

# Effectiveness of Mindfulness-Based Cognitive Therapy on Psychological Capital, Perceived Social Support, and Learned Helplessness in Women with Psoriasis

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### ABSTRACT

**Objective:** The purpose of the present study was to examine the effectiveness of mindfulness-based cognitive therapy (MBCT) on psychological capital, perceived social support, and learned helplessness in women with psoriasis.

**Methods and Materials:** The research method was semi-experimental, with a pretest-posttest design and a control group. The statistical population of the study included all women with psoriasis who visited counseling centers in District 5 of Tehran in 2023. The sample consisted of 30 individuals, selected through convenience sampling, and were then randomly assigned to either the experimental or control group. The experimental group received eight 90-minute sessions of MBCT, while the control group remained on a waiting list. The data collection tools included the Psychological Capital Questionnaire (Luthans, 2007), the Perceived Social Support Questionnaire (Zimet et al., 1988), and the Learned Helplessness Questionnaire (Peterson et al., 1982). Content validity was used to assess the validity of the instruments, with the questionnaires being approved by relevant experts. Data analysis was performed using SPSS-v26 software, with both descriptive and inferential statistics (analysis of covariance) being employed.

**Findings:** The results indicated that mindfulness-based cognitive therapy significantly increased psychological capital and its components in women with psoriasis. MBCT also led to improvements in perceived social support and its components. Furthermore, the results revealed that MBCT effectively reduced learned helplessness in women with psoriasis. The

**Conclusion:** The findings suggest that mindfulness-based cognitive therapy has a significant positive impact on psychological capital, perceived social support, and learned helplessness in women with psoriasis.

**Keywords:** Psychological capital, perceived social support, learned helplessness, mindfulness-based cognitive therapy, psoriasis

## 1. Introduction

The skin acts as a barrier between an individual's internal and external environments. It is a visible organ, and as such, any physical changes to the skin are also observable in the social context. Psoriasis is a common skin disease, which is not necessarily itchy, but is characterized by red plaques with scaling. Psoriasis, as an autoimmune, psychophysiological, and multisystem disease, appears to be influenced by both genetic and environmental factors, which interact to trigger the onset of psoriasis (Bundy et al., 2023). Recent research has shown that chronic diseases, such as psoriasis, cause significant problems for patients, which can also lead to psychological and social challenges. Living with the symptoms of the disease and disability over time endangers an individual's identity, changes their roles, impacts their body image, and harms their lifestyle (Chanyang & Geun, 2020). Researchers emphasize that little attention has been given to social and psychological factors in psoriasis treatment and research. It is commonly observed among dermatologists that a significant number of their patients, alongside their skin issues, report psychological symptoms and complaints. This indicates an increased focus on health-related behaviors (Yu et al., 2019).

The most important factor to consider in this area for patients with chronic physiological damage is psychological stability. Research suggests that psychological stability, along with maintaining good physical health, forms the foundation for a healthy life along with psychological capital (Morris et al., 2021). Psychological capital, first introduced by Luthans (2002), has its roots in the works of Seligman (1998), who is recognized as the father of positive psychology. Psychological capital refers to an individual's self-perception, their ability to achieve success and goals (Cheraghpour Khonakdar et al., 2023). It emphasizes an individual's psychological resources, and the higher the presence of these resources, the greater the ability to recover and rebuild when facing life's setbacks and challenges, thus allowing the individual to rejuvenate their lifestyle with renewed energy (Cheraghpour Khonakdar et al., 2023; Eslahee Farshami et al., 2021; Sajadian et al., 2022).

