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A Comparison of the Effectiveness of Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy on Pain Self-Efficacy in Patients with Psychosomatic Disorders

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ABSTRACT

Purpose: The present study aimed to compare the effectiveness of Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy on pain self-efficacy among patients diagnosed with psychosomatic disorders.

Methods and Materials: This applied study employed a quasi-experimental pretest-posttest design with a control group and a three-month follow-up period. The statistical population consisted of patients with psychosomatic disorders who referred to Niayesh Psychiatric Hospital in Tehran between July 2024 and March 2025. Forty-five participants meeting inclusion criteria were selected through purposive sampling and randomly assigned to three groups: Intensive Short-Term Psychodynamic Therapy, Emotion-Focused Therapy, and a control group (15 participants in each group). The experimental groups received structured therapeutic interventions across weekly sessions, while the control group remained on a waiting list without treatment. Data were collected using the Takata and Sakata Psychosomatic Complaint Scale and the Pain Self-Efficacy Questionnaire. Data analysis was conducted using SPSS-28 at descriptive and inferential levels, including analysis of covariance, mixed analysis of variance, repeated-measures ANOVA, and Bonferroni post hoc tests.

Findings: Analysis of covariance indicated that both Intensive Short-Term Psychodynamic Therapy ($p = 0.008$) and Emotion-Focused Therapy ($p < 0.001$) significantly improved pain self-efficacy compared with the control group, with Emotion-Focused Therapy demonstrating a larger effect size. Repeated-measures analysis revealed a significant effect of time ($p < 0.001$) and a significant interaction between time and group ($p < 0.001$), confirming differential change patterns across interventions. Bonferroni post hoc comparisons showed that both experimental groups had significantly higher adjusted posttest scores than the control group, while no significant difference was observed between the two treatment approaches. Pairwise comparisons demonstrated significant improvements from pretest to posttest and from pretest to follow-up in both intervention groups, with no significant decline between posttest and follow-up, indicating stability of treatment effects.

Conclusion: Both Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy were effective in enhancing pain self-efficacy among patients with psychosomatic disorders, and the improvements remained stable over time, suggesting that emotion-oriented psychological interventions can play a significant role in strengthening adaptive coping and psychological functioning in psychosomatic populations.

Keywords: *Intensive Short-Term Psychodynamic Therapy, Emotion-Focused Therapy, Pain Self-Efficacy, Psychosomatic Disorders, Psychological Interventions, Chronic Pain.*

1. Introduction

Psychosomatic disorders represent a complex intersection between psychological processes and physical symptoms, where emotional distress, maladaptive cognitive patterns, and unresolved psychological conflicts manifest as bodily complaints without sufficient organic explanation. Contemporary biopsychosocial perspectives emphasize that psychosomatic symptoms cannot be fully understood through biomedical frameworks alone, as emotional dysregulation, interpersonal experiences, and psychological vulnerability significantly influence symptom development and persistence. Recent clinical research has demonstrated that psychological variables such as emotional processing, attachment insecurity, and maladaptive coping styles play a central role in maintaining psychosomatic conditions and chronic pain experiences (Nakhaei Moghadam et al., 2024; Shishefar et al., 2024). These findings highlight the necessity of integrating psychologically informed therapeutic interventions into the treatment of psychosomatic disorders.

Among psychological variables associated with psychosomatic conditions, pain self-efficacy has emerged as a critical construct explaining patients' adjustment to chronic symptoms. Pain self-efficacy refers to an individual's belief in their capacity to function effectively despite experiencing pain and physical discomfort. Higher levels of pain self-efficacy are associated with improved psychological resilience, greater functional adaptation, and reduced emotional distress among individuals with chronic illness (Kalapurakkel, 2014). Research indicates that patients who perceive themselves as capable of managing pain demonstrate lower disability levels and more adaptive coping responses compared with those who experience helplessness or catastrophizing thoughts. In clinical populations, pain self-efficacy has been shown to mediate the relationship between emotional regulation, psychological well-being, and life satisfaction, underscoring

its importance as both a treatment target and an outcome indicator (Charmi & Zoghi, 2023; Ying Zhou, 2024).

Psychological interventions aimed at enhancing pain self-efficacy increasingly focus on emotional processes rather than solely symptom reduction. Emotional regulation capacity strongly influences how individuals interpret bodily sensations and respond to pain-related stressors. Difficulties in emotional awareness, expression, and regulation have been linked to increased psychological dependence on pain medication, heightened rumination, and chronic symptom persistence (Kapadi et al., 2024). Similarly, research examining psychosomatic and chronic pain populations has shown that emotional expression patterns and interpersonal emotional experiences significantly predict psychological pain intensity and maladaptive coping responses (Shishefar et al., 2024). These findings suggest that therapeutic approaches targeting emotional experience and processing may be particularly effective for individuals with psychosomatic disorders.

