

STUDY OF THE RELATIONSHIP BETWEEN ACADEMIC PERFORMANCE AND SATISFATION WITH STRESS (TENSION) OF 2ND GRADE FEMALE STUDENTS OF URMIA CITY'S ZONE 1 HIGH SCHOOLS

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ABSTRACT

In this paper, the relationship between academic performance and satisfaction and stress of female students of 2nd grade of Urmia City's zone 1 high school in 2014-15 year by means of correlation factor and regression statistical methods. To collect data, two questionnaires; academic satisfaction and stress are used. Statistical population of this work includes all female students of 2nd grade of Urmia city's high schools as much as 9672 ones. According to Cochran formula, 370 people were selected by means of multistep cluster random sampling method. Results reveal that there is a significant relationship between academic satisfaction and performance and stress of students.

Keywords: *Academic Satisfaction, Academic Performance, Stress*

INTRODUCTION

Adolescence is one of the most critical periods of life which is accompanied with various changes (Ezzat *et al.*, 2009). Problems, difficulties and rise and falls of life are so that adolescence period can be called the period of crisis and pressure (Lashkari *et al.*, 2007). One of the important and effective systems of today's world is the educational system of each country. Academic achievement, outcome of schools, universities and other educational centers are the important signs of achieving goals (Shoari, 2008). Therefore, performing a comprehensive study in the field of academic achievement is of undoubted significance and as a result, investigation of factors contributing to this concept is of great importance. As we know, at present that globalization made the world a small town, although this goal is a great and important one, by a brief look at psychological theories, it can be found out that getting academic degree is not all of the success, but achieving satisfaction is the real meaning of success. Many people achieved the highest levels of academic degrees but didn't enjoy their life spent for study. For this, education and training based on students' satisfaction is one of the main duties of researchers and planners of educational system (Ezzat *et al.*, 2009).

The relationship between academic satisfaction and achievement is always attended by educational, social and personality psychology. Researches performed in this regard, revealed that there is a direct relationship between above factor and academic achievement. Furthermore, in literature, it is clear that two aforesaid factors can be changed; that is, by changing in positive direction, we can have high academic improvements for students (Edraki *et al.*, 2011). Students' academic satisfaction is an effective factor in the flow of education including students' understanding about educational programs is the required condition for study as well as teacher's behavior and instruction (Lashkar, 2007). Despite of extraordinary importance of academic satisfaction in education, limited studies are performed is the main challenge in development of this item so that the formation of academic satisfaction is one of the ambiguous issues about this item (Behjati, 2002). As a result of such shortcomings, we have to understand academic satisfaction and life satisfaction as a general item covering academic satisfaction as well.

However, another factor contributing to academic achievement as well as satisfaction is anxiety and stress. Of course, results of study of the effect of stress on academic achievement are not the same. Some report the strong relationship between reduction of academic performance and exam anxiety, some report weak relationship and rest of them report no relationship.

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Stress is related to personality and confidence of students as well; so that it is more common in introvert students and those having low confidence. Anxious students are forced to abnormal activities resulting in interruption in performance (Sarason, 1975).

The fact that illustrates the importance of this research is that today, surrounding of a student is a stress making one in which many of students become anxious. For example, when they are taking exam, in addition to family problems or disturbing atmosphere of the home as well as various engagements outside home, as a result of tensions of the school, they misunderstand the question or do not remember a lesson they have studied thoroughly last night.

Consequently, they pass the exam with a low score. It is difficult to think that we know the answer of a question and probably remember it after exam. Therefore, stress leads to weak performance and this threatens their mental health.

This issue, in addition to damaging academic achievement of student, lowers his/her academic satisfaction and as a result, life satisfaction. Of course, due to various effects of three aforesaid factors and variables, it is necessary to perform study in various educational environments compatible with different cities and nations so that in addition to investigate the effect of stress of academic achievement and satisfaction, we can make exact plans for preventing or reducing the negative effects of it. For this, we intend to investigate this issue in 2nd grade female students of Urmia city's zone

Literature Review

“In 1988, from 700 executive managers of France, 41% experienced dangerous disorders and seriously suffered from its consequences including anxiety, stress and physical problems” (Abtahi, 1996).

“Stress has physical consequences as well which engages human force of an organization and therefore, lowers the goals and imposes heavy costs to organization” (Bolourchi, 1996).

