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Original Article

Effectiveness of Rational Emotive Behavioral Therapy in Academic Self-handicapping and Academic Engagement of Students

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Abstract

Background: The fear of failure in students may evoke positive and negative feelings such as pleasure, hope, anxiety, and stress, and they may resort to self-handicapping mechanisms to cope with these feelings. The present study aimed to investigate the effect of rational emotive behavioral therapy (REBT) on academic self-handicapping (ASH) and academic engagement in high school students.

Methods: This was a quasi-experimental study using a pretest-posttest design with a control group. The statistical population consisted of all male high school students in Ahvaz, Iran, of whom 30 (aged 15-18 years) were selected as the sample through cluster random sampling and randomly assigned into the experimental and control groups (15 students in each group). All participants filled out the academic self-handicapping scale and the academic engagement questionnaire in the pretest. The participants in the experimental group attended 10 sessions of REBT, while the control group received no intervention. At the end of the intervention, all participants took the posttest. The data were statistically analyzed using SPSS version 25.

Results: The mean±standard deviation of academic involvement in the post-test of the control group was 54.66±7.17, which was significantly different from the REBT group (78.32±4.13) (P<0.001). Moreover, the mean±SD of ASH in the control and experimental groups were 93.20±16.40 and 78.00±17.47, respectively, which were statistically significant (P=0.020). There was no significant difference between the research variables in the pre-test and post-test of the control group, while there was a significant difference between the pre-test and post-test of the REBT group in terms of academic engagement and ASH in the students (P<0.001).

Conclusion: REBT was effective in improving students' ASH and academic engagement. Therefore, school officials are recommended to provide suitable conditions for the rational-emotive growth of students to improve academic engagement and control ASH among them.

Keywords: Behavioral therapy, Self-handicapping, Academic engagement, Students

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1. Introduction

Adolescence is among the most important stages of personal and social development. This period of life usually begins with puberty and is characterized by the flourishing of the sexual instinct, the stabilization and consolidation of occupational and social interests, and the desire for freedom and independence (1, 2). The pressure of instincts and the desire to follow adolescent values, group pressures, the desire for self-assertion, and laying the foundations of an independent life facing one with an intellectual crisis and mental derangement (3). The education of students is one of the most basic and important concerns of parents due to the strong correlation between academic performance and the future of students. This concern is highly dependent on the level of their academic success. However, concern about the academic progress and success of adolescents is considered desirable throughout the education system (4, 5). On the other hand, since the general purpose of education is to improve all aspects of the learners' personality, especially in the social, moral, and psychological domains, it is necessary to pay special attention to the atmosphere of classrooms and schools, the way teachers treat students, and the psychological problems of students to achieve this purpose (6). Consequently, some students may face problems during their education.

One of these problems is self-handicapping (SH), which refers to engaging in an action or a set of actions that increase the chance of externalizing failures and internalizing successes while protecting the individual from the negative

consequences of a failure (7, 8). The mechanism of SH for protecting self-esteem is based on the exclusion principle, which states that individuals do not use internal and stable attributions such as disability when they experience failure; instead, they attribute it to a lack of effort to prevent being further threatened by value judgments about themselves (9). On the other hand, if people miraculously achieve success, they use internal and stable attributions to demonstrate their abilities. Students at school strive to maintain a positive self-image, so when faced with challenging tasks, they resort to excuses such as illness and or insufficient practice and effort to justify their incompetence (10). Academic self-handicapping (ASH) is one of the ways that students use to avoid being labeled as incompetent by creating some imaginary or real obstacles to have an excuse for potential failures. Although SH strategies provide temporary relief and maintain students' self-worth, they eventually reduce their academic performance (11).

