SOCIO-DEMOGRAPHIC CHARACTERISTICS, EDUCATIONAL MOTIVATION AND GEO-CULTURAL COMFORTABILITY RELATED TO THE PROCESS OF ADAPTATION OF FRESHMAN INTERNATIONAL STUDENTS IN A ROMANIAN UNIVERSITY

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(Abstract): Successfully integrating international students in a university is one of the main goals of an academic institution. **Aim:** To identify the characteristics of international students enrolled in first year of study. **Material and methods:** A number of 128 freshman international students from 23 countries were included in the research. The subjects had to complete a document with socio-demographic data and to answer to several items. Data was processed using IBM SPSS Statistics, version 23. **Results:** 67 men (52.37%) and 61 women (47.66%) with an age of 19.59 ± 2.21 were included in the research. More than half of international students are fluent in three languages. 58.73% of students’ fathers and 67.97% of their mothers graduated from university. A number of 13 (N = 10.48%) declared that at least one of their parents is physician and almost half of them have at least one relative studying in the university. The levels of satisfaction with the relationship with colleagues, teachers and administrative staff are analyzed. **Conclusions:** International students have criteria for choosing their academic institutions. Universities and academic staff must take into consideration their reasons used in choosing the institution and social, cultural, religious or daily life aspects must be supervised to help them become more integrated into the community. **Keywords:** INTERNATIONAL STUDENT, UNIVERSITY, MEDICAL STUDY, DISCRIMINATION, SATISFACTION.

Pressed by the high number of students from abroad who would like to study in another country, universities had to change over the years to meet international students’ needs and to adjust their educational offer to satisfy their professional expectations.

Both our borders and culture become more accepting towards immigrants from all over the world, and less judgmental of people who are different. The educational system in our country has been subjected to a rise in the number of students of various cultures. With that in mind, the phenomenon of acculturation stress has also become more noticeable.

With the work of psychologists, such as
Berry and Rudmin (1) certain systems and scales have been effectively put together and improved throughout the last decade, thus helping analyze and quantify the level, prevalence and importance of various stressors. It is very important to identify more efficient means of helping international people, especially students, in dealing with the pressure of a new society.

The stress related to acculturation is the phenomenon experienced by individuals or groups, on a psychological and cultural level, during the adjustment to a foreign culture (2). Berry et al all helped identify vital stressors arising from the adjustment period, as well as develop the idea of the 4 different coping strategies which have been confirmed to follow 3 main steps: 1. Contact period, 2. Conflict period and 3. Resolution period (3, 4).

International students, according to research, present common stressors such as cultural shock (5) along with conflicts and psychological issues that may occur throughout the adjusting timeframe. (6, 7, 8). Among main stressors are the following: language barrier, cultural aspects, religious facilities, relationship with family, social support and academic facilities.

The present study is a preliminary one and is part of a larger study focusing on international students in a medical university from North-Eastern Romania. The aim is to identify socio-demographic characteristics and factors related to the process of integration of international students enrolled in first year of study in “Grigore T. Popa” University of Medicine and Pharmacy of Iasi, Romania. The study presents some results from a larger research obtained by a grant competition organized by University of Medicine and Pharmacy Iasi, Romania and Agence Universitaire pour la Francophonie (AUF) in 2017 and approved by both institutions.

MATERIAL AND METHODS

The goal of the research

The aim of the research was to identify socio-demographic characteristics and factors related to the process of integration of international students enrolled in first year of study in “Grigore T. Popa” University of Medicine and Pharmacy of Iasi, Romania. The study presents some results from a larger research obtained by a grant competition organized by University of Medicine and Pharmacy Iasi, Romania and Agence Universitaire pour la Francophonie (AUF) in 2017 and approved by both institutions.

Participants

A number of 150 questionnaires were distributed among freshman students from Medical Faculty and Dental Medical Faculty, studying in French and English sections. Before the completion of data, students were informed about the purpose of the study and the use of data, with the respect of confidentiality of data. The questionnaire was distributed to students after they were questioned about their level of English language, because documents were formulated in English. Students were informed that the questionnaire was optional, and they could decline filling it in, with no consequences. In total, 145 questionnaires returned to the researchers and 128 of them (85.33%) were considered for the study. The exclusion criterion was: the questionnaires were not fully filled in or they were
delivered after the requested date.

