The effectiveness of rational emotive behavior therapybased education in students' academic burnout and buoyancy

Elnaz Ghorbani*, Kianoush Zahrakar and Farshad Mohsenzadeh

Faculty of Psychology and Education, Kharazmi University, Iran

*Correspondence to: Elnaz Ghorbani, Faculty of Psychology and Education, Kharazmi University, Iran.

E-mail:eln.ghorbani@gmail.com

Abstract

The purpose of the present study has been to evaluate the effectiveness of rational emotive behavior therapy (REBT) in decreasing the academic burnout and increasing the academic buoyancy of female students. A quasi-experimental research method with a pretest, posttest, and control group has been used in this study. The statistical population of the study comprised all second-grade high school students. The dependent variables in this study have been the academic burnout and buoyancy, which were evaluated by Salmela-Aro and Naatanen's Academic Burnout Inventory and Martin and Marsh's Academic Buoyancy Inventory. The results have shown that Ellis's rational emotive behavior therapy (REBT) has been effective in reducing the academic burnout and its triple dimensions and increasing the academic buoyancy in the experimental group.

Keywords: Ellis's rational emotive behavior therapy (REBT), academic burnout, academic buoyancy.

Introduction

Students are the main element of the education system of every country. Therefore, attention to students' academic achievement is considered essential for the development of education and the progress of each country so that the students' failure to learn the materials taught them leads to stagnation in education and the backwardness of the society. The inputs of the school such as the academic semesters and their requirements, as well as the diverse educational consequences such as academic achievement, lead to imposing severe psychological pressure upon students (Neumann, 1990), which gradually cause depression in students due to the high educational demands and the lack of attention to psychological factors that affect students' mental health.

The burnout was initially considered as a job-related disorder. However, the school is also where the learners are considered as the employees: they attend the classes at certain times and do their homework to pass the exam and get a passing grade (Modin et al., 2011). Academic burnout means feeling tired of doing homework and studying, having pessimistic attitudes toward education and textbooks, and feeling academic inefficiency (David, 2010).

Academic burnout can lead to lack of participation and the decrease in the energy required for activities (Salanova et al., 2010) so that the students with academic burnout do not have the incentive to attend classroom activities and show such behavioral characteristics as being absent, late arrival to class, and early departure from the class. Therefore, they do not have any sense of responsibility and responsiveness to their poor performance (Qinyi & Jiali, 2012).

Despite the fact that a large number of students have poor performance at school, there are a large number of students who increase their academic opportunities and have a good academic performance by overcoming the educational problems and barriers. The orientation of the academic buoyancy towards the positive processes in human life, the promotion of health, and supporting them instead of

trying to eliminate the problems in the positive processes of life lead to scientific growth and contribute to the mental health of students (Martin et al., 2008). Since the academic burnout and buoyancy are of a cognitive nature, a rational emotive behavior therapy (REBT) approach can be used to reduce the academic burnout and increase the academic buoyancy. Rational Emotive Behaviour Therapy (REBT) was originated by Dr Albert Ellis and it is the original cognitive-behavioral approaches to counselling and psychotherapy. The basic assumption of (REBT) is that people contribute to their own psychological problems, as well as to specific symptoms, by the way they interpret events and situations (corey,2009). According to the "ABC (DE)" model often people experience undesirable activating events (A), about which they have rational and irrational beliefs/cognitions (B). These beliefs lead to emotional, behavioral, and cognitive consequences (C). Rational beliefs (RBs) lead to adaptive and healthy (i.e., functional) consequences, whereas irrational beliefs (IBs) lead to maladaptive and unhealthy (i.e., dysfunctional) consequences. Once generated, these consequences (C) can become activating events (A) themselves, producing secondary (meta) consequences (e.g., meta-emotions: depression about being depressed) through secondary (meta-cognitions) RBs and IBs. Clients who engage in (REBT) are encouraged to actively dispute (D) (i.e., restructure) their IBs and to assimilate more efficient (E) RBs, to facilitate healthy, functional, and adaptive emotional, cognitive, and behavioral responses (Elli, et al., 2010).

The main goal of (REBT) is to replace irrational beliefs with a new set of rational beliefs. The general goals of (REBT) are to assist people in minimizing emotional disturbances, decreasing self-defeating self-behaviors, and becoming more self-actualized so that they can lead a happier existence (Ellis, 2003, 2004, 2005) To overcome irrational thinking, (REBT) therapists employ active/directive techniques such as teaching, suggestion, persuasion, and homework assignments, and they challenge clients to substitute a rational belief system for an irrational one (Corey, 2009).

