The Relationship between Self-Esteem and Depression with Academic Achievement in Nursing and Anesthesia Students in Dezful University of Medical Sciences

Mohsen Jamalpour¹, Yaghoob Madmoli², Mostafa Madmoli³⁴, Mahboobe Khodadadi⁵, Somaieh Bosak⁶*

¹Department of Nursing, Dezful University of Medical Sciences, Dezful, Iran
²Clinical Nursing Instructor, Gerash University of Medical Sciences, Gerash, Iran
³Emergency Medical Technician, Behbahan Faculty of Medical Sciences, Behbahan, Iran
⁴Emergency Medical Technician, Dezful University of Medical Sciences, Dezful, Iran
⁵Student Research Committee, Dezful University of Medical Sciences, Dezful, Iran
⁶Department of Psychiatric Nursing, Dezful University of Medical Sciences, Dezful, Iran

ABSTRACT

Background and Aim: Aspects such as unfamiliarity with the campus, detachment from family and lack of interest in field of study can create problems like depression and a drop in student performance. This study aimed to investigate the relationship between self-esteem and depression with academic achievement in nursing and anesthesia students in Dezful University of Medical Sciences in 2014.

Materials and Methods: This descriptive cross sectional study on nursing and anesthesiology students and classification assigned sampling was done after obtaining prior written consent. Data collection tools include Self Esteem Inventory (SEI), the Beck Depression Inventory and demographic information. Statistical data Pearson correlation coefficient, Spearman correlation coefficient, linear regression, chi-square and t independently by software SPSS version 16 were analyzed.

Results: In this study, 146 students were involved in which 49 (33.6%) were males and 97 (66.4%) were female. Of these 75 (51.4%) were nursing students and 71 (48.06%) were students of anesthesiology. The relationship between self-esteem and gender were statistically significant (p=0.02). Between self-esteem and depression (p=0.006) (r=-0.22) and between depression and academic achievement (p=0.002) (r=-0.25) significant correlation was observed.

Conclusion: There is an inverse relationship between depression and self-esteem and academic achievement. Therefore interventions for depression in this population due to other aspects such as self-esteem are particularly important.

Key words: Depression, Self-esteem, Academic performance, Students

HOW TO CITE THIS ARTICLE: Mohsen Jamalpour, Yaghoob Madmoli, Mostafa Madmoli, Mahboobe Khodadadi, Somaieh Bosak, The Relationship between Self-Esteem and Depression with Academic Achievement in Nursing and Anesthesia Students in Dezful University of Medical Sciences, J Res Med Dent Sci, 2019, 7(3): 113-117

INTRODUCTION

Depression is one of the most common disorders among adolescents and young people [1]. It is estimated that depression is common in more than 15% of adolescents and young adults [2]. In recent years, growing trend of depression is even observed in teenagers as well [3] which can disrupt social skills and personality development [1], and affects can be observed in areas such as success, attractiveness, health and ability that have the highest value for a young person. The most destructive of its effects is the reduction in the desire to work and activity [3].

Depression is a common disorder that may affect anyone, but some people in the community, such as students of various medical sciences, each of whom are involved in maintaining the physical and mental health of the community, are more vulnerable to this condition due to their particular situation. Depression among students cannot be easily denied, especially among college students [4]. With early and timely diagnosis of this disorder in students, one can provide an opportunity for primary prevention and prevention of progression and its...
Students’ health is important for social planning, and depression is one of the most important non-mental health indicators that impede the growth, development, self-fulfillment and self-efficacy of a person. Societies bear a great spiritual and material costs for the education of students, which are, as a rule, the most prestigious social group, because of the importance of sound mental health and the body of the student, absence of which is perceived as a threat to investment [6]. Examples of non-familiarity with the university's environment or the culture of the region in the case of non-indigenousness, separation and distance from the family, lack of interest in the field of study, inconsistency with other people in the environment can cause mental illness such as depression and cause a loss of student performance. In the study by Lldarabady et al. in Lorestan, 78% of students showed some kind of symptoms of depression [3].

