

## Research Paper

## Emigration-related Attitudes of Students of Health Studies in Bosnia and Herzegovina

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**ABSTRACT**

**Background and Purpose:** Improper distribution of health workers is a worldwide problem, especially in developing countries. The shortage of health personnel has been intensified over the past two decades as a result of the emigration of health workers from developing countries to developed ones and disparities between urban and rural regions.

**Materials and Methods:** This cross-sectional, quantitative, and descriptive study was conducted at the University of Sarajevo, Faculty of Health Studies, for two months. The study included 203 3<sup>rd</sup>-year and 4<sup>th</sup>-year undergraduate students of all study programs. The chi-square test was used to examine the difference between students' attitudes about leaving according to gender, grade point, foreign language learning, and high school graduation, as well as different statements of intention to leave or stay.

**Results:** Of 203 respondents, 49(24.1%) were male and 154(75.9%) were female. Thirty-four students (16.75%) stated their attitude towards the definitive departure. Also, 129 students (63.55%) were thinking about leaving after graduation, while 40 students (19.7%) wanted to continue their life in Bosnia and Herzegovina after their studies. Almost half of the female students (49.26%) and slightly more than half of the male students (14.28%) think about leaving after their studies, with a statistically significant difference between men and women who think about leaving and those who stay. The positive attitudes, which the students who are leaving, for the most part, agreed upon were the acquisition of life experience that their occupation profile was sought in other countries, and career development and professional development. The reasons why most students consider leaving the country after their studies are due to the attitude that their education and degree are more valued in other countries, higher living standards in other fields, and career development and professional development.

**Conclusion:** To prevent the migration of health students, retention policies are needed that target immigrant staff. These policies can be extremely important in preventing the problem of a lack of quality health staff in the near future.

**Keywords:** Students, Health personnel, Emigration and immigration, Developing countries

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## 1. Introduction

**B**osnia and Herzegovina (BiH) are located in the Western Balkan region, and the migration of young people is a very known thing in this country. Even though the migration of youth and working population in the Western Balkan countries have been identified as a serious issue and therefore put in the media spotlight, especially in the last few years, to the best of our knowledge, little academic research has been conducted on this matter. There is no reliable estimate of BiH citizens living abroad since this estimate varies depending on data sources. The World Bank estimates that 44.5% of BiH citizens live abroad, whereas the Ministry of Security of BiH (2018) estimates that 56.6% of BiH citizens live abroad. The high number of BiH citizens living abroad could be explained by migration from BiH during and right after the end of the war in BiH (1992-1995). However, the latest available data indicates that this percentage is not stagnant since people (especially young people) continuously leave the country. According to the most recent Balkan Barometer (2017) survey, which is conducted annually, about half of current BiH residents would like to leave the country and work abroad. Balkan Barometer also reveals that the number of young people (ages 18-29) who wish to leave BiH has increased over time [1].

Improper distribution of health workers is a worldwide problem, especially in developing countries. The shortage of healthcare workers has been intensified over the past two decades due to the emigration of health workers from developing countries to developed ones and disparities between urban centers and rural regions. The migration of medical professionals has significant ethical and practical implications. Healthcare systems in several countries in the developed world depend heavily on imported health workers [2].

The phenomenon of migration of healthcare workers has a specific presence among students, emphasizing the aspects related to the professional career and socioeconomic status of healthcare workers [3]. Most countries that educate health personnel are countries that have a large population and need them. These future leaders can bring about reforms in academic and research circles, but due to migration trends, there are intellectual, socioeconomic, and demographic losses [4]. Therefore, this study aims to gain insight into the attitudes and intentions of health studies students about possible migrations after graduation.

## 2. Materials and Methods

### Participants

The cross-sectional, quantitative, and descriptive study was conducted at the University of Sarajevo, Faculty of Health Studies, from October 28, 2020, to September 30, 2020. The study population included third- and fourth-year undergraduate students of all study programs (Laboratory Technologies, Nursing, Physiotherapy, Sanitary Engineering, and Radiology Technologies). The samples were selected by purposeful sampling method. The inclusion criterion was undergraduate students in their third and fourth years of study. Students voluntarily and anonymously filled out a questionnaire, which was distributed in the classrooms. The modified questionnaire, which examines the insight into students' attitudes about emigration after graduation, consists of 7 sociodemographic questions and 3 questions related to students' attitudes about emigration [5]. For this research, a special questionnaire was developed based on an existing instrument and modified [5]. The survey questionnaire consisted of two fundamental parts, including 10 questions. The first part comprised 7 items: demographic and socioeconomic questions (gender, previous education, whom they live with, parents' level of education, studying in the place of residence, average grades, learning a foreign language) [6].

