

## Affective Structures among Students and Their Relationship with Academic Burnout

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### Abstract

The presented study aimed to determine the relationship between affective structures and academic burnout among male and female third grade high school students in Zahedan in the 2016/2017 school year. The descriptive-correlational study had a sample including 362 students selected with the use of a multistage cluster sampling method. To collect data, the Academic Burnout Questionnaire (Berso et al., 1997) and Positive and Negative Affect Schedule (Watson et al., 1988) were used. Results of the present study indicated that positive affect was significantly and diversely related to the subscales of academic burnout (academic fatigue, academic apathy, and academic inefficiency). Moreover, negative affect was significantly and directly related to all the subscales of academic burnout. Results of an independent t-test demonstrated that there were no significant differences between the male and female students with regard to positive and negative affects. However, academic burnout was higher among the male students compared to their female counterparts. Furthermore, results of a stepwise regression analysis showed that in the first step, positive affect alone predicted 22% of the variance in academic burnout and in the second step, negative affect increased the power of predicting academic burnout to 28%. Given the predictive power of affect, it can be effectively applied to prevent academic burnout.

**Keywords:** *affective structures, positive affect, negative affect, academic burnout, students*

## Introduction

The term *burnout* was scientifically used, for the first time, by a psychiatrist Freudenberg (1974). Following him, Neuman (1990) proposed the term *academic burnout*. Academic burnout is characterized by several features including a sense of exhaustion caused by academic demands and requirements (academic fatigue), a growing sense of pessimism and lack of interest in academic tasks (academic apathy), and poor personal development in academic and educational affairs (academic inefficiency). In recent years, burnout has expanded to educational contexts and situations and is mostly referred to as academic burnout (Salmela-Aro, Kiuru, Pietikainen, & Jokela, 2008). Nowadays, academic burnout is a major concern of families and education authorities. In addition to its adverse effects on the national economy, academic burnout has negative impacts on students' mental health (Eslami, 2011).

Among other significant factors affecting learning and academic burnout among students, positive and negative affects, known as affective structures, can be included. Indeed, affect refers to the student's interest in doing his/her assignments (Dinner & Emmons, 1984). Watson and Tellegen (1985) divided affect into two basic affective dimensions. One of these dimensions is negative affect, which is defined as the extent to which a person is dissatisfied and has an unpleasant feeling. In contrast, positive affect refers to the extent to which a person experiences joy, alertness, and involvement in enjoyable tasks. Various studies have indicated that positive and negative emotions can play key roles in predicting and modifying health consequences and can act in accordance with different mood states since most of the feelings students experience in a learning environment are recognized through their relationships with a number of important outcomes such as academic achievement and academic adjustment as well as physical and psychological health and well-being (Salkowski, Joyce, & Stroch, 2012).

Negative affect makes students less active (Reynolds & Weigand, 2010) and is closely associated with emotional exhaustion and academic stressors (Márquez, Martin, & Brackett, 2006). In their study, Saklofske, Austin, Rohr, and Andrews (2007) showed that negative affect and its dependence on stress among students were related to academic failure. In another study, Lin and Huang (2014) reported that the status of academic burnout among university students was lower than the moderate level. Vahedi, Hashemi, and Shafiee Surak (2014) found that academic experience and neuroticism were significantly correlated with academic burnout. Additionally, they revealed that self-efficacy, internal valuation, and self-regulation were negatively associated with academic burnout.

Zahed Bablaan, Pourbahram, and Rahmani Javanmard (2014), in their study, concluded that academic burnout was higher among male students compared to that in their female counterparts. On the other hand, Azimi and Piri (2013) revealed that there were no significant differences between male and female students with regard to academic burnout.

Michaeli, Rajabi, Abbasi, and Zamanlou (2014) reached a conclusion that female students had higher emotion regulation and positive affect and experienced lower academic burnout compared to male students. However, considering negative affect and academic performance, no significant differences were found between these two groups. Marzoughi, Heidari, and Heidari (2013) showed that there were no significant differences between male and female students in terms of academic burnout.

Therefore, given the discussed theoretical and practical background and taking the significance of academic burnout and factors affecting it into account, this study aimed to investigate the relationship of affective structures with academic burnout among students.

## Methods

This descriptive-correlational study had a statistical population including all male and female third grade high school students in Zahedan in the 2016/2017 school year. Among these students, 362 individuals were selected as the sample using the multistage cluster sampling method. In this regard, 5 schools were chosen from each district of Zahedan (districts 1 and 2) and 2 classes were selected from each school. Afterwards, the sample was randomly selected from each class.

