



EFFECTIVENESS OF GROUP-BASED COGNITIVE BEHAVIORAL TRAINING ON REDUCING PSYCHOLOGICAL AND BEHAVIORAL SYMPTOMS OF ORAL PRESENTATION ANXIETY AMONG STUDENTS OF PAYAME NOOR UNIVERSITY, DOLATABAD BRANCH (ISFAHAN)

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ABSTRACT

In today's era of scientific advancement and competition, anxiety related to oral presentations is steadily increasing. This form of anxiety disrupts individuals' concentration, occupies mental resources, and limits cognitive capacity by impairing information processing. This study aimed to evaluate the effectiveness of group-based cognitive behavioral training in reducing the psychological and behavioral symptoms of oral presentation anxiety among students at Payame Noor University, the Dolatabad branch. A quasi-experimental research design was employed, utilizing a pretest-posttest format with a control group. The experimental group participated in ten 60-minute sessions of group-based cognitive behavioral training. The study population comprised all female students enrolled at the Dolatabad branch of Payame Noor University during the first half of 2016 (1395 in the Iranian calendar). From this population, 32 volunteers were selected through convenience sampling in multiple stages and randomly assigned to either the experimental or control group. Data were collected using a researcher-developed oral presentation anxiety questionnaire. The instrument's content validity was confirmed, and its overall reliability was established through internal consistency, with a Cronbach's alpha coefficient of 0.73. Subscale reliability was also confirmed, with Cronbach's alpha values of 0.88 for psychological anxiety and 0.89 for behavioral anxiety. The results of the data analysis indicated that cognitive behavioral strategies significantly reduced both psychological and behavioral symptoms of oral presentation anxiety in students ($P < 0.01$).

Keywords: Cognitive-behavioral strategies, oral presentation anxiety, students.

INTRODUCTION

Anxiety is a common emotional experience among humans; however, when it becomes excessive, it can lead to undesirable consequences. One of the most significant and concerning sources of anxiety for students today is delivering oral or written academic presentations (Yazdani & Soleimani, 2011). Oral presentation anxiety refers to the intense arousal and heightened nervousness that some individuals experience in social settings or during oral examinations. A key component of social anxiety that influences both academic performance and mental well-being in students is their emotional response to stressors and their ability to regulate these emotions (Gomera & Arsenio, 2002). Test anxiety, or the stress associated with academic evaluations, is a major form of negative motivation and can severely impair classroom performance. Dosk defines test anxiety as a distressing emotional state that individuals experience in formal testing or evaluative contexts (Heides, 2010). Many students struggle with anxiety related to oral presentations, and in severe cases, this anxiety can interfere with both their written and oral performance (Brown et al., 2011).

When anxiety disrupts academic performance, it poses challenges for a large number of students (Letts et al., 2010) and can significantly undermine their academic potential (Plas, 2010). While oral presentation anxiety can persist throughout a student's educational journey, it often intensifies at the higher education level. This issue not only hinders effective presentations and negatively impacts academic success but also restricts personal development (Markman & Black, 2011). In some cases, students experience anxiety so severe that it limits their participation and engagement in academic activities (Yazdani & Soleimani, 2011). Anxiety and nervous tension are also underlying causes of numerous physical ailments and academic failures, which are often resistant to simple remedies (Humber, 1988). Although anxiety responses can be adaptive in threatening situations, excessive anxiety may become debilitating, impairing an individual's ability to function effectively (Edelman & Ficorelli, 2005). It is estimated that anxiety accounts for approximately 10% of students seeking psychological treatment (Schaefer et al., 2010).

Given the psychological nature of anxiety disorders, several therapeutic approaches have been proposed. One of the most widely recognized and evidence-based methods is Cognitive Behavioral Therapy (CBT), whose effectiveness has been supported by numerous studies (Durham et al., 2003). CBT for anxiety typically involves techniques such as relaxation training (including muscle relaxation and breathing exercises), cognitive restructuring, systematic desensitization, behavioral rehearsal, thought-stopping strategies, and exposure therapy. These techniques are among the most effective psychological interventions used alongside medical treatments. In the treatment of anxiety through CBT, group counseling programs usually consist of 6 to 20 sessions to achieve significant improvement (Hopp, 2000). Multiple meta-analyses have demonstrated that cognitive-behavioral interventions are effective in reducing anxiety and enhancing academic performance (Abolghasi et al., 2004). According to Hazlett, CBT functions as an intervention that not only decreases the frequency and intensity of maladaptive responses but also teaches clients new cognitive and behavioral skills. This, in turn, leads to a noticeable reduction in undesirable behaviors and a corresponding increase in more adaptive, functional responses (Khodayari Fard, 2004).

