DOI: 10.5455/annalsmedres.2021.01.015

# Adaptation and psychological problems and suggestions for solution of foreign students studying at medical faculty

©Zerrin Gamsizkan¹, ©Mehmet Ali Sungur², ©Muhammed Abdulal³, ©Muhammed Elmarhum³, ©Abdul Jalal Rasuly³, ©Elham Barzgarjalali³, ©Muhammed Elseyhkuvedir³

<sup>1</sup>Department of Family Medicine, Faculty of Medicine, Duzce University, Duzce Turkey

<sup>2</sup>Department of Biostatistics and Medical Informatics, Faculty of Medicine, Duzce University, Duzce Turkey

<sup>3</sup>Duzce University Faculty of Medicine, Semester 1 Student

Copyright@Author(s) - Available online at www.annalsmedres.org Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License



#### **Abstract**

Aim: Students who change places due to social, economic, geographical, cultural, and war reasons are likely to experience difficulties while adapting to the new environment. The aim of this study is to identify adaptation and psychological problems experienced by foreign students and to present suggestions to faculty education commissions to improve the health and education conditions.

Materials and Methods: The study was conducted between January and March 2020. The universe of the study consisted of all foreign students in the 2019-2020 academic year studying at the medical school. No sampling method was used in the study by aiming to reach the entire population. Foreign students studying at the Faculty of Medicine filled out a questionnaire including the educational problems experienced by the students and Beck's Depression Inventory (BDI).

**Results:** The most common problems of foreign students were as; language problems in 50 (49.0%) students, being away from family in 31 (30.4%) students, and financial problems in 21 (20.6%) students. It was found that 39.2% (n = 40) of the students had minor depression, 29.4% (n = 30) had mild depression, 26.5% (n = 27) had moderate depression and 4.5% (n = 5) had severe depression scores according to BDI. 69.5% of the students stated that they faced negative behaviors because they were foreigners. **Conclusion:** Supportive interventions can prevent the development of depression by providing academic and psychological relief to foreign students.

Keywords: Beck's Depression Inventory; foreign students; medical education; medical students

# INTRODUCTION

Communication and interactions between people from all countries of the world have now become more intensive thanks to the effect of globalization. Cross-border movements of people increased stunningly, especially in the last quarter and have affected all institutions throughout the countries. Education, one of the most important human rights, has also been transformed accordingly. People may choose to study in different countries both in order to dispose of various barriers in their homelands and take advantage of educational opportunities in a foreign country. However, studying in a foreign country brings with some problems (1,2).

Beginning the university is an important turning point in the lives of students, where they choose their profession and learn professional knowledge and skills. A student's transition from high school to higher education leads to many social, cognitive, economic, and psychological changes. These radical changes have been reported to cause students to experience distress, anxiety and stress (3). Foreign students, who have to accommodate themselves to new educational environment and to live away from their homeland, are at higher risk of experiencing mental and social problems. It was reported that the high levels of emotional and social loneliness observed among foreign students studying was alarming, in the United States (4). However, promising results of the cognitive behavioral approach treatment applied to the students who are homesick, in terms of decreasing their depression scores, suggest that supportive interventions can be helpful in this regard (5).

Duzce University, with its global education mission, accepts students from both domestic and foreign countries and aims to be a university where students from all cultures study together. The Faculty of Medicine also provides medical education to a certain number of students from abroad. Before beginning to the faculty, students go through a language education and orientation process for 1 year. When the number of students from the

Received: 05.01.2021 Accepted: 31.03.2021 Available online: 22.11.2021

Corresponding Author. Zerrin Gamsizkan, Department of Family Medicine, Faculty of Medicine, Duzce University, Duzce Turkey

E-mail: zgamsizkan@yahoo.com

first to the last year is examined in our Faculty through the last 10 years, it is seen that increasingly more number of foreign students leave the faculty every year (Figure 1). In addition to social, economic and residential problems that cause the interruption of education, some mental health problems that require intervention such as depression and anxiety may be present. All steps of medical education require effort and self-sacrifice, and guitting the education is a loss for both the student and the institution. This problem and suggestions for solution were discussed in the faculty education commissions. It has been suggested that identifying the problems of foreign students studying at the faculty would be a key for solutions. The aim of this study is to identify the social and mental problems experienced by foreign students and to present suggestions to faculty education commissions to improve the health and education conditions of foreign students.

