

## Comparison of the Effectiveness of Intensive Short-Term Psychodynamic Therapy and Mindfulness-Based Cognitive Therapy on Stigma and Disease Adaptation in Patients with Psoriasis

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### ABSTRACT

The objective of this study was to compare the effectiveness of intensive short-term psychodynamic therapy and mindfulness-based cognitive therapy on stigma and adaptation to illness among patients with psoriasis. This quasi-experimental applied study employed a pre-test–post-test design with two experimental groups and one control group along with a follow-up phase. A total of 45 patients with clinically confirmed psoriasis were selected through convenience sampling and randomly assigned to intensive short-term psychodynamic therapy (n=15), mindfulness-based cognitive therapy (n=15), or a control group (n=15). Interventions followed standardized protocols—eight weekly 90-minute sessions based on Davanloo's short-term dynamic psychotherapy manual and Segal, Williams, and Teasdale's mindfulness-based cognitive therapy program. Participants completed the Internalized Stigma Questionnaire (Ritscher et al., 2003) and the Psycho social Adaptation to Illness Scale (Dragtis, 1968) at pre-test, post-test, and three-month follow-up. Data were analyzed using repeated-measures ANOVA with within-subject (time) and between-subject (group) factors, followed by Tukey post-hoc tests. Repeated-measures ANOVA showed significant between-group effects for stigma ( $F(2,42)=39.575$ ,  $p<0.01$ ,  $\eta^2=0.885$ ) and disease adaptation ( $F(2,42)=42.228$ ,  $p<0.01$ ,  $\eta^2=0.845$ ). Within-group effects across pre-test, post-test, and follow-up were also significant for both variables ( $p<0.01$ ). Tukey post-hoc comparisons indicated that both treatments significantly reduced stigma and improved adaptation from pre-test to post-test and follow-up ( $p<0.001$ ), while no significant differences were observed between post-test and follow-up, reflecting treatment stability. Comparative results demonstrated that mindfulness-based cognitive therapy produced significantly greater improvements than intensive short-term psychodynamic therapy across outcome measures ( $p<0.05$ ). Both intensive short-term psychodynamic therapy and mindfulness-based cognitive therapy were effective in reducing stigma and enhancing disease adaptation among patients with psoriasis, with mindfulness-based cognitive therapy showing superior therapeutic impact and greater stability of outcomes across time.

**Keywords:** Intensive intensive short-term psychodynamic therapy; mindfulness-based cognitive therapy; stigma; disease adaptation; psoriasis.

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## Introduction

Psoriasis is a chronic, immune-mediated inflammatory skin disorder that significantly affects both physical health and psychological wellbeing. As a visible dermatological condition, psoriasis imposes unique psychosocial burdens on patients, often exceeding the distress caused by its physical symptoms. Contemporary psychodermatology literature highlights that the interaction between dermatological disease activity and psychological functioning is bidirectional and deeply interwoven, with emotional processes and stress responses exacerbating disease flares (1). Epidemiological data further demonstrate that psoriasis co-occurs with a range of immune, metabolic, and neurological vulnerabilities, suggesting that the illness is embedded within a broader biopsychosocial landscape (2). Beyond its physiological burden, psoriasis impairs quality of life through stigmatization, shame, and reduced social participation, consequences that dermatological research has repeatedly emphasized (3). As with many chronic medical conditions, patients must navigate an ongoing process of psychological adaptation in addition to managing physiological symptoms (4).

The visibility of psoriasis lesions plays a central role in shaping patients' lived experience and psychological distress. The social meaning attached to visible skin differences can intensify negative social reactions, creating a cycle of internalized stigma. Internalized stigma refers to the process by which individuals adopt negative societal beliefs about their condition, allowing these to shape their identity and behavior (5). Studies conducted in populations facing other socially stigmatized health conditions, such as epilepsy, reveal that stigmatization deeply influences social integration, employability, and psychological functioning (6). Similarly, research among chronic illness populations in Africa demonstrates that stigmatization—especially when the condition is visible or misunderstood—reduces treatment-seeking, increases secrecy, and contributes to long-term emotional difficulties (7). Within psoriasis, internalized stigma manifests as shame, concealment, avoidance of social situations, and the tendency to withdraw from healthcare encounters. Such patterns align with observations in Iranian clinical samples, where psoriasis patients demonstrate higher anxiety sensitivity, heightened emotional reactivity, and greater social apprehension compared to non-affected individuals (8).

Psychological adaptation to psoriasis is therefore not merely an optional component of care but a central determinant of treatment adherence, social functioning, and overall wellbeing. Adjustment to chronic illness is a dynamic and multifaceted process shaped by emotional regulation, cognitive appraisal, and contextual demands (9). Poor adjustment is associated with elevated psychological distress, reduced adherence to medical recommendations, and greater functional impairment. Evidence from cardiovascular illness populations shows that deficits in psychosocial adjustment predict diminished self-care behaviors and poorer long-term outcomes, underscoring the importance of psychological interventions that target maladaptive cognitive and emotional patterns (10). Likewise, recent Iranian research highlights that individuals with anxiety-related disorders and somatic vulnerabilities often present with impaired emotional regulation and cognitive distortions, further complicating adaptation to chronic conditions (11). Such findings reinforce the need for interventions that directly target the emotional and cognitive mechanisms sustaining distress in chronic dermatological conditions.