Emotion-Focused Therapy (EFT) represents one such approach grounded in experiential and humanistic psychology. EFT conceptualizes emotional experience as the primary organizer of psychological functioning and posits that maladaptive emotions can be transformed through emotional awareness, experiential processing, and adaptive emotional restructuring. Clinical evidence demonstrates that emotion-focused interventions improve emotional regulation, resilience, and psychological adjustment among patients suffering from chronic pain and depressive symptoms (Doshmanfana et al., 2025). Therapists' experiences implementing transdiagnostic emotion-focused pain treatments further support the feasibility and clinical effectiveness of this approach, emphasizing emotional processing as a mechanism for symptom reduction and functional improvement (Löfstrand et al., 2024). By facilitating deeper emotional engagement and restructuring maladaptive emotional schemas, EFT may enhance patients' sense of agency and competence in managing psychosomatic symptoms.

Alongside emotion-focused approaches, psychodynamic therapies have gained renewed empirical support in the treatment of medically unexplained symptoms and psychosomatic disorders. Intensive Short-Term Dynamic Psychotherapy (ISTDP), developed within modern psychodynamic theory, aims to identify unconscious emotional conflicts and dismantle defensive processes that maintain psychological distress and somatic symptoms. Research indicates that ISTDP effectively reduces somatization, health anxiety, and attachment-related dysfunction in individuals experiencing chronic pain conditions (Nakhaei Moghadam et al., 2024). Controlled trials comparing telemedicine and in-person delivery of ISTDP have demonstrated significant long-term reductions in medically unexplained pain symptoms, highlighting the durability of therapeutic effects (Chavooshi et al., 2016). Moreover, systematic reviews confirm that ISTDP produces meaningful clinical improvement across mood and psychosomatic disorders by facilitating emotional experiencing and resolving intrapsychic conflict (Caldirolì et al., 2020).

The therapeutic mechanisms underlying psychodynamic interventions may directly influence pain self-efficacy. By confronting avoidance patterns and increasing emotional insight, patients gradually reinterpret bodily sensations and develop more adaptive coping strategies. Comparative studies have shown that intensive short-term dynamic psychotherapy significantly reduces anxiety sensitivity and improves psychological functioning in individuals with chronic pain conditions (Karimi et al., 2023). These outcomes suggest that psychodynamic therapy not only alleviates emotional distress but also strengthens patients' perceived capacity to tolerate and manage pain experiences, thereby improving self-efficacy beliefs.

Despite increasing empirical evidence supporting psychological interventions, many patients with psychosomatic disorders continue to experience persistent functional impairment. Research on psychosomatic populations indicates that acceptance-based, cognitive, and schema-oriented therapies improve emotional distress tolerance, meaning in life, and pain self-efficacy, further reinforcing the importance of psychological treatment models that address emotional and cognitive dimensions simultaneously (Arabkhradmand, 2021; Shareh et al., 2019). Studies conducted among patients with serious medical conditions such as cancer and chronic illness similarly demonstrate that psychological interventions can enhance pain self-efficacy while reducing catastrophizing and health

anxiety (Ebrahimkhani et al., 2024; Soleimani Namaqi et al., 2021; Soleimani Nameghi et al., 2021). These findings collectively highlight pain self-efficacy as a modifiable psychological resource capable of improving overall adaptation to illness.

Recent investigations have emphasized the role of resilience processes and developmental experiences in shaping pain self-efficacy. Early trauma exposure, resilience capacity, and emotional coping styles significantly predict patients' ability to manage chronic symptoms effectively (Sahraee Darian et al., 2017). Emerging research also suggests that psychosomatic symptoms may be intensified by broader psychosocial stressors and emotional processing deficits, indicating the need for integrative therapeutic approaches addressing both unconscious emotional conflicts and conscious emotional regulation processes (Ebrahimkhani et al., 2024; Nakhaei Moghadam et al., 2024). Consequently, combining insights from psychodynamic and emotion-focused traditions provides a theoretically coherent framework for enhancing psychological functioning in psychosomatic populations.

Although both Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy demonstrate promising outcomes individually, comparative research examining their relative effectiveness remains limited. Existing literature has largely evaluated these treatments independently rather than directly contrasting their therapeutic mechanisms and outcomes. Given that psychodynamic therapy primarily targets unconscious emotional conflict while emotion-focused therapy emphasizes experiential emotional transformation, comparing these approaches may clarify differential pathways through which psychological interventions influence pain self-efficacy and psychosomatic adjustment (Doshmanfana et al., 2025; Karimi et al., 2023). Furthermore, recent clinical trends advocate evidence-based selection of psychotherapy models tailored to specific psychological mechanisms underlying chronic pain and psychosomatic disorders (Kapadi et al., 2024; Ying Zhou, 2024).