# 

Figure 1. Decrease of foreign students in medical faculty over the years

# **MATERIALS and METHODS**

The Universe of the study consists of foreign students studying at Duzce University Faculty of Medicine. There were 141 foreign students studying in all classes in the academic year of 2019-2020, when the study was planned. No sample was made for the study and all students were tried to be reached by student representatives and advisors. The ethical approval for the study was obtained from the Duzce University Ethics Committee (Protocol number: 2020/45).

# Inclusion, exclusion criteria and implementation process

The foreign students who continued Turkish language education for at least one year and volunteer to participate in the study were included in the study. The data of the study were obtained by the fully filled questionnaires and scales. The students with a history of a diagnosis of depression and other psychiatric disorders were excluded from the study. Since one of the aims of the study was to define the expectations and problems of foreign students about education and reflect these to the curriculum that will be formed, a questionnaire was prepared including the educational problems experienced by the students. For the purposes of the study, the satisfaction levels regarding living and studying in a foreign country, whether they feel excluded, and the living conditions of them were

also questioned in the survey. The questionnaire prepared by the researchers was first tested by a pilot application including 20 students and the items that were not fully understood and those did not work were rearranged. Students were also asked two open-ended questions to guide solution suggestions for problems of foreign students. In addition, Beck's Depression Inventory II (BDI-II) was applied to the foreign students to determine the level of depression.

# **Beck's Depression Inventory II**

Beck Depression Inventory II is a 21-item questionnaire designed to assess the level of depressive symptoms present over the two weeks' period. Each item is rated on a four-point Likert-type scale ranging from 0 to 3; its total score ranges from 0 to 63. Higher scores indicate more severe depressive symptoms. Beck's Depression Inventory was originally developed by Beck in 1961 and revised to BDI-II in 1996 in response to changes in the DSM-IV criteria for the diagnosis of depressive symptoms (6,7).

# **Statistical Analysis**

Descriptive statistics are given as mean ± standard deviation for continuous variables, and frequency and percentage for categorical variables. In group comparisons, Independent samples t test and One-Way ANOVA tests were used depending on the number of groups. The relationships between categorical variables were examined by using Pearson chi-square or Fisher-Freeman-Halton test. Statistical analysis was made by using SPSS v.22 package program. A level of p<0.05 was accepted statistically significant.

#### **RESULTS**

A total of 102 foreign students who voluntarily accepted to participate in the study and fully completed the data collection tools were included in the study. The mean age of the students who participated in the study was 21.24 ± 3.20 and 57 (55.9%) of them were males and 44 (44.1%) were females. It was found that, 25 (24.5%) of the students lived alone, 58 (56.9%) lived with their friends, 16 (15.7%) lived with their families, and 3 (2.9%) of them lived with their spouses. Sixty-one students (59.8%) had been living in Turkey for 1-2 years and 41 (40.2%) for more than 3 years. We found that 63 (61.8%) were satisfied with living and studying in Turkey, 8 (7.8%) were not satisfied, and 31 (30.4%) were undecided. The most common problems of foreign students were language problems in 50 (49.0%) students, being away from family in 31 (30.4%) students, and financial problems in 21 (20.6%) students, respectively. While 41 (40.2%) of the students stated that they wanted to return to their country after the school was finished, 21.6% (n = 22) stated that they did not want to return, and 38.2% (n = 39) were undecided. Seventy-one (69.6%) students stated that they had exposed to some negative behaviors that bother them because they were foreigners, 31 (30.4%) stated that they did not encounter any negative behaviors because they were foreigners (Table 1).

When the distribution of students by country is examined, 9 (8.8%) students were from Afghanistan, 24 (23.5%) were from Azerbaijan, 2 (n = 2%) were from Palestine, 28 (27.5%) were from Iran, 2 (% 2.0) were from Rwanda, 31(30.4%) were from Syria, and 1 (1.0%) was from Uzbekistan. When the distribution of students by grades is examined 70 (68.6% n = 70) were  $1^{\rm st}$  grade students, 15 (14.7%) were  $2^{\rm nd}$  grade, 7 (6.9%) were  $3^{\rm rd}$  grade students, 4 (3.9%) were  $4^{\rm th}$  grade, 4 (3.9%) were  $5^{\rm th}$  grade and, 2 (2.0%) were  $6^{\rm th}$  grade students.