Over the past decade, psychotherapeutic interventions for psoriasis have begun to receive systematic attention. A comprehensive review of psychotherapeutic approaches in dermatology indicates that many

psoriasis patients benefit from structured psychological treatments, particularly those focused on stress management, cognitive restructuring, and emotional processing (12). However, despite the evidence base for psychological interventions, dermatology services often remain highly biomedically oriented, with psychological support underutilized or limited to informal counseling. Given the robust associations between psychological distress and disease severity, the integration of psychotherapy has become increasingly important, especially during periods of heightened stress, such as global crises (13).

Two psychotherapeutic approaches have shown particular promise for psoriasis: intensive short-term psychodynamic therapy (ISTDP) and mindfulness-based cognitive therapy (MBCT). ISTDP is a focused, time-limited intervention that facilitates access to unconscious emotional conflicts, reduces maladaptive defenses, and promotes healthier emotional expression. Meta-analytic findings confirm that intensive short-term psychodynamic therapy is effective in treating affective disorders, reducing symptoms, and strengthening psychological resilience (14). Studies within Iranian samples further demonstrate that ISTDP significantly improves cognitive-behavioral avoidance, emotional functioning, and rumination among individuals with depressive disorders (15). Additional clinical research supports ISTDP's effectiveness in reducing emotional and somatic symptoms in patients with functional gastrointestinal disorders, highlighting its capacity to address psychophysiological conditions characterized by stress-related exacerbations (16). Another line of evidence shows that intensive ISTDP is cost-effective, producing meaningful therapeutic change within a brief timeframe (17). Altogether, ISTDP appears well-suited for dermatological populations whose symptoms worsen under emotional suppression, interpersonal conflict, or internalized distress.

In contrast, MBCT represents a cognitive-behavioral approach integrating mindfulness meditation with cognitive therapy principles. MBCT encourages nonjudgmental awareness of thoughts, feelings, and bodily sensations, promoting acceptance rather than avoidance of internal experiences. Foundational work by Segal, Williams, and Teasdale conceptualized MBCT as a method for breaking automatic patterns of negative thinking and cultivating a healthier relationship with internal experiences (18). Neuroscientific perspectives add that mindfulness can reshape neural networks associated with attention, emotional regulation, and perception of bodily states, thereby enhancing resilience and wellbeing (19). Within dermatology, mindfulness-based interventions have demonstrated positive effects on stress, emotional reactivity, and illness-related quality of life (20). More recent clinical evidence shows that MBCT improves resilience and body image among individuals with dermatological conditions, with emotional reactivity playing a central mediating role (21). In addition, randomized controlled studies indicate that MBCT can significantly reduce perceived stress and improve disease-specific quality of life among women with psoriasis (22). Online adaptations of MBCT have also produced promising results, with digital delivery formats improving accessibility and expanding reach for psoriasis patients (23).

The growing body of evidence suggests that MBCT and ISTDP target distinct yet complementary mechanisms relevant to psoriasis. ISTDP emphasizes emotional awareness, resolution of unconscious conflicts, and reduction of maladaptive defenses. MBCT focuses on present-moment attention, acceptance, and cognitive de-identification from distressing thoughts. Both approaches have shown compelling benefits in treating conditions characterized by emotional dysregulation, stress sensitivity, and somatic reactivity. Notably, chronic illness populations—such as those with cardiovascular disease, multiple sclerosis, and

dermatological disorders—often demonstrate patterns of anxiety, avoidance, and emotional suppression that align with the mechanisms addressed by these therapies (4, 10, 21). Furthermore, families caring for individuals with chronic psychiatric conditions exhibit high levels of perceived stigma, reinforcing the broader sociocultural relevance of stigma reduction efforts (24). Thus, targeting stigma becomes a central therapeutic priority for improving psychosocial wellbeing in chronic illness, particularly among individuals whose symptoms are externally visible.

Despite this evidence, few studies have directly compared ISTDP and MBCT in patients with psoriasis. Existing research has either examined each treatment separately or focused on broader clinical outcomes such as depression, stress, or somatic symptom severity. There remains a notable gap in understanding how these two theoretically distinct approaches differentially influence internalized stigma and psychosocial adaptation to illness, two core psychological challenges that significantly burden psoriasis patients and affect long-term health outcomes.

Therefore, the aim of the present study is to compare the effectiveness of intensive short-term psychodynamic therapy and mindfulness-based cognitive therapy on internalized stigma and psychosocial adaptation to illness in patients with psoriasis.