In light of the growing prevalence of psychosomatic disorders and the substantial burden they impose on healthcare systems and patients' quality of life, identifying effective therapeutic interventions remains a clinical priority. Psychological treatments capable of strengthening pain self-efficacy may reduce symptom chronicity, improve emotional functioning, and promote adaptive coping. Comparative evaluation of intensive short-term

psychodynamic therapy and emotion-focused therapy therefore offers valuable insight into optimizing psychotherapy for psychosomatic populations by integrating emotion regulation, experiential processing, and intrapsychic conflict resolution.

Accordingly, the aim of the present study was to compare the effectiveness of Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy on pain self-efficacy among patients with psychosomatic disorders.

2. Methods and Materials

2.1. Study Design and Participants

The present study was an applied research project conducted using a quasi-experimental methodology based on a pretest–posttest design with a control group and a follow-up phase. Considering the research objective, which was to evaluate and compare therapeutic effectiveness across psychological interventions, this design enabled the assessment of causal relationships while maintaining ecological validity in a clinical setting. The study population consisted of all patients diagnosed with psychosomatic disorders who referred to Niayesh Psychiatric Hospital in Tehran, Iran, to receive specialized psychological and psychiatric services between July 2024 and March 2025.

Participants were selected according to clearly defined inclusion criteria to ensure diagnostic homogeneity and methodological rigor. Eligible individuals were required to possess at least a high school diploma, receive a confirmed diagnosis of psychosomatic disorder by both a psychiatrist and a clinical psychologist, and complete a written informed consent form indicating voluntary participation in treatment and research procedures. Participants were required not to attend concurrent individual counseling or psychotherapy sessions during the intervention period in order to prevent treatment contamination. Individuals were included only if they did not suffer from severe psychiatric disorders and were considered to have a stable general health condition. The age range was restricted to 20 to 40 years to reduce developmental variability, and participants were required to obtain a score higher than 40 on the Psychosomatic Complaint Questionnaire, indicating clinically meaningful symptom severity.

Exclusion criteria were also established to preserve internal validity. Participants were removed from the study if they were absent from more than two treatment sessions or expressed unwillingness to continue participation at any stage of the intervention or follow-up process.

Sample size determination was conducted using Cohen's sample size estimation table (1981). Initial calculations indicated a minimum of 10 participants per group; however, considering possible attrition and recommendations from comparable intervention studies suggesting larger therapeutic groups, a total sample of 45 participants was ultimately selected. Participants who met inclusion criteria and simultaneously obtained scores above 45 on the psychosomatic disorder questionnaire, below 35 on the pain self-efficacy scale, and above 50 on the alexithymia measure were included in the final sample. Sampling was performed using a nonrandom purposive method based on clinical eligibility.

After recruitment, participants received detailed explanations regarding the research objectives, therapeutic procedures, ethical considerations, confidentiality principles, and voluntary withdrawal rights. Following baseline assessment, participants were assigned to three groups consisting of two experimental groups and one control group, each including 15 individuals. One experimental group received Intensive Short-Term Psychodynamic Therapy, the second experimental group received Emotion-Focused Therapy, and the control group remained on a waiting list without receiving psychological intervention during the study period. After completion of the treatment phase, participants completed posttest assessments. A follow-up evaluation was conducted three months after the posttest to examine the stability and durability of treatment effects over time.

2.2. Measures

Psychosomatic symptoms were assessed using the Takata and Sakata Psychosomatic Complaint Scale. This instrument consists of 30 items measuring the frequency and intensity of psychosomatic complaints. Responses are scored on a four-point Likert scale ranging from “never” (0) to “frequently” (3), yielding a total score between 0 and 90, where higher scores indicate greater psychosomatic symptom severity. Previous research reported Cronbach's alpha coefficients ranging between 0.90 and 0.93 across repeated administrations, demonstrating strong internal consistency. Construct validity analyses supported a single-factor structure explaining approximately 31% to 34% of the variance. Validation studies conducted in Iran confirmed acceptable concurrent validity (0.68), test–retest reliability (0.83), and internal consistency reliability (0.85). In the present study, the internal consistency reliability estimated

through Cronbach's alpha was 0.80, indicating satisfactory reliability within the research sample.

Pain self-efficacy was measured using the Pain Self-Efficacy Questionnaire developed by Nicholas based on Bandura's self-efficacy theory. The questionnaire includes 10 items assessing patients' perceived capability to perform daily activities despite experiencing pain. Each item is rated on a seven-point Likert scale ranging from 0 to 6, producing total scores between 0 and 60. Higher scores reflect stronger perceived self-efficacy in managing chronic pain conditions. Previous studies reported high internal consistency reliability with a Cronbach's alpha of 0.91 and evidence of divergent validity relative to pain intensity measures. Validation of the Persian version demonstrated strong reliability (Cronbach's alpha = 0.92) and acceptable convergent validity with the General Self-Efficacy Scale ($r = 0.52$). In the current study, Cronbach's alpha for the Pain Self-Efficacy Questionnaire was calculated as 0.79, confirming adequate internal consistency for analytical purposes.