The mean BDI-II score of the foreign students was  $13.20 \pm 8.74$ . According to the scores, we found that 39.2% (n = 40) of the students had minor depression, 29.4% (n = 30) had mild depression, 26.5% (n = 27) had moderate depression and 4.5% (n = 5) had severe depression (Table 2).

| Table 1. The sociodemographic data of the foreign students and the |
|--|
| distribution of experienced social problems                        |

| Gender   |               |
|--|---------------|
| Male   | 55.9% (n=57)  |
| Female   | 44.1% (n=45)  |
| Marital status   |               |
| Married  | 3.9% (n=4)    |
| Single   | 96.1% (n=98)  |
| Living partners  |               |
| I live alone   | 24.5% (n=25)  |
| I live with my friend  | 56.9% (n=58)  |
| I live with my family  | 15.7% (n=16)  |
| I live with my wife  | 2.9% (n=3)    |
| Are you happy to live and be a student here?                                 |               |
| Yes  | 61.8% (n=63)  |
| No   | 7.8% (n=8)    |
| Undecided  | 30.4% (n=31)  |
| What is the most important problem you experience                            | ed            |
| Language problems  | 49.0% (n=50)  |
| Being away from family   | 30.4 % (n=31) |
| Economic problems  | 20.6% (n=21)  |
| Do you want to return to your country?                                       |               |
| Yes  | 40.2% (n=41)  |
| No   | 21.6% (n=22)  |
| Undecided  | 38.2% (n=39)  |
| f you have the opportunity to go to another country<br>would you go?         | у,            |
| Yes  | 56.9% (n=58)  |
| No   | 19.6% (n=20)  |
| Undecided  | 23.5% (n=24)  |
| Have you ever exposed to a negative behavior<br>pecause you are a foreigner? |               |
| Yes  | 69.6% (n=71)  |
| No   | 30.4% (n=31)  |

There was no significant difference between the students participating in the study according to ages in terms of the mean BDS scores (r = -0.114; p = 0.255). Although there was no significant difference between genders in terms of BDS scores, the mean scores of male students were higher than female students. There was no significant difference between the students according to grades in terms of the mean and subgroup scores of BDS. The mean BDS scores of the students living alone or with their friends were found to be significantly higher than those living with their family or spouse (p <0.004). The mean BDS scores of the students who stated that they were not satisfied with living and studying in a foreign country were found to be significantly higher than those who stated that they were satisfied (p <0.006). In addition, we found that the mean BDS scores of the students who were exposed to a negative behavior because they were foreigners were significantly higher than those who had not exposed to such a behavior (p < 0.002, Table 3).

| Table 2. Beck's Depression Inventory (BDI) scores |                   |  |  |  |
|---|-------------------|--|--|--|
| Mean BDS Score                                    | 13.20±8.74 (0-52) |  |  |  |
| Groups according to BDS scores                    |                   |  |  |  |
| Minimal depression                                | 39.2% (n=40)      |  |  |  |
| Mild depression                                   | 29.4% (n=30)      |  |  |  |
| Moderate depression                               | 26.5% (n=27)      |  |  |  |
| Severe depression                                 | 4.9% (n=5)        |  |  |  |

Table 3. Relationship between gender, class level, problematic situation, number of people living together, being satisfied with living and studying in a foreign country, negative attitude and BDI

|                                  | Mean                   | P value |
|----------------------------------|------------------------|---------|
| Gender                           |                        | 0.159   |
| Male                             | 14.28±9.44             |         |
| Female                           | 11.82±7.65             |         |
| Class                            |                        | 0.428   |
| 1                                | 13.53±8.91             |         |
| 2                                | 14.47±9.18             |         |
| 3                                | 10.00±6.90             |         |
| 4                                | 5.50±9.71              |         |
| 5                                | 13.75±6.19             |         |
| 6                                | 17.50±0.71             |         |
| Problematic situation            |                        | 0.101   |
| About the language               | 15.08±9.39             |         |
| Being away from family           | 11.48±7.71             |         |
| Economic problems                | 11.24±7.96             |         |
| Number of people living together |                        | 0.004   |
| I live alone                     | 17.40±7.91a            |         |
| I live with my friends           | 13.07±9.13ª            |         |
| I live with my family            | 8.75±5.50 <sup>b</sup> |         |
| I live with my spouse            | 4.33±2.52b             |         |

| Are you happy to live and be a student here?                              |              | 0.006  |
|---|--------------|--------|
| Yes   | 11.51±7.15ª  |        |
| No  | 21.38±15.49b |        |
| Undecided   | 14.52±8.37a  |        |
| Are you happy to study in the medical school?                             |              | <0.001 |
| Yes   | 10.66±6.53ª  |        |
| No  | 22.00±7.87b  |        |
| Undecided   | 21.89±10.41b |        |
| Have you ever exposed to a negative behavior because you are a foreigner? |              | <0.002 |
| Yes   | 14.92±8.61   |        |
| No  | 9.26±7.82    |        |

