


Comparison of the Effectiveness of Dialectical Behavior Therapy and Meichenbaum-Based Cognitive Therapy on Fear of Negative Evaluation in Students with Social Anxiety Disorder

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ABSTRACT

Purpose: The present study aimed to compare the effectiveness of Dialectical Behavior Therapy (DBT) and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation in students with social anxiety disorder.

Methods and Materials: This study employed a quasi-experimental design with a pretest-posttest control group and a two-month follow-up. The statistical population consisted of female lower secondary school students in the Tabadkan district of Mashhad during the 2023–2024 academic year. From this population, 45 students diagnosed with social anxiety were selected using purposive sampling and were randomly assigned into two experimental groups and one control group (15 participants per group). The first experimental group received eight 60-minute sessions of Dialectical Behavior Therapy, while the second experimental group received ten 60-minute sessions of Meichenbaum-based Cognitive Therapy. The control group received no intervention throughout the study. The research instrument was the Fear of Negative Evaluation Questionnaire by Watson and Friend (1969), which was administered as a pretest, posttest, and follow-up measure across all three groups. The data were analyzed using SPSS-26 software, employing repeated measures analysis of variance (ANOVA) and post-hoc tests.

Findings: The results indicated that both therapeutic methods significantly reduced fear of negative evaluation, and there was no significant difference between the two interventions ($p < 0.005$).

Conclusion: Based on these findings, it can be concluded that both Dialectical Behavior Therapy and Meichenbaum-based Cognitive Therapy are effective in reducing fear of negative evaluation. Therefore, either approach can be used to assist students with social anxiety disorder.

Keywords: Fear of negative evaluation, social anxiety, Dialectical Behavior Therapy (DBT), Meichenbaum-based Cognitive Therapy.

1. Introduction

Social anxiety disorder is one of the most prevalent anxiety disorders, affecting approximately 7% of the global population in various ways. It is a chronic anxiety disorder characterized by an intense fear of performance and social situations, which leads to the avoidance of such contexts (Naderi et al., 2022). Social anxiety is an emotional state defined by persistent concern and fear of being negatively evaluated in social settings (Kingsbury & Coplan, 2015), and it results in impaired social interactions (Yahyaee-Lahkaei et al., 2022). This condition can have detrimental effects on individuals' lives, particularly among adolescents and young adults (Hofmann et al., 2021). Negative consequences of social anxiety in students include reduced academic performance, diminished social interactions, increased loneliness, and, in some cases, the development of depression. These problems can directly impact their quality of life and future academic and career prospects (Naderi et al., 2022).

For adolescents with high levels of social anxiety, participation in social situations can be a major source of stress and tension, especially when they fear negative judgment from others. Fear of negative evaluation is one of the key factors in the development and maintenance of social anxiety disorder. Simply put, fear of negative evaluation refers to a social anxiety involving an individual's concern and apprehension about how others judge them (Button & Kounali, 2015). Rapee and Heimberg (2007) considered fear of negative evaluation as a central characteristic of social anxiety that significantly contributes to the emergence and maintenance of irrational and intense anxiety in social situations (Rapee & Heimberg, 2021). A prominent feature of individuals with social anxiety is an excessive worry or fear that others may think poorly of them (Heimberg et al., 2016). Consequently, people with social anxiety disorder become highly aroused in any situation where they might be evaluated by others and tend to avoid most circumstances in which they may be observed or interact with others (McEvoy et al., 2022). This avoidance prevents the restructuring of fear-based cognitive schemas in the individual (Montazeri et al., 2021).

Given the serious consequences of fear of negative evaluation, finding effective therapeutic interventions to reduce this fear is of great importance. One of the emerging and effective approaches in this field is Dialectical Behavior Therapy (DBT). Developed by Marsha Linehan, this therapeutic approach targets four core dysfunctional areas in

individuals with psychological disorders—mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness—as components of change (Amighi et al., 2023; Baharlou et al., 2023). According to research by Villalongo Andino (2024), DBT skill training has been effective in reducing social anxiety. Similarly, studies by Baharlou et al. (2023) have shown that this therapeutic approach positively impacts emotion regulation in individuals with social anxiety (Baharlou et al., 2023).