Theoretical Framework

Burnout

The burnout is a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment (Firth et al., 1985). In other words, burnout is a state of mental and emotional exhaustion that results from the chronic stress syndrome, including the role overload, the time pressure and constraint, and the lack of resources for fulfilling tasks (Demerouti et al., 2001).

Most research conducted on burnout has been focused on such people as sellers, teachers, nurses, healthcare workers, counselors, and psychologists. It is known as job burnout. However, the burnout as a variable has been expanded to educational situations and contexts and it is referred to as academic burnout. The academic burnout among students points to a feeling of tiredness due to the academic demands and requirements (exhaustion), having a pessimistic feeling without interest in the content and tasks (lack of interest), and the feeling of inefficiency as a student (inefficiency) (Hayati et al., 2012). The variable of burnout has also been expanded to educational situations and context and it is referred to as academic burnout (Brough, 2005).

Academic burnout: The academic burnout consists of three dimensions of emotional exhaustion, lack of interest, and inefficiency (Maslach et al., 2008). Emotional exhaustion which refers to the feeling of being void of emotional resources is considered as the individual strain dimension (Adib, 2015).

Finally, inefficiency refers to the feelings of incompetence, lack of achievement and productivity, and low self-efficacy, indicating the self-evaluation dimension of burnout (Ramist, 2013).

Academic burnout can be considered as a chronic stress response in students who are initially engaged with the education requirements, resulting from a difference between students' abilities and their own or other expectations of their success in education (Abbasi, 2015).

People with academic burnout usually suffer from such symptoms as the lack of interest in the content of the textbooks, lack of willingness to attend the classroom, lack of participation in class activities, frequent absence, and the feeling of inefficiency in learning the lessons (Sareiee, 2015).

Academic burnout results from over-exposure to permanent stressors in an educational environment. Consequently, it does not appear quickly and is formed over time in relation to the individuals' education. If individuals continue to study in the same conditions, the academic burnout may remain permanently (Akkasheh et al., 2010).

Academic buoyancy

With the emergence of the positive psychology and its focus on the resilience and the development of individual abilities, instead of searching for individual weaknesses and defects, the academic buoyancy was considered as a scientific concept by the researchers in this field. The academic buoyancy is oriented towards positive processes in academic life and the enhancement of the students' mental health.

Accordingly, academic buoyancy refers to the student's ability to overcome the problems, setbacks and challenges that commonly occur in the routine academic life of the most of the students, including poor grades, exam pressure, difficult schoolwork, negative feedbacks from teachers, competition, and loss of motivation (Martin & Marsh, 2015). In fact, academic buoyancy has been developed as a construct reflecting the academic resilience within the context of traditional psychology. Studies related to the academic resilience have focused on different

ethnic groups such as the poor or lower-educated people, students with learning disabilities, or students with extreme tragic experiences (Idan, O, 2014).

However, the buoyancy is related to the disputes of students with everyday stressors and is different from the response to situational stresses that indicate a disappointing situation. Indeed, the buoyancy focuses on individual responses to the daily challenges (Martin and Marsh, 2015).

As the predictors of the academic buoyancy, the psychological factors, the family factors, and the factors related to school and educational atmosphere have been extensively studied. Among the psychological factors, self-efficacy, planning, control, and motivation have had a significant role in the prediction of academic resilience (Pintrich & rok, 2004).

The academic buoyancy is an important factor that improves the student's positive relationship with the school and his/ her academic life, and the student's ability to deal with the small and large educational problems and return to the education routine is an important part of the academic achievement. In fact, students achieve the academic buoyancy by the cognitive development, positive emotional and behavioral orientations towards the school, positive perceptions of themselves, and the development of cognitive processes (Karimi, 2017).

Rational emotive behavior therapy (REBT)

Rational emotive behavior therapy (REBT) has been designed to identify irrational beliefs, to examine the links between cognition, emotion, and behavior, and to replace the realistic change with irrational beliefs (Davies, 2008).

An REBT-based intervention reveals the unreasonable expectations and beliefs that lead to emotional and communicative disorders and then questions empirically or realistically these destructive beliefs and expectations. In Ellis's theory, it is believed that the problems are rooted in the internal disorders of each of the couples. In a disturbed marital life, one or both of the couple follows irrational beliefs (Sudanee, 2015).