To collect the required data, the following measurement tools were applied.

The Academic Burnout Questionnaire (Berso et al., 1997): this questionnaire assessed 3 subscales including academic fatigue, academic apathy, and academic inefficiency and was designed by Bresó, Salanova, and Schoufeli in 1997. This questionnaire, which has 15 items, is scored based on a 5-point Likert-type scale (ranging from totally disagree to totally agree). Bresó, Salanova, and Schoufeli (1997) reported that the reliability of academic fatigue, academic apathy, and academic inefficiency was 0.70, 0.82, and 0.75 respectively. In the presented study, Cronbach's alpha coefficients of the whole questionnaire, academic fatigue, academic apathy, and academic inefficiency were 0.86, 0.75, 0.74, and 0.68 respectively.

The Positive and Negative Affect Schedule (Watson et al., 1988): this scale includes 20 items and was developed and standardized by Watson, Clark, and Tellegen (1988). It evaluates 2 subscales including positive affect and negative affect. Each item is answered based on a 5-point Likert-type scale ranging from not at all to very high. Cronbach's alpha coefficient of positive affect was reported to range from 0.86 to 0.90 and Cronbach's alpha coefficient of negative affect was reported to range from 0.84 to 0.87. In this study, Cronbach's alpha coefficients of positive affect and negative affect were 0.76 and 0.84 respectively.

The obtained data were analyzed by the Pearson correlation coefficient, stepwise regression analysis, independent t-test and one-sample t-test.

### Results

To examine the relationship of positive and negative affects with the subscales of academic burnout, the Pearson correlation coefficient was applied, the results of which are presented in Table 1.

**Table 1.** Correlation matrix among positive and negative affects and the subscales of academic burnout

	1	2	3	4	5	6
Academic apathy	1					
Academic fatigue	0.721**	1				
Academic inefficiency	0.554**	0.457**	1			
Positive affect	-0.384**	-0.332**	-0.485**	1		
Negative affect	0.395**	0.346**	0.248**	-0.309**	1	
Academic burnout	0.884**	0.868**	-0.789**	-0.471**	0.387**	1

\*\* P<0.01

The results presented in the above table show that positive affect is significantly and diversely related to the subscales of academic burnout. Moreover, negative affect is significantly and directly related to the subscales of academic burnout.

To find which subscale of the students' affective structures can predict academic burnout among them, a stepwise regression analysis was used.

The results of the stepwise regression analysis presented in Table 2 indicate that in the first step, positive affect predicts 22% of variance in academic burnout. In the second step, negative affect increases the predictive power by 0.06%

and positive and negative affects together predict 28% of variance in academic burnout.

**Table 2.** Results of the stepwise regression analysis conducted to predict academic burnout via the students' affective structures

Criterion variable	Pattern	Variables entered into the equation respectively	R	R <sup>2</sup>	Adj-R <sup>2</sup>	SE	B	β	F	T	Sig
Academic burnout	stepwise	Positive affect	0.471	0.222	0.220	9.38	-0.642	-0.471	102.62	-10.13	0.00
		Negative affect	0.535	0.286	0.282	8.99	0.325	0.267	72.05	5.701	0.00

To investigate the difference in affective structures among the male and female students, an independent t-test was used, the results of which are presented in Table 3.

**Table 3.** The results of the independent t-test carried out to examine the difference in affective structures and academic burnout based on gender

Variable Independent	Variable Gender	N	M	SD	t-statistic	Sig
Positive affect	Female	181	34.92	7.76	-0.944	0.346
	Male	181	35.70	7.82		
Negative affect	Female	181	29.09	8.51	0.625	0.532
	Male	181	28.52	8.96		
Academic burnout	Female	181	39.56	10.40	-3.162	0.002
	Male	181	43.05	10.56		

The results presented in this table demonstrate that the male students' mean scores on positive affect and negative affect are greater than those of the female students. However, this difference is not statistically significant. Furthermore, considering academic burnout, the male students' mean score is greater than that of the female students and this difference is statistically significant.

To evaluate the statuses of affective structures and academic burnout among the students, a one-sample t-test was applied, the results of which are presented in Table 4.