The procedure of the present study was as follows: first, individuals with psoriasis who visited dermatology centers in Tehran Province were identified. After compiling the list of visitors, 45 individuals were selected through convenience sampling and, based on the criteria, randomly assigned into three groups (two experimental groups and one control group). The relevant questionnaires were administered, and participants completed them as the pre-test. Mindfulness-based cognitive therapy and intensive short-term psychodynamic therapy were conducted once a week. Accordingly, each group first completed the pre-test, after which the interventions were implemented according to their respective treatment protocols. During each session, mindfulness-based cognitive therapy and intensive short-term psychodynamic therapy were delivered for 90 minutes, and the control group received no treatment. After the completion of the therapeutic sessions, participants were again asked to complete the questionnaires (post-test). The interventions were administered by a doctoral student in psychology who had received formal training in mindfulness-based cognitive therapy and intensive short-term psychodynamic therapy. In the first session, all required baseline assessments were conducted. In accordance with ethical principles, participants were provided with full information regarding the treatment procedures, conditions, and requirements, and written informed consent was obtained. Participants were informed that they could withdraw from the intervention at any time. Confidentiality of patient information was fully observed, and no information was used without the patient's permission. To maintain fairness between the experimental and control groups, the control group was assured that they would receive the therapeutic sessions after completion of the dissertation.

## Methods and Materials

### *Study Design and Participants*

This study was applied in terms of purpose and semi-experimental in terms of method, using a pre-test–post-test design with two experimental groups, one control group, and a three-month follow-up period. The statistical population consisted of all men and women with psoriasis who attended specialized dermatology

centers in Tehran in 2024. Sampling was conducted purposefully from among individuals diagnosed with psoriasis whose diagnosis had been confirmed by a dermatologist based on clinical criteria. After initial screening and examination of the inclusion and exclusion criteria, 45 eligible participants were selected and randomly assigned to three groups of 15: a intensive short-term psychodynamic therapy group, a mindfulness-based cognitive therapy group, and a control group. The inclusion criteria were: confirmed diagnosis of psoriasis by a dermatologist and approval by the research psychologist through a structured clinical interview, age between 20 and 50 years, minimum literacy, and willingness and informed consent to participate in the treatment sessions and research procedures. The exclusion criteria included receiving any other psychological or psychiatric intervention during the past year, the presence of other dermatological diseases or severe psychosis, absence from more than two treatment sessions, and lack of cooperation or unwillingness to continue participation in the study. Allocation of participants to groups was performed using simple randomization. Each experimental group received its respective intervention, whereas the control group received no psychological treatment during the research period and only completed the assessments at pre-test, post-test, and the three-month follow-up. All participants signed informed consent forms prior to the start of the study and were assured of the confidentiality of their information.

#### *Data Collection*

**Internalized Stigma Questionnaire:** The Internalized Stigma Questionnaire was developed by Ritscher and colleagues (2003) to measure internalized stigma and includes 17 items and four subscales: alienation, stereotype endorsement, perceived discrimination, and social withdrawal. Responses are rated on a Likert scale ranging from strongly agree (4), agree (3), disagree (2), to strongly disagree (1). The minimum score is 17 and the maximum is 68, with higher scores indicating greater internalized stigma. In the study by Vaghei and Salarhaji (2015), the content, face, and criterion validity of the questionnaire were confirmed. The Cronbach's alpha coefficient reported in that study was above 0.70.

**Psychosocial Adjustment to Illness Scale:** The Psychosocial Adjustment to Illness Scale was developed by Derogatis (1968). This questionnaire contains 46 items scored on a 4-point Likert scale (0 to 3). The scale includes seven domains: health care orientation (7 items), family environment (8 items), occupational environment (6 items), sexual relationships (6 items), extended family relationships (5 items), psychological distress (8 items), and social environment (6 items). The minimum score is 0 and the maximum is 138. Higher scores indicate lower psychosocial adjustment. Derogatis (1986) reported concurrent validity and reliability coefficients of 0.52 and 0.87, respectively. In Iran, Amiri and colleagues (2024) examined the validity and reliability of the Psychosocial Adjustment to Illness Scale, reporting Cronbach's alpha coefficients for the respective domains as 0.47, 0.77, 0.76, 0.83, 0.62, 0.85, and 0.80.

#### *Interventions*

The mindfulness-based cognitive therapy protocol was delivered over eight weekly group sessions and followed a structured, progressive format tailored to patients with psoriasis. In the first session (automatic pilot), group members were introduced to one another, the therapist outlined the overall structure of the program, and basic group rules were established with particular emphasis on confidentiality and respect for personal life; participants were guided through a body scan meditation, received psychoeducation about