On the other hand, Meichenbaum-based Cognitive Therapy is a short-term, present-oriented approach that focuses on behavioral and cognitive competencies necessary for adaptive functioning in intrapersonal and interpersonal domains. Through this therapy, individuals learn to replace irrational belief systems and maladaptive behaviors with a sense of self-esteem, self-efficacy, social behaviors, and ultimately, improved interpersonal relationships and increased activity levels. Meichenbaum describes cognitive structure as an organizing aspect of thinking that appears to guide and regulate thought selection. This structure focuses on maintaining thought patterns and determining when certain thoughts should emerge, be interrupted, or be modified (Montazeri et al., 2021).

Despite evidence supporting the efficacy of both approaches, few studies have directly compared the effectiveness of Dialectical Behavior Therapy and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation. Exploring this comparison could help identify the most effective intervention for students with social anxiety disorder and offer practical strategies to enhance adolescent mental health. Therefore, the present study seeks to answer the following question: Is there a significant difference between the effectiveness of Dialectical Behavior Therapy and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation in students with social anxiety disorder?

2. Methods and Materials

2.1. Study Design and Participants

This study employed a quasi-experimental design with a pretest-posttest control group and a two-month follow-up. Participants were randomly assigned to three groups (two experimental groups and one control group). The interventions included Dialectical Behavior Therapy (DBT) and Meichenbaum-based Cognitive Therapy, and the changes in fear of negative evaluation (the dependent variable) were assessed.

The statistical population consisted of female high school students (aged 15 to 18) in the Tabadkan district of Mashhad, who were identified as having social anxiety disorder and fear of negative evaluation. From this population, 45 individuals were selected through purposive sampling. These individuals were screened using a semi-structured clinical interview and the Fear of Negative Evaluation Questionnaire, and were then randomly assigned to three groups of 15: Experimental Group 1 received Dialectical Behavior Therapy; Experimental Group 2 received Meichenbaum-based Cognitive Therapy; and the Control Group received no intervention (placed on a waiting list for treatment).

2.2. Measures

To assess fear of negative evaluation, the Watson and Friend (1969) questionnaire was used. This instrument measures fear of negative evaluation through 30 items. The items reflect symptoms of anxiety and socially maladaptive behavior that may result in rejection by others. The questionnaire includes 17 positively worded items and 13 negatively worded items, scored on a 5-point Likert scale (from 1 = strongly disagree to 5 = strongly agree). Higher scores indicate greater fear of negative evaluation. Regarding the validity and reliability of this questionnaire, it has demonstrated strong internal consistency. Internal stability was initially calculated through the correlation of each item with the total test score. In Watson and Friend's (1969) study, the mean item-total correlation was 0.72. In Iran, a study conducted on adolescents reported a Cronbach's alpha of 0.90. The test-retest reliability for the short form of the test over a 4-week interval was reported to be 0.75. Additionally, in the study by Sabkebari et al. (2023), the test-retest reliability was found to be 0.98 and the internal consistency (Cronbach's alpha) was 0.83. To assess the construct validity of the Fear of Negative Evaluation Questionnaire, the correlation between this version and the original version was first calculated and found to be 0.96. The criterion validity of the instrument was also confirmed through its correlation with anxiety, avoidance, and participants' level of discomfort from negative evaluation by others (Ahmadabadi et al., 2024).

2.3. Interventions

In this study, the Dialectical Behavior Therapy intervention protocol developed by Lynch et al. (2003) was implemented over eight sessions (Lynch et al., 2006). In the

first session, participants were introduced to the concept of dialectics, its principles, and dialectical ways of thinking and behaving, along with the foundational concept of mindfulness and the three states of mind (reasonable mind, emotional mind, and wise mind). The second session focused on two categories of mindfulness skills: "what" skills (observing, describing, and participating) and "how" skills (non-judgmental stance, mindfulness, and effective action). The third session covered distress tolerance strategies, including crisis survival and distraction techniques. In the fourth session, participants learned self-soothing skills using the five senses. The fifth session involved learning how to improve the moment and the pros and cons technique. The sixth session introduced the second part of distress tolerance—reality acceptance skills, including radical acceptance, turning the mind, and willingness. The seventh session initiated the first component of emotion regulation, teaching the nature and components of emotions, how to identify and label emotions, accept even negative emotions, and implement the "PLEASE" skill set. In the eighth session, the second part of emotion regulation was addressed, focusing on generating positive emotional experiences through short- and long-term strategies (fun activities, goal setting, relationships, and mindful awareness of positive experiences), and teaching emotional suffering reduction through acceptance and opposite action techniques.

