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Factors affecting major choice of medical students in Azerbaijan

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Abstract. Studying the factors which influence the high school students’ major has become one of the frequent examined issues. This shows how important and interesting the findings are for different parties involved. To tackle the issue and find out the situation in Azerbaijan, around 700 first year students from 4 different programs studying the Azerbaijan Medical University were surveyed to get a look at how the decisions are made, by what and how much they are affected. A self-administered questionnaire was developed after carefully studying the already used questionnaires and factors for understanding the viewpoint of medical students in Azerbaijan. Factors like “wish to help society” and “job opportunities” were noticed to be very effective on the major choice of the students. “Parent’s suggestion” was following with its less but also considerable influence level.

Keywords. medical school, major choice, top scorers, Azerbaijan

Introduction

Without doubt, one the most accountable, challenging, complicated, sophisticated and respected occupations for many years worldwide, is being a medical doctor. In any country, if given a list of occupations to anyone and asked to choose the most important and highly valued occupation, physicians would be among the top choices. Likely, it is considered so in Azerbaijan as well.

The specialization is so popular in Azerbaijan that, anyone who studies medicine is respected. There are multiple reasons for that. First of all, it is comparably more challenging to get admitted to this major, as the admission score is highest for the med school in Azerbaijan, over 600 out of the total maximum score of 700. Not everybody preparing for the med school is successful. It is known that, alongside the minimum score of admission, the asked questions are more challenging in the centralized state admission exam. It is not a surprise that factors influencing high school student to choosing this major is becoming worth learning about.

The major is not an easy one to choose. Men who are considered to be the main breadwinners, providers for their family, decide they can not spend more than 10 years studying a major, choosing a specialty and only years after becoming a physician and start earning a decent amount of money when they could have studied some other major for way more less years.
and start earning at an earlier age. People choosing this major have to be careful when the make this decision. Women, are considered to be the main caretakers of the family. In Azerbaijan especially, it is expected of the mother of the family to nurture, take care, educate and raise their children. However, a woman studying medicine and later working as a physician should take into account the late nights spent at hospitals, night shifts, lots of reading and never ending learning process. The major requires a lot of accountability, sacrifice, time, effort and energy. The choice is a very crucial one. The major is so sophisticated, even if a person decides to change their field and do something else for a living, it will come very difficult for them, unless they have some kind of a talent. Hence, it has become intriguing to learn how the life-changing, life-affecting, once in a lifetime decision is made.

For this study, we analyzed the answers and thoughts of the current year’s first year student (freshmen) medical students, trying to detect the most influencing factors that they believe had effect on their major choice.

Sometimes, what sounds prestigious, reputable and popular is what a young person wants for himself/herself. And sometimes, the effect might be so strong on the youth that it would influence them to choosing a major accordingly. This, as in many countries, is relatable in Azerbaijan as well. Studying medicine is considered to be very prestigious and respected. One reason might be the high admission score limit, another is the time and effort invested to it for at least 6-7 years. A 2016 study by Alanezi, Alfraih, Haddad & Altaher has found fame, popularity, “prestige” of the major to be one of the significant factors to affect students’ major choice. Many authors looked in to many factors, analyzed them to find their influence level on the major choice of the students. Having examined various influencing factors, multiple studies find assumed future salary to be one of the important factors in choosing major (Montmarquette, Cannings, & Mahseredjian, 2002; Wiswall & Zafar, 2014; Alanezi, Alfraih, Haddad, & Altaher, 2016). One of the most famous factors used in numerous studies, it was found that parents indeed have notable effect on their children in making college major choice. Kniveton (2004) and Al-Rfou (2013) have found parental advice in making a major choice one of the most influencing factors observed. However, the study by Al-Rfou points out the insignificance of the teacher’s advice in the decision-making stage. A 2007 and a 2016 study have found interest in subject to be a very significant element in influencing students’ major choice (Heiat, Brown, & Johnson, 2007; Alanezi, Alfraih, Haddad, & Altaher, 2016).

There were two main questions that drove us to searching and finding the most used, famous and relatable factors and analyze them. In this study, we tried to answer to the following questions:

1. What are the influencing factors for freshmen wishing to become a teacher in choosing their major?
2. Are the factors that influence the major choice different for women and men?