The effectiveness of cognitive-behavioral therapy (CBT) has been confirmed in the treatment of many psychological problems, including anxiety-related disorders. For example, Liger (2003) treated 10 adolescents with test anxiety using cognitive-behavioral therapy, and by the end of the treatment, 7 of the participants had completely recovered. The fundamental assumption of cognitive-behavioral approaches is that cognition affects a person's feelings and behavior. Additionally, it is believed that individuals respond more to their cognitive representations of events than to the events themselves. Cognitive-behavioral counseling also emphasizes reducing the impact of maladaptive or inefficient beliefs and feedback. In a study,

Vahidi Motlagh (2011) demonstrated that the mean anxiety scores in the experimental groups were significantly lower than the control group at the post-test and follow-up stages. Jowadi et al. (2013) conducted a study to examine the effectiveness of group training in cognitive-behavioral skills on reducing fear of public speaking. The results indicated that this training was effective in reducing anxiety related to public speaking and increasing self-confidence.

Birami (2013) conducted a study to examine the effectiveness of Cognitive Behavioral Therapy (CBT) in reducing anxiety and worry among individuals diagnosed with Generalized Anxiety Disorder (GAD). The findings revealed that CBT significantly decreased both worry and trait anxiety at the post-test and follow-up stages. Similarly, Luo and Chan (2010) employed group-based CBT for the treatment of anxiety and reported statistically and clinically significant reductions in anxiety levels in the experimental group compared to the control group, with the improvements sustained at both three- and six-month follow-ups. Hides et al. (2010) also confirmed the efficacy of CBT in addressing impulsivity and craving, further supporting its applicability across various psychological conditions. In another study, Metz (2005) found that group-based emotion regulation interventions effectively alleviated symptoms of depression, anxiety, and stress. Likewise, Blackledge and Hayes (2006), in their research involving parents of children with autism, emphasized that mastering CBT-based skills requires time and consistent practice to achieve meaningful improvement. Furthermore, Metz (2005) highlighted CBT as an effective therapeutic approach for individuals with GAD, capable of significantly reducing core anxiety symptoms and thereby enhancing overall quality of life.

Durham et al. (2003) demonstrated that Cognitive Behavioral Therapy (CBT) has enduring effects in the treatment of Generalized Anxiety Disorder (GAD). In a separate study, Liger et al. (2003) provided individualized CBT to seven adolescents with GAD; by the end of the treatment period, three participants had achieved full recovery. Wicks et al. (2008), in a study conducted in Australia, found that group-based CBT interventions were effective in reducing anxiety and enhancing communication skills among breast cancer patients. Witt (2006) also confirmed that CBT can lead to significant, stable, and reproducible therapeutic improvements in comparable clinical populations. In Witt's study, participants in the anxiety control program exhibited substantial improvements in depression and anxiety scores relative to the control group. These positive outcomes persisted over a two-year follow-up period, during which 80% of participants in the intervention group reported experiencing minimal situational anxiety.

Given the high prevalence of anxiety disorders, individual psychological counseling alone is often insufficient to address these issues effectively (Makipour et al., 2010). Consequently, group therapy emerges as a viable alternative, offering greater cost-effectiveness and requiring less treatment time. Cognitive-behavioral group therapy, in particular, has demonstrated considerable benefits in this context. These factors underscore the critical need for scientific and practical solutions to properly address the psychiatric challenges faced by students experiencing oral presentation anxiety. To date, no comprehensive research has examined the effects of group cognitive-behavioral therapy specifically on reducing oral anxiety among Iranian students. Given the clear advantages of group counseling based on cognitive-behavioral approaches, further extensive investigation in this area is warranted. Clinical specialists, counselors, and educational authorities within the higher education system can utilize this therapeutic approach to support adolescents and young adults, particularly those grappling with mood disorders and academic burnout. Considering the intense competition among higher education institutions in Iran—including Azad universities, public universities, nonprofit institutions, Payame Noor University, and others—these centers need to focus on enhancing educational quality and fostering environments that promote better mental health and reduced stress, thereby enabling students to perform optimally in exams and academic contests. This is especially crucial for Payame Noor University, which operates without government financial support.