The treatment process in the rational emotive behavior therapy (REBT) is so that the irrational beliefs are first identified, the association between cognition, affect, and behavior is determined, and the evidence of opposing irrational thoughts is examined to resolve conflicts and achieve adaptation (Davies, 2008).

According to Ellis, This method is one of the most active and direct therapeutic methods because the patient is actively and directly trained in this type of treatment and he/she is helped by providing adequate explanations and clarifying the concepts to understand which response is useful to resolve his/her problems. the group interventions based on rational emotive behavior therapy provide quicker and deeper solutions than contemporary kinds of psychotherapy. The group members learn in counseling groups to distinguish their inefficient beliefs from efficient beliefs and find that the source of their emotional distresses is similar to that of other members in the group. Members help and support each other to learn (Saffai, 2017).

Research Method, Statistical Population and Sample

The research method is quasi-experimental method. All second grade high school female students who were enrolled in the academic year of 2018 at Motahari School (District 12 of Tehran). formed the community of the research. The initial sample size was 100 persons for screening, who were selected by simple random method. Among them

30 persons who had above average scores in academic burnout test, were randomly selected and replaced two groups of 15 participants of experiment and control. The experimental group received 8 sessions, each session lasting 90 minutes for training. The control group received no intervention. After the completion of the training of the experiment group, post-tests were conducted for both groups.

Research Tools

The School-Burnout Inventory (SBI) was used to measure students' academic burnout. The questionnaire originally was created by Salmla-Arrow and Naatann (2005) based on Bergen Burnout Inventory. The main questionnaire with 15 items. All the items are scored in a 7-range degree of never (0) to always (6) by the students. Questions 13, 10, 7, 1, 4 relate emotional exhaustion subscale, questions 14, 11, 5 and 2 relate pessimism subscale (disinterest) and question 15, 12, 9, 8, 6, 3 relate lesson inefficiency subscale. However, considering that the scale of efficiency of academic (i.e. positive sentences) was used in lesson inefficiency subscale, the questions of this subscale were scored

conversely. 0.86 for Cronbach's alpha coefficient of the questionnaire and 0.77 for emotional exhaustion subscale and 0.78 for pessimism subscale and 0.84 for the absence of efficiency subscale were obtained.

Martin and Marsh (2009) buoyancy scale was used to study academic buoyancy, which has 4 items in self-reporting method based on 7-point Likert scale from strongly agree to strongly disagree. The obtained reliability was reported 0.8 through Cronbach's alpha coefficient. Its validity through confirmatory factor analysis for each of the items of 1 to 4, respectively: 0.66, 0.67, 0.73 and 0.75, respectively. The obtained reliability for the total scale by using Cronbach's alpha coefficient was 0.87 and its validity through criterion validity using correlation with Pintrich's enthusiasm questionnaire was reported 0.568.

Results

30 female high school students with a mean age of 15.76 years and a standard deviation of 0.56 participated in the present study.

Table 1. The mean and standard deviation of pretest and posttest scores of the academic burnout and its dimensions

Variable	Experimental group				Control group			
	pretest		posttest		pretest		posttest	
	Mean	standard deviation	Mean	standard deviation	Mean	standard deviation	Mean	standard deviation
Academic burnout	71/13	3/13	69/07	4/63	69	3/91	69/73	4/20
Academic cynicism	18/47	2/26	16/73	2/54	17/20	2/11	18/07	2/08
Academic exhaustion	25/80	2/21	23	2	26/87	2/26	26/88	2/06
Academic inefficiency	26/87	1/95	29/33	2/19	24/93	2/34	24/80	1/82

According to the results from the above table, it can be seen that there is no significant difference between the pretest scores of the experimental and control groups. In addition, the decrease in the posttest scores of the experimental group has been significantly higher than that in the control group. In table 2, descriptive data (mean and standard deviation) related to the academic buoyancy have been presented.

Table 2. The mean and standard deviation of pretest and posttest scores of the academic buoyancy

	Experimental group				Control group				
variable pretest		test	posttest		pretest		posttest		
variable	Mean	standard deviation	Mean	standard deviation	Mean	standard deviation	Mean	standard deviation	
Academic buoyancy	11/67	2/02	14/67	3/53	11/73	1/48	11/27	1/83	

According to the results from the above table, it can be seen that there is no significant difference between the pretest scores of the experimental and control groups. In addition, the increase in posttest scores of the experimental group has been higher than that in the control group.

