Original Article

Study the relationship between medical sciences students' self-esteem and academic achievement of Guilan university of medical sciences

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Abstract:

BACKGROUND: Achievement of productivity and improvement of quality in the educational system is the effective, influential factors for countries development. Academic achievement is the main objective of the training program and the most important concerns of teachers, education officials, and university Student's families. Self-esteem is one of the factors affecting student academic achievement. This study is aimed to investigate the relationship between self-esteem and academic achievement in Medical Sciences students of in 2014–2015.

SUBJECTS AND METHODS: This is a descriptive–correlational study. In this study, 537 university students were selected using random stratified sampling method from Guilan University of Medical Sciences in 2014–2015. Data were collected using the standard self-esteem questionnaire of Cooper Smith consisting of four elements (general, social, familial, and educational) and a demographic questionnaire. Data were analyzed using SPSS software version 21 and descriptive statistics such as Spearman correlation and Logistic Regression.

RESULTS: The results indicated a significant relationship between grade point average and educational self-esteem ($P = 0.002$, $r = 0.135$) and global self-esteem ($P = 0.02$, $r = 0.102$). There was also a significant relationship between composite Index educational status and general self-esteem ($P = 0.019$, $r = 0.102$) and academic achievement ($P = 0.007$, $r = 0.116$) and global self-esteem ($P = 0.020$, $r = 0.102$).

CONCLUSIONS: According to the results, the highest mean score of self-esteem was related to the familial element, and the lowest average was in terms of social self-esteem, therefore, given the importance and necessity of self-esteem in academic achievement, strengthening of all aspects of self-esteem is suggested.

Keywords:

Academic achievement, self – esteem, student

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Introduction

Improving productivity and quality of the education system is one of the most effective factors in the development of countries. Workforce training is considered as one of the main duties of universities. Furthermore, it is very important to pay attention to the education from educational and cultural aspects. To achieve these goals and improve the quality of education, students' academic achievement is the main goals of educational programs and among the most important concerns of professors, university education authorities and students' families.[1]

The clarification of academic status allows universities' policymakers to anticipate strategies for improving university performance. For a long time, the topic of academic achievement was one of the

most important concerns of each educational system. Academic achievement in each society represents the success of the educational system in targeting and paying attention to individual needs.[2] Academic achievement refers to the learned or acquired ability of an individual in school subjects, which is measured using standardized examinations or tests by the teacher. In general, this term refers to the amount of individual school learning.[3]

The high rates of academic failure, drop-out rate, expulsion, and school-based drop-out damage the higher education in terms of educational spending, in our country and in the countries of the world each year. At Lancaster University of Australia, 11% of students did not receive their undergraduate degree over the study course of 6 years, and this indicates the reduction of University's performance. Furthermore, academic failure in Scotland is significantly higher than other universities in England.[4] In our country, this is one of the most important problems of the educational system, and every year tens of billions of Rials waste from the country's educational budget, and the potentials and community capital and this leads to inefficiency of the educational system.[5] About 12% of students in medical universities in the country are probation at least one semester during their studies.[6] The prevalence of academic failure in the study of Rahimi *et al*., In Golestan University of Medical Sciences was reported 33.3% in terms of grade and probation terms. In the study by Sanagoo and Hesam, this rate was reported 45.3% in medicine, 17.3% in nursing and 10.7% in health students.[7] Furthermore, Raofi *et al*., conducted a research aimed at determining the indicators of academic failure at Tabriz University of Medical Sciences and reported the degree of academic failure of 22.9% in dentistry, 12.5% in physiotherapy, 10.6% in Nursing and Midwifery, 9.8% in Pharmacy, 7% in Medicine, 4.6% in Health and Nutrition, and 4.7% in Paramedicine students.[8] Studies have examined the effect of several factors on students' success. Some of these factors include individual, social, economic, IQ, gender, hope, self-concept, the source of control, and social support, which lead to self-esteem development.[1] Self-esteem is an effective personal factor on students' academic achievement. In our educational system, there are problems that merely emphasize academic ability and ignore components such as self-reflection that is immensely important for the fate of individuals.[9] Self-esteem has long been considered to be an essential component of mental health and has been concerned by many scholars in recent years.[1]