Depression makes students’ life bitter and reduces their effectiveness, hence reducing their success and academic achievement and preventing them from reaching the special positions they expect and in fact deserve, and, ultimately leading to severe failures, disrupting society's progress and consequences. Nursing, midwifery and operating room students with special problems such as larger units of practice compared to other fields of their degree, and, moreover, more compulsory education programs on the one hand and the diversity and variety of content on the other hand, frequent stresses during encounter with sick patients during internship in special sectors such as special departments, labor room and operating room, continuous exposure to the patient, incompatibility of the read-only theory of the patient’s bedside, and finally the ambiguity of the future occupational and social, faced with more desperation [4]. On the other hand, students need to be positive about their ability to maximize their mental capacities and potential [7]. Having a high self-esteem is a necessary success of the young age, which is the period of the formation of business relationships, social cooperation, and intimacy with other people. Other researchers have also shown a relationship between self-esteem and variables such as individual efficiency, permanent recruitment, job commitment and job satisfaction, life satisfaction, mental health and disappointment. Such a broad acceptance of its self-worth and its effect on healthy growth has led to the focus of attention of psychologists in recent decades and ways of strengthening and increasing self-worth [8].

College life is an exciting and challenging period for students. During this period, all students, especially students of the medical sciences department, face more stressful factors and the need for appropriate adaptation. They must have more self-esteem than others in order to achieve more success in their studies and ultimately in their careers. In many studies, the relationship between self-esteem and concepts such as depression, loneliness and anxiety have been reported as negative variables and factors such as sense of performance, ability to feel and academic progress as positive variables [9]. Research shows that people who are more positive about themselves are more successful in performing their tasks than those who have lower self-esteem. There seems to be a relationship between self-esteem and academic achievement [7].

Some research shows that there is a direct relationship between depression and self-confidence, So that the reduction of one leads to another decrease [10]. By identifying students with low self-esteem and students who are depressed and timely tackling these problems, they can help them with a successful future, and they have a more effective health system at the macro level. Regarding the effect of self-esteem and depression on one another; and considering that research have not been done so far in relation to the measurement of these two factors and its correlation with anesthesiology students in the country, the researchers aimed to determine the relationship between self-esteem and depression with academic achievement in nursing and anesthesiology students of Dezful University of Medical Sciences in 2014.

MATERIALS AND METHODS

The present study is a descriptive-analytic and cross-sectional study. A sample of 147 nursing and anesthetic students were selected by stratified sampling method and entered randomly from among the specified groups after obtaining written consent. Entry criteria including satisfaction to participate in the research, nursing student or anesthetist present in apprenticeship and exclusion criteria included the diagnosis of psychiatric disorders or the use of psychiatric drugs.

Data collection tools included Cooper Smith Self-esteem Questionnaire (SEI), Beck Depression, and Demographic Information.

The demographic information questionnaire included age, gender, field of study, term, first semester, and the average grade of the current semester.

Cooper Smith Self-Esteem Questionnaire has 58 questions that describe the opinions or reactions of an individual. Self-esteem scale has been provided to measure self-feedback in social, family, school and personal areas, and a false scale has been added to it. In this questionnaire, the subject must answer questions by selecting 'yes' or 'no'. The materials of each of the sub-scales are: the general scale of the 26 items, the social scale of the 8 items, the family scale of the 8 items, the school scale of 8 items, and the false scales of 8 items. The scores of the sub-scales, as well as the overall score, make it possible to identify the ground in which people have a positive image of themselves.

The method of scoring this test is zero (when answer is 'no') and one (when the answer is 'yes'), and the remaining questions are graded in reverse order. Those who score more in this test have higher self-esteem. In this way, the person who scored 25 in this test has a higher self-esteem and a person below this value
has low self-esteem. The reliability coefficient of this questionnaire was 0.7 in the study by Alboukordi et al., and 0.8 in the Ebrahimi study [10,11].

This questionnaire has been used extensively in psychology researches in recent years and has been used for high validity and reliability including the study by Mirzaei et al. [12].