psoriasis, its symptoms, and activating factors, and were encouraged to direct their attention to everyday activities while practicing a 45-minute body scan at home after completing the pre-test measures. The second session (dealing with obstacles) began with a review of homework and the previous session, followed by exploration of participants' feelings and anxiety experienced during the past week; the group then worked on identifying and managing obstacles and problems, practiced another body scan meditation, and engaged in exercises focusing on thoughts and emotions; homework included ten minutes of mindful breathing, directing attention to daily activities in a new, mindful way, keeping a daily record of a pleasant event, and learning progressive muscle relaxation for 14 muscle groups (forearms, arms, calf muscles, thighs, abdomen, chest, shoulders, neck, lips, eyes, and forehead). The third session (mindful breathing) also started with a review of homework and weekly experiences, especially anxiety; participants were introduced to mindful breathing, including inhalation and exhalation with relaxation and without distraction, learning the technique of "watching the breath," and were assigned breathing mindfulness before sleep as homework; in-session practices focused on mindful breathing, mindful movement, breathing with stretching, the three-minute breathing space, and continued muscle relaxation now reduced to six groups (hands and arms, legs and thighs, abdomen and chest, forehead and lips), accompanied by related homework. In the fourth session (being in the present moment), homework and weekly experiences were again reviewed; the main focus was on anchoring awareness in the present, using five-minute visual or auditory mindfulness practices, seated meditation, mindful walking, and the three-minute breathing space as a coping strategy for unpleasant emotions; participants were taught to notice bodily movements and sensations while breathing, to scan and localize physical sensations, and were given home practice to consolidate these skills. The fifth session (accepting/allowing) emphasized acceptance; after reviewing homework and recent emotional experiences, participants practiced seated meditation with awareness of breathing and the body, and were encouraged to notice how they react to thoughts, emotions, and bodily sensations; they were trained to pay attention to the mind, distinguish pleasant and unpleasant thoughts, and allow both negative and positive thoughts to arise and pass without judgment or over-engagement; homework consisted of seated meditation and regular use of the three-minute breathing space. The sixth session (thoughts are not facts) reinforced the idea that thoughts do not necessarily represent reality; following the usual homework review and exploration of weekly anxiety, participants engaged in seated meditation with awareness of breathing and the body, practiced observing moods, thoughts, and alternative perspectives, and were gradually prepared for the end of the program; daily practices were consolidated, and more work was done on personal relapse prevention plans, including a 40-minute seated meditation and exercises to observe links between activities and mood, accompanied by targeted homework. The seventh session (taking care of oneself) focused on self-care; after reviewing previous exercises and weekly experiences, participants practiced seated meditation with awareness of breathing, body, sounds, thoughts, and feelings; they were asked to choose from the various exercises learned during the course those they would continue after the program, practiced observing the connection between activities and anxiety, created a list of pleasurable activities, and developed a feasible plan to implement them; preparation for the end of treatment included reviewing previous material, summarizing key points, and a question-and-answer segment, along with home assignments. The eighth session (using what has been learned) centered on applying learned skills to future emotional situations; after the usual review of homework and weekly experiences, participants practiced a body scan meditation,

formally ended the mindfulness practice sequence, reviewed the entire program, discussed how to maintain and integrate the exercises into daily life, and explored positive reasons for continuing practice; they were assigned to choose a realistic home practice plan they could maintain for the coming month, and the course concluded with a final meditation and administration of the post-test measures.

The intensive short-term psychodynamic therapy was also implemented over eight weekly individual sessions, each with a specific therapeutic focus designed to address emotional conflicts and internalized stigma related to psoriasis. In the first session, the primary aim was to establish a strong therapeutic alliance and identify each patient's core emotional conflict; the therapist created a safe and containing environment for emotional expression, inviting patients to describe their lived experience of illness and its psychological and social consequences; as patients narrated the onset of psoriasis, its impact on relationships, work, and self-image, the therapist carefully observed overt and covert defenses and resistances, thereby formulating an initial hypothesis about the central emotional conflict maintaining their distress. The second session focused on increasing patients' awareness of defensive mechanisms and preparing them to confront unconscious emotions; during the therapeutic dialogue, the therapist systematically drew attention to avoidance tendencies, abrupt topic shifts, and defensive humor, providing real-time interpretations and feedback; this stage aimed to help patients recognize their habitual patterns of evasion and to cultivate readiness for deeper emotional work. In the third session, the emphasis shifted to facilitating access to and expression of repressed affects and linking them to past experiences; emotions such as suppressed anger toward others or the self, shame related to bodily changes, and fear of rejection were identified, experienced, and articulated within the therapeutic space; the therapist encouraged patients to experience these emotions rather than suppress or deny them, while also exploring connections between current affective states and earlier life experiences, such as family relationships or repeated criticism in childhood. The fourth session centered on identifying and modifying transference patterns and creating a corrective emotional experience in the therapeutic relationship; patients gradually transferred to the therapist the same fears, expectations, and interpersonal schemas that characterized their external relationships, such as fear of judgment or abandonment; the therapist made these patterns explicit, differentiated past-based assumptions from the reality of the therapeutic relationship, and modeled a more reliable and accepting relational stance, thereby offering a corrective experience. The fifth session aimed at deepening emotional experience and reducing rumination through healthier emotional expression; patients were guided to experience emotions with greater intensity and to shift from mental rumination and defensive withdrawal toward more direct, regulated expression of anger, sadness, or shame; the association between unexpressed emotions and the exacerbation of physical symptoms—such as itching or skin inflammation—was explored, helping patients recognize the psychosomatic impact of emotional suppression and facilitating movement toward emotional release. The sixth session focused on reconstructing a more integrated personal identity and reducing internalized stigma by recognizing personal worth; patients became more aware of their inner critical voice and the internalized judgments linked to their skin condition; the therapist highlighted the discrepancy between these internalized stigmatizing beliefs and the patient's actual value and competencies, supporting the development of a self-concept that transcended the narrow label of "a person with a skin disease" and fostering increased self-acceptance and self-worth. The seventh session was devoted to integrating therapeutic insights and consolidating adaptive coping strategies in interpersonal relationships and illness