The next set of questions was about their attitudes about migrations: intention to migrate (I am leaving, considering leaving and not leaving) and reason for leaving or not leaving, depending on the previous answer. Proposed statements for those who want to leave were career development and professional development, higher salary compared to those in the country, gaining life experience, and higher living standards in other countries (I think my education and degree are more valued in other countries, I think my occupation profile is in demand in other countries). Proposed statements for those who do not want to leave were I do not want to leave because of family and friends, I feel safe in this country, and I see perspective; this country offers me the opportunity for employment and training this country provides me with a lifestyle that suits me. The questionnaire could be answered within 5 minutes. The study procedure was designed to protect the student's privacy with anonymous participation, and participation was not mandatory. The processing and publication of participations' data in this study strictly followed the Declaration of Helsinki, DoH/Oct 2008, including confidentiality and anonymity.

All responses were entered into a database and statistically processed using MedCalc 20.1.6. software program. Category variables are represented by absolute numbers and percentages. The Chi-square test was used to examine the difference between students' attitudes about leaving (I am leaving, thinking about leaving and staying) according to gender, grade point average, foreign language learning, and high school graduation, as well as different statements of intention to leave or stay. A statistically significant difference was when the value of  $P < 0.05$ . The design of the study was clearly explained and presented in writing form to the management of the University of Sarajevo, Faculty of Health Studies, which approved the implementation of this study.

### 3. Results

Out of 263 distributed questionnaires, 203 students of the University of Sarajevo, Faculty of Health Studies, completed and returned the questionnaire and participated in this study. Of the total respondents, 49(24.1%) were male and 154(75.9%) female, as shown in Table 1. More than half (53.7%) graduated from medical high school and the remaining from gymnasium (28.6%) or another school (17.7%). The majority of students (52.7%) studied in their place of residence, while the others (47.3%) lived as tenants (29.6%) or in a dormitory (11.3%).

Attitudes towards leaving were stated by 34 students (16.75%). Also, 129 students (63.55%) were considering leaving after graduation, while 40 (19.7%) wanted to continue their life in Bosnia and Herzegovina (Table 2). Almost half of the female students (49.26%) and slightly more than half of the students (14.28%) think about leaving after their studies, with a statistically significant difference between men and women who think about leaving and those who stay. Also, a statistically significant difference according to previous education was among students who think about leaving and those who do not want to leave the country. More than a third of medical high school students are considering leaving.

Compared to the three attitudes about leaving, most students have a grade point average of  $< 8.5$ , and a statistically significant difference was observed between the average grades of students considering leaving and those who don't want to leave their country. Students considering leaving generally do not learn a foreign language, where a statistically significant difference is observed  $P = 0.0025$ , while most students who leave learn a foreign language, without a statistically significant difference compared to those who do not study and leave (Table 3).

The positive attitudes that most of the students agreed upon were the acquisition of life experience, their job profile is in demand in other countries, and the possibility of career development and professional development. The reasons why most students consider

**Table 1.** Sociodemographic characteristics of the respondents

Sociodemographic Characteristics		No. (%)
Gender	Male	49(24.1)
	Female	154(75.9)
Graduated from high school	Gymnasium	58(28.6)
	Medical school	109(53.7)
	Other	36(17.7)
Stay during studies	In my own home	43(21.2)
	With parents	77(37.9)
	As a tenant	60(29.6)
	At the dormitory	23(11.3)
Studying in the place of residence	Yes	107(52.7)
	No	96(47.3)

**Table 2.** Number and percentage of respondents by gender and completed high school

Variables	No. (%)		P	No. (%)		P
	Leaving			Considering Leaving	Not Leaving	
Gender	Male	11(5.41)	0.0396	29(14.28)	9(4.43)	<0.0001
	Female	23(11.33)		100(49.26)	31(15.27)	
Previous education	Gymnasium	13(6.4)	0.9260	33(16.25)	12(5.91)	<0.0001
	Medical school	14(6.89)		69(33.99)	26(12.80)	
	Other	12(5.91)		27(12.8)	2(0.98)	

leaving the country after their studies are because their education and diploma are more valued in other countries, the existence of higher living standards in other countries, career development, and professional development. On the other hand, students who choose to stay in the country after their studies mostly state why they feel safe and see perspective in this country and do not want to leave the country because of their family and friends. Table 4 shows a statistically significant difference in all three attitudes was observed for all statements except for the statement "I do not want to leave the country because of family and friends" (P=0.3621) and "this country offers me the opportunity for employment and training" (P=0.2059).