Self-esteem is the most decisive factor in psychological development,[10] and indicates the judgment of that individual about his value. In fact, self-esteem is the degree and value that a person attributes to him.[11] On the other hand, low self-esteem has many negative consequences. A person with low self-esteem does not, in fact, have the power of expressing one's self, the ability to justify the right, the ability to express interest and express the feelings. As a result, he feels frustrated, self-deficiency, and distress. People who have high self-esteem are more likely to succeed in their tasks than those with little self-esteem. It seems that academic achievement and self-esteem have a mutual relationship. It means that on the one hand, self-esteem leads to academic achievement due to its effect on learning and motivating to study and achieves academic achievement, and on the other hand, academic achievement and high degrees in education enhances self-esteem. In general, human progress in every field and experience of success, self-esteem and worthiness and ability in each case increase self-esteem in a person.[12] Self-esteem is one of the concepts that have been studied by many psychologists. Many studies have reported a positive and significant relationship between self-esteem and concepts such as success and academic achievement. The study conducted by Zeigler-Hill *et al*. showed a significant relationship between the instability of self-esteem and poor academic performance in the students.[13] The study results of Rosli *et al*. showed a significant relationship between self-esteem and academic performance of students.[14] The study conducted by Peyravi *et al*. on nursing students showed that demographic variables such as grade point average (GPA), place of residence, economic status, and marital status had a significant relationship with student's self-esteem. In addition to the above, some studies have also shown that self-esteem is not related to academic achievement, including Alizadeh *et al*. showed no significant relationship between emotional intelligence and self-esteem with the academic achievement of students.[5] Furthermore, the study by Jenaabadi showed that emotional intelligence and self-esteem of students did not affect their academic achievement.[15] The results of Salmalian's *et al*. study) showed that although individuals with high self-esteem had high GPA, this relationship was not significant.[1] Regarding the contradictory results in these studies, the importance and value of self-esteem and its effect on self-esteem, in addition to the importance of the academic achievement and the effects of educational products on the individual and society have not been ignored. Few studies have investigated different aspects of self-esteem, and also in any study, students' academic status has not been studied with both criteria average and composite index of academic status, the researcher tried to conducted a study entitled the relationship between self-esteem and Student's academic achievement at Guilan University of Medical Sciences in 2014–2015.

Subjects and Methods

This is a descriptive correlational study to determine the relationship between self-esteem and academic

achievement of medical students in Guilan University. The research population of this study consisted of 2866 students at Guilan University of Medical Sciences who were studying in medicine, dentistry, pharmacy, health, nursing, midwifery, and paramedical sciences (operating room, radiology, anesthesia, and laboratory sciences). Research units in this study were 537 students in the third semester and above and attending undergraduate and postgraduate degrees at Guilan University of Medical Sciences. According to similar research by Saadat *et al*., Iranian students' self-esteem and its relationship with academic achievement have been examined using Pearson coefficient in this study.[16] The initial sample number was estimated to be 555 students. T-value between the variables of self-esteem and academic achievement ($r = 0.14$), and then, the number of final samples was estimated to be 569 using other variables. In the present study, the confidence was assumed to be 0.95%, and the test strength was 0.90.

$$n = \frac{\left(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \right)^2}{\left(\frac{1}{2} \ln \frac{1+r}{1-r} \right)^2} + 3$$

The information gathering tool was a questionnaire in this research. The used questionnaire contains two parts based on the objectives.

A. Demographic information questionnaire containing age, gender, GDP, the term of education, the field of study, marital status, native status, interest in the field of study, history of a failed course, and a history of probation

B. Self-esteem questionnaire by Cooper Smith: this questionnaire contains 58 items of self-assessment questionnaire, in four main subscales and a polygraph scale. The method for scoring this test is zero and one. In this sense, in the phrases 4-8-9-14-19-20-27-28-29-33-37-38-39-42-43-47, the answer yes has the score of one and the answer No has the score of zero. The rest of the expressions are scored in reverse order. The minimum score that a person takes is zero and maximum is 50. The greater score represents the higher self-esteem. This scale has 8 polygraph questions (phrases 26-32-36-41-45-50-53-58). If the respondent gets more than 4 scores out of 8 polygraph statements, it will indicate the low validity of the test, and in this case, the subject has tried to show him better he is excluded from the research.[17]

Fifty questions in this scale measure self-esteem in four subscales, general self-esteem in 26 questions, social self-esteem in 8 questions, family self-esteem in 8

questions and academic self-esteem in 8 questions. To investigate the validity of self-esteem questionnaire by Cooper Smith, many researches have been carried out in Iran, including a research entitled scientific review, credibility, and validity of the Copper Smith self-esteem test in Tehran's 19th District By Sabet and Houman on 600 high school boys and girls (equally). The results indicated that the validity coefficient of the questionnaire was 0.892. Furthermore, the scientific trust in Copper Smith self-esteem scale was also performed by Sabet and Houman through a retest, which obtained a reliability coefficient of 0.88 after 5 weeks and 0.7 after 3 years.[17] Given the studies about the validity and reliability of this instrument in the present research, validity, and reliability have not been done.