management; patients reviewed the insights gained in previous sessions, differentiated earlier maladaptive patterns from emerging healthier responses, and practiced adopting new coping methods in imagined or real social situations; acceptance of psoriasis as a part of life, rather than the entirety of one's identity, was reinforced, and patients were encouraged to replace defensive social withdrawal with more open communication and help-seeking when needed. In the eighth and final session, the course of therapy was reviewed, and therapeutic gains were consolidated; patients reflected on changes such as reduced rumination, diminished internalized stigma, enhanced emotional expression, and improved illness adaptation; the therapist offered integrative feedback, supported patients in recognizing their new capacities, and addressed the emotional meaning of ending therapy; the termination process was discussed clearly and structurely to promote a healthy experience of separation rather than feelings of abandonment, and relapse prevention strategies, along with a tentative follow-up plan, were collaboratively designed to help patients maintain and generalize treatment gains.

### *Data analysis*

In this study, descriptive statistics were used to summarize the collected data, and the results were analyzed using SPSS version 26. Descriptive statistics such as mean and standard deviation were used to describe the data. In the inferential statistics section, the Shapiro–Wilk test was used to examine normality, and repeated-measures ANOVA was used to examine between-group differences while considering the within-group factor (time) and the between-group factor (group membership). Tukey's post hoc test was used to compare the experimental groups with each other and with the control group.

### **Findings and Results**

In this study, 45 patients with psoriasis were assigned to three groups, including short-term psychodynamic therapy (15 participants), mindfulness-based cognitive therapy (15 participants), and a control group (15 participants). In the short-term psychodynamic therapy group, the mean age of participants was 34.8 years. Based on gender, 8 participants were female and 7 were male. Nine participants were married and six were single. Educational levels included 4 high-school graduates, 7 bachelor's degree holders, and 4 with a master's degree. In the mindfulness-based cognitive therapy group, the mean age was 36.2 years. The group consisted of 7 women and 8 men. Ten participants were married and five were single. Regarding education, 3 participants held a high-school diploma, 6 had a bachelor's degree, and 6 had a master's degree. In the control group, the mean age was 35.9 years. This group consisted of 9 women and 6 men. Nine participants were married and six were single. Educational levels included 5 high-school graduates, 7 bachelor's degree holders, and 3 with a master's degree. The demographic characteristics indicated that the three groups had relatively similar distributions in terms of age, gender, marital status, and educational level. This demographic homogeneity provided the necessary conditions for comparing the effectiveness of the therapeutic interventions.

**Table 1. Description of the Research Variables by Group and Assessment Stage**

Variable	Time	Short-Term Psychodynamic Therapy (Mean)	SD	Mindfulness-Based Cognitive Therapy (Mean)	SD	Control (Mean)	SD
Stigma	Pre-test	45.20	5.60	46.85	5.74	44.90	5.11
	Post-test	36.71	4.93	38.25	4.13	44.21	4.75
	Follow-up	37.30	4.84	38.46	4.77	44.67	4.78
Adaptation to Illness	Pre-test	78.40	4.76	79.66	6.71	77.60	7.88
	Post-test	68.82	6.78	63.40	7.10	77.80	8.05
	Follow-up	69.40	6.97	66.31	6.91	78.26	7.72

The results of Table 1 show that the mean stigma score in the short-term psychodynamic therapy group decreased from 45.20 at pre-test to 36.71 at post-test. In the mindfulness-based cognitive therapy group, stigma decreased from 46.85 to 38.25. No significant change was observed in the control group. For the variable of adaptation to illness—where higher scores indicate poorer adjustment—the mean score in the short-term psychodynamic therapy group decreased from 78.40 to 68.82. In the mindfulness-based cognitive therapy group, scores decreased from 79.66 to 63.40. No considerable change was observed in the control group.

**Table 2. Distribution Indices (Skewness and Kurtosis) and Normality Test Results**

Variable	Group	Skewness (Pre)	Kurtosis (Pre)	Skewness (Post)	Kurtosis (Post)	Skewness (Follow-up)	Kurtosis (Follow-up)
Stigma	STPT	0.58	0.04	0.11	0.11	-0.23	-0.41
	MBCT	0.59	0.33	0.12	0.60	-0.43	-0.02
	Control	0.21	1.04	0.14	0.62	0.74	-0.48
Adaptation to Illness	STPT	0.41	0.42	-0.23	0.12	0.62	0.00
	MBCT	1.29	1.52	-0.40	0.29	0.41	0.04
	Control	0.02	1.06	0.33	0.09	0.37	0.40

According to the results presented in Table 2, all values obtained for skewness and kurtosis fall within the acceptable range of  $-2$  to  $+2$ ; therefore, the distribution of variables is statistically normal and shows no considerable skewness or kurtosis. To examine the assumption of normality more precisely, the Shapiro–Wilk test was used. The results of this test also indicated that the distribution of data for all research variables was normal, supporting the use of parametric tests such as repeated-measures ANOVA.