**Questionnaires**

The questionnaires gathered information referring to the following aspects:

- socio-demographic characteristics a family-related data (age, sex, marital status, religion, nationality, country of origin, maternal language, the number of languages spoken fluently, the level of education of their parents, if one of the parents is a physician, the number of siblings, if their parents were speaking Romanian language, if they have relatives, friends or siblings enrolled in their institution of study),
- academic data (language of study, previous experience in other universities from Romania or abroad),
- information related to their choice regarding enrollment in Faculty of Medicine in Iasi and the country where they intend to work after graduation were also gathered.

Several items were formulated to identify their level of comfort related to their living in the University City. Answered for formulated on a Lickert-like scale from 1 to 5 (1 – not comfortable, 2 – somewhat comfortable, 3 – comfortable, 4 – very comfortable, 5 – extremely comfortable). The items referred to their comfort of communicating in English or Romanian, climate, transportation, food or relationship with neighbors in Iasi.

Also, some questions were formulated to identify their level of satisfaction with the administrative staff, colleagues or teachers. The answers were rated on a scale from 1 (very unsatisfied) to 10 (very satisfied).

**Statistical analysis of data**

The statistical analysis of data was done using IBM SPSS Statistics, version 23.0.

**RESULTS AND DISCUSSION**

**Socio-demographic and family data**

A number of 67 men (52.37%) and 61 women (47.66%) from 23 countries were included in the research. They are studying in two faculties of the university: General Medicine (N = 110, 85.94%) and Dental Medicine (N = 18, 14.06%). The average age is M = 19.59 ± 2.21, range 17-30 years old. Approximately 82% of participants are aged between 18-20 years old.

The majority of them are studying in English language (N = 110, 85.94%) but also 18 students from French language section (14.06% of respondents) choose to answer to the questionnaires.

Most them are single (N = 103, 81.10%), a small part sustained that they are in relationship (N = 21, 16.54%) and three of them are married.

Questioned students are from 23 nationalities from all over the world, but the highest rates are Israeli (61.60%), French (12.80%) and Greek (8%). The other self-declared nationalities are: German, Canadian, Benin, Irish, Lebanese, Polish, Cypriot, American, Morocco, Vietnam, Palestinian, Romanian, Tunisian, Turkish, Finnish, British, Italian, Philippine, Zimbabwean. Three students have double-nationality.

Most students included in the research are Muslims (N = 85, 66.4%), 26 (20.3%) are Christian-Orthodox, 3 are Protestants, 2 are Catholics and 1 students is Hindu.

More than half of freshman international students are fluently speaking three languages (N = 64, 50.39%), almost a quarter of them are speaking four languages (N = 30, 23.62%) and 26 (20.47%) are speaking two languages.

Twelve students (9.52%) have Romanian origins. They were also asked if their parents speak Romanian. Fifteen of them
declared that their mothers speak Romanian and 15 of them that their fathers speak this language.

Regarding the level of education of their parents, 74 (58.73%) of fathers are have a university degree and 87 (67.97%) of their mothers graduated from university. A number of 13 (N = 10.48%) declared that at least one of their parents is physician. Only 5 of students (4.03%) are singleton. 21 (16.94%) are having one sibling, 39 (31.45%) are having 2 siblings, 28 (22.58%) are having 3 siblings and 16 (12.90%) are having 4 siblings. A total of 12.12% of international students are coming from a family with more than 6 children.

Almost half of them are having at least one relative studying in the university (N = 60, 48%).

**Academic data and information related to the educational/professional choices**

A number of 36 students (28.57%) declared that they were previously enrolled in other universities, and among the most mentioned countries is France (41.18%), Israel, United Kingdom and Greece (with 5.88% each).

The main reasons for choosing to study in this university are presented in tab. 1. Among the answers related to the prestige of the university were the following: it is a good university, it offers a lot of practice, it is a European university, it was proposed by friends and former students from all over the world). Also, students mentioned their trust in the academic offer (they have or had friends enrolled in the university or they know about the country or the university from their relatives or friends). Regarding personal advantages, international students mentioned they close distance to their countries of origin that they speak the language or that studies are most cheap comparing to other universities.