Unlike most physical diseases, skin diseases, including psoriasis, are often visible to others. As a result, individuals suffering from skin conditions may face significant emotional and social difficulties. For instance, they may avoid social situations or places where their disease is visible to others. Additionally, skin diseases are often associated with misconceptions about hygiene and the contagious

nature of the condition. This can negatively affect how others behave toward the patient and influence the level of social support they receive. Social support refers to the social aspects of an individual that contribute to psychological well-being and physical health. Two main types of social support are received support and perceived support. Received support refers to actual help received from others, while perceived social support refers to an individual's perception of the availability of support or satisfaction with the support received (Pickut et al., 2017). A disease can exacerbate negative emotions such as sadness, fear, and anger, and prolong the experience of these feelings. This cycle can lead to a strong emotional reaction, even to minor emotional triggers, and can persist for a long time, potentially resulting in learned helplessness (Jadidi & Tofighi, 2023).

Learned helplessness, in its general sense, refers to the perception of uncontrollability over events and represents the most negative self-perception. This learning actively affects an individual's response and expectations for subsequent actions, such that the person rationalizes difficult conditions and makes no effort to escape, even when future learning is hindered. Such traits are commonly observed in individuals suffering from addiction, where the individual lacks motivation to free themselves and prefers to accept their circumstances without trying to change (Mokhles Abadi Farahani, 2020). Therefore, with the increasing prevalence of problematic diseases, identifying supportive factors that prevent psychological issues and designing effective therapeutic and preventive programs becomes essential (Jalilvand et al., 2021).

Alongside medical treatments aimed at reducing physical symptoms in psychophysiological diseases, psychological treatments have emerged as a new wave of influence. Third-wave therapies, known as acceptance-based treatments, are a branch of new psychological therapies, with mindfulness-based cognitive therapy (MBCT) being one of the most influential interventions for alleviating and improving the psychological issues associated with chronic diseases. This method, developed by Jon Kabat-Zinn, was initially used to reduce stress and physical symptoms (Morris et al., 2021). MBCT is a meditation-based treatment that combines Buddhist mindfulness meditation with modern psychological and clinical practices (Akbarinejad & Naqizadeh Alamdari, 2023; Cheraghpour Khonakdar et al., 2023; Pickut et al., 2017; Scott-Sheldon et al., 2020). It involves a set of techniques where individuals face the events occurring in the here-and-now without judgment,

awareness, or evaluation (Hayes & Wilson, 2023). Being present in the moment, without judgment, is central to MBCT. In this therapy, individuals learn to become mere observers of their mental flows, emotions, thoughts, and bodily sensations, which may involve negative feelings (such as fear, anxiety, catastrophic thinking, and rumination about the future) or physical sensations (such as pain from chronic illnesses). MBCT helps individuals learn to observe their emotions and thoughts without judgment and avoid using avoidance mechanisms, empowering them not to be overwhelmed by these emotions (Eyles et al., 2018). MBCT teaches individuals to transform habitual and automatic ruminating patterns of thought into mindful and deliberate ones, so that negative thoughts and feelings are viewed as simple, transient mental events (Kashdan & Ciarrochi, 2023).

In MBCT, individuals are taught how to improve their psychological issues, which enables them to become aware of their physical sensations, thoughts, and emotions, and respond adaptively to the risk factors for recurrence of problems. Studies on MBCT have shown that this approach significantly reduces psychological symptoms, mental distress, and the severity of physical symptoms in patients (Gaylord et al., 2022). Eslahe Farashmi et al. (2021) found that MBCT significantly improved psychological capital dimensions (self-efficacy, hope, resilience, and optimism) in depressed female students, with significant differences observed between the experimental and control groups, and the results were sustained in a one-month follow-up (Eslahe Farshami et al., 2021).