**Table 4.** The results of the one-sample t-test carried out to evaluate the statuses of affective structures and academic burnout among the students

Variable	N	M	SD	Expected mean	Error	df	Sig
Positive affect	362	35.31	7.79	30	0.409	361	0.00
Negative affect	362	28.81	8.74	30	0.459	361	0.00
Academic burnout	362	41.31	10.61	45	0.558	361	0.00
Academic fatigue	362	16.005	4.58	15	0.241	361	0.00
Academic apathy	362	11.12	3.75	12	0.197	361	0.00
Academic inefficiency	362	14.17	4.20	18	0.220	361	0.00

The results presented in this table show that the students' mean score on positive affect (35.31) is significantly greater than the mean (30). Therefore, the status of positive affect among the students under study is higher than the moderate level. Considering negative affect, the students' mean score (28.81) is significantly lower than the mean (30). Hence, the status of negative affect among the students under study is lower than the moderate level.

With regard to academic burnout, the students' mean score (41.31) is lower than the mean (45). This means that the status of academic burnout among the students under study is lower than the moderate level. Considering academic fatigue, the students' mean score (16.005) is greater than the mean (15). Moreover, with regard to academic apathy, the students' mean score (11.12) is lower than the mean (12) and the students' mean score on academic inefficiency (14.17) is lower than the mean (18). Hence, the status of academic fatigue among the students is higher than the moderate level. However, the statuses of their academic apathy and academic inefficiency are lower than the moderate levels.

## **Discussion and Conclusion**

The present study aimed to examine the relationship between affective structures and academic burnout among the students. The results of this study showed that positive affect was significantly and diversely related to the subscales

of academic burnout. This finding is in line with the results of Saklofske et al. (2007), Salkowski, Joyce, and Stoch (2012), Vahedi et al. (2014), and Michaeili et al. (2014), which indicated that there was a correlation between positive affect (or its realizations) and academic burnout. To explain this finding, it can be noted that several previously carried out studies indicated that gentle and positive emotional states can particularly affect daily thinking processes. Having positive emotions is a sign of having positive information in memory and vice versa. When stressful conditions, like attending school, are accompanied with positive affect, people usually show a lot of effort and employ lots of energy to achieve their goals.

Additionally, the results indicated that negative affect was significantly and directly related to the subscales of academic burnout. This finding is consistent with the results of Saklofske et al. (2007), Salkowski et al. (2012), Vahedi et al. (2014), and Michaeili et al. (2014), which revealed the relationship between negative affect and academic burnout. Negative affect leads to loss of energy and personal resources. People who experience high levels of negative affect are usually anxious and worried and they usually have low levels of energy. Experiencing negative affect leads to achieving low levels of performance.

According to the results of the presented study, academic burnout was higher among the male students compared to their female counterparts. This finding is in agreement with the findings of Zahed Bablaan et al. (2014) and Michaeili et al. (2014). However, it is not consistent with the results of Azimi and Piri (2013) and Marzoughi et al. (2013). To explain this finding, it can be mentioned that male and female students have different academic motivation and concerns about unemployment have a significant impact on male students. Hence, there is a possibility that male students, compared to female students, experience higher levels of academic pressure and have additional concerns. In this regard, these factors can exacerbate academic burnout among male students.

Considering positive and negative affects, no significant differences were found between the male and female students under study. This finding is not in line with the results of Michaeili et al. (2014), which demonstrated that female students experienced higher levels of positive affect compared to their male counterparts. It is likely that the possibility of continuing education provides more positive feedback for female students compared to male students. This may create more positive emotions among female students. It should also be noted that the results of this study are consistent with a part of the results obtained from the study conducted by Michaeili et al. (2014), which revealed that there were no significant differences between male and female students with regard to negative affect. However, unlike the results of this study, many social psychologists believe that the concept of self

is different in male and female students. When defining self, male students mainly focus on uniqueness. Conversely, female students' schemas mostly put emphasis on emotions, relations, and being related to others.

Furthermore, another result of this study revealed that the status of academic burnout among the students was lower than the moderate level. This finding is in line with the results of Lin and Huang (2014), which indicated that the status of academic burnout among students was lower than the moderate level.

Finally, the results of the present study indicated that positive and negative affects predicted variance in academic burnout among the students. Therefore, given the obtained results, it can be concluded that an increase in positive affect and an improvement in the method of controlling negative affect can play key roles in the prevention of academic burnout. In this regard, to improve positive affect, reduce negative affect, and prevent the incident of academic burnout among students, course planners are highly recommended to revise school curricula and pay attention to students' interests and community needs when planning a course content.

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