Although numerous studies have been made to understand the factors affecting the specialty choice of medical students, (Newton, Grayson, & Whitley, 1998; Lefevre, Roupret, Kerneis, & Karila, 2010; Abdulghani, et al., 2013; Jagi, Griffith, DeCastro, & Ubel, 2014; Syakurah, Prabandari, Widyandana, & Kumara, 2017) studies about the factors affecting the initial stage of making the college choice (choosing to study medicine before being admitted to medical school) was not encountered much (believed it is not a much of a famous topic as studying the factors influencing the specialty choice of medical students). The lack of popularity of the second topic is encountered with choosing medical school majors. Studying the factors affecting the major choice of high school students is a topic which has been studied multiple times over the last two decades (Montmarquette, Cannings, & Mahseredjian, 2002; Calkins &
Some authors have studied the cultural mindset, ethnic and expectation differences and how these affect the major and career choice of the youth (Chou & Leong, 1994; Liu, 1998; Song & Glick, 2004; Porter & Umbach, 2006; Ma, 2009). Some of them have looked into the influencing factors of major choice taking into account multiple fields (Berger, 1988; Montmarquette, Cannings, & Mahseredjian, 2002; Porter & Umbach, 2006; Wiswall & Zafar, 2014). And some of the authors have studied the students' choice of a particular major and the factors affecting their choice (Simons, Lowe, & Stout, 2004; Heiat, Brown, & Johnson, 2007; Alanezi, Alfraih, Haddad, & Altaher, 2016).

This study, as well, focuses on the influencing factors that affect the major choice of the medical students. The difference from the existing literature is that, we studied the factors affecting the choice of the high school students who apply to studying medicine. A similarity with the existing literature is that we are focusing on a specific major choice and unlike the earlier mentioned few studies looking into the factors influencing the specialty choice of already medicine studying medical students, we will discover which factors can be highlighted for persuading them choosing this major as a high school student.

Various influencing factors have been used to discovering their effect level on the students when choosing a college major. Sometimes, a set of factors introduced by one author, can be encountered with some additions or exclusions in another author’s work.

We have chosen the ones relevant to the case of Azerbaijan. The factors are selected taking into account the population (high school students), the major, and the country context. After going through the literature to get some idea of the chosen and used factor sets, we decided on the set we would use for this study. Namely, “Popularity of the occupation”, “Popularity of the university”, “Job opportunities”, “Salary”, “Parent suggestion”, “School teacher suggestion”, “Wish to help others” and “General interest in the occupation”.

Methodology

We wanted to find out whether all the high scoring students of Azerbaijan who have chosen to study medicine have chosen this specialty themselves, solely for the reason of wanting to become doctors. Since this kind of data does not exist in the university and as it was clarified with the I year medical students as well no such data has been collected from the students. Hence, it was necessary to obtain the data by conducting a survey among the I year students. As it was clarified with an administrative worker of the Medical University there are more than 800 freshmen students, of which more than 350 students are international students.

Participants

We were interested in the answers of only the first year (freshmen) students. We wanted to get as accurate information as possible, which is why we chose to survey the newly admitted students of the current year (2019) which only few months ago (summer of the same year) closely involved in the selection process of their major.

We managed to get responses from 690 participants out of 800 plus students, of which 215 were foreign students and 475 were local students studying in 4 different programs (Pharmaceutical, General Medicine, Dentistry, Public Health) in the Azerbaijan Medical University. The students were from all 3 language departments, namely, Azeri-speaking, Russian-speaking and English-speaking students.
Survey

As it was mentioned earlier, the aim of this study was to identify the factors which have most affected the choice of the students who applied to study in Azerbaijan Medical University. The primary purpose of the study was to understand the overall picture of the selection process of the students, to see whether the students who have filled more than 800 vacancies in the University this year made their choice genuinely wanting to study medicine. A questionnaire was designed in order to understand the affecting factors standing behind their choice. Multiple factors were introduced in the questionnaire for the students to evaluate by rating influence level in making their choice. A set of 8 factors were put in a list in the second part of the survey. “Occupation’s reputation (its popularity)”, “university’s reputation (its popularity)”, “potential job opportunities as a physician in the future”, “salary I will get as a physician (medical doctor) in the future”, “parents’ advice”, “school teacher’s advice”, “my wish to help people as a physician (medical doctor)”, and “my interest for being a physician (medical doctor)” were the given factors in the survey. In front of each factor stood three options of influence level, namely, “affected a lot”, “affected”, and “did not affect”. Students were asked to go through all the factors and rate the level of effect the element had on them when choosing their current major.

Beside the list of factors, there were additional questions (demography identifying questions) prior to asking them about rating the affecting factors. The aim was to get a general picture of the participants; their age, gender, admission score, and their current major. Before the surveys were being distributed, a short information was being given to the students, describing the purpose of the survey and adding, that the survey is anonymous. Later, everyone was being asked if there is anyone not willing to participate in the survey, in order to respect their choice of participation. And only after, the questionnaire was being distributed to the willing students. The questionnaire was prepared in two languages; Azerbaijani and English.