Thus, paying attention to the psychological aspects of this disease not only enhances the mental health of patients but also reduces the high costs of treatment. Addressing the psychological aspects of the disease plays a crucial complementary role in the recovery process. Increasing psychological capital, perceived social support, and reducing learned helplessness highlight the importance of treating the disease alongside purely physical treatments, as neglecting the psychological aspects may negatively impact the treatment of skin disorders. MBCT, in addition to addressing thoughts, behaviors, moods, and physiological reactions, also focuses on the role of the environment and vulnerabilities of individuals, which are particularly significant for psoriasis patients. In this chronic skin disease, in addition to physical and psychological factors, the impact of social and environmental factors on functioning and overall well-being is significant. Empowering patients based on these factors aids in achieving health-centered goals for

these individuals. These methods not only support the patient but also their family and close relations. Changing the individual's perceptions and understanding of the disease, themselves, and the environment increases motivation for treatment and the pursuit of medical interventions. The importance of understanding the role of psychological factors in psoriasis patients is underscored by the complex relationships that exist between skin diseases and psychiatric disorders. Thus, the need for further research in this area becomes more pressing. Given the limited existing research on the effectiveness of this therapy on the psychological capital and social support of individuals with psoriasis, there is a clear research gap. Therefore, the present study aims to address the question: Does mindfulness-based cognitive therapy affect psychological capital, perceived social support, and learned helplessness in women with psoriasis?

## 2. Methods and Materials

### 2.1. Study design and Participant

The research is applied in terms of its goal and experimental in terms of execution and data collection, specifically a quasi-experimental study using a pre-test/post-test design with a control group. The statistical population of the study consists of all women diagnosed with psoriasis by a dermatologist who visited counseling centers in District 5 of Tehran. To determine the sample size, an accessible sampling method was used to select women diagnosed with psoriasis, and questionnaires on psychological capital, social support, and learned helplessness were administered to them. Individuals who scored low on the psychological capital and social support questionnaires and high on the rumination questionnaire were identified. From this group, 30 participants were randomly selected according to inclusion and exclusion criteria (inclusion criteria: willingness to participate in the study, at least a high school education, aged between 20-50 years, diagnosed with psoriasis by a dermatologist and referred to a psychology center; exclusion criteria: presence of a serious psychiatric disorder requiring hospitalization or medication, missing more than two sessions during the intervention). These 30 individuals were randomly assigned to two groups, an experimental group and a control group, with 15 participants in each group. The experimental group received 8 sessions of cognitive-behavioral therapy based on mindfulness once a week for 2 hours per session, while the control group received no training.

## 2.2. Measures

### 2.2.1. Perceived Social Support

The Multidimensional Perceived Social Support Scale, which assesses individuals' perceptions of the adequacy of social support, was designed by Zimet, Dahlem, Zimet, and Farley (1988). This scale measures perceived social support in three sources: family, friends, and significant others. The scale is a self-report tool consisting of 12 items, each rated on a five-point scale ranging from strongly disagree (1) to strongly agree (5). Each of the four items is assigned to one of the three factors: family, friends, or significant others. The family subscale includes items 3, 4, 8, and 11; friends include items 6, 7, 9, and 12; and significant others include items 1, 2, 5, and 10. A higher score on the scale reflects greater perceived social support. The total score for each subscale is obtained by summing the scores on the relevant items. Zimet et al. (1988) showed that this tool is valid and reliable for assessing perceived social support. In a study by Brauer, Emsley, Kaid, Locher, and Sidat (2008), confirmatory factor analysis demonstrated that the three-factor structure (family, friends, significant others) fits the data well. In a study by Shokri (2009), the Cronbach's alpha coefficients for the overall social support scale and its three subscales (family, friends, significant others) were 0.89, 0.84, and 0.85, respectively (Rahgoi, 2024). The reliability of this questionnaire was reported as 0.79 in the current study.

### 2.2.2. Psychological Capital

The Psychological Capital Questionnaire, developed by Luthans (2007), contains 24 items measuring four components: hope, resilience, optimism, and self-efficacy. It uses a six-point Likert scale to assess psychological capital, with questions such as "I confidently examine a long-term issue to find a solution." The validity of the instrument concerns whether it measures what it is intended to measure (Sarmad et al., 2011). The questionnaire includes four subscales: self-efficacy, hope, resilience, and optimism. The validity of the questionnaire was evaluated in a study by Bahadori Khosroshahi et al. (2012). Reliability or consistency refers to the stability of the instrument in measuring what it is intended to measure (Sarmad et al., 2011). In the study by Bahadori Khosroshahi et al. (2012), the Cronbach's alpha for this questionnaire was reported above 0.70 (Emami Khotbesara et al., 2024). In the current

study, the reliability of the questionnaire was calculated as 0.78.