<table>
<thead>
<tr>
<th>The main reason for choosing to study in Iasi</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The university prestige</td>
<td>52 (40.65%)</td>
</tr>
<tr>
<td>Trustful in academic offer and city life</td>
<td>36 (28.12%)</td>
</tr>
<tr>
<td>Personal advantages</td>
<td>27 (21.09%)</td>
</tr>
</tbody>
</table>

**Life in the University City**

Students were asked to answer to some questions related to their life in the university city. 63 international students (52.07%) share an apartment with a friend or a colleague. Because a large part of the students declared their religion and this aspect is an important factor for adjusting adequately to the new life as student, subjects were asked about how they succeed in being a part of their religious community. A total of 59 of them (46.1%) declared that they can practice their religion in mosque (22%), churches (22%) or at home (56%).

Also, they had to answer to five items trying to identify their level of comfort during their first months in at the faculty, related to the following aspects: climate, transportation, neighbors, communicating with the owner of the apartment or with food. The temperature and food seem to be the most uncomfortable aspects that students must deal with. The distribution of their answers is presented in Table II.

Almost a quarter of subjects (N = 29, 22.7%) declared that they feel discriminated in their first few months as student: 4.7% by neighbors, 4.7% by teachers, 6.3% by people during city transportation, 6.3% by colleagues and 10.2% by citizens.
Socio-demographic characteristics, educational motivation and geo-cultural comfortability related to the process of adaptation of freshman international students in a Romanian university

TABLE II
The distribution of answers to items regarding students’ life in the University City (N, %)

<table>
<thead>
<tr>
<th>How comfortable are you with...</th>
<th>not comfortable</th>
<th>somewhat comfortable</th>
<th>comfortable</th>
<th>very comfortable</th>
<th>extremely comfortable</th>
<th>M ± st dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>...the climate in Romania?</td>
<td>20 (15.6%)</td>
<td>35 (27.3%)</td>
<td>45 (35.2%)</td>
<td>23 (18%)</td>
<td>5 (3.9%)</td>
<td>2.67±1.07</td>
</tr>
<tr>
<td>...the transportation in the city?</td>
<td>5 (3.9%)</td>
<td>41 (32%)</td>
<td>51 (39.8%)</td>
<td>26 (20.3%)</td>
<td>5 (3.9%)</td>
<td>2.88±0.91</td>
</tr>
<tr>
<td>...your neighbors?</td>
<td>16 (12.5%)</td>
<td>24 (18.8%)</td>
<td>52 (40.6%)</td>
<td>21 (16.4%)</td>
<td>14 (10.9%)</td>
<td>2.94±1.14</td>
</tr>
<tr>
<td>...communicating with the owner of apartment?</td>
<td>9 (7%)</td>
<td>15 (11.7%)</td>
<td>48 (37.5%)</td>
<td>28 (21.9%)</td>
<td>27 (21.1%)</td>
<td>1.27±1.15</td>
</tr>
<tr>
<td>...with the food?</td>
<td>18 (14.1%)</td>
<td>36 (28.1%)</td>
<td>40 (31.3%)</td>
<td>16 (12.5%)</td>
<td>18 (14.1%)</td>
<td>2.84±1.23</td>
</tr>
</tbody>
</table>

Educational and social aspects

Students had to rate on a scale from 1 (very unsatisfied) to 10 (very satisfied) their level of satisfaction in relationship with administrative staff, colleagues or teachers. The means and standard deviations are presented in tab. III.

TABLE III
The answer to the items targeting the level of satisfaction in relationship with colleagues, teachers and administrative staff

<table>
<thead>
<tr>
<th>How satisfied are you with the relationship with...</th>
<th>Mean and standard deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship with the administrative staff</td>
<td>5.63 ± 2.27</td>
</tr>
<tr>
<td>The relationship with teachers</td>
<td>6.36 ± 2.11</td>
</tr>
<tr>
<td>The relationship with colleagues</td>
<td>6.99 ± 2.10</td>
</tr>
</tbody>
</table>

Students were also asked about the country where they would like to practice after graduation. A total of 43% of students would like to work as a physician in Israel, 9.4% in France, 5.5% in Germany, 4.7% in Romania, 3.9% in Greece or the United Kingdom and 3.1% in the United States. The other countries mentioned where: Netherlands, Italy, Canada, Maldives, Morocco, Taiwan and Australia.