Limitations

Since the access to university was easy. The administration was very welcoming and provided us with the help we needed (a students who knew the schedules of the first year students, the campuses, the deans, and the teachers was asked to help us with all the visits to the campuses, chaperoned us to classes, worked with the rather complicated schedule the medical students have, introduced us to the deans and the classes that we were visiting for surveys) However, it still wasn’t possible to survey all the students, due to some of them being absent for various reasons, one of them being the schedule differences. Also, Azerbaijan Medical University has more than 5 campuses, which made commuting time from one building to another up to 4-5 minutes. Taking into account the time, which was taken to seeing the deans, informing them about the survey (the purpose of the study etc.) finding the classrooms, giving information about the survey to students, distributing the survey, waiting for the students to fill in, answering to questions if students have any, collecting the surveys was taking up to 10 minutes (time spent meeting with the dean excluded ). Which is why, it took 3 days to survey around 700 students. Despite being told about the survey being anonymous, the reliability of the answers may be disputable given the data being a self-reported data.

Students from different years could also be surveyed, however, the easiest to find on campus was the first-year students. The older students are difficult to spot on campus due to the difference in their schedules. However, it could be possible. Surveying other year students could also allow us to see how the results differ for different year groups, or whether it differs at all. This could be a topic for a sequel study of the current one.
Results

The purpose of this paper is to understand the factors affecting choice of major of students studying in Medical School. As we mentioned earlier, we conducted survey among almost 700 medical school students and considered eight different variables that could affect choice of the students: reputation of the occupation, reputation of the university, job opportunities after graduation, salary after graduation, suggestion of parents, suggestion of school teachers, wish to help society as doctors and general interest in the occupation. As we mentioned above, there were three options for each of these variables: “affected a lot”, “affected” and “not affected at all”. Below we will provide proportions of the students who selected each of these responses for each of these variables.

It is well-known that students who score high in admission exam are basically choosing any major they like while low scoring students are usually selecting majors that have low admission score and are not very popular. That is, low scoring students do not have much of a choice, while high scoring students are choosing what they like. Therefore, we additionally separated students into groups based on their performance in the university admission exam to understand whether there is a difference in the variables that affect choice of major for these different groups of students.

We first present the proportions of the students who have selected “affected a lot” as an answer for each of the variables. We first consider proportions among all the students. Additionally, we separate the students according to their exam scores into 3 intervals and analyze them. Since international students do not take centralized admission test, we have their responses as a separate group.

Table 1: Proportions of students who have selected “affected a lot” as an answer for each of the variables among (i) all the students, (ii) groups of students separated based on their performance in centralized admission exam and (iii) international students who did not take centralized admission exam.

<table>
<thead>
<tr>
<th>Variables</th>
<th>ALL</th>
<th>601-700</th>
<th>501-600</th>
<th>401-500</th>
<th>INTERNATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation of the occupation</td>
<td>0.429</td>
<td>0.418</td>
<td>0.451</td>
<td>0.311</td>
<td>0.353</td>
</tr>
<tr>
<td>Reputation of the university</td>
<td>0.178</td>
<td>0.118</td>
<td>0.249</td>
<td>0.267</td>
<td>0.112</td>
</tr>
<tr>
<td>Job Opportunities</td>
<td>0.445</td>
<td>0.384</td>
<td>0.354</td>
<td>0.422</td>
<td>0.526</td>
</tr>
<tr>
<td>Salary</td>
<td>0.293</td>
<td>0.211</td>
<td>0.224</td>
<td>0.244</td>
<td>0.409</td>
</tr>
<tr>
<td>Parent Suggestion</td>
<td>0.342</td>
<td>0.241</td>
<td>0.283</td>
<td>0.222</td>
<td>0.474</td>
</tr>
<tr>
<td>School Teacher Suggestion</td>
<td>0.112</td>
<td>0.080</td>
<td>0.089</td>
<td>0.089</td>
<td>0.153</td>
</tr>
<tr>
<td>Wish to help society</td>
<td>0.691</td>
<td>0.705</td>
<td>0.527</td>
<td>0.711</td>
<td>0.712</td>
</tr>
<tr>
<td>Interest in the occupation</td>
<td>0.700</td>
<td>0.692</td>
<td>0.561</td>
<td>0.689</td>
<td>0.721</td>
</tr>
</tbody>
</table>

Additionally, we depicted these proportions in a figure, to better visualize the differences between different groups of students separated based on their admission results.
Figure 1: Proportions of students who have selected “affected a lot” as an answer for each of the variables among (i) all the students, (ii) groups of students separated based on their performance in centralized admission exam and (iii) international students who did not take centralized admission exam.