### 2.2.3. Learned Helplessness

The ASQ is a self-report tool developed by Peterson et al. (1982) to measure individuals' causal attributions for negative and positive events. It provides scores on individual differences in attribution styles: external vs. internal, stable vs. unstable, and global vs. specific. The questionnaire consists of 12 hypothetical situations with 48 questions, where four questions are asked for each situation. Half of the situations describe positive events, and the other half describe negative events. The subscales include positive attribution style (questions 1, 3, 6, 12, etc.), internal positive attribution style (questions 2, 10, 22, etc.), stable positive attribution style (questions 2, 10, 22, etc.), and internal negative attribution style (questions 2, 4, 5, etc.). Peterson et al. (1982) examined the internal consistency and test-retest reliability of the ASQ with a student sample, reporting reliability coefficients of 0.75 and 0.72, respectively. Cronbach's alpha for the internal, stable, and global dimensions of positive events was reported as 0.67, 0.59, and 0.61, respectively, and for negative events, as 0.69, 0.76, and 0.62. The validity of the questionnaire was calculated as 0.80 for negative events and 0.85 for positive events (Jadidi & Tofighi, 2023; Mokhles Abadi Farahani, 2020). The reliability of the questionnaire in the current study was reported as 0.84.

## 2.3. Intervention

### 2.3.1. Mindfulness-Based Cognitive Therapy

The mindfulness-based cognitive therapy package consists of 8 educational sessions, with each session lasting 1.5 hours. In this study, the sessions were conducted based on the mindfulness protocol for 8 sessions, each lasting 1.5 hours. The content of the sessions included: Session 1 - Self-guided meditation; Session 2 - Confronting obstacles; Session 3 - Mindful breathing; Session 4 - Staying in the present moment; Session 5 - Acceptance and allowing presence; Session 6 - Thoughts are not facts; Session 7 - How to provide the best care for yourself; Session 8 - How to apply these techniques in future decision-making (Akbarinejad & Naqizadeh Alamdari, 2023; Cheraghpour Khonakdar et al., 2023; Eslahee Farshami et al., 2021; Eyles et al., 2018; Gaylord et al., 2022; Hayes & Wilson, 2023; Kashdan & Ciarrochi, 2023; Khalooei et al., 2023; Pickut et



al., 2017; Sadeghi Arfaei & Hesampour, 2015; Sajadian et al., 2022; Scott-Sheldon et al., 2020).

#### Session 1: Self-Guided Meditation

The first session begins with an introduction to the group and the therapist, followed by a pre-test and an overview of the treatment process. Group members are familiarized with each other, and the therapist establishes ground rules for the sessions. The session includes a mindfulness exercise in which participants are asked to eat a raisin with full awareness, paying attention to its texture, taste, and sensation. A body scan meditation is conducted to foster awareness of physical sensations. The session concludes with a discussion on psychological well-being, perceived stress, and depression, helping participants understand the focus of the therapy.

#### Session 2: Confronting Obstacles

This session focuses on developing skills to overcome barriers to mindfulness practice. Participants engage in a body scan meditation followed by a ten-minute mindful breathing exercise. The therapist introduces exercises related to identifying thoughts and emotions, helping participants recognize and understand the connection between their thoughts and physical sensations. The session emphasizes the importance of recognizing obstacles in practice and addresses how to deal with them effectively.