Following completion of the therapeutic interventions, participants in all groups responded to the study questionnaires at posttest. During the intervention phase, the control group remained untreated and continued routine clinical monitoring only. Three months after posttest assessment, all participants completed follow-up measurements to evaluate maintenance of therapeutic outcomes.

2.3. Interventions

The Emotion-Focused Therapy (EFT) intervention was developed based on the theoretical principles, stages, and therapeutic techniques proposed by Goldman and Greenberg (2015). An initial treatment program specifically adapted for psychosomatic disorders was designed, and its content validity was established through expert review by five psychologists and counselors specialized in psychosomatic conditions. Their feedback was collected across several iterative stages and incorporated into the final protocol. The intervention was implemented in ten structured sessions aimed at facilitating emotional awareness, processing, regulation, and integration. The initial session focused on establishing a secure therapeutic alliance, explaining treatment goals, administering the pretest, and introducing the relationship between emotional processes and psychosomatic symptoms, thereby enhancing trust and engagement. In subsequent sessions, therapists guided

participants toward identifying painful emotional experiences, exploring maladaptive emotional processing patterns, and fostering acceptance of emotions. Experiential techniques were used to uncover primary emotions and attachment needs through emotional exploration and trauma-related experiential reenactment. Middle sessions emphasized deep emotional engagement through awareness, expression, regulation, and transformation of emotional experiences, including the use of experiential chair work to distinguish primary, secondary, and instrumental emotions. Therapists also worked with emotional blockages that prevented access to authentic emotional experiences, encouraging participants to relinquish avoidance patterns and experience emotions more directly. Later sessions focused on consolidation and integration, helping patients reconstruct adaptive emotional responses, symbolically reinterpret suppressed wishes, and reorganize interpersonal interaction patterns. Object-relational representations were explored by linking current emotional themes to internalized images of significant others. Creative experiential techniques such as body work, movement, imagery, and expressive activities were employed to stabilize a newly constructed sense of self and generalize therapeutic gains to future situations. The final session emphasized meaning reconstruction, development of new coping narratives, role-playing adaptive responses to life challenges, and administration of posttest assessments, with the expected behavioral outcome being improved emotional regulation, enhanced psychological insight, and increased adaptive functioning in the presence of psychosomatic symptoms.

The Intensive Short-Term Psychodynamic Therapy (ISTDP) protocol consisted of nine weekly sessions lasting approximately 75 minutes each and was implemented according to Davanloo's short-term dynamic psychotherapy manual (1995; Persian translation by Khalighi Sigaroudi, 2018). The intervention was grounded in psychodynamic principles emphasizing unconscious conflict, defensive processes, emotional resistance, and experiential emotional breakthrough. The first session involved therapeutic orientation, clarification of treatment rules, and an initial dynamic interview referred to as trial therapy, during which therapists evaluated defensive patterns and emotional responsiveness while introducing patients to the experiential foundations of short-term psychodynamic treatment. Subsequent sessions focused on identifying and restructuring tactical defenses used by patients to avoid emotional awareness, with therapeutic interventions tailored to each individual's defensive organization to enhance

moment-to-moment emotional awareness and mindfulness. Therapists systematically examined patients' verbal expressions, indirect communication styles, maladaptive cognitions, and pathological defensive speech patterns, actively challenging defenses and encouraging patients to confront avoided emotional experiences without judgment. As treatment progressed, interventions targeted common defenses such as rumination, rationalization, intellectualization, overgeneralization, denial, and emotional avoidance. Techniques including clarification, pressure, challenge, blocking of defenses, and fostering decisiveness were used to reduce resistance and facilitate emotional experiencing. Sessions addressing emotional regulation emphasized recognition of avoidance tactics such as distraction or forgetting, promoting increased realism, reduced self-criticism, and enhanced psychological flexibility. Later sessions concentrated on confronting resistance to emotional disclosure and helping patients recognize that emotions and thoughts are dynamic processes rather than fixed psychological states. Therapists encouraged direct emotional expression, attention to nonverbal signals, and movement from passive compliance toward active emotional engagement. Through repeated confrontation of defenses and experiential emotional activation, patients were guided toward emotional disclosure, restructuring of negative attitudes toward emotions, and integration of previously avoided affective experiences. The final session involved therapeutic consolidation, review of treatment progress, emotional integration, termination procedures, and reinforcement of adaptive psychological functioning, with expected outcomes including reduction of maladaptive emotional defenses, liberation from persistent negative emotional patterns, and increased psychological flexibility and emotional insight.

2.4. Data Analysis

Because the collected data were quantitative in nature, statistical analysis was conducted using quantitative analytical procedures. Data processing and statistical analyses were performed using SPSS software version 28. Data analysis was carried out at two complementary levels, including descriptive and inferential statistics.

At the descriptive level, demographic characteristics and research variables were summarized using frequency distributions, percentages, means, and standard deviations in order to provide an overall profile of the sample and to examine baseline equivalence among study groups.