When the answers given by the students to open-ended questions are examined; 71.5% (n = 73) of the students stated that the reason for leaving school was mostly language problems. The other reasons for leaving the school were listed as; failure in exams 54.9% (n = 56), 44.1% (n=45) Lack of psychological support, 26.4% (n=27) economic reasons and Being unable to get used to living in a foreign country 23.5%(n=24). When students are asked about their expectations about the curriculum; 63.7% (n = 65) of the students preferred to have the courses in English, 36.2% (n = 37) wanted English course materials, 11.7% (n = 12) wanted a video recording system that they could watch again later.

#### DISCUSSION

In this study, we tried to determine the adaptation problems experienced by foreign students studying at our faculty.

We found that the language problem was the most common problem experienced by foreign students studying at the medical faculty. Brown et al (8), in their systematic review of the literature regarding the problems of foreign students, also stated that foreign students wished language support to be available and not to have language problems during education. Cross-border human movements that developed very rapidly in the last quarter has been discussed in the context of the problems experienced by foreign students during education and it was emphasized that an urgent language support was required for students in the first place (9).

Since the language problem affects the academic achievement of the students, the resulting stress and anxiety and consequent unsuccessfulness may be the reason for quitting school. In a study conducted in Pakistan, it has been reported that the most common stress sources of medical students are academic and psychosocial anxieties (10). The medical school student, who has already gone through a difficult education, may not be able to cope with the additional problems they face, and this may be related to quitting school (11). In our study, most of the students focused on language problems and failure in the exams, as the reasons for quitting school.

In our study, we observed that, a significant number of foreign students wanted to return to their country. Similarly, it is stated that students studying in a foreign country constantly struggle between leaving and staying (8).

In several studies it has been reported that, the stress factors negatively affect the health of both undergraduate and postgraduate students studying in a foreign country (12). In our study, we found that approximately one of every four foreign students in our faculty suffers from moderate and severe depression. Considering the difficulties of reaching health services for students studying in a foreign country, this is a problem that needs to be addressed (13). In our study, it was found that male BDS scores of male students were higher than female students; however the differences were not significant. Similarly, in a study conducted in Germany, it was found that male students perceive the conditions more negatively and show more behavioral problems (14). In a study conducted to determine and compare the stress levels between male and female students, in a medical school in India, it was found that perceived stress was higher in male students compared to female students (15). Studies show that in some cultures males are unable to talk about their psychological problems and are reluctant to seek help for these problems (16). Psychological problems can create serious health problems for the students who hesitate to seek help. In this context, we think that male foreign students studying at our faculty should be more closely attended by advisors. This issue was also discussed in the commissions where the study results were presented and was added to the improvement measures.

In our study, there was no significant difference between the grades in terms of BDS scores. However, the mean BDS scores of the students in 6th grade were higher than other grades. Due to the fact that the number of students decreasing in the upper grades and there were only 2 students in the 6th grade, it was difficult to determine the significance in terms of quantitative data. We found that these 2 students were undecided about which country to settle and work after graduation and they were anxious about their future. Future anxiety may cause individuals to feel helpless and this could explain the relatively high BDS scores of these two students.

In our study, we found that more than half of the foreign students had encountered negative behaviors because they were foreigners. In addition, BDS scores of the students, who stated that they encountered negative behaviors because they were foreigners, were found to be significantly higher. Similar results have been reported by many studies. In a qualitative study conducted on students with refugee status in Austria, half of the students reported that they were exposed to bullying because they were refugees, being inadequate in language, and because of their religious beliefs (17). In a study, conducted by indepth interviews with students who have problems with education and integration in a culturally different country, it is seen that they wished host citizens to behave more friendly towards them (18). The cultural shock experienced by the students studying in international programs was defined as one of the important factors that affected them in almost every field (19).

The mean BDS scores of the students living alone or with their friends were found to be significantly higher than those living with their family or spouse. Living alone has been defined among the predictors of depression and suicidal tendency (20).

These problems alone or together affect the school achievement of the foreign students. It is thought that the inadequate compliance of students struggling with social and psychological problems is reflected in their school success. These results may explain why students quit their education.

# **LIMITATIONS**

The study has some limitations. The small number of students in the upper grades may be insufficient to draw statistical conclusions. In our study, although a deep approach to student problems was targeted with openended questions, more valuable results could be obtained with structured qualitative interviews.

