Effective Factors on Students' Academic Attrition in Lorestan University of Medical Sciences

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Abstract

Background and purpose: *The aim of this research is to determine the factors contributing to academic attrition among day – course students of Lorestan university of medical sciences.*

Methods: *In this case – control study all the day – course students who had at least one semester of an average mark under 12 in academic year 2000-2001 were chosen and then the same number of students with an average mark over 15 were selected randomly as control group.*

Results: *Data gathered using GHQ questionnaire for measurement of mental health and study satisfaction questionnaire, as well as variables such as average mark, family economic status and their study files information which are saved in computer were used too.*

Of all students participated in this study, 41 students had been failed during last year, including 24 females (58.54%) and 17 males (41.46%) considering the proportion of female and male students, academic attrition in male students (6.69%), in comparison with female students, (3.66%) is higher. From viewpoint of age, it was determined that there were a negative correlation between age and average mark (r= -0.49).

Analysis of results showed that there exist relationship between marital status and academic attrition (p<0.05), but no relation found between accommodation place (dormitory and non - dormitory) and academic attrition. From 41 failed students, 16 cases (40%) were students of medicine and the least rate of academic attrition related to student of anesthesia. There was a significant difference between case and control groups from viewpoint of anxiety (p<0.05).

Results indicate that failure rate is observed more among Shahed quota students. No significant relationship was there between satisfaction from field of study and average mark. And between socio – economic level and academic attrition there was 0.18 correlation.

Conclusion: *Regarding the above mentioned results, academic attrition in students is a multi–factorial phenomenon and different factors such as students' mental health during study in university must be taken into account, and also it is suggested to exert age limitation from certain fields of study such medicine because results of this study showed that there is a negative relation between age and academic attrition.*

Key words: ACADEMIC ATTRITION, DAY – COURSE STUDENTS, LORESTAN UNIVERSITY OF MEDICAL SCIENCES

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Introduction

A great number of students are yearly accepted in medical and paramedical fields of study and graduate after completing university courses but some of these students graduate later than the others, and some of them will be excluded or fired from study and university. Unfortunately academic attrition has been common among university students in recent years. Perhaps the most important consequence of academic attrition is economical problems. Spending

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different educational expenses, dormitory, other welfare equipments are among extra burden which tardiness in graduation imposes to universities. In addition to the mentioned problems, academic attrition has some mental consequences of which mental problems, anxiety and depression and even suicide in acute cases are some examples (1).

Academic attrition is a multi–factorial phenomenon and no single factor can cause it. Among factors related to academic attrition, the following items are important: lack of motivation, lack of interest in the study field, mental factors, educational factors and economic factors (2).

Many studies have been done on academic attrition in guidance and secondary schools, but studies on university students and higher education are limited.

Results of a study done on failed students of Allameh university showed that there was a relation between being married, interval between completion of high school and beginning university courses, and students' failure. Failed students were more likely to have negative concept in comparison with regular students (3). Furthermore it seems that academic attrition was more observed in students registering through Razmandegan (war veterants) and Shahed (martyrs' children) quotas than in others (2,5).

Different studies have shown relation between academic attrition and educational, economical, and mental problems (4,5).

The aim of this research was to determine the variables contributing academic attrition such as: sex, age, marital status, accommodation place, satisfaction with field of study and family income.

Materials and Methods

This research was a case – control study choosing two groups of students; cases were students who had at least in one semester a grade average point of less than 12 in academic year 2000-2001(failed students) and for control group the same number of students with an grade average point of more than15 were randomly selected.

Data gathering tools were general health questionnaire (GHQ) for measurement of mental health, and a questionnaire for measuring filed of study satisfaction, a well as variables such as grade average point, family economic condition, type of quota, accommodation place were collected from computer and students' files and also history of reference to consultation center was used as a criterion for measurement of students' mental health. After determining failed students from no failed students, questionnaire of field of study satisfaction and GHQ were distributed among the students and then other needed information was gathered, then collected date were analyzed using SPSS V. 9 software.

Results

A total of 41 students had been failed during last academic year (1999-2000) including 17 males (41.46%) and 24 females (58.54%). Data analysis showed that academic attrition in male students (10.64%) was higher than that in female students which was significant (p<0.05). Table 1.

Comparison of academic attrition in terms of field of study showed that the most percent of failed students belonged to the students of medicine and the least belonged to the students of anesthesia, but no significant relation was between failure and field of study (p=0.09). Table 2.

Failure rate according to university entrance quota showed that Shahed students were more likely to experience academic attrition than others. This difference wasn't significant too (p>0.05). Table 3.

To study mental health and failure rate, two criteria were used; history of reference to consultation center and evaluation of mental health using GHQ questionnaire. Study of files and records of failed and control students showed that 15% of the failed students had history of reference to consultation center (for different reasons) while this rate was 6.5% for controls. Analysis of GHQ scores of failed and non failed students showed that there is a significant difference between two groups according to anxiety rate (p<0.05). Average rate of anxiety

for failed students was 2.35 while it was 1.89 for the other group. Table 4.