#### 4. Discussion

The desire to emigrate indicates a current and worrying future emigration potential. Our results show that 16.1% of our respondents tend to leave the country permanently in search of work elsewhere, while 61.2% are still thinking about leaving. Regarding gender distribution, 49.26% of female and 14.28% of male students think about leaving after graduation. Comparing the research results with neighboring countries, this percentage is not too high, for example, 52.9% in Pakistan

[7] and 62.1% in Poland [8]. Slightly lower percentages have been found in studies in Portugal, where 55% of respondents consider leaving [9], 53% in Croatia [10], Furthermore, a study from Serbia shows that 65% of medical students are considering leaving the country [11]. A recent study in Pakistan (2021) reported a slight decrease in intentions towards emigration, where 48.3% of students consider leaving the country. Examining the prevalence of emigration readiness in a diverse sample of health professionals (medical students, trainees, doctors, and nurses), a survey in Lithuania found that 39% of students are determined to emigrate in the next two years [12].

On the other hand, a high emigration rate was observed in a study from Ireland (2015), which states that 88% of students emigrate or think about migration after graduation [13]. While in Romania, 84.7% of respondents think about looking for a job abroad after graduation [14]. In neighboring country Serbia, a study in 2014 revealed that as many as 80% of students want to emigrate from the country after finishing their studies [6]. Going further towards Asian countries, for example, in Egypt, as many as 89.4% of the respondents considered emigration an option [15].

**Table 3.** Average grades and foreign language learning according to attitudes about leaving

Variables	Average Grades		P	Learning a Foreign Language		P
	<8.5	>8.5		Yes	No	
Leaving (n)	25	9	0.0061	18	16	0.7316
Considering leaving (n)	88	41	<0.0001	46	80	0.0025
Not leaving (n)	32	8	0.0001	14	26	0.0578

**Table 4.** Attitudes about the departure of respondents according to intention

Variables	%			P
	Leaving	Considering Leaving	Not Leaving	
Career development and professional development	22.05	76.38	1.57	<0.0001
Higher salary compared to those in the country	19.82	79.28	0,9	<0.0001
Gaining life experience	28.57	71.43	/	0.0003
Higher living standards in other countries	21.1	77.06	1.83	<0.0001
I think my education and degree are more valued in other countries	20,83	79.17	/	<0.0001
I think my occupation profile is in demand in other countries	26.19	72.62	1,19	<0.0001
I do not want to leave because of family and friends	/	44.07	55.93	0.3621
I feel safe in this country, and I see a perspective	/	5.88	94,12	0.0003
This country offers me the opportunity for employment and training	/	30	70	0.2059
This country provides me with a lifestyle that suits me	/	23.33	76.66	0.0035

A study of students at the faculties in Split, Croatia, Sarajevo, Bosnia, and Herzegovina, showed that 32% of them want to leave the country, while as many as 68% of respondents prefer to stay [16]. In our study, 19.1% of students choose to stay.

According to our study, out of 24% of students who seriously think about leaving the country after graduation, they have a grade point average of more than 8.50, and 53.4% of them have a grade point average of less than 8.50, while 58.6% of students from Serbia has a grade point average of less than 8.50 [11]. Very similar data were obtained in a study by Kkrijewski-Siuda et al. (2012) in Poland, where the average grade of students wishing to leave was also higher than average [8].

A study on the international migration of healthcare workers in the European Union showed that knowledge of the appropriate foreign language plays an important role in deciding on emigration [10]. Of the students who stated that they were leaving or thinking about leaving the country with certainty after their studies, 16.6% were learning an additional foreign language. Our results are much lower than the study from Serbia, where 66.7% of students study an additional foreign language [11], and another study from Poland, where 35% of their students attend intensive foreign language courses to achieve their migration goals [14].

Analyzing the intentions and reasons for leaving, our research shows that students who leave stated these reasons for leaving in the first place: “gaining life experience” for 28.57% of them, “their job profile is in demand in other countries” for 26.19%, “career development and professional development” for 22.05%, and “higher living standards in other countries” for 21.1%. These findings also align with previous studies [7, 8, 14, 17-19].