At the inferential level, statistical tests were selected according to measurement scale properties and assumptions underlying parametric analyses. Prior to hypothesis testing, assumptions including normal distribution of data, homogeneity of variances, homogeneity of covariance matrices, and the sphericity assumption were examined. To evaluate treatment effectiveness across time and between groups, mixed analysis of variance procedures were applied. Multivariate analysis of variance (MANOVA) was used to examine group differences across dependent variables simultaneously, while repeated-measures analysis of variance was employed to assess within-subject changes across pretest, posttest, and follow-up stages. Bonferroni post hoc comparisons were conducted to identify specific differences between intervention conditions and to control for Type I error in multiple comparisons.

3. Findings and Results

The demographic characteristics of the participants indicated that the three study groups were comparable across gender, marital status, and educational level, with no statistically significant differences observed between groups. In the intensive short-term psychodynamic therapy group, 73.3% of participants were female and 26.7% were male, while the emotion-focused therapy group consisted of 60% females and 40% males, and the control group included 73.3% females and 26.7% males, with no significant difference in gender distribution ($p = 0.661$). Regarding marital status, 66.7% of participants in the psychodynamic therapy group were single and 33.3% were married; in the emotion-focused therapy group, 60% were single and 40% were married; and in the control group, 73.3% were single and 26.7% were married, again demonstrating no significant group differences ($p = 0.741$). Educational attainment also showed similar distributions across groups. In the psychodynamic therapy group, 26.7% held a diploma, 60% had an associate or bachelor's degree, and 13.3% possessed a master's or doctoral degree. In the emotion-focused therapy group, 20% had a diploma, 60% held associate or bachelor's degrees, and 20% had postgraduate degrees. Within the control group, 33.3% had a diploma, 53.3% held associate or bachelor's degrees, and 13.3% had postgraduate education. The absence of statistically significant differences in educational level among groups ($p = 0.930$) confirms baseline demographic homogeneity, supporting the internal validity of subsequent comparisons of treatment outcomes.

Table 1

Descriptive Statistics of Pain Self-Efficacy by Group and Measurement Time

Variable	Time	Intensive Short-Term Psychodynamic Therapy		Emotion-Focused Therapy		Control Group	
		Mean	SD	Mean	SD	Mean	SD
Pain Self-Efficacy	Pretest	40.67	8.37	41.20	8.07	43.00	8.38
	Posttest	46.53	6.15	49.47	6.21	42.13	10.11
	Follow-up	46.20	6.80	48.33	6.61	43.47	10.24

Table 1 presents the descriptive statistics of pain self-efficacy across the three groups at pretest, posttest, and follow-up stages. At the pretest stage, the mean scores of pain self-efficacy were relatively similar among the intensive short-term psychodynamic therapy group ($M = 40.67$, $SD = 8.37$), the emotion-focused therapy group ($M = 41.20$, $SD = 8.07$), and the control group ($M = 43.00$, $SD = 8.38$), indicating baseline equivalence among participants prior to intervention. Following treatment, noticeable improvements were observed in both experimental groups. The psychodynamic therapy group showed an increase in pain self-efficacy at posttest ($M = 46.53$, $SD = 6.15$), while the emotion-focused therapy group demonstrated a larger increase ($M = 49.47$, $SD = 6.21$). In contrast, the control group displayed minimal change ($M = 42.13$, $SD = 10.11$). At the follow-up stage, gains in pain self-efficacy were largely maintained in both intervention groups, with mean scores remaining higher than baseline levels (psychodynamic therapy: $M = 46.20$, $SD = 6.80$; emotion-focused therapy: $M = 48.33$, $SD = 6.61$), whereas the control group exhibited only a slight increase compared to pretest ($M = 43.47$, $SD = 10.24$). Overall, the descriptive findings suggest sustained improvement in pain self-efficacy among

participants receiving psychological interventions, particularly those undergoing emotion-focused therapy.

Prior to conducting inferential statistical analyses, the assumptions underlying parametric tests were examined to ensure the appropriateness of mixed analysis of variance procedures. The normality of data distribution for pain self-efficacy scores across groups and measurement stages was evaluated using the Shapiro–Wilk test as well as inspection of skewness and kurtosis indices, all of which indicated acceptable normal distribution patterns. Homogeneity of variances between groups was assessed using Levene’s test, confirming that variance equality assumptions were satisfied at all measurement times. The homogeneity of covariance matrices was examined through Box’s M test, and results demonstrated no significant violation, supporting comparability of covariance structures across groups. In addition, the sphericity assumption related to repeated measurements was tested using Mauchly’s test; when necessary, Greenhouse–Geisser corrections were applied to adjust degrees of freedom. Overall, the results confirmed that statistical assumptions for conducting mixed ANOVA, multivariate analysis of variance, and repeated-measures analyses were adequately met, allowing reliable interpretation of intervention effects on pain self-efficacy.