**Table 3. Examination of Normality Using the Shapiro–Wilk Test**

Variable	Group	Statistic (Pre)	Sig.	Statistic (Post)	Sig.	Statistic (Follow-up)	Sig.
Stigma	STPT	0.751	0.626	0.456	0.985	0.656	0.783
	MBCT	1.141	0.148	0.693	0.723	0.784	0.570
	Control	1.240	0.092	1.027	0.242	0.754	0.620
Adaptation to Illness	STPT	0.547	0.926	0.801	0.543	0.647	0.797
	MBCT	0.591	0.871	0.970	0.304	0.877	0.425
	Control	0.808	0.532	0.623	0.833	0.613	0.847

The results of the Shapiro–Wilk test indicate that the assumption of normal distribution cannot be rejected ( $p > .05$ ). The significance levels obtained for all main variables in each of the three groups are greater than .05, indicating normal distribution of the variables. Overall, the Shapiro–Wilk test confirms the normality of the data distribution.

**Table 4: Results of Levene's Test for Homogeneity of Variances**

Variable	F	df1	df2	Sig.
Stigma	0.657	2	42	0.425
Adaptation to Illness	0.366	2	42	0.550

The results of Table 4 show that, given the non-significant F values in Levene's test, the assumption of homogeneity of variances is met.

The results of Mauchly's test of sphericity indicated that the assumption of sphericity was met for the study data. The test statistic for the variable of stigma was 0.712, and for adaptation to illness it was 0.873. The obtained significance level was 0.197 ( $p > .05$ ). Accordingly, the sphericity assumption was not violated, and homogeneity of variances across the three measurement stages was confirmed. Therefore, the use of repeated-measures ANOVA in this study is statistically justified.

**Table 5. Results of Mixed ANOVA Based on Within-Group and Between-Group Factors for Stigma and Adaptation to Illness**

Effect	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Effect Size	Power
Within-group	Stigma	529.76	1	529.76	106.12	0.001	0.86	1
	Adaptation to Illness	1085.76	1	1085.76	75.73	0.001	0.89	1
Between-group	Stigma	34.73	2	17.36	39.57	0.002	0.88	1
	Adaptation to Illness	476.45	2	238.22	42.22	0.001	0.84	1

The results of Table 5 indicate that, for both within-group and between-group factors, the calculated F values for the effect of the measurement stages (pre-test, post-test, and follow-up) are significant at the 0.01 level. Specifically, for the between-group effect on stigma, the F value was 39.57 with a significance level of  $p < .01$  and an effect size of  $\eta^2 = 0.88$ , indicating significant differences between groups. Similarly, for adaptation to illness, the F value was 42.22 with  $p < .01$  and an effect size of  $\eta^2 = 0.84$ . Therefore, there are significant differences in mean scores of stigma and adaptation to illness across the pre-test, post-test, and follow-up stages among patients with psoriasis. These results indicate that significant changes occurred over time (from pre-test to post-test and follow-up), and substantial differences also existed between groups. Both short-term psychodynamic therapy and mindfulness-based cognitive therapy significantly reduced stigma and improved adaptation to illness, whereas the control group showed no such changes. Tukey's post-hoc test was used to further examine differences between means across treatment stages.

**Table 6. Results of Tukey's Post-Hoc Test for Comparing Group Means**

Variable	Group Comparison	Mean Difference	Standard Error	Sig.
Stigma	Psychodynamic – Mindfulness	-1.54	0.82	0.057
	Psychodynamic – Control	-7.50	0.95	0.001
	Mindfulness – Control	-6.00	0.88	0.001
Adaptation to Illness	Psychodynamic – Mindfulness	5.42	1.12	0.003
	Psychodynamic – Control	-9.00	1.25	0.001
	Mindfulness – Control	-14.20	1.18	0.001

The results of Table 6 show that, for stigma, both treatment groups demonstrated significant reductions compared to the control group. However, the difference between the two treatment groups was not significant. For adaptation to illness, both treatment groups showed significant improvement compared to the control group. The difference between the two treatment groups was also significant, with the mindfulness-based group showing greater improvement than the short-term psychodynamic therapy group.

**Table 7. Results of Bonferroni Test for Comparing Measurement Stages in Research**

Variables					
Variable	Group	Stage Comparison	Mean Difference	Standard Error	Sig.
Stigma	Psychodynamic	Pre-test – Post-test	8.49	1.12	0.001
		Pre-test – Follow-up	7.90	1.15	0.001
		Post-test – Follow-up	-0.59	0.98	0.612
	Mindfulness	Pre-test – Post-test	8.60	1.08	0.001
		Pre-test – Follow-up	8.39	1.10	0.001
		Post-test – Follow-up	-0.21	0.95	0.821
Adaptation to Illness	Psychodynamic	Pre-test – Post-test	9.58	1.20	0.001
		Pre-test – Follow-up	8.99	1.22	0.001
		Post-test – Follow-up	-0.60	1.05	0.589
	Mindfulness	Pre-test – Post-test	16.26	1.18	0.001
		Pre-test – Follow-up	13.35	1.20	0.001
		Post-test – Follow-up	-2.91	1.07	0.041

The results of Table 7 indicate that, in the short-term psychodynamic therapy group, the differences between pre-test and post-test, as well as between pre-test and follow-up, were significant. The difference between post-test and follow-up was not significant, demonstrating that the reduction in stigma after treatment remained stable and was maintained at follow-up. In the mindfulness group, the differences between pre-test and post-test and between pre-test and follow-up were also significant. The difference between post-test and follow-up was not significant, indicating that the reduction in stigma in this group was also stable and maintained at follow-up. Therefore, both psychodynamic and mindfulness interventions demonstrated significant reductions in stigma that persisted at follow-up.