# CONCLUSION

The results of this study contain valuable data for the purposes of contributing to a wider understanding of education. Employees from different cultures can be employed for the development of students' sense of belonging. It can also contribute to develop a sense of belonging in the school and social cohesion in the wider society, for foreign students. In order to solve the language problem of the students in the lessons, intermediate trainings should be organized. All these supportive interventions can prevent the development of depression by providing psychological relief to foreign students. These interventions may also provide help for the problem of quitting education.

Competing Interests: The authors declare that they have no competing interest.

Financial Disclosure: There are no financial supports. Ethical Approval: The ethical approval for the study was obtained from the Duzce University Ethics Committee (Protocol number: 2020/45).

# **REFERENCES**

- Horswood D, Baker J, Fazel M, et al. School factors related to the emotional wellbeing and resettlement outcomes of students from refugee backgrounds: protocol for a systematic review. Syst Rev 2019;8:107.
- 2. Herrmann-Werner A, Junne F, Stuber F, et al Reducing Stress and Promoting Social Integration of International Medical Students through a Tandem Program: Results of a Prospective-Program Evaluation. Int J Environ Res Public Health 2018;15:1959.
- Simić-Vukomanović I, Simić-Vukomanović I, Mihajlović G, et al. The prevalence and socioeconomic correlates of depressive and anxiety symptoms in a group of 1,940 Serbian university students. Vojnosanit Pregl 2016;73:169-77.
- 4. Song SJ, Ziegler R, Arsenault L, et al. Asian student depression in American high schools: differences in risk factors. J Sch Nurs 2011;27:455-62.

- Saravanan C, Alias A, Mohamad M. The effects of brief individual cognitive behavioural therapy for depression and homesickness among international students in Malaysia. J Affect Disord 2017;220:108-16
- 6. Beck AT, Ward CH, Mendelson M, et al. An inventory for measuring depression. Arch Gen Psychiatry 1961;4:561–71.
- 7. Beck AT, Steer RA, Brown GK. In: Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation; 1996.
- 8. Brown M, Boateng EA, Evans C. Should I stay or should I go? A systematic review of factors that influence healthcare students' decisions around study abroad programmes. Nurse Educ Today 2016;39:63-71.
- 9. Taylor S, Sidhu R. Supporting refugee students in schools: what constitutes inclusive education? International J Inclusive Education 2012;16:39-56.
- Shah M, Hasan S, Malik S, Sreeramareddy CT. Perceived stress, sources and severity of stress among medical undergraduates in a Pakistani medical school. BMC Med Educ 2010;10:2.
- 11. Fares J, Al Tabosh H, Saadeddin Z, El Mouhayyar C, Aridi H. Stress, Burnout and Coping Strategies in Preclinical Medical Students. N Am J Med Sci 2016;8:75-81.
- 12. Lee EJ, Chan F, Ditchman N, Feigon M. Factors influencing korean international students' preferences for mental health professionals: a conjoint analysis. Community Ment Health J 2014;50:104-10.
- Anderson A, Kitsos J, Miller A, Abraham S. A Qualitative Study of Health Care Experiences Among International Students. Health Care Manag (Frederick) 2017;36:78-86.
- 14. Schachner M K, Van de Vijver FJR, Noack P. Acculturation and school adjustment of early-adolescent immigrant boys and girls in Germany: Conditions in school, family, and ethnic group. Journal of Early Adolescence 2018;38:352-84.
- 15. Saxena Y, Shrivastava A, Singhi P. Gender correlation of stress levels and sources of stress among first year students in a medical college. Indian J Physiol Pharmacol 2014;58:147-51.
- 16. House J, Marasli P, Lister M, Brown JSL. Male views on help-seeking for depression: A Q methodology study. Psychol Psychother 2018;91:117-40.
- 17. Bešić E, Gasteiger-Klicpera B, Buchart C, Hafner J, Stefitz E. Refugee students' perspectives on inclusive and exclusive school experiences in Austria. Int J Psychol 2020;55:723-31.
- Masera G, Ngo Bikatal CJ, Sarli A, Sarli L. Being an overseas student at the Faculty of Medicine and Surgery of the University of Parma: the perceptions of students from Cameroon. Acta Biomed 2015;6:212-22.
- 19. Mwenda AS. A student's analysis of the Moi University-Linköping University exchange programme. Educ Health (Abingdon) 2012; 25: 111-5.
- 20. Torres AR, Campos LM, Lima MCP, Ramos-Cerqueira ATA. Suicidal Ideation Among Medical Students: Prevalence and Predictors. J Nerv Ment Dis 2018;206:160-8.