The researcher referred to the unit after determining the number of final samples and after calculating the number of samples at each stage and its selection to distribute the questionnaire among the students to complete the questionnaire if they agreed. In this form, the number of passed lessons and the GPA was not stipulated because it was not possible for students to remember the amount of the mentioned items. Since some students were present at the internship and hospitals, the researcher referred to the hospital and distributed the questionnaire among the students, and at the colleges, the researcher attended in classes and distributed questionnaires. Then, through the student number taken from the samples and referring to the General Department of Education of Guilan University of Medical Sciences, the GPA and the number of passed lessons and half-years of leave were obtained.

To analyze the questionnaire, at first, the questionnaires without student numbers were excluded from the study (20 questionnaires). Then, in the study of Coopper Smith self-esteem questionnaire, polygon questions were evaluated and students who scored more than 4 (12 questionnaires) were also excluded from the research; so that 537 people participated in the research out of 569 people. Points 0 and 1 were given to all phrases of Copper Smith self-esteem questionnaire, then the score for negative expressions was reversed, and the total score of the questionnaire was obtained from the sum of scores obtained by the dimensions of that questionnaire, and the average and standard deviation of the GPA and the score of each dimension were calculated. For an analysis of the data, the data collected were entered into SPSS Version 21 software (IBM Corporation, NewYork, USA) after encoding. To categorize and summarize the data, descriptive statistics (frequency estimation, percentage, average calculation, standard deviation and median, and upper and lower limit) were used. The normality of the data was evaluated using the Kolmogorov–Smirnov test. Then, logistic regression model was introduced to determine predictive factors of self-esteem in a multiple

analysis. In this model, a logistic regression model was used to determine the relationship between self-esteem and students' academic achievement, based on GPA and the composite index of academic status in the multiple analyses. In this model, the response variable is: score less than Students' GPA equal to zero and high GPAs equal to one. The model was done 0.1 and 0.05, based on the nonequilibrium method (only on the basis of self-esteem and its dimensions), with the probability of entering and leaving the variable from the model. The criterion of academic achievement, in addition to the overall grade, was the combined index of academic status, which was calculated through the following formula:

$$\text{Composite Index of academic achievement} = \frac{A \times N}{M - R}$$

A: GPA

N: Number of passed lessons

M: Study period in terms of the number of registered terms

R: Leave semester

Then, the classification of academic achievement was divided into three groups based on the following formula: Weak, moderate and excellent.[18]

Weak academic status $x < \mu - 2\delta$

Moderate academic status $\mu - 2\delta < x < \mu + 2\delta$

Excellent academic status $x > \mu + 2\delta$

The significance level of the tests in this study was considered ($P < 0.05$).

Results

According to the obtained results, the mean age of the participants was (21.4 ± 1.61). The students total self-esteem was (36.82 ± 6.98) that the highest was reported in the family dimension (6.37 ± 1.69) and the lowest was reported in general dimension 1.48 ± 76.91.

The average and standard deviation of students' GPA was (15.79 ± 1.37) and the average and standard deviation of the combined index for the students' academic status was (233.20 ± 40.59) [Table 1]. There was a statistically significant correlation between GPA and self-esteem ($r = 0.135$, $P = 0.002$) and total self-esteem score ($r = 102$, $P = 0.002$).

Furthermore, a significant relationship was observed based on the Pearson correlation coefficient between educational status and self-esteem in general

dimension ($r = 0.102$, $P = 0.019$) and self-esteem score in academic dimension ($r = 0.116$, $P = 0.007$) and the total self-esteem score ($P = 0.019$, $r = 0.102$) statistically [Table 2].

In the nonmatched model based on the average of the regression logistic model, self-esteem score in academic dimension ($P = 0.42$) was considered as a predictor of academic achievement based on the GPA. Hence, by increasing the GPA in academic self-esteem, the chance of a high GPA increases 1.1 times more than the students' academic achievement (relative chance = 1.1), (confidence interval 95% relative chance = 1–1.3) [Table 3].