Stress management can be defined as a set of effective solutions for preventing and controlling the stress and finally minimization of consequences and outcomes (Jafari, 2005).

Exam anxiety as one of the main reasons of educational fall and failure is an important educational problem which affects millions of students all around the world, threatens their mental health and negatively contributes to their effectiveness, talents, personality and social identity and can lower their academic achievement and optimal performance in an exam (Faravi and Bigdeli, 2008).

Lack of anxiety can make numerous problems and dangers for us. As a part of human life, anxiety forms one of the components of personality. In addition, there is an anxiety as an illness since anxiety can be useful and creative in a certain limit. This case can find a chronic and permanent aspect which can be considered as the failure of adaptation and an extensive desperation which deprived someone from a main part of his/her utilities (Dadsetan, 2003).

Stress implies to facts which can be described as threatening mental, physical and physiological health or a combination of them. As a result of overpressure, its chronic intensity and identity can result in physical and psychological illnesses such as depression and neural and heart diseases (Quick *et al.*, 1997).

In 1936, Hans Sully from Montreal published his first thesis about reactionary. In 1948, in a series of conferences in French college and then in 1950 in Lanique Hospital, he introduced general syndrome of adaptation with biochemical aspects and hormonal mechanisms.

MATERIALS AND METHODS

This research is of applied type and from data collection point of view is descriptive from correlative type (Delavar, 2012). In this work, relationship between variables are analyzed based on research goal.

Statistical Population and Sample

Statistical population of this research includes all female students of 2nd grade of Urmia city's zone 1 high schools which are – according to statistics – 9672 students.

Due to geographic distribution of the population and high number of students, we need sampling. For this purpose, using multistep cluster sampling method, some schools of zone 1 of Urmia and in each school, three classes including all majors are selected and finally, using Cochran formula, a random sample including 370 students were selected and research is performed over these students.

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Temporal and Spatial Category of Research:

In this paper, all female students of 2nd grade of Urmia city's zone 1 high schools constitute the spatial and fall of 2014 is the temporal category of research.

Data Collection Method

In this step, to collect data in the field of theoretical basis and literature, library sources, papers, required books as well as internet are utilized.

Moreover, in this work, a questionnaire which is a combination of academic satisfaction and stress is used which after approval of final version of it by advisor, permission for research was issued by university.

Research Goals

Main Goals

Investigation of the relationship between academic satisfaction and performance and stress of students in female students of 2nd grade of Urmia city's zone 1 high schools.

Secondary Goals

- Determination of the relationship between academic satisfaction and stress in female students of 2nd grade of Urmia city's zone 1 high schools
- Determination of the relationship between academic performance and stress in female students of 2nd grade of Urmia city's zone 1 high schools
- Determination of the portion of each of the factors of academic satisfaction and performance in predicting students' stress

Research Hypotheses

- There is a strong and inverse relationship between academic satisfaction and stress of female students of 2nd grade of Urmia city's zone 1 high schools.
- There is a strong and inverse relationship between academic performance and stress of female students of 2nd grade of Urmia city's zone 1 high schools.

Conceptual and Operational Definition of Variables

Stress: a dynamic and exciting condition in which someone faces an opportunity, limitation or abnormal demand and expresses physical, emotional and cognitive reactions (Moghimi, 1999). The score taken by students in stress test represents their stress level; that is, higher score means higher stress level.

Academic satisfaction: when someone gets a suitable score, this brings about academic and life satisfaction. The score taken by students in academic satisfaction test represents their satisfaction level; that is, higher score means higher satisfaction level.

Academic performance: proficiency in information and theoretical knowledge in a subject (Pasha, 2001).
Grade point average of educational year of students.

RESULTS AND DISCUSSION

Kolmogorov – Smirnov Test

When we have a sample of quantitative measures and we are to determine whether this sample is obtained from a population having normal distribution, test of normality of distribution is one of the most frequently used tests in conformity of distribution. Kolmogorov – Smirnov test is appropriate for this purpose. Null and alternate hypotheses for this test are as follows:

H₀: data have normal distribution.

H₁: data do not have normal distribution.

Table 1: Results of Kolmogorov – Smirnov test

Stress	Academic satisfaction	Variable
370	370	No of questionnaires
3.097	2.715	Kolmogorov – Smirnov test
0.326	0.642	Significance level

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As can be seen, significance level of the variables is more than 0.05 which means that null hypothesis is not rejected. Therefore, we accept normal distribution of variables.