Academic engagement is one of the most important influential variables and an important factor in the personal learning, development, academic success, and performance of students (12). Student enthusiasm for education and school is an effective factor that contributes to learning; therefore, it is the main indicator and important factor in academic success (13). Academic engagement is defined as students' willingness to participate in daily school activities such as attending classes and doing the assignments given by teachers. It can also change students' behaviors, attitudes, and participation in classroom tasks (14, 15). This construct derives from a branch of social control theory that emphasizes the importance of the personal feeling of attachment and belonging to social institutions. This theory defines the antisocial behavior of young people based on the relationship between the individual and society. Similarly, a lack of academic engagement can be the result of a weakened relationship between individuals and educational institutions (16). Enthusiastic students study more and enjoy higher levels of academic satisfaction, so the concept of engagement is important not only because of its value as an educational goal but also because of its logical connection to educational outcomes. Academic engagement is also a significant predictor of the short- and long-term academic achievement of students and has the potential to increase their efficiency and academic achievement (17, 18).

Sometimes, SH and a low level of academic engagement can cause problems for students, necessitating serious psychological interventions and psychotherapies. An intervention commonly used for this purpose is rational-emotive behavioral therapy (REBT) (19, 20). Ellis (21) observed that her clients felt better when they made changes in their thoughts, so she focused on their beliefs and thoughts. The events that happen around us do not cause tension, anxiety, or depression in us; it is our views and beliefs about the events that cause our anxiety and stress and create problems in our lives. Logical thinking makes individuals more active, enables them to view events from a clear position, and gives them hope, courage, and strength to act. REBT aims to help individuals minimize their emotional disorders and lead happier lives by teaching them to respond effectively to their negative feelings such as regret, remorse, frustration, and annoyance. It also helps them overcome misplaced negative emotions such as depression, anxiety, and worthlessness (22). Studies have shown that REBT can effectively treat psychological problems, anxiety, and depression and also improve the quality of life (22-24). Considering that students spend a lot of time in school, their mental health plays an important role in improving their performance and academic enthusiasm. Also, today, students must have the necessary enthusiasm to attend school, so it is very important to identify and test methods for improving students' enthusiasm and academic performance. Additionally, the lack of research in this field necessitates the conduct of research pertaining to academic self-handicapping and academic engagement of students. Accordingly, the present study was conducted to investigate the effect of REBT on ASH and academic engagement in high school students.

2. Methods

This was a quasi-experimental study using a pretest-posttest design with a control group. Using a multistage cluster sampling procedure, 30 male senior high school students in Ahvaz, Iran, were selected as a sample in the academic year 2021–2022. In detail, one of the four education districts of Ahvaz was randomly selected, and one of its school was randomly selected. In the next step, three classes were randomly selected from the 10^{th}, 11^{th}, and 12^{th} grades of this school. Then, among the students of these three classes, a sample of 30 male students was selected. These thirty were randomly assigned to the

experimental and control groups, with 15 students per group, based on G*Power with an effect size of 1.23, an alpha of 0.05, and a test power of 0.95 (25). The coin-tossing method was used to randomly assign students to experimental and control groups. In this method, students were divided into two groups of 15 by throwing a coin. A coin was thrown into the air once for each student and randomization was done based on heads or tails. In the next step, two groups were randomly considered as test and control groups by tossing a coin once. The inclusion criteria were being 15-18 years old, having physical and mental health, and submitting informed written consent. The exclusion criteria were unwillingness to continue the study, absence from the intervention sessions, affliction with any disease, and simultaneous participation in other interventions (psychological or pharmaceutical) during the study. The participants in both groups took the pretest before the intervention. Then, those in the experimental group attended ten 90-minute sessions of REBT (a summary of REBT sessions is provided in Table 1), while those in the control group received no intervention and were put on a waiting list. At the end of the intervention, all participants took the posttest. This study was approved by the ethics committee of Ahvaz Islamic Azad University with the code of IR.IAU.AHVAZ.REC.1401.155.

2.1. Research Tools

2.1.1. Academic Engagement Questionnaire: This questionnaire was developed by Schaufeli and colleagues (26) to measure the academic engagement of students. It consists of 17 items in three subscales: strength, self-dedication, and attraction. The items (e.g., "I forget everything else when I study") are scored on a 5-point Likert scale. The total score on this questionnaire ranges from 17 to 85, and higher scores indicate higher levels of academic enthusiasm. The Content Validity Ratio (CVR) of 0.98 and Content Validity Index (CVI) of 0.97 confirmed the Academic Engagement Questionnaire's content validity (27). Ghadampour and colleagues (27) reported the total Cronbach's alpha coefficients of this questionnaire to be 0.88.