Furthermore in the final model of logistics based on the composite index of educational status, academic self-esteem was considered as a predictor for academic achievement ($P = 0.086$) [Table 4].

Discussion

The findings of this study showed that students have high family self-esteem. The result of the present study confirm the results obtained by, Saadat *et al*. showed that the highest score was related to family self-esteem (14.83 ± 3.25).[16] In addition, Babaee's study showed that family self-esteem is more than other dimensions. Contrary to the present study, Bakhshayesh showed that the lowest score was in the domain of family self-esteem (4.89 ± 1.8).[19] According to the researcher, the

Table 1: Dispersion indicators (average and standard deviation) and student' academic status, based on the grade point average and the composite index of academic status

GPA*	
Mean±SD	15.79±1.37
Minimum	11.20
Maximum	18.97
Weak academic status	
Frequency (%)	87 (16.2)
Moderate academic status	
Frequency (%)	361 (67.2)
Excellent academic status	
Frequency (%)	89 (16.6)
Composite index of academic status	
Mean±SD	233.20±40.59
Minimum	74.92
Maximum	549.50
Weak academic status	
Frequency (%)	69 (12.8)
Moderate academic status	
Frequency (%)	417 (77.7)
Excellent academic status	
Frequency (%)	51 (9.5)

*($P < 0.05$). GPA=Grade point average, SD=Standard deviation

Table 2: Correlational coefficient of self-esteem score and its different dimensions with grade point average and composite index of academic status

The correlation coefficient	Average	Combined educational status index	Score of self-esteem in general dimension	Score of self-esteem in social dimension	Self-esteem score in family dimension	Self-esteem score in educational dimension	Self-esteem score
Combined educational status index							
Spearman correlation coefficient	0.619	1.000					
P		0.000					
Self-esteem in general dimension							
Spearman correlation coefficient	0.0720	0.102	1.000				
P	0.100	0.102					
Self-esteem in social dimension							
Spearman correlation coefficient	0.0480	0.062	0.339	1.000			
P	0.272	0.156	0.000				
Self-esteem in the family dimension							
Spearman correlation coefficient	0.042	0.013	0.444	0.257	1.000		
P	0.338	0.760	0.000	0.000			
Self-esteem in educational dimension							
Spearman correlation coefficient	0.135	0.116	0.555	0.281	0.264	1.000	
P	0.002	0.007	0.000	0.000	0.000		
Total self-esteem score							
Spearman correlation coefficient	0.102	0.102	0.918	0.563	0.606	0.711	1.000
P	0.020	0.019	0.000	000.0	000.0	000.0	

Table 3: Estimation of regression coefficients different dimensions for self-esteem predicting academic achievement (grade point average), based on logistic regression model in nonmatched model

Step 1[a]	*B*	SE	Significant	Exp(B)	95% CI for Exp(B)	
					Lower	Upper
General self-esteem	0.011	0.028	0.702	1.011	0.957	1.067
Social self-esteem	0.011	0.075	0.885	1.011	0.873	1.171
Family self-esteem	−0.071	0.058	0.224	0.931	0.831	1.044
Educational self-esteem	0.092	0.065	0.156	1.096	0.966	1.245
Constant	−0.208	0.497	0.676	0.812		
Step 4[a]						
Educational self-esteem	0.090	0.052	0.086	1.094	0.987	1.213
Constant	−0.385	0.306	0.208	0.680		

SE=Standard deviation, CI=Confidence interval

family self-esteem, which is the sense of the value each person has as a family member, the researcher believes that perhaps the high level of family self-esteem in this research can be attributed to community culture in the importance of the role of the family in protecting children and also, the difference in the research community in different studies.

The present study showed that students' GPA was (15.79 ± 1.37) and a composite index of academic status was (233.20 ± 40.59 According to results obtained by similar studies, the result of Salmalian's *et al.* study was reported on students' GPA (16.41 ± 1.27).[1] In the study of Raeisoon *et al.*, GPA of all students was reported (15.86 ± 1.47).[20] In the study of Nasri *et al.*, GPA of students was reported 15.2 ± 1.3,[21] which is in line with the current study.

