

Hossein Jenaabadi,
Naser Nastiezaie,
Hamideh Safarzaie
Iran

The Relationship of Academic Burnout and Academic Stress with Academic Self-Efficacy among Graduate Students

DOI: 10.15804/tner.2017.49.3.05

Abstract

This study aimed to examine the relationship of academic burnout and academic stress with academic self-efficacy among graduate students. 307 graduate students at the University of Sistan and Baluchestan (140 female and 167 male students) were selected as a sample using the stratified random sampling method. The subjects were evaluated by questionnaires on academic burnout, academic stress, and academic self-efficacy. Data was analyzed using one-sample t-test, Pearson's correlation coefficient, and simultaneous regression analysis. Results revealed that academic burnout was significantly related to academic self-efficacy among the students, in the way that an increase in academic burnout among the students led to a decrease in their academic self-efficacy. Moreover, academic stress was significantly related to academic self-efficacy, in the way that an increase in academic stress among the students led to a decrease in their self-efficacy.

Keywords: *academic burnout, academic stress, academic self-efficacy*

Introduction

Educational life is an important aspect of every individual's life that greatly impacts other aspects of his/her life. Meanwhile, numerous challenges that students have faced to achieve their educational goals are among basic issues of the

educational lives of people and education system of each country. When people come into an academic environment, due to multiple factors, they have to go through a high pressure period. Although attending university brings about positive experiences for many students, educational materials, such as tests, assignments, presentations, etc., are accompanied by experiencing academic burnout for others (Rastega, Zare, Sarmaddi, & Hossemi, 2013). Accordingly, promoting mental health in universities is regarded as a key aspect of developing and improving human resources. In recent decades, educational organizations have paid a lot of attention to healthy physical and mental workforces in academic institutions. Previous studies have shown that students' experience moderates high levels of burnout (Pines, Aronson, & Kafry, 1981).

Meier and Schmeck (1985) pointed out that students who experienced burnout became bored with everyday classes. Obviously, when there are sufficient resources for educational programs, students can grow. Among common resources required by university students are the quality and quantity of books, assignments, computer research services, and the number of students in each class (Chickering, 1981). Colleges' investments in and attention to learning contents, resources, and flexibility can lead to the growth and learning of many students (Naemi, 2009). Academic burnout of college students refers to a feeling of tiredness caused by educational demands and requirements (tiredness), being pessimistic and unwilling to do assignments (lack of interest), and a sense of being incompetent as a student (low efficiency) (Behrouzi, Shahni Yeylagh, & Pourseyed, 2013). The issue that was employed by Freudenberg (1974) to refer to "relentless pursuit of impossible goals with inadequate resources" in work environments (Huprich, 2014), as a well-known issue in psychological studies, has led to carrying out several studies in the last three decades and has attracted many researchers' attention since the 1970s (Yang, 2015). Academic burnout consists of factors that can be explained within the framework of Bandura's theory of self-efficacy, Seyle's theory of stress, and motivational approaches (Duran et al., 2015). Academic burnout is one of the detrimental factors in education (Lindemann & Duek, 2011).

On the other hand, academic stress refers to feeling a growing need for knowledge and, at the same time, a perception of not having enough time to achieve that knowledge (Muris, 2012). In defining academic stress, Klink, Byars-Winston, and Bakken (2014) emphasized an individual's assessment made based on experiencing inconsistencies between perceptions of academic demands and interpersonal resources. It was stated that academic stress can cause disorders in performance and compatibility, physical and mental diseases, and lead to low levels of the quality of life among students (Ryan & Twibell, 2015). Academic

stress can have several different causes such as poor education, poor self-concept, negative parental attitudes, poor self-efficacy, and poor self-regulation (Ang & Huan, 2012).

The other key concept in educational environments is academic self-efficacy. Nauman (1990) believed that academic self-efficacy is one of the most significant topics of research in universities. Therefore, understanding factors affecting an individual's efficacy has become a comprehensive psychological and research scope in recent decades. Although several studies have been conducted to examine the efficacy of working organizations, there is still a need to investigate this phenomenon among school and university students. Students' beliefs about their abilities in educational processes and educational activities are defined as academic self-efficacy (Bandura, 1997).