#### Session 3: Mindful Breathing

In this session, participants learn about mindful movement and incorporate stretching and breathing exercises into their practice. The therapist introduces the concept of mindful breathing, and participants practice being fully present with their breath. The session also includes an activity where participants identify and record pleasant experiences in their lives, helping them differentiate between thoughts and reality. Participants are encouraged to observe their thoughts without judgment and recognize how they relate to their emotional states.

#### Session 4: Staying in the Present Moment

The focus of this session is on cultivating the ability to stay present in the moment. Participants engage in a five-minute mindfulness exercise involving observing or listening attentively to their surroundings. A sitting meditation is practiced to encourage focused attention. Additionally, participants practice mindful walking, becoming aware of each step and the sensations involved. The therapist discusses common cognitive distortions and how they can interfere with mindfulness, encouraging participants to observe these distortions and challenge their automatic thoughts.

#### Session 5: Acceptance and Allowing Presence

The fifth session introduces the concept of acceptance and the importance of allowing thoughts and feelings to exist without judgment. Participants engage in a sitting meditation and continue to practice awareness of their breath and body. The therapist introduces the "time machine" exercise, where participants reflect on past experiences and examine their previous predictions and judgments. This session emphasizes self-compassion and the importance of accepting thoughts and emotions as they arise.

#### Session 6: Thoughts Are Not Facts

In this session, participants learn to recognize that their thoughts are not necessarily truths. The session includes a sitting meditation with an emphasis on breath and body awareness. Participants are taught to distinguish between thoughts and reality and practice alternative thinking through exercises aimed at recognizing negative thought patterns. The therapist encourages participants to explore new perspectives and develop alternative, more balanced ways of thinking.

#### Session 7: How to Best Care for Yourself

This session focuses on the importance of self-care and emotional regulation. Participants engage in a sitting meditation, bringing awareness to their breath, body, sounds, thoughts, and emotions. The therapist guides participants in identifying the relationship between activities and mood, helping them recognize how different activities impact their emotional states. The session encourages participants to explore constructive problem-solving techniques and how to take better care of themselves in everyday life.

#### Session 8: Applying These Techniques to Future Decision-Making

The final session revisits all the skills learned throughout the program and emphasizes how to apply mindfulness techniques to future life decisions. Participants engage in a body scan exercise to reinforce their mindfulness practice. The session includes a review of the entire program, allowing participants to reflect on what they have learned and how they can integrate mindfulness into their daily lives. The therapist helps participants develop a plan for continuing mindfulness practice and encourages them to apply the techniques to various life situations. The session concludes with a post-test and a celebration of the participants' progress, followed by expressions of gratitude and appreciation for their effort throughout the program.

## 2.4. Data Analysis

For data analysis, version 26 of SPSS software was used, along with descriptive and inferential statistical methods (analysis of covariance).

## 3. Findings and Results

The descriptive information for the psychological capital scale, perceived social support, and learned helplessness is presented in Table 1, separated by pre-test and post-test for both the experimental and control groups.

**Table 1**

*Descriptive Statistics of the Research Variables in the Experimental and Control Groups at Pre-test and Post-test*

Variable	Group	Pre-test (M, SD)	Post-test (M, SD)
Self-efficacy	Experiment	21.60, 1.58	23.27, 2.67
	Control	20.07, 1.06	20.07, 1.62
Hope	Experiment	21.60, 1.61	23.67, 1.29
	Control	19.87, 1.27	19.86, 3.14
Resilience	Experiment	22.53, 1.39	24.20, 1.29
	Control	19.53, 1.42	19.27, 1.47
Optimism	Experiment	19.47, 1.77	20.73, 1.79
	Control	20.60, 1.33	20.53, 1.29
Psychological Capital	Experiment	68.73, 1.77	71.33, 1.97
	Control	68.20, 1.80	68.17, 1.81
Family	Experiment	16.40, 0.64	19.40, 1.24
	Control	16.60, 1.88	16.87, 1.60
Friends	Experiment	15.87, 1.58	18.13, 1.30
	Control	15.47, 1.77	15.16, 1.42
Important Individuals	Experiment	16.13, 1.68	18.67, 1.72
	Control	15.80, 1.57	15.93, 1.58
Perceived Social Support	Experiment	43.40, 3.14	49.80, 2.73
	Control	39.73, 1.62	39.47, 1.46
Learned Helplessness	Experiment	80.19, 1.05	78.15, 1.30
	Control	80.12, 1.35	80.15, 1.51