Beck Depression Inventory is a 21-item questionnaire, which each question reflects a person's mental state. For each question that indicates one of the symptoms, four sentences have been written that indicate the mildest to most severe aspect of the patient's senses. The quantitative values of each aspect are from zero to three, respectively:

(0) Mental health is in the desired aspect.
(1) Feeling a mild disorder in every aspect.
(2) Severe disorder.
(3) Acute and profound disturbances.

To determine the general level of depression in this research, the following scores are considered: (0-15) Normal, (16-31) Mild depression, (32-47) Moderate depression, (48-63) Deep depression [13].

The internal consistency of this questionnaire has been 0.8 in Lashkaripour et al. and Abedini et al. have reported their reliability coefficient by a 0.7-point retest method [14,15].

Finally, data was analyzed by Pearson correlation coefficient, Spearman correlation coefficient, Chi-square and independent t-test with SPSS version 16 software.

RESULTS

In this study, 146 students, 49 (33.6%) were male and 97 (66.4%) were girls. Of these, 75 were nursing students (51.4%) and 71 students were anesthetic students (48.6%). 52 (35.6%) were in the third semester, 50 (34.2%) were in the second semester and 44 (30.2%) were in the first semester.

The mean score of self-esteem in these students was 33.25 ± 8.73, indicating that there is a good self-esteem in them. The mean depression score in these students was 7.33 ± 7.9, indicating that they were normal.

The average grade (academic achievement) of students was 16.09 ± 1.04.

There was a significant relationship between self-esteem and gender (p=0.02), so that girls had higher self-esteem than boys. But there was no significant relationship between depression and academic achievement with gender (p>0.05) (Table 1).

Table 1: Average and standard deviations of self-esteem scores, depression and academic achievement by gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Mean and standard deviation</th>
<th>Relationship with Gender p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boy</td>
<td>6.93 ± 30.97</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>9.33 ± 34.40</td>
<td>*p=0.02</td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boy</td>
<td>7.68 ± 7.08</td>
<td>*p=0.01</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>7.58 ± 7.76</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boy</td>
<td>0.83 ± 18.86</td>
<td>*p=0.05</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>1.11 ± 16.21</td>
<td></td>
</tr>
<tr>
<td>Grade point average (academic achievement)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There was a significant difference between students’ level of study, self-esteem and depression (p<0.05). Nursing students had higher levels of self-esteem and anesthesia students showed higher level of depression. However, there was no significant difference between academic achievement and academic achievement (p=0.11) (Table 2).

Table 2: Mean and standard deviation of self-esteem, depression and academic achievement in terms of field of study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Mean and standard deviation</th>
<th>Relationship with Gender p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nursing</td>
<td>9.58 ± 36.24</td>
<td>*p=0.00</td>
</tr>
<tr>
<td></td>
<td>Anesthetics</td>
<td>6.42 ± 30.09</td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing</td>
<td>7.40 ± 5.30</td>
<td>*p=0.04</td>
</tr>
<tr>
<td></td>
<td>Anesthetics</td>
<td>7.41 ± 9.36</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing</td>
<td>1.20 ± 16.23</td>
<td>*p=0.11</td>
</tr>
<tr>
<td></td>
<td>Anesthetics</td>
<td>0.82 ± 15.95</td>
<td></td>
</tr>
<tr>
<td>Grade point average (academic achievement)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There was a significant negative correlation between self-esteem and depression \( (p=0.006) \) \( (r=-0.22) \).

There was a positive and significant correlation between academic achievement and self-esteem \( (p=0.001) \) \( (r=0.26) \) and between depression and academic achievement \( (p=0.002) \) \( (r=-0.25) \). Significant negative correlation was observed in all students.

**DISCUSSION**

The average depression scores of students in this study were within the normal range. In this regard, the study of DeRoma et al. in the southeastern United States showed that the average student depression score ranges from normal to mild depression [16]. Also, the results of Mortazavi et al. in dormitory students of Shahid Beheshti University of Medical Sciences showed that their average depression score is mild, which is not consistent with the results of this study [17]. This outcome is likely to be related to cultural differences or different academic environments.