The first hypothesis of research: Ellis's rational emotive behavior therapy (REBT) is effective in improving academic burnout and its dimensions (academic cynicism, academic exhaustion, and academic inefficiency).

The results from the Kolmogorov-Smirnov test used to verify the normality of the data demonstrate that the assumption of the normality of data distribution is the case on the academic burnout and its dimensions in both tests. Regarding the insignificance of the Levene's Test, the investigation of the equality of variances makes it clear that the homogeneity of variances is established on the academic burnout and its dimensions.

The independent-samples t-test: to investigate whether there was a significant difference between the pretest scores of the experimental

and control groups, the independent-samples t-test was used, the results of which have been presented in table 3.

According to the independent t-test, t value, and the significance level (p> 0.05), there has been no significant relationship between the pretest scores of the experimental and control groups on the variable of the academic burnout and its dimensions. To investigate the effectiveness of rational emotive behavior therapy-based education in the improvement of the academic burnout, an ANCOVA was used, the results of which have been presented in tables 4-8.

Additionally, to investigate the effectiveness of rational emotive behavior therapy-based education in the improvement of the academic burnout dimensions (academic cynicism, academic exhaustion, and academic inefficiency), MANCOVA was used, the results of which have been presented in tables 4 and 5.

As can be seen in the above table, compared to the scores of the pretest, there is a significant difference between the mean scores of the experimental and control groups on the posttest of the academic burnout. This means that rational emotive behavior therapy-based

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Table 3: The independent-samples t-test

variable	group	t value	degrees of freedom	Sig	
Academic burnout	experimental	1/64	28	0/11	
Academic burnout	control	1/04	28	0/11	
A 1	experimental	1/58	28	0/12	
Academic cynicism	control	1/38	28	0/12	
Academic exhaustion	experimental	-1/30	28	0/20	
Academic exhaustion	control	-1/30	20		
A	experimental	2/45	28	0/09	
Academic inefficiency	control	2/43	20	0/09	

Table 4: ANCOVA for investigating the academic burnout

Source of changes	Sum of squares	Degrees of freedom	Mean squares	F	significance	Effect size
pretest	298/20	1	298/20	32/25	0/00	0/54
group	47/32	1	47/32	5/11	0/03	0/15
error	249/65	27	9/42			
total	145242	30				

Table 5: The results from ANCOVA in relation to the overall difference between the two groups in the posttest of dependent variables (the dimensions of the academic burnout)

Test	value	F	Hypothesis Df	Error Df	Significance level
Pillai's Trace	0/67	16/20	3	23	0/00
Wilks Lambda	0/32	16/20	3	23	0/00
Hotelling's Trace	2/11	16/20	3	23	0/00
Roy's Largest Root	2/11	16/20	3	23	0/00

Table 6: Results from MANCOVA in relation to the difference between the two groups in the dimensions of academic burnout

Dependent variable	Sum of squares	Degrees of freedom	Mean squares	F	significance	Effect size
Academic cynicism	21/06	1	21/06	7/39	0/01	0/22
Academic exhaustion	91/08	1	91/08	34/10	0/00	0/57
Academic inefficiency	69/16	1	69/16	21/94	0/00	0/46

Table 7: The independent-samples t-test

Variable	Group	t Value	Degrees of Freedom	Sig	
A andomia buayanay	experimental	0/10	20	0/01	
Academic buoyancy	control	-0/10	28	0/91	

Table 8: ANCOVA for investigating the academic buoyancy

Source of changes	Sum of squares	Degrees of freedom	Mean squares	F	significance	Effect size
pretest	22/33	1	22/33	3/01	0/09	0/10
group	88/38	1	88/38	11/93	0/00	0/30
error	199/93	21	7/40			
total	5355	24				

education has been effective in reducing academic burnout (F = 0/11, SIG = 0/05). In addition, the results from ANCOVA show the effect size by 15%.

According to table 6, all tests indicate a significant difference between the groups. In other words, there is a significant difference between the two groups in at least one of the variables compared (dimensions of academic burnout). The results obtained from the follow-up test have been presented below.

The results from MANCOVA indicate that there is a significant difference between the two groups in terms of the dimensions of the academic burnout and the rational emotive behavior therapy-based education has led to decreased academic cynicism (F = 7/39, SIG = 0/01), decreased academic exhaustion (F = 34/10, SIG = 0/00), and decreased academic inefficiency (F = 29/94, SIG = 0/00) in the

experimental group compared to the control group. Additionally, the results from MANCOVA show that the effect size has been between 0.22 and 0.46. Therefore, according to the results from tables 4-8 and 4-10, the first hypothesis of the research can be confirmed.