Table 1 shows the descriptive statistics for psychological capital, perceived social support, and learned helplessness, as well as their subscales in the pre-test and post-test for both the experimental and control groups. According to this table, in the pre-test for the experimental group, the mean and standard deviation for psychological capital were 68.73 and 1.77, respectively, and in the post-test, they were 71.33 and 1.97, respectively. In the pre-test for perceived social

support, the mean and standard deviation for the experimental group were 43.40 and 3.14, respectively, and in the post-test, they were 49.80 and 2.73, respectively. For learned helplessness, in the pre-test, the mean and standard deviation for the experimental group were 80.19 and 1.05, respectively, and in the post-test, they were 78.15 and 1.29, respectively.

**Table 2**

*ANCOVA of Psychological Capital Components in Post-Test with Pre-Test Covariate Removed*

Component	Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Self-Efficacy	Group	201.471	1	201.471	4.192	.002	.250
	Error	13.177	23	.573			
Hope	Group	131.089	1	131.089	3.999	.001	.240
	Error	23.270	23	1.012			
Resilience	Group	212.127	1	212.127	6.029	.002	.270
	Error	10.862	23	.472			
Optimism	Group	350.190	1	350.190	8.641	.001	.301
	Error	6.253	23	.272			

In Table 2, based on the F-values and significance levels, which are less than 0.05, the null hypothesis is rejected. This

indicates a significant difference between the mean scores of psychological capital in the experimental and control groups

in the post-test. Based on the descriptive statistics and the comparison of mean scores for psychological capital in both groups, it can be concluded that mindfulness-based

cognitive therapy significantly affected the subscales of self-efficacy (.250), hope (.240), resilience (.270), and optimism (.301).

**Table 3**

*One-Way ANCOVA of Mindfulness-Based Cognitive Therapy on Psychological Capital*

Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Pre-Test	63.935	1	63.935	20.814	.002	...
Group	451.212	1	451.212	121.204	.001	.341
Error	27.029	26	27.029			
Total	152037.000	30				

Based on the F-value and significance level in the table above (less than 0.05), the null hypothesis is rejected, indicating a significant difference between the mean psychological capital scores in the experimental and control

groups. The comparison of the mean scores for psychological capital in both groups also reveals that mindfulness-based cognitive therapy significantly impacts psychological capital, with an effect size of .341.

**Table 4**

*ANCOVA of Perceived Social Support Components in Post-Test with Pre-Test Covariate Removed*

Component	Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Family	Group	45.378	1	45.378	76.385	.001	.261
	Error	14.258	24	.594			
Friends	Group	28.738	1	28.738	109.567	.001	.220
	Error	6.295	24	.262			
Important Others	Group	18.732	1	18.732	40.883	.001	.230
	Error	10.996	24	.458			

According to Table 4, the F-values and significance values less than 0.05 for the components of perceived social support (family, friends, important others) indicate that the mindfulness-based cognitive therapy program had a

significant effect on these components in the experimental group compared to the control group. The effect sizes for family (.261), friends (.220), and important others (.230) are moderate.

**Table 5**

*One-Way ANCOVA of Mindfulness-Based Cognitive Therapy on Perceived Social Support*

Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Pre-Test	13.472	1	13.472	35.378	.001	...
Group	188.121	1	188.121	183.893	.001	.291
Error	42.258	24	42.258			
Total	87092.000	30				

The analysis in Table 5 confirms that mindfulness-based cognitive therapy significantly affects perceived social support with an effect size of .291, showing that the

treatment program significantly impacted the perceived social support of the experimental group compared to the control group.