This intervention followed Meichenbaum's (2007) cognitive-behavioral therapy model (Meichenbaum, 2020) and was conducted over ten 60-minute sessions held twice weekly. In the first session, rapport was established, group rules were explained, and an overview of CBT and its relevance to social anxiety was provided. The second session explored anxiety-provoking factors, their behavioral impact, and included problem classification and treatment goal setting, as well as identifying negative emotions and associated thoughts. The third session introduced the cognitive-behavioral model, cognitive distortions, and techniques for challenging and replacing maladaptive thoughts. In the fourth session, participants received thought monitoring sheets and weekly activity logs, and were taught to identify anxiety-triggering thoughts and evaluate them using verbal challenges and behavioral experiments. The fifth session employed techniques such as downward arrow questioning, pros and cons analysis, and Socratic questioning, alongside creating a pleasurable activity list, activity scheduling, and reviewing short- and long-term goals. The sixth session included progressive muscle

relaxation, thought-stopping, cognitive error recognition, and problem-solving practice. In the seventh session, participants were guided to identify core beliefs, enhance social and assertiveness skills, and use imagery-based exposure. The eighth session covered cognitive restructuring, logical self-expression, role-playing, assertiveness training, interpersonal skills, positive self-talk, and self-control strategies. The ninth session focused on mental rehearsal, real-life exposure, practicing learned skills, and receiving feedback. The tenth and final session involved reviewing all content, introducing supplemental readings, concluding the program, and administering the post-test.

Table 1

Descriptive Statistics of the Variables by Test Phases and Group

Variable	Group	Pretest (M ± SD)	Posttest (M ± SD)	Follow-up (M ± SD)
Fear of Negative Evaluation	Dialectical Behavior Therapy	24.40 ± 2.03	19.47 ± 2.47	19.53 ± 2.50
	Meichenbaum-Based Cognitive Therapy	24.13 ± 1.88	19.73 ± 2.22	19.80 ± 1.97
	Control	25.67 ± 1.50	25.60 ± 2.03	25.80 ± 2.21

The results indicate that the mean score of fear of negative evaluation decreased in both experimental groups at the posttest stage, whereas no noticeable change was observed in the control group. To examine the statistical significance of these differences, a one-way repeated-measures ANOVA was conducted.

Table 2

Between-Group Differences in Fear of Negative Evaluation Among Experimental Groups

Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level	Partial Eta Squared
Test	429.42	2	214.71	190.38	.001	.87
Group Membership	0.18	1	0.18	0.02	.91	.001
Test × Group Membership	1.42	2	0.71	0.63	.54	.02

The results from the table above indicate that there is no statistically significant difference in fear of negative evaluation between the Dialectical Behavior Therapy and Meichenbaum-based Cognitive Therapy groups based on group membership or the interaction of test phase and group

Table 3

Bonferroni Post Hoc Test for Comparing Mean Scores of Fear of Negative Evaluation Across Test Phases in Experimental Groups

Group	Pretest–Posttest ΔM (p)	Pretest–Follow-up ΔM (p)	Posttest–Follow-up ΔM (p)
Dialectical Behavior Therapy	4.93 (p = .001)	4.87 (p = .001)	-0.07 (p = 1.00)
Meichenbaum-Based Cognitive Therapy	4.40 (p = .001)	4.33 (p = .001)	-0.07 (p = 1.00)

2.4. Data Analysis

After entering the data into SPSS version 26, descriptive statistics (mean, standard deviation) and inferential statistics (analysis of covariance) were used.

3. Findings and Results

First, the mean and standard deviation of the scores for fear of negative evaluation were calculated for the three groups (Dialectical Behavior Therapy, Meichenbaum-based Cognitive Therapy, and Control) across the pretest, posttest, and two-month follow-up phases:

Levene's test results confirmed the homogeneity of variances for all variables ($p > .05$). Additionally, Mauchly's test of sphericity indicated that the assumption of sphericity was met ($\chi^2 = 1.51$, $w = .95$, $p > .05$). The analysis results are presented in Table 2.

membership ($p > .05$). However, a significant difference was observed across the test phases ($p < .001$).

The Bonferroni post hoc test results for comparing mean differences across the test phases in the experimental groups are presented below:

The results show that in both experimental groups, the mean differences between the pretest and posttest, as well as between the pretest and follow-up, were statistically significant ($p < .001$). Other findings revealed that the changes between posttest and follow-up were not statistically significant ($p > .05$).