About 20.83% of students who want to leave Bosnia and Herzegovina after graduation believe that “their education and degree are more valued in other countries.” Very similar data on the so-called “push” factors were not only obtained in previous studies in Serbia, Romania, Lithuania, the Czech Republic, Poland, Croatia, and Ireland [6, 10-14, 17, 19] but also other developing countries, like Sri Lanka, Pakistan, as well as African countries [18, 20, 21]. This attitude probably indicates dissatisfaction with the low standard of living in the country and years of waiting for work [11, 18]. Surprisingly, the reason for the departure of students, which is reflected in the “higher salary compared to those in the country,” is in the last place; only 19.82% of students stated this as a reason for leaving. This finding differs from other studies, which stated salary as the main reason for leaving the country, as is the case with surrounding countries [9-12, 15, 19, 22, 23]. However, the reasons for students’ decision to leave the country did not differ much from those in several reported studies [14].

Given the reasons for the possible departure, the results of a study from Split, Croatia, and Sarajevo, Bosnia, and Herzegovina, showed that it is primarily the inability to find employment in the home country and lack of prospects for the future and low wages [10]. Reasons for the potential emigration of health students in the surrounding countries differed slightly from our results. For example, the main reasons for leaving Lithuania were higher salaries, better professional opportunities, and a better quality of life [12], similar to the results among the Czech [19]. The reasons for leaving mentioned in the study conducted in Croatia were better wages (47%), employment (27%), better organization of health care, and more professional opportunities (22%) [17].

The bad situation in Bosnia and Herzegovina, as well as the neighboring countries of Serbia and Croatia, which face the same problems, is shown by the fact that more than a third of young doctors want to leave Croatia [10] and 81.1% of Serbia [11], while in our study, collectively, the percentage of students who surely want to leave the country and are considering leaving is 77.45%.

Nevertheless, despite the pronounced tendencies toward emigration, the fact that there are still students who intend to stay and work in the country, 19.11%, is gratifying. Regarding intentions and reasons for staying, 94.12% of those who want to stay in their country state that the most common motive for staying is that "in this country, they feel safe and see perspective." The second most common motive for staying is "this country provides me with a lifestyle that suits me," stated by 75.6% of students. Also, 70% of them state that "this country offers me the opportunity for employment and training." In the last place, 56.14% say they do not want to leave the country because of family and friends. This result is not in line with previous research in the surrounding countries. Namely, many studies report that the "pull" factor makes it difficult to leave for a large number of students, i.e., the family and friends connections [6-8, 10, 11, 13, 17, 18, 20, 21]. The ease of modern communication can partly explain why we came to this result, so this is now a less limiting factor because effective means of communication over the Internet can maintain close connectivity across borders.

Depending on the dominance of the "push" or "pull" principle, leaving/staying may be conditioned by certain economic or political coercion, unemployment, poverty, or in other words, better living or working conditions [18, 21, 24].

## 5. Conclusion

In our study, a large percentage of students expressed migration preferences. These intentions have been facilitated by the pull factors of the country they want to emigrate to, such as gaining life experience offered by another country, better quality training, and professional development, higher living standards, and a lucrative salary. On the other hand, the fact that a smaller number of students still decide to stay is gratifying, as they state that the main reason for leaving is that they feel safe and see perspective in this country. To conclude, students strongly desire to emigrate abroad for better working conditions, lifestyle, and opportunities for improvement. Given the problems facing Bosnia and Herzegovina, massive emigration has already caused fragile health systems to face increasing threats such as a lack of health personnel, financial problems, and a growing share of the elderly population. Therefore, to prevent the migration of health students, retention policies are needed that target emigration staff. This policy can be extremely important in preventing the deterioration of the problem of lack of quality health staff in the near future.

### Study limitations

This study has several limitations. We examined students from one faculty in Sarajevo, Bosnia and Herzegovina; therefore, the results may not be generalizable to other students from other faculties in Bosnia and Herzegovina. This lack of information may disguise other important correlates of students of health studies attitudes about emigration after graduation.

### Ethical Considerations

#### Compliance with ethical guidelines

The management of Faculty of Health Studies, University of Sarajevo approved the implementation of this research.

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#### Authors' contributions

Both authors equally contributed to preparing this article.

### Conflict of interest

The authors declared no conflict of interest.

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