The concept of self-efficacy was first proposed by Bandura in an effort to provide a unified theory to change behaviors. As a part of general self-efficacy beliefs, perceived academic self-efficacy beliefs are not associated with the number of an individual's skills. However, they refer to several beliefs, such as an ability to study, conduct research activities, ask questions in the classroom, successfully interact with teachers, make friendly relations with other students, get a good grade, engage in class discussions, etc., which a person has about his/her ability to achieve educational success under a certain condition. People who have high levels of self-efficacy can benefit from employing appropriate solutions to solve their problems with curiosity and show great endurance in solving their educational problems (Bandura, 1977).

Among the most important concerns of teachers, educational officials, and families of college students there are having academic achievement and preventing academic failure and burnout. Based on several studies, these factors have significant impacts on the fate of an individual and impose high costs on families and society. Currently, this is the most important issue in the education system of Iran and wastes tens of billions of the state budget each year and leaves potential forces and manpower assets useless (Foomani, 1996). Since the main objective of education is learning, and given that learning is primarily measured by students' academic performance, identifying factors influencing academic self-efficacy is one of the most significant research issues of educational centers, especially universities, because very few studies have been carried out in the mentioned field. In this regard, according to the available literature and some theoretical evidence, the aim of this study, as the first study conducted to examine these factors, was to determine the relationship of academic stress and academic burnout with academic self-efficacy. In this context, the following questions are posed:

1. What are the statuses of academic burnout, academic stress, and academic self-efficacy among students?
2. Is there a relationship between academic burnout and academic self-efficacy among students?
3. What is the contribution of each subscale of academic burnout to predicting academic self-efficacy among students?
4. Is there a relationship between academic stress and academic self-efficacy among students?
5. What is the contribution of each subscale of academic stress to predicting academic self-efficacy among students?

Materials and Methods

Statistical Population, Sample, and Method of Sampling

This descriptive-correlational study had a statistical population including all male and female graduate students studying at the University of Sistan and Baluchestan in the 2015/2016 academic year, amounting to 1518 students (825 male and 693 female). Among these people, a total of 307 students (140 female and 167 male) was selected as the sample based on gender, faculty in which they studied, and Cochran's sample size formula, using a stratified random sampling method.

Measurement Tools

Academic Burnout Questionnaire (Berso et al., 1997): This questionnaire was developed by Bresó, Salanova, and Schoufeli in 1997 to examine academic burnout. It has 15 items and 3 subscales including academic fatigue, academic apathy, and academic inefficiency. Questions 1, 4, 7, 10, and 13 evaluate academic fatigue, questions 2, 5, 11, and 14 assess academic apathy, and questions 3, 6, 8, 9, 12, and 15 examine academic inefficiency. This questionnaire is scored based on a 5-point Likert-type scale ranging from totally disagree (1) to totally agree (5). In a study conducted by Naemi (2009), using the Cronbach alpha coefficient, the reliability of academic fatigue, academic apathy, and academic inefficiency was 0.79, 0.82, and 0.75 respectively. Azizi Abarghoui (2010) reported that the Cronbach alpha coefficients of the whole questionnaire, academic fatigue, academic apathy, and academic inefficiency were 0.85, 0.77, 0.82, and 0.66 respectively.

Perceived Academic Stress Inventory (Zajacova, Lynch, and Espenshade, 2005): This inventory was designed by Zajacova, Lynch, and Espenshade in 2005 to assess academic stress. It has 27 items and 3 subscales including difficulty with academic

performance in class, difficulty with academic performance out of class and university, difficulty with managing work, family, and university. Questions 2, 5, 8, 11, 15, 20, and 21 examine difficulty with academic performance in class, questions 1, 3, 7, 9, 14, 16, 17, 18, 19, and 22 evaluate difficulty with academic performance out of class and university, and questions 4, 6, 10, 12, and 13 assess difficulty with managing work, family, and university. The items are scored based on a 5-point Likert-type scale, ranging from totally agree (1) to totally disagree (5). In a study carried out by Sarancheh, Maktabi, and Haji Yakhchali (2014), with the use of the Cronbach alpha coefficient and a split-half method, the reliability of this inventory was 0.83 and 0.78 respectively.