**Table 6**

*ANCOVA of Learned Helplessness Components in Post-Test with Pre-Test Covariate Removed*

Component	Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Learned Helplessness	Group	64.839	1	64.839	12.107	.001	.214
	Error	47.347	23	2.058			

As shown in Table 6, the mindfulness-based cognitive therapy program significantly affected learned helplessness, with an F-value of 12.107 and a significance value less than

0.05, which indicates that the experimental group had a significant reduction in learned helplessness compared to the control group.

**Table 7**

*One-Way ANCOVA of Mindfulness-Based Cognitive Therapy on Learned Helplessness*

Source	Sum of Squares	df	Mean Square	F	Significance	Effect Size
Pre-Test	10.185	1	10.185	25.002	.001	...
Group	62.799	1	62.799	16.399	.001	.249
Error	37.364	22	1.698			
Total	24458.000	30				

Based on Table 7, the F-value of 16.399 and the significance level less than 0.05 show that the mindfulness-based cognitive therapy program significantly impacted learned helplessness in the experimental group compared to the control group, with an effect size of .249.

#### 4. Discussion and Conclusion

The present study aimed to examine the efficacy of mindfulness-based cognitive therapy (MBCT) on psychological capital, perceived social support, and learned helplessness in women with psoriasis. The results showed that MBCT was effective in increasing the mean scores of self-efficacy, hope, resilience, and optimism in women with psoriasis. These findings are consistent with prior studies (Cheraghpour Khonakdar et al., 2023; Khalooei et al., 2023; Sajadian et al., 2022). In explaining the effectiveness of MBCT in improving the psychological capital components of women with psoriasis, it can be stated that from the very first session, the goal was to create an environment where participants would feel at ease. Body scanning exercises and mindfulness practices played a significant role in inducing this relaxation. One of the most important features of this therapy is the use of metaphors. It should be noted that metaphor is not merely an ornamental element belonging to literature, but rather it is present in the thought processes and daily practices of individuals, reflecting the structure of their cognition. Metaphors affect an individual's thinking, which in turn influences not only language but also behavior (Belankirom, 2005). Wara et al. (2009), while emphasizing the importance of using metaphors in enriching mindfulness-based interventions, stated that verbal communication in clinical psychology plays two distinct roles: 1) it is used as a useful clinical tool, and 2) it guides clinicians in conceptualizing current problems and subsequent interventions. Indeed, the primary focus of mindfulness interventions is to create flexibility by loosening broad,

literal, transient, and superficial effects, accompanied by the evaluation of language and cognition (Pickut et al., 2017). In each session, participants are asked to talk about their experiences and share the barriers they encounter in their path to mindfulness with others. Psoriasis also affects the quality of life of these individuals. Given that stressful conditions can influence the biopsychological balance of individuals, and since resilience is considered the ability to restore this balance in challenging situations, resilience helps individuals return to their initial equilibrium or attain a higher level of balance under threatening circumstances, thus fostering successful adaptation in life. On the other hand, the first-generation MBCT sessions focused excessively on the cognitive reasoning of the client, attempting to shift their thought patterns from irrational to rational, with the aim of bringing their thinking closer to reality. However, in this approach, using mindfulness methods and metaphors, the goal is to help participants focus on improving their lives by accepting and being aware of the present moment, without resorting to prior control methods and without avoiding unpleasant thoughts and feelings. Mindfulness also helps individuals realize that negative emotions may arise but are not permanent aspects of their personality. Moreover, it enables individuals to respond thoughtfully and reflectively to events, rather than reacting automatically and thoughtlessly. Therefore, based on the conducted studies, it can be concluded that the therapeutic intervention had an effect on increasing self-efficacy, optimism, hope, and resilience in the experimental group participants.