The analysis of data identifies no significant difference considering the type of faculty (dental medicine or general medicine) regarding the level of comfort with neighbors, transportation or food or satisfaction with the relationship with the administrative staff, colleagues or teachers.

Considering the level of satisfaction, the results revealed that male students are more satisfied with their relationship with colleagues compared to female students. No other significant differences between men and women were identified considering the gender of students.

The present research is the first one developed in Romania. Medical universities are having a long experience in providing facilities to international students, but in the last decade the number of students coming from abroad have increased and the diversity of cultures, nationalities and religious is also larger. Providing services and facilities for all international students is an important and difficult goal but helping them to integrate in the new culture for their long period of studies must be taken into consideration by the university’s administration. Some studies proved that the difficulty of integra-
tion and the stress related to acculturation are important factors related to depression and suicide ideation. The difficulty is greater in case of students who don’t speak the language, with a strong relationship with family of origin, (especially when there are many siblings) or in case a great discomfort (9) but consistent teachers’ support and strong parental attachment are helping to cope with the stress (10).

On the other hand, international students’ motivation to study in Romania and their goals for their future profession are also important for their process of accommodation in the University City or their level of comfort. Some studies developed in European countries from northern or east parts of the continent proved that the goals of studying in these countries are divers, and not always related to the prestige of the university (low cost, European country or accepting students with low level of English language). For solving these problems, governments and educational policies provided special programs (11).

The present research has some strong point and limitation: This research is important because is the first one developed in the country and results must be guiding future measures focusing on integrating international students. The limitation of the study is because results cannot be generalized because the study is focusing on a certain university. Adding subjects enrolled in other medical universities from all over the country could add significant aspects.

CONCLUSIONS

International students have criteria of choosing their academic institutions. Universities and academic staff must take into consideration their reasons used in choosing the institution and social, cultural, religious or daily life aspects must be facilitated to help them become more integrated into the community.

ACKNOWLEDGEMENTS

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REFERENCES

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**EVALUATION OF SERUM C-REACTIVE PROTEIN LEVELS IN SUBJECTS WITH AGGRESSIVE AND CHRONIC PERIODONTITIS IN COMPARISON WITH HEALTHY CONTROLS**

The aim of a study realized by a group of Indian researchers was to evaluate and to compare the serum C-reactive protein levels in subjects diagnosed with chronic periodontitis and aggressive periodontitis. Forty-five subjects were included in the study. The subjects were divided into three groups: group I (subjects with clinically healthy periodontium), group II (subjects with generalized aggressive periodontitis), and group III (subjects with chronic periodontitis). For the measurement of serum C-reactive protein, blood samples were collected from all subjects. Periodontal parameters (plaque index, bleeding index, gingival index, probing pocket depth, clinical attachment loss) were assessed. Serum C-reactive protein levels were assessed by means of a commercially available high sensitivity serum C-reactive protein enzyme immunoassay kit. The results showed that serum C-reactive protein levels were increased in group III (6.0671 ± 3.15639 mg/L) and group II subjects (4.5453 ± 2.88116 mg/L) compared to the group I (1.0180 ± 0.94069 mg/L). Serum C-reactive protein levels showed a positive correlation with all clinical parameters in group I subjects. Bleeding index (r = 0.073), plaque index (r = 0.120) showed a positive correlation with serum C-reactive protein level in group II and a positive correlation was also seen for plaque index (r = 0.492), probing pocket depth (r = 0.340), clinical attachment loss (r = 0.160), and serum C-reactive protein level in group III subjects. In conclusion, the mean serum C-reactive protein levels were found to be greater in patients with chronic periodontitis compared to those with generalized aggressive periodontitis, but there was no statistically significant difference. (Bolla V, Kumari PS, Munnangi SR, Kumar DS, Durgabai Y, Koppolu P. Evaluation of Serum C-reactive Protein Levels in Subjects with Aggressive and Chronic Periodontitis in Comparison with Healthy Controls: A Clinico-biochemical Study. *Int J Appl Basic Med Res.* 2017 Apr-Jun; 7(2):121-124).

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