We will analyze in detail the results summarized in Table 1 and Figure 1 below. However, one can note at the first glance that wish to help the society and general interest in the major affect the major selection the most: around 70% of the students claimed that these two variables affected their choice a lot.

On the other hand, one may argue that there is marginal difference between answering “affected a lot” and “affected”, and students that selected any of these two answers for any of the variables should be counted as the ones who got affected by the mentioned variable. Therefore, we additionally provide combined proportions of these two groups of students: those who have selected “affected” and those who have selected “affected a lot” as an answer for each of these variables.

Table 2: Proportions of students who have selected “affected a lot” or “affected” as an answer for each of the variables among (i) all the students, (ii) groups of students separated based on their performance in centralized admission exam and (iii) international students who did not take centralized admission exam.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>ALL</th>
<th>601-700</th>
<th>501-600</th>
<th>401-500</th>
<th>INTERNATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reputation of the occupation</strong></td>
<td></td>
<td>0.835</td>
<td>0.869</td>
<td>0.726</td>
<td>0.689</td>
<td>0.777</td>
</tr>
<tr>
<td><strong>Reputation of the university</strong></td>
<td></td>
<td>0.597</td>
<td>0.565</td>
<td>0.544</td>
<td>0.622</td>
<td>0.563</td>
</tr>
<tr>
<td><strong>Job Opportunities</strong></td>
<td></td>
<td>0.859</td>
<td>0.848</td>
<td>0.726</td>
<td>0.844</td>
<td>0.847</td>
</tr>
<tr>
<td><strong>Salary</strong></td>
<td></td>
<td>0.657</td>
<td>0.586</td>
<td>0.511</td>
<td>0.600</td>
<td>0.772</td>
</tr>
<tr>
<td><strong>Parent Suggestion</strong></td>
<td></td>
<td>0.699</td>
<td>0.675</td>
<td>0.557</td>
<td>0.600</td>
<td>0.758</td>
</tr>
<tr>
<td><strong>School Teacher Suggestion</strong></td>
<td></td>
<td>0.368</td>
<td>0.371</td>
<td>0.278</td>
<td>0.200</td>
<td>0.423</td>
</tr>
<tr>
<td><strong>Wish to help society</strong></td>
<td></td>
<td>0.920</td>
<td>0.907</td>
<td>0.768</td>
<td>0.844</td>
<td>0.930</td>
</tr>
<tr>
<td><strong>Interest in the occupation</strong></td>
<td></td>
<td>0.919</td>
<td>0.895</td>
<td>0.764</td>
<td>0.889</td>
<td>0.935</td>
</tr>
</tbody>
</table>
Once again, we depicted these proportions in a figure, to better visualize the differences between different groups of students separated based on their admission results.

**Figure 2:** Proportions of students who have selected “affected a lot” or “affected” as an answer for each of the variables among (i) all the students, (ii) groups of students separated based on their performance in centralized admission exam and (iii) international students who did not take centralized admission exam.

As we can see from Tables 1 and Figures 1, Moreover, when we look at combined proportions for “affected a lot” and “affected” for Table 2 and Figure 2, we can see that in addition to wish to help the society and general interest in the major, reputation of the profession and prospective job opportunities after graduation are also affecting student choice a lot: for both of these two variables around 85% of the students claimed that they affected their choice. On the other hand, suggestion by the school teachers and reputation of the university seem to be least affecting variables for medical school students.

As we mentioned earlier, low scoring students do not have much of a choice, while high scoring students are choosing what they like. Therefore, we separated students into different groups based on their performance in the university admission exam to understand whether there is a difference in the variables that affect choice of major for these different groups of students. These differences can be easily observed from Figures 1 and 2. As we can see from the figures above, reputation of the occupation does not affect choice of major for low scoring students as much as it does for high scoring students. This is in a sense not surprising as for low scoring students, priority is to get admitted to any program. Thus, reputation of the occupation does not matter much. For the remaining variables we do not see much of the difference between groups.

There are many different major programs in medical schools. In Azerbaijan, we have four main degree programs, namely, Pharmaceutical, General Medicine, Dentistry and Public Health. Since each profession has its own popularity, possible job opportunities after graduation and starting salaries after graduation, the variables that affected student choice of major may vary across the majors as well. To analyze this question, we separate the students into four groups based on their degree programs and consider proportions of students that have selected...
“affected a lot” as response for each of the variables. We summarize our findings in the table and figure below.