Table 2

Results of Analysis of Covariance Examining the Effectiveness of Interventions on Pain Self-Efficacy

Variable	Source of Effect	Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Pain Self-Efficacy	Intensive Short-Term Psychodynamic Therapy	274.80	1	274.80	8.24	0.008	0.234
	Emotion-Focused Therapy	565.79	1	565.79	18.80	<0.001	0.410

Table 2 presents the results of the analysis of covariance assessing the effectiveness of the two therapeutic interventions on pain self-efficacy after controlling for pretest scores. The findings indicate that both Intensive Short-Term Psychodynamic Therapy and Emotion-Focused

Therapy significantly improved pain self-efficacy compared with baseline levels. The psychodynamic therapy intervention demonstrated a statistically significant effect ($F = 8.24$, $p = 0.008$) with a partial eta squared of 0.234, suggesting a moderate effect size. Emotion-Focused

Therapy showed a stronger effect ($F = 18.80, p < 0.001$) with a larger partial eta squared value of 0.410, indicating a substantial proportion of variance in pain self-efficacy explained by this intervention. Overall, the ANCOVA

results confirm that both therapeutic approaches were effective, with Emotion-Focused Therapy producing a comparatively greater impact.

Table 3

Repeated Measures Analysis Results for Stability of Intervention Effects on Pain Self-Efficacy

Variable	Source of Effect	Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Pain Self-Efficacy	Group	270.93	2	135.47	0.838	0.440	0.038
	Time	580.84	1.69	344.46	18.59	<0.001	0.307
	Time $\times$ Group	361.16	3.37	107.09	5.78	<0.001	0.216

Table 3 shows the results of repeated measures analysis evaluating the stability of treatment effectiveness across measurement stages. The main effect of group was not statistically significant ($F = 0.838, p = 0.440$), indicating that overall mean differences between groups alone were insufficient to explain outcome variation. However, the main effect of time was significant ($F = 18.59, p < 0.001$), demonstrating that pain self-efficacy changed meaningfully

across pretest, posttest, and follow-up measurements. Importantly, the interaction effect between time and group was also significant ($F = 5.78, p < 0.001$), suggesting that changes over time differed depending on the intervention received. The moderate effect size of the interaction ($\eta^2 = 0.216$) indicates that therapeutic interventions influenced the trajectory of improvement, supporting the stability and maintenance of treatment gains across time.

Table 4

Bonferroni Post Hoc Test Comparing Intervention Effectiveness on Pain Self-Efficacy at Posttest

Variable	Group	Adjusted Posttest Mean	Standard Error	Reference Group	Comparison Group	Mean Difference	p
Pain Self-Efficacy	Intensive Short-Term Psychodynamic Therapy	47.16	1.43	Psychodynamic Therapy	Control	5.94	0.017
	Emotion-Focused Therapy	49.75	1.43	Emotion-Focused Therapy	Control	8.52	<0.001
	Control	41.22	1.43	Psychodynamic Therapy	Emotion-Focused Therapy	-2.58	0.622

Table 4 presents Bonferroni post hoc comparisons examining group differences in pain self-efficacy at the posttest stage. The results indicate that participants receiving Intensive Short-Term Psychodynamic Therapy achieved significantly higher pain self-efficacy scores than the control group (mean difference = 5.94, $p = 0.017$). Similarly, Emotion-Focused Therapy produced significantly greater improvements compared with the control group (mean

difference = 8.52, $p < 0.001$), reflecting stronger therapeutic effectiveness. However, no statistically significant difference was observed between the two experimental interventions ($p = 0.622$), suggesting that although Emotion-Focused Therapy showed numerically higher adjusted means, both interventions were comparably effective in enhancing pain self-efficacy at posttest.

Table 5

Pairwise Comparisons of Pain Self-Efficacy Across Measurement Times

Variable	Group	Reference Time	Comparison Time	Mean Difference	p
Pain Self-Efficacy	Intensive Short-Term Psychodynamic Therapy	Pretest	Posttest	-5.87	0.006
		Pretest	Follow-up	-5.53	0.011
		Posttest	Follow-up	0.33	0.718
	Emotion-Focused Therapy	Pretest	Posttest	-8.27	<0.001
		Pretest	Follow-up	-7.13	<0.001
		Posttest	Follow-up	1.13	0.392
	Control	Pretest	Posttest	0.87	0.520
		Pretest	Follow-up	-0.47	0.713
		Posttest	Follow-up	-1.33	0.223

Table 5 displays pairwise comparisons across measurement times within each group. In the Intensive Short-Term Psychodynamic Therapy group, significant improvements were observed from pretest to posttest ($p = 0.006$) and from pretest to follow-up ($p = 0.011$), indicating meaningful enhancement of pain self-efficacy following treatment. The absence of significant difference between posttest and follow-up ($p = 0.718$) suggests that therapeutic gains remained stable over time. A similar pattern emerged for the Emotion-Focused Therapy group, where significant increases occurred from pretest to posttest and from pretest to follow-up (both $p < 0.001$), demonstrating strong and sustained treatment effects. No significant change was detected between posttest and follow-up, confirming maintenance of improvement. In contrast, the control group showed no significant differences across any measurement points, indicating that observed improvements were attributable to therapeutic interventions rather than passage of time alone. Overall, the results support both interventions as effective and durable approaches for enhancing pain self-efficacy in patients with psychosomatic disorders.

