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Locus of Control and Academic Burnout among Allameh Tabataba'i University Students

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LOCUS OF CONTROL AND ACADEMIC BURNOUT
AMONG ALLAMEH TABATABA'I UNIVERSITY
STUDENTS

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Abstract

Background: the present research was conducted to investigate the effect of locus of control on academic burnout amongst Allameh Tabataba'i University students.

Materials and Methods: This was a descriptive correlational research study. Participants consisted of 130 students from various academic levels (B.A., M.A., Ph.D.) chosen by multiphase cluster sampling. Enrolled students completed the Rotter's Locus of Control Scale and Academic Burnout Inventory. For statistical analyses, it used the independent t-test, one-way analysis of variance, Pearson's correlation coefficient and simple regression analysis.

Results: The results of the independent t-test and analysis of variance showed that females experienced more burnout than males. Ph.D. students had less academic burnout compared to students with other academic degrees. In addition, there was a positive statistical relation between external locus of control and academic burnout among students. External locus of control showed the most significant role in the explanation of students' burnout.

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Conclusion: Those with a greater the increase in external locus of control show evidence of more intense academic burnout.

Keywords: Academic Burnout, Locus of Control, University Students

Introduction

The term burnout is defined as a type of fatigue and Exhaustion caused by hard work. Many researchers consider burnout to be a state of emotional fatigue that results from chronic stress syndrome such as pressure, time limitations, and lack of adequate resources to accomplish assigned tasks and duties (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003; Maslach, Schaufeli, & Leiter, 2001; Toppinen-Tanner, Ojajärvi, Väänäänen, Kalimo, & Jäppinen, 2005). Burnout does not usually result from one or two pressing life events, rather it is the gradual increase in daily stresses (Maslach & Leiter, 1997). The symptoms of burnout include emotional fatigue and decline in personal function (Watts & Robertson, 2011).

Numerous studies of burnout have been conducted on salesmen (Sand & Miyazaki, 2000) teachers (Greenglass, Burke, & Fiksenbaum, 2001), nurses (Zellars, Perrewé, & Hochwarter, 2006) and psychologists (Sandoval, 1993), all of which are known to have job burnout (Maslach & Jackson, 1984). Despite this, the burnout variable is extended to educational situations and contexts where it is defined as academic burnout (Salmela-Aro, Savolainen, & Holopainen, 2009).

Clark et al. (2009) studied the burnout phenomenon among nurses, counselors and B.A. students. They have concluded that students also normally experience this phenomenon. According to Yang (2004), students are considered employees because they deal with paperwork and are susceptible to burnout. Boudreau et al. (2004) have observed that academic burnout is connected to numerous stresses, working for an extended period of time accompanied by education, concern and worry about scores, in addition to uncertainty about the future, low level of control, low satisfaction caused by imbalance between personal and vocational life, and low level of support from peers and friends. Previous research in industry and organizations have shown that

burnout has numerous consequences such as absenteeism, job abandonment, decline in health, and high risk of susceptibility to depression (Toppinen-Tanner et al., 2005). These results are also true for academic burnout (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002). Researchers such as Ahola and Hakanen (2007) have shown that academic burnout results in depression. Neumann et al. (1990) believe that academic burnout in students is an important research area for the university because of the following reasons; first, academic burnout can be an important key to perception of various student behaviors such as academic function during a study session. In addition, academic burnout influences students' relations with their faculty and university. For example academic burnout affects students' commitments to the faculty and their engagement in scientific affairs after graduation. Academic burnout can influence students' eagerness and enthusiasm for study.

Locus of control is a system of beliefs based on an individual's assessment of his/her achievements and failures (Rotter, 1966). Rotter (1966) indicated that individuals who have external locus of control enjoy positive and negative perception of incidents and events unrelated to their behavior and which are beyond the individual's control. The other dimension of internal locus of control results from either a positive or negative perception of events which is under the influence of the individual's control. Tella (2007) discovered that locus of control is a good predictor of behaviors.