The second hypothesis of research: Ellis's rational emotive behavior therapy (REBT) is effective in improving academic buoyancy.

The independent-samples t-test: to investigate whether there was a significant difference between the pretest scores of the experimental and control groups, the independent-samples t-test was used, the results of which have been presented in table 7.

According to the independent t-test, there has been no significant relationship between the pretest scores of the experimental and control groups on the variable of the academic buoyancy (p> 0.05).

As can be seen in the above table, compared to the scores of the pretest, there is a significant difference between the mean scores of the experimental and control groups on the posttest of the academic buoyancy. This means that rational emotive behavior therapy-based education has been effective in increasing academic buoyancy (F = 11/93, SIG = 0/00). In addition, the results from ANCOVA show the effect size by 30%. Therefore, the second hypothesis of the research can also be confirmed.

Conclusion

As the results from the present research have demonstrated, rational emotive behavior therapy has been effective in improving the academic burnout and its dimensions (academic cynicism, academic exhaustion, and academic inefficiency). According to the best knowledge of the author, no research has been conducted, neither in Iran nor in other countries, on the effectiveness of rational emotive behavior therapy in the academic burnout. However, the results of this study can be considered generally consistent with studies that show the effectiveness of Ellis's rational emotive behavior therapy in improving students' psychological problems and disorders. Some of these studies include:, Emanuel (2013), Silverman, McCarthy McCarron (1992, cited in Epstein and Bokham, 2002), Mohammad Nassir (2009), Dryden (1989), , Silverman et al. (1992), Water (1998), Elia (2008), Leaf et al (1992). To explain the results, it can be said that based on the principles of Ellis's approach, what eliminates the feelings of ability and efficiency and leads to the feelings of helplessness and burnout is the acceptance of the firm and inflexible do's and don'ts that lead individuals to extreme and negative perfectionism. These factors are much more prominent in performance situations, such as academic situations, and are prone to have greater domination on students' mental systems, especially those who care about academic achievement and competence. These dogmatic and inflexible thoughts appear to have a motivational role and excite a person for further achievement. However, the fact is that these dogmatic do's and don'ts, in other words, the very perfectionistic and flexible criteria that are established by a person for himself/herself in the field of education, are mostly unrealistic and disproportionate to individual abilities and limitations. Therefore, in such conditions, the individual faces the feelings of failure and disappointment and considers the goals that he/she has set for himself/herself in the field of education out of reach. In this case, instead of realizing the inefficiency of their goals and extreme do's and don'ts, the people attribute their successive failures to deficiencies in their academic efficiency and get cynical towards their academic abilities. Additionally, when a person faces repeatedly with situations in which, despite repeated and ongoing efforts, he/she does not see any progress towards the goals set, he/she experiences the feelings of exhaustion and burnout and loses his/her motivation for further effort. According to the results from testing the second hypothesis, the rational emotive behavior therapy-based education is effective in improving the academic buoyancy. Based on the reviews conducted by the author, no research has been conducted, neither in Iran nor in other countries, on the effectiveness of rational emotive behavior therapy in the academic buoyancy. However, the results of this study can be considered generally consistent with studies that show the effectiveness of Ellis's rational emotive behavior therapy in improving the mental health and psychological skills of students. Some of these studies include: Adameh (2006), Kim (2013), Sap (1966), Silverman et al. (1992). To explain the effectiveness of rational emotive behavior therapy in the academic buoyancy, one can refer to one of the basic concepts of this approach, namely catastrophizing. The concept of catastrophizing is one of the key themes of the Ellis approach. It refers to the fact that individuals, on the basis of their auto-negative thoughts, tend unconsciously to exaggerate the normal problems in their life and consider them as unsolvable problems that cannot be endured. This concept can be considered as the opposite point of the academic buoyancy because a student with the academic buoyancy should be able to accept common academic challenges and problems as a part of his/her life's reality and should be always ready to cope with these problems and solve them. However, according to Ellis's approach, many individuals believe unconsciously that everyday life must be passed without any challenge, and if there is a challenge, it cannot be tolerated. The results of the present study indicate that the rational emotive behavior therapy-based education can be considered as an intervention affecting the decreased academic burnout and the increased academic buoyancy, especially due to affecting the cognitive components involved in academic burnout and buoyancy.

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