No significant relation was found between accommodation place (dormitory and non–dormitory) and academic attrition. Our results showed 65.85% of the failed students lived in dormitory, 34.14% of the failed students did not live in dormitory, and 26.83% of the non failed did not live in dormitory Analysis of these results were not significant using Chi- square test (p>0.05).

No significant correlation was found between field of study and average grade (r=0.5) but between family income and average grade a correlation coefficient of 0.18 was found, which was not significant.

Pearson's correlation was used to investigate any association of age with increasing age. Figure 1 shows the results.

The results also showed that failure rate is more in married students than in single ones (p<0.05). Table 5.

Table 1. Academic attrition rate by sex

Sex index	Failed students group		Non failed students group		Students total number	Failed students percentage
	frequency	Percent	frequency	Percent	frequency	percent
Female	24	58.54%	32	78%	508	4.72%
Male	17	41.46%	9	22%	160	10.62%
Total No	41	100	41	100	68	15.34%

Table 2. Academic attrition rates by field of study

Index of field of study	Failed students group		Non failed students group	
	frequency	Percent	Frequency	percent
Medicine	16	39.02%	11	26.82%
Nursing	7	17.08%	14	34.14%
Midwifery	3	7.31%	2	4.87%
Anesthesia	-	-	5	12.19%
Public health	5	12.19%	4	9.75%
Operation room	4	9.75%	3	7.31%
Laboratory sciences	6	14.64%	2	4.87%

Table 3. Academic attrition rates according to university entrance quotas

Index of quota	Failed students group		Non failed students group	
	frequency	Percent	Frequency	percent
Areas	34	89.93%	39	95.13%
Shahed (martyrs'child)	4	9.75%	-	-
Shohada (martyrs'family)	1	2.43%	1	2.43%
Razmandegan (combatants)	1	2.43%	-	-
Janbazan (myrmidons)	1	2.43%	-	-
Other	-	-	1	2.43%

Table 4. Relation of mental health with academic attrition

Index of health	Failed students group		Non failed students group	
	mean	s-deviation	mean	s-deviation
Physical health	2.29	1.5	20.08	1.48
Anxiety X	2.35	1.94	1.78	1.38
Social problems	2.74	1.73	1.02	1.67
Depression	1.42	1.65	1.28	1.52

Table 5. Relation between marital status and academic attrition

Index of marital status	Failed students group		Non failed students group	
	frequency	percent	frequency	percent
Single	35	85%	40	97%
Married	6	15%	1	3%
Total	41	100%	41	100%

Figure 1. Association of age and GPA
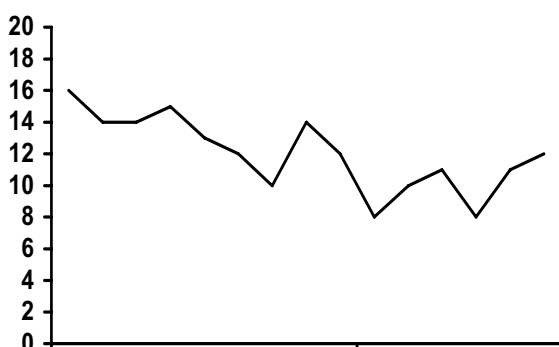
Discussion

Our findngs showed that failure rate, in male students (10.62%) was higher than the females (4.72%).

Perhaps one of the reasons is the lack of motivation. In a study done in England the rate of students' dropping out of school was 14% higher in male students than in females (6).

The results also indicated that academic attrition is higher in Shahed quota students than in other quotas. These results are in accordance with previous studies done in Lorestan medical university (7). Another study done in Kordestan province showed that academic attrition is more common in Razmandegan and Shahed students (5). In this research it was determined that one of the factors related to academic attrition is psychological factors such as anxiety. In a study done in England 8% of the students who had dropped out of school had psychological problems (6), as well as in a study done in Canada by Simpson et al and the other study by Sailes et al it was determined that psychological problems are among important effective factors on academic attrition (8,9). In Farhadi and Amini's research Lorestan university of medical sciences, there was negative correlation between anxiety, depression and study performance (7).

Results showed that there is a significant negative correlation between age and study performance (-0.49). Dr. Delavar's study determined that the more the time interval between high school and university is, the more failure and academic attrition will be (3). Findings showed that the rate of academic attrition is higher in married students than is single ones (3). It seems that married students because of involving themselves in job problems and other family problems have no good study performance. In Farhadi's research (1998) entitled "Study performance of married and single students in Lorestan university of medical sciences" it was determined that generally mean average mark of married students is lower than single students (10). Regarding the results of the present study, the following suggestions are given:

- Since academic attrition is more observed in Shahed quotas students than in other students, special and extra educational courses are necessary for this group, mean while their mental health should be regarded considering their psychospiritual condition.

- Among related factors to academic attrition in this research, psychological factors specially anxiety was an important factor, so it is necessary for students with study problems to be introduced to the consultation center where they can be helped with their mental health problems.

- One of the important points in this research was more academic attrition in older students, so some age limitation is needed for entrance to university specially for some difficult fields of study such as medicine to prevent high expenses and academic attrition too.

- As academic attrition is more in married students than in single ones and regarding extra problems of married students such as economical problems it is suggested to allocate more student loan and grants to prevent them from academic attrition and other probable problems.

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