2.1.2. Academic Self-handicapping Scale (SHS): This scale was developed by Jones and Rhodewalt (28) for measuring self-handicapping in students. It consists of 25 items that are scored on a 6-point Likert scale (from 0: totally disagree to 5: totally agree). Scores of 0-50, 50-100, and above 100 indicate low, moderate, and high levels of self-handicapping, respectively. The CVR of 0.91 and CVI of 0.89 confirmed the SHS's content validity (29). Heidari and colleagues (29) reported the total Cronbach's alpha coefficients of this questionnaire to be 0.77.

2.2. Statistical Analyses

The data were analyzed using descriptive statistics (mean and standard deviation) and

Table 1: The structure of the rational emotive behavioral therapy (REBT) sessions

Session	Description
1	Introduction, explanation of the principles and rules of the intervention sessions, brief familiarization with the framework, principles, and objectives of REBT
2	Presentation of material on personal discomfort, change, and general semantics, introduction of the ABC theory, rational beliefs (self-help)
3	Explanation of cognitive distortion, cognitive errors, and 13 types of cognitive distortions
4	Discussion on tasks, familiarization with techniques of functional, experimental, rational, and philosophical questioning of emotional beliefs
5	Familiarization with coping, modeling, and referencing methods using assertive questioning, referencing a fictional character, and profit/ loss analysis
6	Familiarization with emotional/experimental techniques, training in rational visualization, emotional/ confrontational whispers, role-playing, and reverse role playing
7	Familiarization with unconditional self-learning, unconditional acceptance of others, unconditional acceptance model, encouragement, confrontation exercises, stop age and review, reframing
8	Familiarization with reinforcement of behavioral punishments, behavioral reinforcements and behavioral punishments, shame attacking exercises, homework assignment
9	Familiarization with contradictory techniques and live desensitization, and interpersonal skills, exposure to difficult situations, homework assignment
10	Familiarization with techniques of relapse prevention, action based on rational beliefs, adaptation to new interventions, resistance to irrational beliefs, review and summation of previous sessions; posttest

REBT: Rational Emotive Behavioral Therapy

Table 2: Mean and standard deviation (SD) of the research variables in experimental and control groups

Variables	Phase	Experimental group	Control group	P (between group)
		Mean±SD	Mean±SD	
Academic engagement	Pretest	48.33±9.49	55.26±9.73	0.058
	Posttest	78.32±4.13	54.66±7.17	0.001
P (within group)		0.001	0.845	-
Academic self-handicapping	Pretest	101.73±17.84	93.53±16.43	0.201
	Posttest	78.00±17.47	93.20±16.40	0.020
P (within group)		0.001	0.956	-

inferential statistics (analysis of covariance) in SPSS version 25. The Shapiro-Wilk test was used to check the normal distribution of the data, and Levene's test was used to evaluate the homogeneity of variances.

3. Results

Thirty students participated in this study, and the attrition rate was 0.0%. The mean age of participants was 16.86±0.91 years in the experimental group and 16.52±0.83 years in the control group. Table 2 presents the mean and standard deviation of the research variables in both groups. According to the results, REBT reduced the post-test mean of ASH and also improved academic engagement in the experimental group.

The Shapiro–Wilk test confirmed the normal distribution of the data. In addition, the results of examining the assumptions and presuppositions of the covariance analysis did not show any significant differences between the covariance matrices of the two groups (Box's M=11.81, P=0.108). The results of the regression slope homogeneity test also indicated that the regression slope was the same in the studied variables. According to Levene's test for equality of error variances, there was no significant difference between the experimental and control groups in the error variance of the dependent variables.

After controlling the pretest effect, the effect of the group on the linear combination of the dependent variables, academic engagement, and ASH, was statistically significant. The F-values obtained for academic engagement (F=357.42, P=0.001) and ASH (F=106.21, P=0.001) were both statistically significant. It can be therefore stated that there was a significant difference between the experimental and control groups in the means of dependent variables.