Academic Self-Efficacy Scale (Owen & Froman, 1988): This scale was developed by Owen and Froman in 1988 to examine academic self-efficacy. It has 32 items scored based on a 5-point Likert-type scale ranging from totally disagree (1) to totally agree (5). In a study conducted by Owen and Froman (1988), the reliability of the scale was 0.90 using a test-retest method. Additionally, in another study carried out by Etemadi and Sa'adat (2016), the reliability of the whole scale was 0.91.

Results

Results obtained from the statistical tests are presented in the following section.

Table 1. Status of academic burnout among the students

Variable	M	SD	t-value	T	df	Sig
Academic burnout	40.63	8.22	45	-9.31	306	0.000

According to the results presented in the above table, the value of academic burnout with a mean of 40.63 and a standard deviation of 8.22 is smaller than the hypothetical t-value (45). Since the obtained t (-9.31) with a degree of freedom of 306 is significant at less than the 0.001 significance level, it can be noted that the status of academic burnout among the students under study is lower than the moderate level.

Table 2. Status of academic stress among the students

Variable	M	SD	t-value	T	Df	Sig
Academic stress	57.98	16.65	81	-24.22	306	0.000

As can be seen, the value of academic stress with a mean of 57.98 and a standard deviation of 16.65 is smaller than the hypothetical t-value (81). Since the obtained t (-24.22) with a degree of freedom of 306 is significant at less than the 0.001

significance level, it can be noted that the status of academic stress among the students under study is lower than the moderate level.

Table 3. Status of academic self-efficacy among the students

Variable	M	SD	t-value	T	df	Sig
Academic self-efficacy	1.02	14.51	96	7.64	306	0.000

Given the results presented in the above table, the value of academic self-efficacy with a mean of 1.02 and a standard deviation of 14.51 is smaller than the hypothetical t-value (96). Since the obtained t (7.64) with a degree of freedom of 306 is significant at less than the 0.001 significance level, it can be noted that the status of academic stress among the students under study is lower than the moderate level.

Table 4. Pearson correlation coefficient between academic burnout and academic self-efficacy

Academic Self-Efficacy		
Variable	R	Sig
Academic burnout	-0.383	0.000

According to the obtained results, academic burnout is significantly and negatively correlated with academic self-efficacy ($P < 0.001$). This means that an increase in academic burnout among the students leads to a decrease in their academic self-efficacy.

Table 5. Summary of regression analysis conducted to predict academic self-efficacy via the subscales of academic burnout

	Non-standardized coefficients		Standardized coefficients	T	Sig
	B	Std. Error	Beta		
Academic inefficiency	-0.0971	13.823	-0.328	-6.241	0.000
Academic apathy	-0.0988	13.298	-0.266	-5.057	0.000

Sig=0.000 F=32.209 R2=0.166 R=0.407

Given the results presented in the above table, the value of F is significant at the 0.000 significance level. The coefficient of determination (R^2) equals 0.166. This means that academic burnout can predict 16.6% of the variance in academic

self-efficacy. Furthermore, the results show that among the subscales of academic burnout, academic inefficiency with a beta coefficient of -0.328 and academic apathy with a beta coefficient of -0.266 respectively have the most negative impacts on academic self-efficacy ($P < 0.05$).

Table 6. Pearson correlation coefficient between academic stress and academic self-efficacy

Academic Self-Efficacy		
Variable	R	Sig
Academic stress	-0.174	0.000

According to the obtained results, academic stress is significantly and negatively correlated with academic self-efficacy ($P < 0.001$). This means that an increase in academic stress among the students leads to a decrease in their academic self-efficacy.

Table 7. Summary of regression analysis conducted to predict academic self-efficacy via the subscales of academic stress

	Non-standardized coefficients		Standardized coefficients	T	Sig
	B	Std. Error	Beta		
Difficulty with academic performance in class	-0.532	14.214	-0.354	-3.995	0.000
Difficulty with managing work, family, and university	-0.903	14.134	-0.187	2.1008	0.036
Sig=0.000 F=13.917 R ² =0.057 R=0.240					

Given the results presented in the above table, the value of F is significant at the 0.000 significance level. The coefficient of determination (R^2) equals 0.057. This means that academic stress can predict 57% of the variance in academic self-efficacy. Additionally, the results indicate that among the subscales of academic stress, difficulty with academic performance in class with a beta coefficient of -0.354 and difficulty with managing work, family, and university with a beta coefficient of -0.187 respectively have the most negative impacts on academic self-efficacy ($P < 0.05$).