In this study, there was no significant relationship between depression and gender \( (p=0.61) \), which is consistent with the results of Bayati et al. [18] in Arak universities and Najafi et al. [19] in Fasa University of medical sciences students. But in Kulsoom et al. in Saudi Arabia, it was observed that female sex is associated with an increased risk of depression [20]. Depression is a widespread disease that affects both sexes. It can be said that the difference in the findings of Iranian studies with Saudi Arabia is due to differences in women's rights and some social constraints. The mean of self-esteem was seen in all of the students above. Zare et al., also studied the students of Shiraz University of Medical Sciences, concluded that they had high self-esteem. Students are selected individuals who have entered the university entrance examination (general examination) and have a higher self-esteem than the general population [9].

Self-esteem in female students was significantly higher than male students \( (p=0.02) \). This finding was not consistent with the results of the study by Rezaei et al. [21] and Kamali et al. [22]. In the studies mentioned, there is no statistically significant relationship between gender and self-esteem. It can be said that girls have higher self-esteem due to enjoyment of some beneficence of God, such as apparel beauty compared to boys.

In the present study, the mean score (academic achievement) of male students was higher than that of girls. This difference was not statistically significant \( (p=0.05) \). The results of this study are not consistent with the results of Kamali et al. [22], Salmalian et al. [23]. In the above studies, the average mean of female students was significantly higher than that of male students \( (p<0.05) \). The greater sensitivity of girls was found due to some issues such as marriage, family problems, and the greater changes in sex hormones, etc., than in boys.

In this study, nursing students had less depression and higher self-esteem than anesthetic students. Hadavi et al. study also showed that nursing students had lower depression than anesthetic students, which is consistent with the results of the present study [24]. Nursing students have a better career prospect than other disciplines, including anesthesia, which can lead to increased self-esteem and less depression in them.

There was a negative correlation between self-esteem and depression in all students, which was statistically significant \( (p=0.006) \) \( (r=-0.22) \) in this way, the higher the scores of depression, the less self-esteem scores which was consistent with the study of Khazaeei et al. on students in Birjand [25]. This finding suggests that students with higher self-esteem play a more influential role in the university and community, and become involved with depression as they enter society and take on less responsibility.

There was a direct and significant correlation between academic achievement and self-esteem among all students \( (p=0.001) \) \( (r=0.26) \), meaning that the higher the self-esteem, the better the academic achievement would be. The results of this study are consistent with the results of Lee [26], Mirzaei et al. [12]. This finding suggests that higher self-esteem is associated with greater motivation for education, which can improve students’ academic performance.

There was a negative and significant correlation between academic achievement and depression in all students \( (p=0.002) \) \( (r=-0.25) \), which means that, the lesser the depression, the better will be the academic achievement, which was consistent with the results of the DeRoma et al. study \( (p=0.001) \) \( (r=0.26) \) and Tehran et al. are the same \( (p<0.001) \) \( (r=-0.35) \) [16,27]. In explaining this finding, it can be argued that most of the content in classrooms is presented in order to improve the level of students’ knowledge of the visual and auditory techniques that need to be focused, the existence of mental health alongside healthy body, in learning and promoting academic performance is very important. For this reason, in the pathology of scientific systems, it is important to recognize the factors that improve or weaken the student’s academic performance [28].

**CONCLUSION**

The results of this study showed that the rate of depression in anesthesiology students is higher, which can be disturbed due to the sensitivity of work in the operating room in the occupational and personal future of the students, and therefore requires further investigation and etiology by the authorities. Also, the results of this study showed that there is a reverse relationship between depression with self-esteem and academic achievement, which confirms the results of other research in this regard.

**ACKNOWLEDGEMENT**

We declare our appreciation from Deputy of Research and Technology Development of Dezful University of Medical Sciences and all the students participating in this research.
CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

REFERENCES