Currently, there is growing confidence in the effectiveness and predictability of interventions aimed at reducing oral anxiety among students, with promising practical outcomes. Therefore, the urgency to conduct the present study is greater than ever. In light of these considerations, the primary objective of this research is to evaluate the effectiveness of group-based cognitive-behavioral training in alleviating the psychological and behavioral symptoms of oral presentation anxiety among students at Payame Noor University, the Dolatabad branch.

Research Method

This study employed a quasi-experimental design with a pretest-posttest format and a control group. The target population comprised all female undergraduate students at Payame Noor University, Dolatabad Branch, during the 2016–2017 academic year.

Given that a minimum sample size of 15 participants is generally recommended for experimental research, a multi-stage cluster sampling method was implemented to select the sample. Initially, the Faculty of Humanities was randomly chosen from the various faculties at Payame Noor University, Dolatabad Branch. Subsequently, female undergraduate students majoring in counseling within this faculty were randomly selected. To form a homogeneous experimental group with similar social characteristics, 45 female volunteers completed the Beck Anxiety Inventory alongside a researcher-designed oral anxiety questionnaire administered orally. From these, 32 students who scored high on both assessments were *selected*, accounting for potential attrition. These 32 participants were then randomly assigned into two groups: 16 in the experimental group and 16 in the control group. Participants provided written informed consent and completed the relevant assessments before the intervention. Due to the withdrawal of one participant from the experimental group, the final statistical analyses were conducted on two groups of 15 participants each. Inclusion criteria for participation were: age between 18 and 29 years (mean = 27.78, SD = 2.60); ability to communicate and cooperate; willingness and motivation to participate in the sessions; absence of organic, mental, or psychotic disorders; no history of substance abuse; and no prior psychiatric or pharmacological treatment. Exclusion criteria included lack of motivation, unwillingness to engage with the intervention techniques, and absence from more than two sessions.

Research Instrument

The researcher-developed Oral Presentation Anxiety Questionnaire (AOP) measures physical, psychological, and behavioral responses experienced during preparation for a presentation. This questionnaire includes 36 items related to oral presentation anxiety and is based on Sarason's Test Anxiety Questionnaire, a widely used tool for assessing test anxiety.

Each question offers five response options that indicate levels of anxiety from low to high, scored from 1 to 5 accordingly. These scores are organized into three subscales, and a participant's score for each subscale is calculated by summing the related item scores. The overall oral presentation anxiety score combines responses from the three subscales—physical, psychological, and behavioral—that typically manifest when preparing for presentations, exams, or oral tests.

In the present study, face validity was assessed through a preliminary study involving a random sample of 30 individuals from the target population who completed the final test. The questionnaires were administered via self-report to female students during a single 10 to 15-minute session. Following necessary revisions, the questionnaire was finalized for implementation. To evaluate content validity, after developing the test questions and drafting the preliminary questionnaire, both face and content validity methods were employed to ensure the tool accurately measured the intended traits. This validity was based on subjective expert judgment. Due to time constraints, only two counseling specialists reviewed the items, leading to the removal of some questions to improve validity. The researcher-designed scale, consisting of 36 items measuring oral presentation anxiety, was confirmed as valid. Its reliability was

established through internal consistency and Cronbach's alpha ($\alpha = 0.73$). The subscales addressed physical, psychological, and behavioral dimensions, with 11 items for physical anxiety, 18 for psychological (emotional) anxiety, and 18 for behavioral anxiety. Reliability for the psychological and behavioral subscales was confirmed with Cronbach's alpha coefficients of 0.884 and 0.899, respectively. All reliability scores exceeded the acceptable threshold of 0.70. Additionally, gender was controlled at the beginning of the study.

For the experimental group, serving as the independent variable, interventions were delivered through eight weekly 60-minute group sessions based on cognitive-behavioral training, while the control group received no intervention. After these sessions, both groups completed the post-test by filling out the research questionnaire again. During the sessions, participants in the experimental group were encouraged to repeatedly practice assignments and exercises independently, and feedback was collected at the start of each session. The treatment program was structured into four parts per session: the first part lasted about 10 minutes and involved discussing the previous session's activities and assignments, during which participants were encouraged to help one another solve related problems; the second part, approximately 15 minutes, focused on training skills related to cognitive-behavioral techniques; the third part, lasting about 25 minutes, involved discussing how to apply these skills in daily life, with participants encouraged to present issues and assist each other in solving them using cognitive-behavioral methods; and the final 10 minutes were used to assign homework for the next session. Questionnaires were completed and collected in the presence of the researcher. Interventions included cognitive restructuring, problem-solving training, teaching and enhancing coping strategies, relaxation training, reality exposure, strengthening logical reasoning, and evaluating evidence with positive documentation. Statistical analyses were conducted using SPSS version 22.