Discussion and Conclusion

The aim of this study was to examine the relationship of academic burnout and academic stress with academic self-efficacy among the graduate students. The reason for choosing these students was that they were highly involved in learning activities and experiences. The results obtained from this study indicated that all the correlations were desirably significant. A number of researchers confirmed the relationship between academic burnout and physical and physiological states (Cherniss, 1992; Hallsten, 1993; Hobfoll & Freedy, 1993). They demonstrated that people who did not have a sense of self-efficacy usually lost their capacity to adapt. To determine the concept of self-efficacy, Bandura (1977) applied his social-cognitive theory. When examining the relationship between academic burnout and academic self-efficacy, it was revealed that academic burnout was significantly and negatively related to academic self-efficacy. The results of this study showed that the students' mean score on academic burnout was 40.63 and the status of academic burnout among these students was lower than the moderate level. These findings are consistent with the results of a study conducted by Shariffard et al. (2014) on nursing and paramedical students. In the mentioned study, the authors concluded that 24.1% of the students under study experienced high levels of depression and the rest experienced moderate and mild levels of depression.

Moreover, the results of the presented study revealed that the students' mean score on academic stress was 57.98 and the status of academic stress among them was lower than the moderate level. These findings are in line with the results of Yucha, Kowalski, and Cross (2015), Akin (2016), and Shokri et al. (2007), which demonstrated that academic stress was significantly and negatively correlated with academic self-efficacy beliefs. The results of a study carried out by Luzzo and McWhirter (2015) indicated that students who had a sense of self-efficacy were able to overcome obstacles related to perceived stressful factors during their study. Additionally, the results of Akin (2016) showed that self-efficacy had a negative direct impact on stress perceived by university students.

Furthermore, the results of the present study demonstrated that the students' mean score on academic self-efficacy was 1.02 and the status of self-efficacy was lower than the moderate level. When examining the relationship between academic burnout and academic self-efficacy, it was revealed that academic burnout was significantly and negatively related to all the subscales of academic self-efficacy. Through creating a sense of calmness in the face of difficult assignments and activities, high self-efficacy aids people to effectively deal with their academic issues. In contrast, people with low self-efficacy may believe that every

single issue is harder than what they can solve. This belief may increase stress, burnout, and inefficiency in solving problems (Yang, 2015). The results obtained from this study are in agreement with the results of Pan and Franklin (2011), Aftab et al. (2012), and Huang et al. (2012), which showed that academic burnout was significantly and negatively associated with academic self-efficacy, in such a way that an increase in academic burnout decreased academic self-efficacy. In the same line, Huang et al. (2012) figured out that self-efficacy and job satisfaction were significantly and directly related to commitment and self-efficacy was significantly and diversely related to burnout. Moreover, Aftab et al. (2012) examined the relationship between self-efficacy and burnout among physicians and showed that those who had low self-efficacy, compared to others, encountered more difficulties in controlling their behaviors and performance and were more vulnerable.

Given the results of this study, teachers and professors should attempt to increase self-efficacy among students through providing necessary conditions to predict or control academic burnout. To this end, some special assignments associated with personal success can be given to students. Moreover, through displaying appropriate and successful performance patterns similar to those of students, they can be aided to increase their self-efficacy. Verbal persuasion strategies can also be considered as helpful methods to improve self-efficacy among students. Moreover, university curriculums should be developed in such a way that the content of curriculums and mandatory and optional courses in different fields attract university students' attention. The above-mentioned courses should have sufficient importance to teach and have applications in students' everyday lives. Furthermore, professors should be flexible in their class schedules and avoid applying unchangeable curriculums.

Among limitations of this study, the fact that the data was collected with the use of self-report questionnaires can be mentioned. Since the current study was only conducted on graduate students, caution should be exercised when generalizing these results to other populations. Given the results of the presented study and other similar studies, officials working at schools and universities are recommended to consider factors that are involved in the formation of academic burnout. Bearing these factors in mind may improve academic performance among students. Additionally, it is suggested that further studies consider socio-economic status and educational facilities of schools and universities. In addition, conducting research on the effect of burnout on academic performance among students is highly recommended.

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