4. Discussion and Conclusion

The present study aimed to compare the effectiveness of Intensive Short-Term Psychodynamic Therapy (ISTDP) and Emotion-Focused Therapy (EFT) on pain self-efficacy in patients with psychosomatic disorders. The findings demonstrated that both therapeutic interventions significantly improved pain self-efficacy compared with the control group, and these improvements were maintained at the follow-up stage. Descriptive results showed noticeable increases in pain self-efficacy scores in both experimental groups from pretest to posttest, while the control group displayed no meaningful change across measurement stages. Inferential analyses further confirmed that both treatments exerted statistically significant effects, with Emotion-Focused Therapy producing a somewhat larger effect size

than Intensive Short-Term Psychodynamic Therapy. Additionally, repeated-measures results revealed significant time and time-by-group interaction effects, indicating that improvements were attributable to therapeutic intervention rather than natural recovery or passage of time.

The increase in pain self-efficacy following ISTDP intervention can be interpreted within psychodynamic theory, which emphasizes emotional awareness, confrontation of defenses, and resolution of unconscious conflicts underlying somatic distress. Psychosomatic symptoms are often conceptualized as bodily expressions of unresolved emotional experiences and attachment-related anxieties. Through systematic identification and challenge of maladaptive defenses, ISTDP enables patients to experience previously avoided emotions directly, thereby reducing psychological tension manifested as physical symptoms. The effectiveness of ISTDP observed in this study aligns with prior research demonstrating reductions in somatization and health anxiety among chronic pain patients receiving intensive short-term dynamic psychotherapy (Nakhaei Moghadam et al., 2024). Similarly, controlled clinical trials have shown that ISTDP significantly improves medically unexplained pain outcomes by facilitating emotional processing and increasing psychological flexibility (Chavooshi et al., 2016). A critical review of psychodynamic interventions also supports their capacity to enhance emotional integration and functional recovery across mood and psychosomatic disorders (Caldirola et al., 2020).

From a psychological perspective, improvement in pain self-efficacy following psychodynamic therapy may occur because emotional insight transforms patients' interpretations of bodily sensations. When individuals recognize that emotional conflicts contribute to physical discomfort, catastrophic interpretations of pain decrease and perceived coping capacity increases. Previous comparative research reported that ISTDP reduces anxiety sensitivity and enhances psychological adjustment among individuals with

chronic pain, outcomes closely related to increased self-efficacy beliefs (Karimi et al., 2023). These findings support the notion that resolving emotional avoidance allows patients to shift from passive suffering toward active engagement with pain management.

Emotion-Focused Therapy demonstrated particularly strong effectiveness in enhancing pain self-efficacy, which can be explained by its direct emphasis on emotional awareness, emotional transformation, and adaptive emotional regulation. EFT views emotions as primary mechanisms guiding meaning-making and behavioral responses. Many patients with psychosomatic disorders struggle with alexithymia, emotional suppression, and maladaptive emotional processing, factors that intensify bodily symptoms. By helping individuals identify, accept, and regulate emotional experiences, EFT promotes adaptive coping and reduces emotional overload associated with chronic pain. Empirical evidence indicates that emotion-focused interventions significantly improve emotional regulation and resilience among patients with chronic pain and depressive symptoms (Doshmanfana et al., 2025). Clinical implementation studies further suggest that emotion-focused pain treatments foster patient engagement and facilitate long-term psychological adaptation by transforming maladaptive emotional schemas (Löfstrand et al., 2024).

The superior effect size observed for EFT may also relate to the central role of emotion regulation in pain self-efficacy. Research demonstrates that effective emotional regulation reduces rumination, dependence on pain medication, and psychological vulnerability among individuals experiencing chronic pain (Kapadi et al., 2024). Emotional processing enhances individuals' sense of control over internal experiences, which directly strengthens beliefs about their ability to function despite pain. Studies examining emotional expression and psychological pain confirm that emotional awareness and healthy expression significantly predict psychological adjustment and reduced distress (Shishefar et al., 2024). Consequently, EFT's structured focus on emotional transformation may accelerate development of adaptive coping beliefs compared with therapies that emphasize insight alone.