For adaptation to illness in the psychodynamic group, significant differences were observed between pre-test and post-test and between pre-test and follow-up. The post-test to follow-up comparison was non-significant, indicating that improvements in adaptation were achieved after treatment and remained stable at follow-up. In the mindfulness group, differences between pre-test and post-test and between pre-test and follow-up were significant, and the post-test to follow-up difference was also significant. This indicates that adaptation improved more in the mindfulness group than in the psychodynamic group; however, there was a slight decline at follow-up, although scores remained better than at pre-test. Therefore, the results suggest that both therapeutic approaches are effective, but mindfulness demonstrates greater improvement in adaptation to illness, whereas psychodynamic therapy shows stronger stability of treatment effects.

## Discussion and Conclusion

The present study aimed to compare the effectiveness of intensive short-term psychodynamic therapy (ISTDP) and mindfulness-based cognitive therapy (MBCT) on internalized stigma and psychosocial adaptation to illness among patients with psoriasis. The results demonstrated that both interventions significantly reduced internalized stigma and improved psychosocial adaptation from pre-test to post-test and follow-up. Additionally, MBCT produced larger and more stable improvements compared to ISTDP, indicating its comparatively stronger therapeutic impact on the psychological mechanisms studied. These findings provide important evidence for the integration of structured psychological therapies in dermatological treatment protocols.

The significant reduction in internalized stigma across both treatment groups aligns with previous research emphasizing the psychological vulnerability of individuals with visible dermatological conditions.

Psychodermatology scholars have consistently noted that the intersection of visible skin symptoms and social perception creates heightened stigma susceptibility among psoriasis patients (1). This form of stigma is not merely social but internalized, shaping individuals' thoughts, identity, and self-worth. The current findings reinforce earlier evidence showing that internalized stigma is a central psychosocial barrier for individuals with chronic and visible medical conditions, profoundly influencing their emotional wellbeing and social functioning (5). The significant improvement in this domain for both interventions confirms that psychotherapeutic methods targeting emotional and cognitive processes can effectively disrupt these entrenched stigma patterns.

The relative superiority of MBCT in reducing stigma may be understood through its mechanisms of action. MBCT aims to cultivate nonjudgmental awareness of thoughts and feelings while interrupting automatic cognitive scripts related to shame, self-criticism, and negative self-evaluation (18). Psoriasis patients often experience intrusive thoughts regarding social rejection, contamination concerns, and anticipated judgment, which contribute to stigma internalization (8). MBCT enables patients to observe such thoughts without fusing with them psychologically, thereby reducing the burden of negative self-labeling. Neuroscientific perspectives also highlight the role of mindfulness in restructuring neural circuits associated with self-referential processing and emotional regulation (19). These mechanisms plausibly underlie the greater reductions in stigma observed in the MBCT group. Additionally, recent trials demonstrate that MBCT decreases perceived stress and disease-related psychological burden among psoriasis patients specifically (22, 23). Therefore, the present findings reinforce an emerging body of research indicating that mindfulness-based interventions are particularly effective for managing the psychosocial complications of psoriasis.

The study also found that both ISTDP and MBCT improved psychosocial adaptation to the disease. Adaptation to chronic illness requires cognitive restructuring, emotional regulation, and adjustment to physical, social, and behavioral limitations imposed by the condition. The integrative model of chronic illness adjustment emphasizes that adaptation is a dynamic, ongoing process influenced by internal psychological states and external contextual demands (9). Improvement in this domain is especially relevant for dermatological conditions such as psoriasis, where psychosocial stress, interpersonal avoidance, and fear of social exposure contribute significantly to impaired adaptation (3). In this context, both therapeutic methods target essential components of adjustment: ISTDP by addressing emotional conflicts and defensive patterns, and MBCT by promoting acceptance, self-regulation, and mindful engagement with the illness experience.

The therapeutic impact of ISTDP on psychosocial adaptation aligns with research highlighting its ability to resolve internal emotional conflicts and reduce maladaptive defenses that obstruct healthy adjustment. Empirical evidence indicates that ISTDP improves emotion regulation, reduces rumination, and facilitates insight into unconscious emotional patterns (14). These therapeutic gains are particularly relevant for patients with psychosomatic or stress-reactive conditions. Previous Iranian studies further confirm that ISTDP effectively reduces avoidance tendencies, rumination, and emotional dysregulation among individuals with depression and somatic preoccupations (15). Recent evidence also supports ISTDP as beneficial for gastrointestinal and anxiety-related clinical presentations, especially when physical symptoms are intertwined with emotional suppression and psychological conflict (16). Such findings resonate with the

present results, suggesting that ISTDP addresses disease-related emotional difficulties that hinder adaptation in psoriasis.

