



**RELATIONSHIP BETWEEN ACADEMIC BURNOUT
AND ECONOMIC AND SOCIAL FACTORS WITH LIFE
EXPECTANCY IN STUDENTS OF SHIRAZ UNIVERSITY
OF MEDICAL SCIENCES**

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ABSTRACT

Life expectancy is considered as one of the most important variables affecting the success and adaptability of the environment in students. Therefore, the present study aimed to investigate the variables affecting life expectancy. A sample of 600 students from Shiraz University of Medical Sciences was selected randomly. Demographic, life expectancy, academic burnout questionnaire were used to collect data. Data were analyzed using SPSS®. The results of this study showed a significant negative relationship between life expectancy and academic burnout. So, with increasing life expectancy, academic burnout declines, and burnout increases with declining life expectancy. Burnout in male students is slightly higher than female students, but this difference was not statistically significant. Also, academic burnout was higher in dormitory students without a car and personal laptop than in other students, but this difference was not statistically significant. The results of one-variable analysis of variance showed that living place is one of the important factors related to the life expectancy of students. So that students who live with the family have a significantly higher life expectancy. Also, academic burnout in married students was significantly higher than single students. According to the findings of the study, the variables of academic burnout and economic, social factors are related to life expectancy. Therefore, effective planning to reduce academic burnout and improve socioeconomic conditions is important for authorities.

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1. INTRODUCTION

The University plays an important role in educating the human resources necessary for the development of society and is the most important scientific base and training center for knowledgeable and experienced specialists. Studying at university is a matter of concern and pressure for a number of students, including males and females with various disciplines, or socioeconomic status, because facing a wider school environment and new rules, different expectations, the beginning of an independent life, entering the world of adolescence, the formation of human intimate relationships are all new conditions that require the adoption of new strategies for adaptation. [1]

Various factors affect students' more and more adaptation to the university environment. One of these psychological variables is life expectancy. Hope is not a conscious experience; but whenever a person is in the difficulty and crisis of life, the sense of hope in a hopeful person comes alive and it is hoped that after experiencing different crises, the person returns to calmness. In fact, hope has a supportive role in preserving negative emotions at a low level and it can lead to a person's adaptive improvement [2]. The hope of moving towards health, which means expecting a better future, is one of the characteristics of life that makes people look for tomorrow. The more hope in a person, the higher the probability of success in various fields of study, occupation, sports, physical and mental health, etc. In fact, the effective role of hope in life has been proven both before and after the occurrence of a problem in life [3]. Thus, the attention to the role of the life expectancy in different strata, especially students, as the young, educated and specialist manpower is very important and should be considered as factors that are relevant to this important variable.

One of the psychological variables, that seems related to life expectancy is academic burnout [4]. Burnout is an emotional exhaustion syndrome, depersonalization, and diminished personal perfection, which is accompanied by a state of physical exhaustion, emotional exertion and a deep sense of failure. This exhaustion is the result of chronic stresses, such as the role of pressure and time constraints, and the lack of necessary resources to carry out tasks and assignments [5]. According to this definition, one of the most vulnerable strata against burnout is the students [6]. Academic burnout among college or college students refers to feeling tired due to academic demands and requirements, having a pessimistic feeling with no interest in homework (disinterest), and a feeling of inadequacy as a student (low efficiency). [5]

In fact, university students may experience the phenomenon of burnout because learning conditions for them require high levels of effort, and don't prepare supportive mechanisms which facilitate effective coping with problems [1]. Many students suffer from academic burnout. Students' burnout can lead to more absenteeism, less motivation to do the required duties, and a higher percentage of university drop-outs and etc. [5]. There are also many social and economic factors that are related to the student's life expectancy and affect them. In fact, positive emotions about their social and economic conditions, despite being mental elements, are rooted in the living conditions of individuals. So, it can be stated that the main component in the people's positive and negative evaluation is the analysis and

evaluation of the mental condition from their own situation and society in comparison with the others. If people's assessment of their personal circumstances leads to negative results, this negative feeling will not be limited in the same area and many of their behaviors and attitudes will affect the individual situation and social conditions [7]. Therefore, it seems that these factors are related to the academic burnout and the life expectancy of students. However, no coherent study of these variables has been found. So, according to what mentioned above, the present study aimed to investigate the relationship between academic burnout and socioeconomic factors with life expectancy in students of Shiraz University of Medical Sciences.