The results of the present study are also consistent with broader literature highlighting pain self-efficacy as a resilience mechanism. Higher pain self-efficacy enables patients to maintain functional engagement despite discomfort and reduces disability associated with chronic illness (Kalapurakkel, 2014). Research examining older

surgical patients demonstrated that emotional regulation and cognitive coping processes strengthen pain management self-efficacy, ultimately improving recovery outcomes (Ying Zhou, 2024). In psychosomatic populations, strengthening self-efficacy appears to mediate improvements in psychological well-being, suggesting that psychological therapies exert indirect health benefits through cognitive-emotional pathways.

The findings also align with studies demonstrating that diverse psychological treatments can enhance pain self-efficacy across clinical populations. Acceptance-based interventions have been shown to increase emotional distress tolerance and meaning in life while simultaneously improving pain self-efficacy among patients with neurological disorders (Shareh et al., 2019). Similarly, schema therapy interventions targeting maladaptive cognitive-emotional patterns significantly improved pain acceptance and self-efficacy in surgical patients (Arabkhradmand, 2021). Cognitive therapeutic approaches have likewise enhanced pain self-efficacy while reducing catastrophizing among patients coping with severe medical illness (Ebrahimkhani et al., 2024). These converging findings indicate that psychological interventions capable of modifying emotional and cognitive responses to pain consistently strengthen perceived coping ability.

Another important interpretation concerns the maintenance of treatment effects at follow-up. Both interventions produced stable improvements, suggesting that therapeutic gains were internalized rather than dependent solely on therapist support. Stability of change may reflect restructuring of emotional schemas and development of enduring self-regulatory skills. Structural modeling research indicates that pain self-efficacy interacts with internal health locus of control and positive meta-emotions to sustain psychological health over time (Soleimani Namaqi et al., 2021; Soleimani Nameghi et al., 2021). Additionally, resilience-based studies emphasize that self-efficacy functions as a protective factor linking psychological resources to long-term adaptation following medical trauma (Sahraee Darian et al., 2017). Therefore, sustained improvement observed in this study suggests that both ISTDP and EFT successfully promoted enduring psychological change.

The absence of significant improvement in the control group further strengthens interpretation of treatment effectiveness. Without psychological intervention, pain self-efficacy remained relatively unchanged, indicating that spontaneous recovery was insufficient to produce

meaningful improvement. Psychosomatic disorders often involve chronic emotional and cognitive patterns that require structured therapeutic intervention for modification. The present findings therefore support contemporary views that psychological treatment constitutes an essential component of comprehensive psychosomatic care.

Taken together, the results suggest that both Intensive Short-Term Psychodynamic Therapy and Emotion-Focused Therapy are effective interventions for enhancing pain self-efficacy in patients with psychosomatic disorders, although EFT may exert a slightly stronger influence due to its direct engagement with emotional regulation mechanisms. Psychodynamic therapy appears particularly effective in addressing unconscious emotional conflicts and defensive patterns, whereas emotion-focused therapy facilitates experiential emotional transformation and adaptive emotional processing. Rather than competing approaches, these treatments may represent complementary pathways targeting different but interrelated psychological mechanisms underlying psychosomatic symptoms.

Despite its valuable contributions, the present study has several limitations that should be acknowledged. The sample size was relatively small, which may limit generalizability of findings to broader clinical populations. Participants were recruited from a single psychiatric hospital, potentially restricting cultural and contextual variability. The use of purposive nonrandom sampling may also introduce selection bias. Additionally, reliance on self-report questionnaires could increase susceptibility to response bias or social desirability effects. The follow-up period, although informative, was limited to three months and therefore does not fully capture long-term sustainability of therapeutic outcomes. Finally, potential therapist effects and individual differences in treatment delivery were not controlled, which may have influenced observed treatment efficacy.

Future studies are encouraged to replicate these findings using larger and more diverse samples across multiple clinical centers to enhance external validity. Longitudinal research designs with extended follow-up periods would allow examination of long-term maintenance of pain self-efficacy improvements. Comparative studies integrating physiological indicators of psychosomatic functioning alongside psychological measures may provide a more comprehensive understanding of treatment mechanisms. Investigating mediating variables such as emotional awareness, attachment patterns, or cognitive flexibility could clarify how psychodynamic and emotion-focused therapies produce change. Future research may also explore

integrative or combined treatment protocols that merge psychodynamic insight-oriented techniques with emotion-focused experiential interventions to maximize therapeutic effectiveness.

Clinicians working with psychosomatic patients should consider incorporating emotion-focused and psychodynamic approaches as evidence-based interventions for improving pain self-efficacy. Treatment programs may benefit from emphasizing emotional awareness, expression, and regulation alongside exploration of underlying psychological conflicts. Mental health professionals should receive specialized training in experiential emotional techniques and defense-focused psychodynamic strategies to address complex psychosomatic presentations effectively. Healthcare systems may integrate psychological therapies into multidisciplinary pain management programs to enhance patient functioning and reduce chronic symptom burden. Early psychological intervention targeting emotional processes may prevent chronicity of psychosomatic symptoms and promote long-term adaptive coping among patients.

Authors' Contributions

All authors significantly contributed to this study.

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 Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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