Studies have shown that individuals with internal locus of control are more resistant and have better capabilities in coping with vocational pressures and stresses compared to those who have external locus of control (Chen & Silverthorne, 2008b). Martin et al. (2005) have also proven that individuals with internal locus of control are more capable of overcoming problems of the environment and job stresses, have increased job satisfaction and excellent function in the working environment compared to those who have external locus of control. Schmitza et al. (2000) in their study have shown that stress and burnout caused decreased locus of control in nurses. Although numerous researchers have studied locus of control in Iran (Kalantarkousheh, Mohagheghi, & Hosseini, 2013), different results have been reported. Although studies have reported a meaningful relation between locus of control and the components of job burnout, a study by Qahremani et al. (2011) did not find any meaningful relation between the two.

Numerous materials deal with burnout in working organizations, nevertheless a study of this phenomenon amongst students deserves much attention. Academic burnout and its interaction with locus of control require additional research. Hence, the present research aims to examine the relation between locus of control and Allameh Tabataba'i University students' academic burnout. Our intent is to investigate whether locus of control is connected with academic burnout. Because gender differences have been reported in numerous studies (See: Kalantarkousheh, 2012), thus the current study has also emphasized gender differences among study participants.

Materials and Methods

Research method

This was a descriptive correlational research study that surveyed the role of locus of control in academic burnout among university students. The attention was paid to gender differences and predictive tests, along with a study of the relation between the two variables of academic burnout and locus of control. For data analyses, it used one-way analysis of variance, the independent t-test, Pearson's correlation coefficient and simple regression.

Statistical population and research sample

The statistical population of this research consisted of students from various academic levels (B.A., M.A., Ph.D.) who were studying during the 2012-13 academic year at Allameh Tabataba'i University. Initially it chose one out of eight faculties by cluster random sampling.

Questionnaires

Rotter's Locus of Control Scale

This questionnaire (Rotter, 1966) includes 29 items, each of which has a pair of questions, designated "a" and "b". In this scale, scores greater than 9 are allocated to external locus of control whereas lower scores are assigned the designation of internal locus of control. Rotter (1966) has reported 0.84 for the validity of this questionnaire and a reliability that ranged from 0.48 to 0.83 according to a test-retest that was conducted at a two-month interval. Faranak et al. (2009) in an Iranian study reported Cronbach's alpha coefficient of 0.86.

Bresó Academic Burnout Questionnaire

This questionnaire was developed by Bresó et al. (1997). It measures three areas of academic burnout: academic exhaustion, academic disinterestedness, and academic inefficiency. The questionnaire is comprised of fifteen items that are graded according to the Likert scale, using five degrees that range from 'completely disagree' to 'completely agree'. Reliability as calculated by the questionnaire's developers were 0.70, 0.82, and 0.75 for the three domains of academic burnout (Breso, Salanova, & Schaufeli, 2007). Na'ami (2010) in an Iranian study has reported its reliability as 0.79, 0.82, and 0.75 respectively.

Results

Descriptive Statistics

As shown in Table 1, the mean and standard deviation of females' scores were as follows for external locus of control (50.45±2.12), internal locus of control (6.61±2.08), and academic burnout (40.84±9.78). Mean and standard deviation for males' scores were as follows: external locus of control (20.95±2.12), internal locus of control (6.02±2.08), and academic burnout (37.57±7.73). Kline (2010) has stated that data are normally distributed with a skewness of ±3 and kurtosis of ±10. In the current study, the rate of skewness was 0.35 and for kurtosis it was 0.34 for the academic burnout variable. For locus of control, the rate of skewness was 0.28 and for kurtosis it was 0.15, hence the data had a normal distribution.

Table 1. Mean and Standard Deviation in Total and by Gender Differences.

Variables	Woman			Man			Total		
	N	M±SD	Alfa	N	M±SD	Alfa	N	M±SD	Alfa
External Locus of Control	31	12.95±2.50	0.70	23	12.45±2.25	0.73	52	12.56±2.37	0.72
Internal Locus of Control	36	6.61±2.08		40	6.06±2.25		78	6.29±2.18	
Academic Burnout	67	42.11±9.87	0.85	63	37.57±7.73	0.78	130	39.25±8.96	0.83

Table 2. Mean and Standard Deviation Based on Academic Level.