Furthermore, based on the general GPA, the majority of students were moderate in terms of the academic status and based on the composite index, academic status of the majority students in terms of academic status was moderate. The results of the current study confirmed the results obtained by Bakouei *et al.* showing that according to the GPA of the previous semester, 10.5% of total 152 students were in the weak group, 76.3% were in a moderate group, and 13.2% were in the strong group.[22]

Table 4: Estimation of regression coefficients different dimensions of self-esteem predicting academic achievement (composite index of academic status), based on logistic regression model in nonmatched model

Step 1[a]	Coefficient of regression	SE	Significant	OR	95% CI for OR	
					Lower	Upper
General self-esteem	−0.036	0.028	0.195	0.964	0.913	1.019
Social self-esteem	0.060	0.075	0.424	1.062	0.916	1.231
Family self-esteem	0.054	0.058	0.352	1.056	0.942	1.184
Educational self-esteem	0.131	0.065	0.044	1.140	1.004	1.296
Constant	−0.657	0.499	0.188	0.519		
The final model						
Educational self-esteem	0.107	0.053	0.042	1.113	1.004	1.233
Constant	−0.556	0.308	0.071	0.574		

SE=Standard deviation, CI=Confidence interval

In terms of the relationship between the GPA and the composite index of academic status with the total self-esteem in the similar studies, we can refer to the study of Rusli, who showed a significant relationship between self-esteem with academic achievement in his research ($r = 0.32$, $P < 0.0005$).[14] The study of Saadat *et al*., showed a positive and significant relationship between self-esteem and academic achievement.[16] Mirzaei *et al*. research showed a positive and significant relationship between self-esteem and GPA ($P = 0.02$).[23] However, the results of the Salmillian did not show a significant relationship between self-esteem and academic achievement of students.[1] Janaabadi's study also did not show a significant relationship between emotional intelligence and self-esteem with academic achievement.[15] According to the researcher's opinion, it seems that those who have higher self-esteem appear to be more resilient to problems, and they are more diligent and consequently, more likely to succeed. Furthermore, researchers say that self-esteem has an indirect effect on academic achievement because depression and fear of failure in people with low self-esteem cause incapability and take effort away from a person and affect her performance. According to research that confirms the relationship between self-esteem and academic achievement in explaining the differences, perhaps we can refer to the size of the sample and the number of disciplines in the current study compared to the study of Salmilian and the addition of the emotional intelligence variable in the Jenaabadi's study.

In addition, the obtained results showed the relationship between the composite index of academic status and

general self-esteem, as the Pullman and Allik study results showed a significant relationship between general self-esteem and GPA, and general self-esteem was suggested as a predictor of academic performance.[24]

The present study showed a positive relationship between academic achievement, based on the two criteria of the composite index of academic status and the GPA, with the academic self-esteem, in similar study Saadat *et al*., showed a positive and significant relationship between academic self-esteem and students' GPA.[16] In the study by Arefi, showed that one of the factors influencing the academic performance of students who drop out of education is academic self-esteem, and a significant relationship is between academic self-esteem and the final grade of students' academic.[25] The findings of Smith *et al*. showed a positive relationship between academic self-esteem and academic achievement.[26] according to the definition of self-esteem, (self-coinciding with the desirable academic disciplines), most sources[27] have explicitly acknowledged that when individuals achieve their goals, they lead to inner satisfaction, which, of course, this is true for academic achievement.

Conclusion

The findings of this study showed that self-esteem plays an important role in students' academic achievement. Academic achievement increases with increasing academic self-esteem. Therefore, students' self-esteem needs to be considered, especially in their educational affairs. What can make a person, a family and country progress are to benefit from people who are not only well-equipped for mental health but also pass the school system and at the college level, with success. Hence, we should also consider the components of self-concept in our educational system, in addition to academic ability, that is immensely important to the fate of individuals.

Conflicts of interest
There are no conflicts of interest.