Findings:

Table 1 presents the means and standard deviations of the variables under study, including overall oral presentation anxiety, physical anxiety symptoms, psychological anxiety symptoms, and behavioral anxiety symptoms, measured before and after group-based cognitive-behavioral training, separately for the experimental and control groups.

Table 1: Means and standard deviations of the variables under study before and after group-based cognitive-behavioral training, separated by experimental and control groups.

Group	Study time	Descriptive statistics	Psychological symptoms	Behavioral symptoms
Control	Before the test	Mean	44.6	46.53
		Standard deviation	7.02	12.55
	After the test	Mean	45.8	45.73
		Standard deviation	6.54	10.96
Experimental	Before the test	Mean	43.07	50.93
		Standard deviation	6.16	8.58
	After the test	Mean	35.93	32.13
		Standard deviation	7.99	8.29

Table 2: Examination of the assumptions of homogeneity of group variances and equality of regression slopes between groups.

Variable under study	Levene's test		Test of equality of regression slopes	
Physical anxiety symptoms	F statistic	Significance level	F statistic	Significance level
Psychological anxiety symptoms	0.266	0.61	1.769	0.195
Behavioral anxiety symptoms	0.781	0.384	2.302	0.141
Oral presentation anxiety symptoms	7	0.013	3.623	0.068
Variable under study	4.81	0.037	3.069	0.078

As shown in Table 2, in Levene's test, the components of physical anxiety and psychological anxiety had equal variances across groups; however, for the two components of behavioral anxiety and overall oral presentation anxiety, the assumption of equal variances was not accepted. In the examination of regression slope homogeneity, the assumption of equal regression slopes held for all components, as the significance levels were greater than 0.05.

Table 3: Results of ANCOVA analysis examining the effect of group-based cognitive-behavioral training on students' psychological anxiety symptoms.

Measurement	Mean of squares	F statistic	Significance level	Eta (η)	Power	Beta (β)
Constant value	133.59	3.413	0.076	0.11	0.429	10.18
	8			2		0
Psychological symptoms of pre-test anxiety	436.45	11.15	0.002	0.29	0.896	0.598
	3	0		2		
Group training	592.18	15.12	0.001	0.35	0.963	-8.95
	0	8		9		0

According to Table 3, the effect of group-based cognitive-behavioral training on students' psychological anxiety symptoms was significant at the 0.01 level, as the significance level of the training effect was less than 0.01. Therefore, it can be concluded that group-based cognitive-behavioral training was effective in reducing students' psychological anxiety symptoms. Considering the beta coefficient (8.950), the results indicate that this training led to a decrease in psychological anxiety symptoms among the students. In other words, the

experimental group showed psychological anxiety symptoms that were 8.950 units lower than those of the control group.

Table 4: Results of ANCOVA analysis examining the effect of group-based cognitive-behavioral training on students' behavioral anxiety symptoms.

Measurement	Mean of squares	F statistic	Significance level	Eta	Power	Beta (β)
Constant value	44.153	1.036	0.318	0.037	0.166	-2.475
Behavioral symptoms of pre- test anxiety	1494.369	35.076	< 0.0001	0.565	1.000	0.679
Group training	1975.521	46.370	< 0.0001	0.632	1.000	-16.590

According to Table 4, the effect of group-based cognitive-behavioral training on students' behavioral anxiety symptoms was significant at the 0.01 level, as the significance level of the training effect was less than 0.01. Therefore, it can be concluded that group-based cognitive-behavioral training was effective in reducing students' behavioral anxiety symptoms. Considering the beta coefficient (-16.590), the results indicate that this training led to a decrease in behavioral anxiety symptoms among the students. In other words, the experimental group showed behavioral anxiety symptoms that were 16.590 units lower than those of the control group.