Investigation of the Relationship between Criterion and Predictor Variables

Hypothesis 1: there is a meaningful relationship between academic satisfaction and stress of 2nd grade female students of Urmia city’s zone 1.

H₀: there is no significant relationship between academic satisfaction and stress.

H₁: there is a significant relationship between academic satisfaction and stress.

Table 2: Relationship between academic satisfaction and stress

Hypothesis approval	Determination factor	Pearson correlation factor	Significance level	Error level	Academic satisfaction
H ₁	0.638	-0.799	0/005	0/05	Stress

Since the normal distribution is the condition for investigation of the relationship between variables, moreover, according to above table, Pearson correlation factor reveals that level of significance obtained from the test of the relationship between academic satisfaction and stress is less than 0.05, null hypothesis is rejected and alternate one is approved. In other words, there is significant relationship between academic satisfaction and stress whose correlation value is -0.799 and reveals that the relationship between variables is inverse. That is, there is a strong inverse relationship between academic satisfaction and stress. By increasing academic satisfaction, stress decreases and vice versa.

Hypothesis 2: there is a meaningful relationship between academic performance and stress of 2nd grade female students of Urmia city’s zone 1.

H₀: there is no significant relationship between academic performance and stress.

H₁: there is a significant relationship between academic performance and stress.

Table 3: Relationship between academic performance and stress

Hypothesis approval	Determination factor	Pearson correlation factor	Significance level	Error level	Academic performance
H ₁	0.434	-.0659	0/004	0/05	Stress

Since the normal distribution is the condition for investigation of the relationship between variables, moreover, according to above table, Pearson correlation factor reveals that level of significance obtained from the test of the relationship between academic performance and stress is less than 0.05, null hypothesis is rejected and alternate one is approved. In other words, there is significant relationship between academic satisfaction and stress whose correlation value is -0.659 and reveals that the relationship between variables is inverse. That is, there is a strong inverse relationship between academic performance and stress. By increasing academic performance, stress decreases and vice versa.

Investigation of Colinearity of Criterion Variables

In what follows, table of colinearity of criterion variables is presented.

Table 4: Investigation of colinearity of criterion variables

Independent variables	Tolerance statistic
Academic performance	0.994
Academic satisfaction	0.925

As can be observed, the value of tolerance statistic for all criterion variables is close to one which shows that there is a negligible colinearity between criterion variables of research. In simpler words, it is possible to use regression.

Regression Hypothesis Test

What is the role of stress in prediction of academic satisfaction and performance?

Table 5: Regression

Model	Correlation factor	Determination factor	Estimation standard deviation	Durbin – Watson statistic
1	0/699	0/488	9.67	1.57

It can be seen that the value of determination factor for regression model is 0.488 which shows that about 48% of changes in variable can be justified by criterion variable. The value of Durbin – Watson statistic is 1.57 which is an appropriate value and shows that there is no correlation between errors. In other words, regression is valid. In what follows, ANOVA table is presented.

Table 6: ANOVA

Model	Sum of squares	DF	Mean of squares	F statistic	Significance level
Regression	341.378	2	170.689	8.823	.005
Residual	34368.214	367	93.646		
Total	34709.592	369			

As can be observed, value of regression test is 8.823 and level of significance of test is 0.005 less than 0.05. Therefore, null hypothesis based on invalidity of regression is rejected and we conclude that regression is significant in 0.05 level. Following is the table corresponding to coefficients estimation.

Table 7: Table of coefficients

Model	Coefficients estimation	t statistic	Significance level
Constant	78.406	10.011	0.005
Academic performance	-0.481	-1.131	0.004
Academic satisfaction	-0.098	-1.528	0.005

As can be observed, the value of constant variable of regression equation is 78.406 and significance level of the test for regression constant coefficient is as much as 0.005 and also estimation of coefficient of academic performance is -0.481 whose significance level is 0.004. Estimation of the coefficient of academic satisfaction is -0.098 whose significance level is 0.005 which shows that both constant coefficient and criterion variable have significant presence in the regression equation and therefore, fitted regression equation between predictor and criterion variable can be written as follows:

$$Y = 78.406 - 0.481 * X_1 - 0.098 * X_2$$

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