Variables	B.A	M.A	Ph.D
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	N	M±SD	N	M±SD	N	M±SD
External Locus of Control	28	13.05±1.84	26	13.81±2.35	-	-
Internal Locus of control	18	6.74±2.28	55	6.07±2.18	7	7.67±0.57
Academic Burnout	130	42.11±9.87	130	38.73±8.14	130	34.67±6.42

According to Table 2, the mean and standard deviation for external locus of control among B.A. students was 13.05±1.84 and for those at the M.A. level it was 13.81±2.35. Surprisingly, there were no Ph.D. students with scores in the external locus of control. The mean and standard deviation for internal locus of control was as follows: B.A. (6.74±2.28); M.A. (6.07±2.18); and Ph.D. (7.67±0.57). The mean and standard deviation for academic burnout was 42.11±9.87 for students at the B.A. level, 37.73±8.14 for M.A. level students and 36.67±6.42 for those at the Ph.D. level.

Inferential Statistics

The first and second hypotheses propounded in this research were the analogical study of the rate of locus of control and academic burnout among females and males as reported in table 3.

Table 3. Independent t-test for academic burnout and loci of control

As shown in Table 3, the calculated t-test for studying the difference in academic burnout mean scores in males and females was -2.11, which was statistically significant ($p < 0.05$). Thus this hypothesis, "There is a meaningful difference between females and males concerning the rate of academic burnout" is confirmed. The results have shown that the mean academic burnout scores among males was statistically less than females. There was no significant difference observed between males and females in the rate of external and internal locus of control. Hence, the hypothesis, "there is a meaningful difference in the rate of external and internal loci of control among females and males" was rejected.

Table 3. Independent t-test for Academic Burnout and Locus of Control

Variable	Group	N	M±SD	t	Sig(2-tailed)	Effect size
Academic	Girls	67	42.11±9.87	-2.11	0.03	0.18

burnout	Boys	63	37.57±7.73			
Internal Control	Girls	42	6.61±2.08	0.74	0.67	0.13
	Boys	36	6.06±2.25			
External Control	Girls	31	12.95±2.50	-1.18	0.23	0.10
	Boys	21	12.45±2.20			

Table 4 shows the results of one-way analysis of variance that compared the academic burnout rate at different academic levels among students.

Table 4. Academic Burnout Rates at Different Academic Levels among Students

<i>Academic Level</i>	<i>N</i>	<i>M±SD</i>	<i>F</i>	<i>Sig(2-tailed)</i>	<i>Effect size</i>
B.A	45	42.11±9.87	3.33	0.039	0.22
M.A	78	38.73±8.14			
PhD	7	34.67±6.42			

As seen in Table 4, the calculated F for studying the mean difference in academic burnout at different academic levels was 3.78, which was statistically significant ($p < 0.05$). This confirmed the hypothesis, "There is a meaningful difference between academic levels and academic burnout rate". The results showed lower mean academic burnout among Ph.D. students compared to other degrees.

Table 5. Correlation Coefficient Matrix between Academic Burnout and Locus of Control (External – Internal)

<i>Variable</i>	<i>Total (N=130)</i>			<i>Boys (N=63)</i>			<i>Girls (N=67)</i>		
	<i>r</i>	<i>P</i>	<i>Effect Size</i>	<i>r</i>	<i>P</i>	<i>Effect Size</i>	<i>r</i>	<i>P</i>	<i>Effect Size</i>
Academic Burnout and External Locus of Control	0.39**	0.001	0.15	0.68**	0.000	0.45	0.08	0.53	0.004
Academic Burnout and Internal Locus of Control	-0.07	0.56	0.0049	-0.32	0.10	0.10	-0.04	0.81	0.001