Based on the analyses, it can be concluded that there is no significant difference in the effectiveness of Dialectical Behavior Therapy and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation among students with social anxiety disorder.

4. Discussion and Conclusion

The aim of this study was to compare the effectiveness of Dialectical Behavior Therapy (DBT) and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation in students with social anxiety disorder. Based on the results, there was no statistically significant difference between the effectiveness of DBT and Meichenbaum-based Cognitive Therapy in reducing fear of negative evaluation among students with social anxiety disorder. These findings are consistent prior studies (Amighi et al., 2023; Baharlou et al., 2023; Linehan, 2021; Lynch et al., 2006; Zamani et al., 2019).

This finding can be explained by the fact that, although these two therapeutic approaches differ in methodology, they operate based on shared principles. In both approaches, the primary goal is to reduce social anxiety and enhance self-acceptance. Consequently, both treatments are equally effective in reducing fear of negative evaluation. According to Meichenbaum's theory, changing an individual's attitudes and beliefs about themselves and others can reduce social anxiety and fear of negative evaluation—an especially relevant point for adolescent girls within the Iranian cultural context, which is governed by various normative frameworks. In DBT, negative attitudes toward social evaluation are addressed through techniques such as mindfulness. DBT teaches individuals, through acceptance and mindfulness techniques, to accept and manage their negative emotions and thoughts (Linehan, 2021), whereas in Meichenbaum's approach, negative thoughts are identified and gradually modified. This therapeutic convergence may explain the lack of significant difference in outcomes between the two.

Another explanation relates to the group-based nature of the interventions. Group therapy, which is a shared feature of both approaches, plays an effective role in reducing social

anxiety. In group settings, individuals benefit from peer support and shared experiences, which can foster a sense of security and decrease fear of negative evaluation (Bates et al., 2024; Button & Kounali, 2015). This is especially important because socially anxious individuals, and adolescent girls in particular, tend to avoid environments where they may be negatively judged.

Group counseling based on DBT and Meichenbaum's cognitive therapy provides adolescent girls with fear of negative evaluation an opportunity to adopt healthier and more productive communication strategies in various settings. These approaches allow participants to experiment with different strategies and, through techniques such as problem-solving and cognitive restructuring, receive the necessary training to challenge negative evaluations and other maladaptive thoughts. This facilitates the development of constructive communication, resistance to dysfunctional emotions and thoughts, and the promotion of adaptive emotional experiences in girls with social anxiety and high levels of fear of negative evaluation. In both approaches, the aim is to modify negative beliefs, and once these beliefs are altered, the associated emotional content is also addressed. This process enables the exploration of more appropriate alternative responses and the prevention of automatic, maladaptive reactions.

In general, group counseling creates a safe space for adolescent girls with social anxiety to express their emotions and thoughts without the fear of negative judgment, engage in meaningful discussions, and receive feedback from group members. This process promotes self-awareness, self-efficacy, and shifts in negative beliefs about social relationships, including fear of negative evaluation. It also helps replace these negative thoughts and anxieties with self-efficacy and positive beliefs, ultimately increasing hope, reducing fear of negative evaluation, and enhancing self-confidence and self-esteem. Since both approaches conceptualize stress-inducing factors—such as negative evaluation in social situations, especially among adolescent girls with social anxiety—as the result of exaggerated appraisals of threatening situations, the therapist's role is to help individuals recognize and logically modify these specific thoughts (Villalongo Andino et al., 2024).

Ultimately, based on the finding that no significant difference was found between DBT and Meichenbaum-based cognitive therapy, it can be concluded that in addressing social anxiety—especially among adolescent girls—what matters more than the specific therapeutic method is the use of practical strategies and the supportive

effects of both group and individual interventions throughout the treatment process. These results suggest that both therapeutic approaches can be effective in this context and do not significantly differ in their outcomes.

It is important to acknowledge that, like all research, the present study has limitations that should be considered when generalizing the findings. First, this study was conducted only among students in a single city; thus, generalizing the results to broader populations should be done with caution. Future studies could enhance external validity by increasing the sample size and investigating treatment effects across diverse cultures and regions.

Furthermore, this study only examined the short-term effects of the interventions. Future research should consider conducting long-term follow-up assessments (e.g., six months and one year) to evaluate the sustainability of treatment outcomes.

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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