References

1. Salmalian Z, Kazemnezhad Leili E. Correlation between self-concept and academic achievement of students. Holist Nurs Midwifery 2014;24:40-7.
2. Tamannaifar MR, Gandomi Z. Correlation between achievement motivation and academic achievement in university students. Bimonthly Educ Strateg Med Sci 2011;4:15-9.
3. Saif AA. Measurement, Evaluation and Educational Evaluation. 6th ed. Tehran: doran Publication; 1390.
4. Roudbari M, Ahmadi A, Roudbari S, Sedghi S. The effective factors on the academic progress of the students of tehran university of medical science. J Pak Med Assoc 2014;64:42-5.
5. Alizadeh S, Namazi A, Koochakzade Talami, S. Correlation of self steem and emotional intelligence with academic achievement among midwifery students. Res Med Educ 2014;6:1-9.
6. Roudbari M, Marz BA. The academic progress of students in zahedan university of medical sciences and its associated factors. J Strides Dev Med Educ 2012;7:147-52.
7. Sanagoo A, Hesam M. Academic under-achievement and some related factors associated with academic satisfaction in golestan university of medical sciences' students. J Res Dev Nurs Midwifery 2013;9:90-6.
8. Raofi MB, Kamran S, Hanaee J, Khodadadi K, Nazari M, Pouzaeh S, *et al*. Individual and family factors affecting academic failure students of tabriz university of medical sciences during the academic year 2005-6. Med J Tabriz Univ Med Sci Health Serv.2007;20:113-5.
9. Peyrovi H, Ghezelbash S, Ghorbani A, Inanloo M, Alizadeh H, Adliye A. The relationship between self – Steem and demographic variables among undergraduate students nurses. J Care Health 2011;14:52-61.
10. Shoa Kazemi MA, Javid, MM. Comparison of brave behavior, self-esteem and religious orientation athletes and non-athletes. J Res Islam Educ Issues 2012;19:169-90
11. Budd A, Buschman C, Esch L. The correlation of self-esteem and perceived social support. Undergrad Res J Hum Sci 2009;8:1-4.
12. Hosseini Nasab SD, Vojdan Parast H. Examine the relationship between self-esteem and academic achievement of students of basic sciences and humanities teacher training centers. J Fac Lit Hum Sci 2002;4:101-26.
13. Zeigler-Hill V, Li H, Masri J, Smith A, Vonk J, Madson MB, *et al*. Self-esteem instability and academic outcomes in American and Chinese college students. J Res Pers 2013;47:455-63.
14. Rosli Y, Othman H, Ishak I, Lubis SH, Saat NZ, Omar B. Self-esteem and academic performance relationship amongst the second year undergraduate students of universiti kebangsaan Malaysia, Kuala Lumpur campus. Procedia-Soc Behav Sci 2012;60:582-9.
15. Jenaabadi H. Studying the relation between emotional intelligence and self esteem with academic achievement. Procedia-Soc Behav Sci 2014;114:203-6.
16. Saadat M, Ghasemzadeh A, Soleimani M. Self-esteem in Iranian university students and its relationship with academic achievement. Procedia-Soc Behav Sci 2012;31:10-4.
17. Sabet M, Houman H. Scientific Evaluation of Reliability, Validity and Test Software Issue Esteem in 19 Districts of Tehran. Measuring Master's Thesis Tehran Faculty of Psychology and Educational Sciences Allameh Tabatabai University; 2007. p. 13-7.
18. Munro BH. Statistical Methods for Health Care Research. 3th editions, editor. Tehran: Jame negar-Salemi; 2011.
19. Bakhshayesh AR. Studying the relationship between trust in God, Self-esteem and academic achievement among students. Journal of Psychology and Religion 2011;4:79-98.
20. Raeisoon M, Mohammadi Y, Abdorazaghnejad M, Sharifzadeh G. An investigation of the relationship between self-concept, self-esteem, and academic achievement of students in the nursing-midwifery faculty in Qaen during 2012-13 academic year. Mod Care J 2014;11:236-42.
21. Nasri P, Ashourioun V, Avizhgan M, Afshar H. Relationship between psychological profile and academic achievement of medical and dental students at isfahan university of medical science. Iran J Med Educ Spec Dev Educ Health Promot 2012;11:1395-403.
22. Bakouei F, Kheirkhah F, Salmalian H, Omidvar S. Effective factors on educational status of midwifery students in babol university of medical sciences. J Strides Dev Med Educ 2012;7:44-50.
23. Mirzaei Alavijeh M, Rajaei N, Rezaei F, Hasanpoor S, Pirouzeh R, Babaei Borzabadi M. Comparison of self-esteem, locus of control and their relationship with university students' educational status at shahid sadoughi university of medical sciences-yazd. J Med Educ Dev 2012;7:58-70.
24. Pullmann H, Allik J. Relations of academic and general self-esteem to school achievement. Pers Individ Differ 2008;45:559-64.
25. Arefi M. Identify the variables that affectinng in girls early dropout in middle school. Womens Res 2003;2:147-61.
26. Smith CL, Sapp M, Farrell WC, Johnson JH. Psychoeducational correlates of achievement for high school seniors at a private school: The relationship among locus of control, self-esteem, academic achievement, and academic self-esteem. High Sch J 199881:161-6.
27. Mohtashami J, Noghani F, Esmaeil S. Mental Heahth. 1st Tehran: Salemi; 2002.