4. Discussion

The present study aimed to investigate the role of REBT on ASH and academic engagement among high school students. The findings suggested the significant effects of REBT on ASH and the academic engagement of the students. In other words, this intervention reduced ASH and increased academic engagement in senior high school students. It has been shown by Barutçu Yıldırım and Demir (30) that SH in students predicts exam anxiety and self-esteem and has a significant relationship with them. Falahchai and colleagues (31) stated that a considerable percentage of students experienced academic burnout, which, together with emotional exhaustion, academic disinterest, and inefficiency, reduced academic achievement. They also reported a significant negative relationship between academic achievement and academic burnout and its components (31).

To explain this finding, it can be stated that academic engagement is a combination of motivation and curiosity, and this is included in educational programs based on academic engagement. Therefore, motivation can effectively increase the academic engagement of students. Highly motivated students who have a strong desire to progress usually make great efforts and are diligent in various domains, especially education. They are not influenced by negative emotions, including despair, employ compromise strategies and maintain their academic enthusiasm (14). By providing a bridge between scientific, educational, and psychological theories related to academic engagement and motivation, REBT increases academic engagement among students and provides practical programs for schools to increase academic engagement and improve the academic success of students. In other words, REBT develops a set of cognitive, motivational, and behavioral abilities in students so that they have the motivation and enthusiasm to follow school

activities (20). To justify the study findings, it can be stated that REBT helps students to gradually think that the school environment is under their control. The belief that their behaviors determine outcomes causes students to have a greater expectation of succeeding and guides them to increase their effort and persistence. Their school programs correspond to their values, so they achieve their academic and learning goals by exhibiting persistence and effort in doing school assignments and using deep strategies such as metacognitive skills.

Considering the other findings of this study on the effectiveness of REBT, it can be stated that the interventions based on this theory (functional, experimental, and rational questioning techniques of unreasonable emotional beliefs, and identification of cognitive distortions and emotional/experiential skills) can compensate for the lack of training in emotion management and help to reduce academic SH. In addition to affecting the motivation and enthusiasm of students, REBT reduced ASH. Rashidi and colleagues (32) found that academic engagement, quality of life, and a sense of belonging to the school had significant negative relationships with ASH behaviors.

REBT can improve students' competence and sufficiency by increasing the level of challenges and meaningful learning, as well as providing students with timely and constructive feedback (24). This in turn further motivates students to do their homework and avoid SH. Excessive adherence to do's and don'ts, difficult goals, and wrong values imposed by the surrounding environment can make students anxious and increase the risk of SH. Individuals with self-handicapping difficulties cannot reduce their anxiety no matter how hard they try; they think they may fail to achieve their goals even when they do their best. That is why they set avoidance goals, i.e., they tend to avoid negative consequences, and they are forced to try in order to escape and avoid negative consequences. In this process, anxiety, excessive worrying about failures, and pessimism about the achievement of goals are imposed on them, and, as a result, extreme SH will be an effective strategy to justify the possible failures. In this study, REBT was performed to identify the thinking methods and the fundamental errors in attribution related to learning methods and strategies as well as the methods for improving the motivational beliefs of the learners. In addition, many rational-emotional methods and techniques were employed to help learners to identify the inefficiency of their idealistic beliefs, values, and intentions, and their bottlenecks and possibilities, as well as raise their awareness and knowledge of their behaviors and claimed SH (e.g., defense mechanisms such as making excuses).

4.1. Limitations

A major limitation of this study was the fact that it focused solely on male high school students aged 15-18 years. Therefore, the study findings should be cautiously generalized to male students of other age groups or female students.

5. Conclusion

The study findings suggested the effectiveness of REBT in reducing ASH and increasing the academic engagement of the students. Hence, it is recommended that education officials organize on-the-job training courses and practical workshops to familiarize high school counselors with REBT interventions. In addition, school officials are recommended to provide suitable conditions for the rational-emotive growth of students in order to improve their academic engagement. Future studies are suggested to perform this intervention with follow-up stages to measure the stability of treatment results. Moreover, similar studies should be conducted on female students.

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Ethical Approval

The Ethics Review Board of Islamic Azad University, Ahvaz branch, approved the present study with the code of IR.IAU.AHVAZ.REC.1401.155). Also, written informed consent was obtained from the particpants.

Conflict of Interest: None declared.

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