The results of Table 5 show a statistically significant relation between academic burnout and external locus of control ($r=39, p > 0.05$) which confirmed the hypothesis, "There is a meaningful

relation between burnout and external locus of control". There was no statistically significant relation between academic burnout and internal locus of control observed ($r=0.07$, $p>0.05$) which rejected the hypothesis, "There is a meaningful relation between academic burnout and males' external locus of control". However a positive statistically significant relation between males' academic burnout and external locus of control ($r=0.68$, $p<0.05$) was observed. Therefore the hypothesis, "There is a meaningful relation between academic burnout and males' external locus of control" was confirmed. However this relation was not significant for females ($r=0.08$, $p>0.05$). The hypothesis, "There is a meaningful relation between academic burnout and females' external locus of control" was rejected. It was observed no statistically significant relationship between internal locus of control and academic burnout in either females or males ($p>0.05$). Thus the hypotheses, "There is a meaningful relation between academic burnout and females' internal locus of control" and "There is a meaningful relation between academic burnout and males' internal locus of control" were rejected.

Table 6. Simple Regression Analysis in Terms of Total and by Gender

Group	R ²	F	P
Total	0.15	11.41	0.001
Men	0.47	29.91	0.000
Women	0.003	0.09	0.76

Among the predictive variables for burnout, external locus of control could generally predict 15% variance in academic burnout. The external locus of control in males, could predict 47% of academic burnout, whereas the external locus of control in females could only predict 0.03% percent of their burnout which was not statistically significant. Hence the hypothesis, "External locus of control is a predictor of females' and males' academic burnout" was confirmed both in general and for males, however this hypothesis was rejected in females.

Discussion and Conclusion

The aim of this research was the determination of relevant factors in Allameh Tabataba'i students' academic burnout. It was examined the relation between locus of control, gender and education level to academic burnout. One hypothesis of this research was the comparison of academic burnout between females and males, which showed that females experienced more academic burnout than males. A research has shown that among burnout components, female

employees experienced more emotional burnout, however male employees had more personality metamorphosis compared to females. Pines et al. (2011) have shown that female employees experienced more burnout compared to their employed husbands. Salmela-Aro and Tynkkynen (2012) have also shown that females experienced more burnout than males. The results of the present research were not congruent with studies by Qahremani et al. (2012), Rashedi et al. (2012) and Koranian et al. (2008). The results of their studies showed no meaningful differences in burnout rate between the two genders. The results of the present research also showed no meaningful difference between females and males in the rates of locus of control (external – internal), which agreed with the results of research performed by Sa'adat and Qasemzadeh (2011) and Charati and Hagshnas (2010).

The results of one-way analysis of variance showed that the mean academic burnout scores among Ph.D. students was statistically lower than in M.A. and B.A. students. This showed that Ph.D. students experienced less burnout. Talaei et al. (2008) found a meaningful relation between academic level and burnout. It seemed that with increased education level, there was an increase in development and maturity among students which enabled them to have more resistance against pressure and stresses of academic studying. Although the results of the present research confirmed studies by Sunbul (2003) and Martin et al. (2005), it did not agree with a study by Qahremani et al. (2012).

The results of Pearson's correlation coefficient test and simple regression analysis showed that external locus of control had a positive, direct relation to academic burnout. However amongst females it observed no meaningful relation between this variable and burnout. In general as well as among males, external locus of control was predictive of students' academic burnout. There was a negative, non-significant statistical relation between academic burnout and internal locus of control, hence it was unable to conclude that internal locus of control was predictive of academic burnout. In other words, the results of this study showed that only individuals with external locus of control experienced more academic burnout. The results of this hypothesis were in agreement with similar studies by Schmitz et al. (2000), Akça and Yaman (2010), Chen Chen and Silversone (2008a), Dorman (2003), Chalvin (2000), Zellars et al. (2004) Sunbel (2003), and Khajeddin et al. (2006). Their research results showed a meaningful relation between locus of control and burnout. The results of the current study did not agree with studies conducted by Qahremani et al. (2012), and Safari and Goodarzi (2010).

The last but not least, limitations of the present study were not deniable. Different groups of participants with different cultures beside different demographic info of participants were suggested.

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