2. METHODOLOGY

This study was descriptive-cross sectional. The statistical population of the present study was Shiraz University of Medical Sciences students who were selected by stratified random sampling method. The sample size of 300 was selected which is the minimum sample size for the correlation studies [8]. Then, in order to increase the statistical capacity and manage the potential loss of the participants, a sample size of 600 people was selected. Sample selection criteria included students of Shiraz University of Medical Sciences, informed consent and willingness to participate in the study, willingness to cooperate in completing instruments, and age range from 18 to 30 years. Exit criteria included not willing to cooperate in completing questionnaires and age range greater than 30 years. The following questionnaires were used to collect information:

Demographic questionnaire included age, sex, marital status, the field of study, the term of education, father's degree, mother's education, place of residence, and ethnicity. This questionnaire was prepared and evaluated by researchers in this study.

Life expectancy questionnaire: Snyder (1991) designed a scale to determine the amount of life expectancy in adults which consists of a 12-item, two-component broker (six questions) and pass (six questions) questionnaire. This scale has a Likert spectrum from one (totally disagreed) to 4 (totally agreed) and the range of grades from 12 to 48 [6]. The internal consistency of the entire test is reported between 0.74 and 0.84, and validity reported 0.85 [9]. In Iran, the reliability of this questionnaire was calculated and obtained through Cronbach's alpha for the whole scale of 0.8 [6].

Academic Burnout Questionnaire: This questionnaire was prepared by Schaufeli et al. in 2002 which has 15 questions and includes 3 dimensions of academic fatigue (questions 1, 4, 7, 10, 13), academic disinterest (questions 2, 5, 11, 14) and educational inadequacy (questions 3, 6, 8, 9, 12, and 15). The questionnaire was scored on the 5-point Likert scale (totally agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2 and totally disagree = 1) [10]. The questionnaire's validity was approved by its creators using Factor Analysis Method and its dimensions' reliability has been reported in [11] by 0.70, 0.82 and 0.75 respectively. Sheikholeslami et al. [10] also obtained the reliability of the total score of the questionnaire by using Cronbach's alpha (0.81).

3. STATISTICAL METHODS

Data were analyzed using SPSS®18. Also, descriptive statistics indices such as mean, standard deviation, frequency, frequency percentage, and inferential statistics indices such as single variable variance analysis, independent t groups, Pearson correlation, and regression were used. P-values less than 0.05 were considered as statistically significant.

Table 1. Demographic and socio-economic factors of undergraduate students

| Characteristic | Subgroup | Frequency (%) | Characteristic | Subgroup | Frequency (%) |
|----------------|---|---------------|--|------------------|---------------|
| Gender | Male | 202 (33.7) | Father education | ≤6 years | 20 (3.3) |
| | Female | 398 (66.3) | | 7-12 years | 228 (38.0) |
| Age | ≤ 20 | 323 (53.8) | | > 12 years | 352 (58.7) |
| | >20 | 277 (46.2) | Mother education | ≤6 years | 17 (2.8) |
| Marital status | Single | 527 (87.8) | | 7-12 years | 314 (52.3) |
| | Married | 73 (12.2) | | > 12 years | 269 (44.8) |
| Residence | With family | 301 (50.2) | Individual's position among the children of the family | First | 249 (41.5) |
| | Dormitory | 271 (45.2) | | Second | 189 (31.5) |
| | Other | 28 (4.7) | | Third | 84 (14.0) |
| Ethnicity | Fars | 453 (75.5) | | Forth and higher | 78 (13.0) |
| | Lor | 80 (13.3) | Monthly Self-income | Nothing | 468 (78) |
| | Other | 66 (11.2) | | < 100 \$ | 57 (9.5) |
| Major | Medical(medical, dental and pharmaceutical) | 309 (51.5) | | 100-200 \$ | 30 (5.0) |
| | Para- medical | 291 (48.5) | | > 200 \$ | 45 (7.5) |
| Private car | No | 459 (76.5) | Monthly family income | < 300 \$ | 140 (23.3) |
| | Yes | 141 (23.5) | | 300-600 \$ | 238 (39.7) |
| Private laptop | No | 211 (35.2) | | 600-900 \$ | 110 (18.3) |
| | Yes | 389 (64.8) | | > 900 \$ | 112 (18.7) |

4. RESULTS

In the current study, 600 undergraduate students from 20 majors with a mean age of 21.5 ± 4.3 were enrolled. Most of the participants were female (66.3%), single (87.8%), lived with their family (50.2%) and without any income (78.0%). (Table 1) shows all the information about the demographic and economic characteristics of the students.

Mean \pm SD of burnout score was 38.1 ± 15.2 (ranged from 0 to 90) and Mean \pm SD of life expectancy was 41.3 ± 5.1 (ranged from 21 to 52) among participants. Pearson correlation showed that there was a significant correlation between burnout score and life expectancy ($r=-0.50$, $P<0.001$) as a lower score of life expectancy is associated with higher burnout.