The findings indicated that MBCT led to an increase in perceived social support among women with psoriasis. This finding aligns with previous studies (Pickut et al., 2017; Sadeghi Arfaei & Hesampour, 2015). For example, Sadeghi Erfaei and Hesampour (2015) concluded that mindfulness was positively and significantly related to social support. In



another study, Pickut et al. (2017) reported that group mindfulness had a significant impact on improving social support. In explaining this result based on Kabat-Zinn et al. (1992), it can be said that MBCT teaches individuals how to redirect habitual skills from a state of forcefulness to neutral goals, such as focusing on breathing, thus preparing the conditions for change (Pickut et al., 2017). Furthermore, mindfulness increases an individual's attention and awareness of physical and psychological sensations, which in turn enhances feelings of trust in life, deep compassion, love for others, and genuine acceptance of life's events. This can lead individuals to recognize their own abilities, reduce stress, and increase social participation and problem-solving abilities. Consequently, mindfulness training, through the methods described, can contribute to improving psychological well-being. Another explanation is that one of the effects of mindfulness is infiltration, which refers to the increased awareness within daily activities. In other words, it refers to the growth of sustained awareness throughout the day and the spontaneous experience of awareness, which occurs without prior intention, leading to the long-term effects of mindfulness on individuals' attention to their surroundings and daily events. With greater acceptance and awareness of events, individuals address everyday challenges more effectively, help others, and seek assistance when needed. Thus, MBCT increases perceived social support.

The results also indicated that MBCT improved learned helplessness in women with psoriasis. According to prior research (Akbarinejad & Naqizadeh Alamdari, 2023), the goal of mindfulness is to increase moment-to-moment awareness. This skill offers a new personal approach to coping with stress. Furthermore, external stressors are an inevitable part of human life, but coping methods and responses to stressors can change. In explaining these results, and in line with the present study, Scott-Sheldon et al. (2020) concluded that mindfulness-based interventions for adults with psychosomatic illnesses had favorable effects on both psychological and physiological outcomes (Scott-Sheldon et al., 2020). In explaining these findings, we can refer to the impact of cognitive evaluations in the domain of bodily information, the diversion of attention from potentially threatening bodily information, increased resistance to disruptive bodily information, changes in the interpretation of bodily sensations, and increased pain self-efficacy as a result of mindfulness. Participants, by employing cognitive techniques, managed to maintain their achievements within the group; additionally, their self-

awareness regarding behavioral motivations and the inability to achieve desired outcomes despite continuous efforts, particularly in interpersonal relationships, helped them change their current situation and reduce learned helplessness. In this study, psoriasis patients with an efficient problem-focused coping style, alongside adaptive explanatory styles, used their cognitive skills to address stress related to their illness and were able to find appropriate solutions to alleviate their concerns. Consequently, it can be stated that stress reduction leads to an increase in self-confidence and an improvement in patients' health.

In conclusion, based on the research findings, it can be concluded that the components of psychological capital, social support, and learned helplessness, if ineffective, can play a key role in the persistence, recurrence, and exacerbation of psoriasis. Since psychological factors play an important role in skin diseases, the interventions mentioned could not only serve as a complementary treatment but also accelerate the treatment process by teaching effective lifestyle and psychological well-being strategies, thus reducing treatment costs and the need for medical services. The difference between this study and previous research lies in the opportunity to change destructive cognitions and practice mindfulness learnings during the sessions, ensuring the continuity of these practices after the sessions in daily life.

## 5. Limitations and Suggestions

A limitation of this study was the lack of sufficient time to follow up on the therapeutic results. Therefore, it is recommended that future studies investigate the sustainability of the treatment effects. Additionally, it is recommended that psychotherapists, specialists, and policymakers in the field of prevention organize educational courses and develop manuals to raise patients' awareness of the impact of cognition, beliefs, expectations, goals, and motivations on psychological capital, social support, and the reduction of learned helplessness.

## Authors' Contributions

Authors contributed equally to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interests

The authors report no conflict of interest.

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## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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