to determine the difference between the groups. The Physical health in the experimental group ( $M = 2.042$ ,  $SD = 1.114$ ), Mental health in the experimental group ( $M = 7.006$ ,  $SD = 0.509$ ), and Living Environment in the experimental group ( $M = 22.854$ ,  $SD = 0.715$ ) and Quality of Life in the experimental group ( $M = 17.660$ ,  $SD = 1.388$ ) was significantly less than in the control group. The social relations in the experimental group and the control group did not differ significantly.

## Discussion

The present study aimed to investigate the effectiveness of Compassion-Focused Therapy (CFT) on the physical health, mental health, and quality of life of patients diagnosed with Vitiligo. The results from comparing the experimental and the control group in this study demonstrate that CFT is effective among Vitiligo patients with regards to their quality of life, as well as their physical and mental health. The results of this study are consistent with the results of previous studies (10, 16). A theoretical explanation for these findings could be that patients with Vitiligo suffer from a lot of mental distress, which affects their physical health (such as their sleep and energy levels), and their mental health (including feeling less self-worth). These experiences ultimately have an impact on the quality of life among these patients (17). Most Vitiligo patients suffer from poor self-esteem and an impaired body image. Changes due to skin color, and subsequently loss of physical beauty could cause problems in the interpersonal relationships and social functions of these patients, which could ultimately be associated with diminished quality of life in Vitiligo patients (18).

Moreover, many patients experience a feeling of sadness after the lack of self-esteem they experience after the appearance of spots on their skin, which in more severe cases might even lead to depressive disorders. Receiving labels about their condition,

and feedback on the ugliness of their physical appearance puts a lot of mental distress on these patients. This might lead to the feeling that they are not as competent as ordinary people to carry out many activities. Furthermore, this might make them deprive themselves of normal activities and pleasures in life (19). Apart from that, many patients refuse to wear their favorite clothes, as they do not cover the affected areas of their bodies. Instead, they prefer choosing clothing that hides the areas covered with spots. In addition to that, the feelings of shame, embarrassment, and vulnerability in Vitiligo patients prevent them from working in jobs that are suitable according to their interests and capabilities, as easily others. Some patients restrict themselves from outdoor activities and interests, due to the sensitivity of their skin to sunlight, and also due to hiding their condition from others (18). Feelings of inadequacy, shame, and dislike from others could also lead to many problems for these patients, especially in their interpersonal relationships, such as marriage and intimacy. Constant self-judgments and comparing one's appearance to others could make these patients feel unusual, see themselves as different from others in the society, feel less self-worth, have lower self-esteem, and eventually, these could diminish their quality of life (17).

Studies have shown that self-compassion can, directly and indirectly, predict the quality of life in patients with Vitiligo (10). Self-compassion is a strong multidimensional construct and is based on the fact that suffering, helplessness, and imperfection are part of human nature, and yet all human beings, including the individual receiving therapy, deserve compassion. Self-compassion makes one more successful in accepting one's limitations and taking further steps to maintain their well-being. Also, people with self-compassion are less likely to compare their bodies with others, and their sense of worth does not tend to depend on their physical beauty (20).

## Limitations and Conclusion

Based on the findings of the present study and the above-mentioned discussion, it can be concluded that Compassion-Focused Therapy (CFT) can have a great impact on the physical and mental health, as well as the quality of life of patients diagnosed with Vitiligo. One of the limitations of the present study was that it was carried out in one of the hospitals in the city of Tehran, which limits the generalizability of the study findings. Future studies could select study samples from other cities in Iran, to increase the generalizability of the research results. Another limitation of the current research was the lack of follow-up sessions to get to know about the duration of the effectiveness of CFT. Future studies could consider this, and conduct a follow-up data collection after the end of the therapy. According to the findings of the present study on the effectiveness of CFT on physical health, mental health, and the

quality of life of patients with Vitiligo diagnosis, the results of this research could be utilized to perform therapeutic interventions for various patients with skin conditions, such as Vitiligo.

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### Ethical considerations

This research was approved by the Ethics Committee of the Shahid Beheshti University of Medical Sciences with the code of ethics IR.SBMU.MSP.REC.1399.312 and Iranian Registry of Clinical Trials with the code of ethics IRCT20201103049252N1.

### Conflict of Interest:

No conflict of interest was declared by any of the authors.

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