Table 2, the mean score of burnout in females was 38.3 ± 15.2 and in males was 37.9 ± 15.3 but observed that the difference was not statistically significant ($P=0.75$). A score of burnout among married students was 33.5 ± 13.9 which was significantly lower than single students (38.8 ± 15.3 , $P=0.005$). Our results also showed that burnout among younger students, students who live in dormitory and students without private car and laptop was higher than others but reported differences were not significant. Moreover, there was no significant difference between medical (medical, dental and pharmaceutical) and para-medical students in burnout ($P=0.07$), Table 2.

Assessment univariate effect of demographic and socio-economic factors on life expectancy suggests that residence is one of the most important factors as students who lived with their family gained a significantly higher score of life expectancy than others ($P=0.04$). Moreover mean score of life expectancy among married students was 42.4 ± 4.9 which was significantly higher than singles (41.1 ± 5.1 , $P=0.046$) but we didn't find significant differences between males and females, medical and para-medical students with different ethnicities and incomes in term of life expectancy (Table 2).

Table 2. Burnout score and life expectancy among different subgroups of undergraduate students

| Characteristic | Subgroup | Burnout score | P-value | life expectancy | P-value |
|--|---|---------------|---------|-----------------|---------|
| Gender | Male | 37.9± 15.3 | 0.75 | 41.7± 5.1 | 0.15 |
| | Female | 38.3± 15.2 | | 41.1± 5.1 | |
| Age | ≤ 20 | 39.1± 14.9 | 0.08 | 41.1± 4.8 | 0.43 |
| | >20 | 37.0± 15.6 | | 41.5± 5.4 | |
| Marital status | Single | 38.8± 15.3 | 0.005 | 41.1± 5.1 | 0.046 |
| | Married | 33.5± 13.9 | | 42.4± 4.9 | |
| Residence | With family | 37.5± 16.0 | 0.54 | 41.7± 5.0 | 0.04 |
| | Dormitory | 38.9± 13.6 | | 40.9± 5.04 | |
| | Other | 38.2± 20.6 | | 39.8± 6.2 | |
| Ethnicity | Fars | 38.1± 15.4 | 0.77 | 41.5± 4.9 | 0.14 |
| | Lor | 37.4± 15.2 | | 40.8± 5.7 | |
| | Other | 39.2± 14.6 | | 40.3± 5.6 | |
| Major | Medical(medical, dental and pharmaceutical) | 39.2± 14.9 | 0.07 | 41.2± 5.0 | 0.61 |
| | Para-medical | 37.0± 15.5 | | 41.4± 5.2 | |
| Private car | No | 38.7± 15.0 | 0.08 | 41.1± 5.2 | 0.05 |
| | Yes | 36.2± 15.7 | | 42.0± 4.7 | |
| Private laptop | No | 38.5± 15.2 | 0.69 | 40.9± 5.1 | 0.15 |
| | Yes | 38.0± 15.3 | | 41.5± 5.1 | |
| Father education | ≤6 years | 39.0± 22.7 | 0.42 | 41.6± 6.4 | 0.47 |
| | 7-12 years | 37.1± 14.1 | | 41.6± 4.8 | |
| | > 12 years | 38.8± 15.4 | | 41.1± 5.2 | |
| Mother education | ≤6 years | 39.7± 20.6 | 0.89 | 41.4± 5.2 | 0.99 |
| | 7-12 years | 38.2± 15.0 | | 41.3± 5.1 | |
| | > 12 years | 37.9± 15.1 | | 41.3± 5.0 | |
| Individual's position among the children of the family | First | 37.2± 15.0 | 0.06 | 41.6± 4.9 | 0.11 |
| | Second | 40.3± 14.7 | | 40.5± 4.9 | |
| | Third | 38.5± 15.3 | | 41.9± 5.1 | |
| | Fourth and higher | 35.5± 16.5 | | 41.4± 6.1 | |
| Monthly Self-income | Nothing | 38.7± 15.0 | 0.06 | 41.1± 4.8 | 0.41 |
| | < 100 \$ | 39.2± 15.7 | | 41.4± 5.1 | |
| | 100-200 \$ | 34.0± 16.3 | | 42.5± 5.9 | |
| | > 200 \$ | 33.4± 15.7 | | 41.9± 6.9 | |
| Monthly family income | < 300 \$ | 37.8± 15.8 | 0.16 | 41.3± 5.7 | 0.39 |
| | 300-600 \$ | 38.1± 13.5 | | 41.1± 4.8 | |
| | 600-900 \$ | 36.1± 16.2 | | 42.0± 4.8 | |
| | > 900 \$ | 40.7± 16.6 | | 41.0± 5.1 | |

Linear regression analysis showed that after adjusting the effect of the other factors, burnout is significantly associated with life expectancy ($P<0.001$) in (Table 3).