DISCUSSION

The results demonstrated that group-based cognitive-behavioral training effectively reduces psychological symptoms of anxiety related to oral presentations. This study's findings suggest that group counseling with a cognitive-behavioral approach can significantly lessen cognitive distortions and irrational beliefs, which are key mental symptoms of anxiety, particularly among female students at Payame Noor University, Dolatabad branch. These results align closely with previous studies by Jarrah and Mohammadi Karkani (2015), Ghadampour et al. (2013), Rezaei et al. (2012), and Anderson et al. (2005), all of which highlight the positive impact of psychological interventions.

Ghadari et al. (2015) found that schema therapy significantly enhances emotion regulation strategies in experimental groups. Jarrah (2013) demonstrated that cognitive-behavioral therapy substantially reduces worry and trait anxiety in patients with generalized anxiety disorder at both post-test and follow-up stages. Delsingur et al. (2011) reported that group cognitive-behavioral therapy significantly improves life satisfaction in individuals with social anxiety disorder at post-test and follow-up. Supporting these findings, Kessler (2005) indicated

that group emotion regulation interventions effectively reduce symptoms of depression, anxiety, and stress. Additionally, Wicks (2008) showed that 80% of participants in the experimental group experienced very low levels of situational anxiety two years after undergoing cognitive-behavioral therapy.

This finding can be explained by understanding that psychological anxiety manifests in both cognitive and emotional dimensions. The cognitive dimension involves non-verbal signs of anxiety, while the emotional dimension relates to negative feelings and affect, expressed verbally through concerns about oral presentations. This study, based on cognitive-behavioral therapy techniques, focused on changing clients' core beliefs and automatic negative thoughts. Once cognitive changes were achieved, clients became more aware of their cognitive and emotional experiences, enabling them to explore healthier alternative responses and reduce automatic anxiety reactions.

Since worry is a central feature of anxiety disorders across different situations, this study integrated cognitive-behavioral therapy with group cognitive therapy programs and relaxation techniques. The intervention focused on addressing automatic thoughts, cognitive distortions or logical errors, the interaction between emotions and thinking, the reciprocal influence of thoughts and feelings, and the use of additional methods taught over multiple sessions.

Relaxation training helped individuals redirect their worry and self-criticism away from distressing topics toward more neutral or calming subjects, promoting a sense of comfort and relief.

The significant reduction in worry indirectly lessens the mental symptoms and signs of anxiety among students. The results also indicated that group-based cognitive-behavioral training effectively reduced behavioral symptoms of anxiety related to oral presentations. These findings are largely consistent with those of Jarrah and Mohammadi Karkani (2015), Ghadampour et al. (2013), Rezaei et al. (2012), and Amiri Majd and Shah Moradi (2009), all of whom reported the positive effects of psychological interventions. Additionally, Shahangian et al. (2014) found that both cognitive-behavioral and metacognitive group therapies were equally effective in reducing anxiety symptoms, though metacognitive therapy showed a slightly higher rate of relapse compared to cognitive-behavioral therapy.

Jarrah et al. (2013) found that group cognitive-behavioral therapy effectively reduced anxiety and maladaptive attitudes in patients with generalized anxiety disorder. Hides et al. (2010) also confirmed the effectiveness of cognitive-behavioral therapy in reducing impulsivity and craving. However, contrary to the findings of the current study, Anderson (2005) reported that acquiring these skills requires time and practice to achieve improvement.

This finding can be explained by understanding that behavioral anxiety involves goal-directed actions and unwanted behaviors stemming from an individual's anxious reactions. Group cognitive-behavioral therapy is an effective non-pharmacological approach to anxiety, with its partial effectiveness supported by various studies across different populations. This method helps students become aware of anxiety-provoking thoughts and teaches them to express and release maladaptive cognitive responses, thereby gaining control over their anxiety, which might otherwise negatively impact their performance in oral presentations and social situations.

One limitation of this study is that its results are only generalizable to female students at Payame Noor University, the Dolatabad branch. Caution and careful consideration are necessary when applying these findings to other female and male students at different universities, including Payame Noor, governmental, and Islamic Azad universities.

The results showed that group-based cognitive-behavioral training effectively reduced psychological symptoms of anxiety related to oral presentations in students. Therefore, this approach is recommended as a preventive program for managing psychological anxiety

symptoms associated with oral presentations in the general student population. Additionally, the findings indicated that this training also decreased behavioral symptoms of anxiety related to oral presentations, further supporting its use as a preventive measure for anxiety in oral presentation situations among students.

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