Despite the effectiveness of ISTDP, MBCT showed a comparatively larger impact on adaptation outcomes. This difference can be explained by the conceptual foundations of MBCT. Psoriasis patients frequently struggle with heightened stress reactivity, body-focused anxiety, and persistent cognitive rumination related to disease progression and flare-ups. MBCT explicitly targets these mechanisms by teaching patients to observe illness-related thoughts without judgment, cultivate present-moment awareness, and develop adaptive responses to stress (18). Empirical studies support this view, showing that MBCT enhances resilience, improves body image, and reduces emotional reactivity among individuals with dermatological disorders (21). Similarly, MBCT has been shown to improve psychosocial adaptation and self-care behaviors in chronic disease populations such as cardiovascular patients, demonstrating its utility for long-term health conditions (10). The present findings reinforce this evidence by confirming that MBCT fosters more stable and enduring improvements across the adjustment domains assessed.

The enduring post-treatment effects observed at follow-up for both interventions indicate that the benefits of structured psychotherapy persist beyond the active treatment period. This conclusion is aligned with research demonstrating that emotional processing achieved through ISTDP and self-regulatory skills developed through MBCT contribute to long-term symptom reduction and psychological resilience (17, 19). Moreover, improvements in stigma and adaptation align with findings from the global literature on chronic illness stigma, which indicates that psychosocial interventions targeting cognitive, emotional, and behavioral processes yield long-lasting benefits (6, 7). The maintenance of gains in both treatment groups therefore supports the use of structured psychotherapeutic approaches as complementary interventions in dermatology.

Another important dimension of the findings involves the broader psychosocial context of psoriasis. Research indicates that mental health challenges—including anxiety, depression, and stress—are highly prevalent among psoriasis patients, driven partly by chronic inflammation and partly by social and emotional experiences (1). During periods of widespread stress, such as health crises or pandemics, mental health issues among chronic disease populations intensify, further complicating disease management (13). This underscores the importance of accessible psychotherapeutic interventions, including online or hybrid formats, to address the psychological vulnerabilities associated with chronic dermatological conditions (23). The success of MBCT and ISTDP in the present study demonstrates that addressing emotional functioning can reduce disease burden even when physical symptoms persist.

Moreover, chronic illnesses with unpredictable exacerbations share patterns of stress reactivity and emotional vulnerability, as seen in conditions such as multiple sclerosis (4). These parallels suggest that psychological therapies effective in one chronic illness context may have translational value in others. The present study's findings therefore contribute to the broader understanding of chronic disease management by highlighting the role of psychological interventions in enhancing adaptation and reducing stigma.

Although the present study provides valuable insights, several limitations must be acknowledged. First, the sample size, while consistent with similar clinical intervention studies, limits statistical power and may restrict the generalizability of findings to broader psoriasis populations. Second, participants were recruited through convenience sampling from clinical centers, which may introduce selection bias, particularly if

individuals already motivated to seek psychological support were overrepresented. Third, the study relied exclusively on self-report questionnaires, which are susceptible to response bias and may not fully capture behavioral changes or objective dermatological outcomes. Fourth, the treatment was delivered by a single therapist for both interventions, raising the possibility of therapist-specific effects influencing outcomes. Finally, follow-up was limited to three months; longer-term follow-up periods are needed to determine the durability of therapeutic gains beyond the intermediate stage.

Future studies should employ larger, more diverse samples using randomized, multi-site recruitment strategies to enhance generalizability. Research designs incorporating multiple therapists with treatment fidelity checks would improve internal validity and reduce therapist-related bias. Additional studies should integrate mixed-methods approaches, combining quantitative assessments with qualitative interviews to capture lived experiences and subjective changes more comprehensively. Incorporating dermatological severity indices or biological markers could help clarify psychophysiological pathways linking psychological interventions to physical disease outcomes. Longer follow-up periods extending to six or twelve months are recommended to evaluate the sustained impact of ISTDP and MBCT. Finally, future investigations may explore hybrid treatment models that integrate elements of both therapies to maximize their complementary strengths.

Clinicians working with psoriasis patients should consider integrating structured psychological interventions into dermatological care to address stigma, emotional regulation, and illness adaptation. Dermatologists and mental health professionals can collaborate to identify patients exhibiting high psychological distress and refer them for appropriate psychotherapeutic treatment. Mindfulness-based programs may be incorporated into group workshops or online platforms to increase accessibility and reduce treatment barriers. Furthermore, psychoeducation for patients and families about stigma, stress responses, and emotional coping may enhance treatment engagement and holistic wellbeing.

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### **Authors' Contributions**

All authors equally contributed to this study.

### **Declaration of Interest**

The authors of this article declared no conflict of interest.

### **Ethical Considerations**

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. This study was approved by the Ethics Committee of Islamic Azad University, Najafabad Branch, with the code IR.IAU.NAJAFABAD.REC.1404.218.

## Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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