Table 3. Results of linear regression analysis for life expectancy modeling

| Characteristic | Subgroup | Coefficient | SE | P-value |
|--|------------------|-------------|------|---------|
| gender | Male | baseline | --- | 0.14 |
| | Female | -0.58 | 0.39 | |
| Marital status | Single | baseline | --- | 0.35 |
| | Married | 0.56 | 0.59 | |
| Residence | With family | baseline | --- | |
| | Dormitory | 0.29 | 0.40 | 0.47 |
| | Other | -1.41 | 0.89 | 0.11 |
| Private car | No | baseline | --- | 0.73 |
| | Yes | -0.16 | 0.46 | |
| Private laptop | No | baseline | --- | 0.20 |
| | Yes | -0.51 | 0.40 | |
| Individual's position among the children of the family | First | baseline | --- | |
| | Second | -0.36 | 0.43 | 0.40 |
| | Third | 0.68 | 0.56 | 0.22 |
| | Forth and higher | -0.12 | 0.60 | 0.84 |
| Ethnicity | Fars | baseline | --- | |
| | Lor | -0.60 | 0.56 | 0.28 |
| | Other | -0.97 | 0.59 | 0.10 |
| Burnout | | -0.16 | 0.01 | <0.001 |

5. DISCUSSION

Regarding the aim of the present study, the results of analysis and linear regression analysis showed that there is a significant negative relationship between life expectancy and academic burnout, based on a cross-sectional study on social and socioeconomic issues. So, academic burnout declines with increasing life expectancy and increases with a decrease in life expectancy. This finding is consistent with Sheikholeslami et al. [10], Kamalpour, et al. [1], Ghadampour et al [12], Fooladi and Shahidi [2], and Kiafar et al. [13] in different researches.

Sheikholeslami, et al. [10] stated in the explanation of the similar data that students who have high life expectancy and enjoy a decent standard of living can outgrow academic excellence and achieve the necessary academic achievements due to the ability to establish stronger social networks, social support, emotional stability, prediction of desirable goals in the future and the effective adaptation with environmental stressors. Fooladi and Shahidi [2] stated in the explanation of the similar data[increase in hope is associated with life experiences and negative emotions]that the long experience of negative emotions such as anxiety and stress lead to burnout and a reduction in hope for every individual [2]. Kiafar, et al. [6] stated in the explanation of similar data [the high level of hope have a direct relationship with academic achievement and graduation status) that hope is the only predictor of academic achievements which its power is higher than intelligence, personality, and advancements. Indeed, hope can be a strong coping strategy to prevent academic procrastination, and low levels of hope anticipate a high level of anxiety, and students with lower levels of hope will use more inefficient and avoiding coping strategies.

6. CONCLUSION

In the field of demographic information, the findings of this study showed that academic

burnout in male students was slightly higher than female students, but this difference was not statistically significant. Also, academic burnout in dormitory students without a car and personal laptop was higher than other students, but this difference was not statistically significant too. The findings of single variable variance analysis for socio-economic and population-cognitive factors showed that the place of residence is one of the important factors associated with the life expectancy of students. So that students who live with the family have a significantly higher life expectancy. Also, academic burnout in married students was significantly higher than single students. There was no significant difference between students in terms of gender, ethnicity and income level. This finding is consistent with Hosseini [14], Naderi and Hosseini [15], Sharifirad et al. [1395], and Ahookhosh and Alibeigi [17] who showed that life expectancy and academic burnout have a significant relationship with multiple demographic variables such as marital status, living with family and etc. Also, the findings of this study showed that there was no significant relationship between life expectancy with gender, marital status, place of residence, personal car, and personal laptop, birth rank, and ethnicity. This finding is consistent with the studies by Fereshtehnejad et al. [18] and Taheri et al. [19] in various studies. The inconsistency of the results of this study with the previous ones can be because of the differences in the statistical population, sampling method, the expression of the measurement, or the focus of the research project and the purpose of the study. This means that in previous studies, such as the study of Farshnejad et al. [18] which investigated the relationship between life expectancy and multiple social factors has been investigated in families of Tehran, or the study by Taheri et al [20] which investigated socioeconomic factors affecting life expectancy in Iran and finally showed that per capita rate of social welfare expenditures has a significant relationship with the life expectancy of the people.

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