**Table 3: Proportions of students who have selected “affected a lot” as an answer for each of the variables separated based on majors.**

<table>
<thead>
<tr>
<th></th>
<th>Pharmaceutical</th>
<th>General Medicine</th>
<th>Dentistry</th>
<th>Public Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation of the occupation</td>
<td>0.354</td>
<td>0.417</td>
<td>0.474</td>
<td>0.452</td>
</tr>
<tr>
<td>Reputation of the university</td>
<td>0.271</td>
<td>0.162</td>
<td>0.150</td>
<td>0.357</td>
</tr>
<tr>
<td>Job Opportunities</td>
<td>0.417</td>
<td>0.412</td>
<td>0.566</td>
<td>0.310</td>
</tr>
<tr>
<td>Salary</td>
<td>0.313</td>
<td>0.246</td>
<td>0.428</td>
<td>0.190</td>
</tr>
<tr>
<td>Parent Suggestion</td>
<td>0.438</td>
<td>0.286</td>
<td>0.434</td>
<td>0.429</td>
</tr>
<tr>
<td>School Teacher Suggestion</td>
<td>0.146</td>
<td>0.105</td>
<td>0.110</td>
<td>0.143</td>
</tr>
<tr>
<td>Wish to help society</td>
<td>0.625</td>
<td>0.747</td>
<td>0.613</td>
<td>0.524</td>
</tr>
<tr>
<td>Interest in the occupation</td>
<td>0.646</td>
<td>0.712</td>
<td>0.717</td>
<td>0.571</td>
</tr>
</tbody>
</table>

**Figure 3: Proportions of students who have selected “affected a lot” as an answer for each of the variables separated based on majors.**

As one can immediately note from the Table 3 and Figure 3, although wishing to help and general interest in the program affect the choice of major a lot, across the majors this effect might be different as well: for example proportion of students in General Medicine wishing to help society is much higher than that of for Public Health. Similarly, although overall reputation of the university is not very important variable in major choice, it might be more important variable for students in Public Health and Pharmaceutical, than the other two programs. We will discuss these differences in detail in Discussion section as well.
Moreover, as we did before, in order to make our analysis more precise and robust, we additionally consider proportions of the students who have selected “affected” as response together with the ones who have selected “affected a lot”. Table and Figure below summarize these proportions.

**Table 4:** Proportions of students who have selected “affected a lot” or “affected” as an answer for each of the variables separated based on majors.

<table>
<thead>
<tr>
<th></th>
<th>Pharmaceutical</th>
<th>General Medicine</th>
<th>Dentistry</th>
<th>Public Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation of the occupation</td>
<td>0.667</td>
<td>0.848</td>
<td>0.844</td>
<td>0.857</td>
</tr>
<tr>
<td>Reputation of the university</td>
<td>0.625</td>
<td>0.607</td>
<td>0.555</td>
<td>0.643</td>
</tr>
<tr>
<td>Job Opportunities</td>
<td>0.833</td>
<td>0.859</td>
<td>0.873</td>
<td>0.833</td>
</tr>
<tr>
<td>Salary</td>
<td>0.708</td>
<td>0.621</td>
<td>0.757</td>
<td>0.548</td>
</tr>
<tr>
<td>Parent Suggestion</td>
<td>0.688</td>
<td>0.681</td>
<td>0.763</td>
<td>0.619</td>
</tr>
<tr>
<td>School Teacher Suggestion</td>
<td>0.333</td>
<td>0.384</td>
<td>0.335</td>
<td>0.381</td>
</tr>
<tr>
<td>Wish to help society</td>
<td>0.938</td>
<td>0.923</td>
<td>0.913</td>
<td>0.905</td>
</tr>
<tr>
<td>Interest in the occupation</td>
<td>0.917</td>
<td>0.920</td>
<td>0.931</td>
<td>0.857</td>
</tr>
</tbody>
</table>

**Figure 4:** Proportions of students who have selected “affected a lot” or “affected” as an answer for each of the variables separated based on majors.

As one can note from Figures 3 and 4, although there is difference in proportions of students who have selected “affected a lot” as an answer across the degree programs, this difference gets smaller when we add “affected” to responses as well: for example, as we can see in in Table 3 and Figure 3, the reputation of the university that had high difference in proportions across the degree programs. However, when we consider Table 4 and Figure 4, we
see that this difference in proportions vanishes. We will consider other variables in detail in the Discussion section.

Discussion

As we mentioned earlier, the purpose of this paper is to understand the factors affecting choice of major of students studying in Medical School. We proposed eight different variables and presented our findings in the previous section. Next, we will go in-detail analysis of each variable.

**Popularity of the occupation and the university**

After finishing high-school, students are usually not aware of the degree programs in higher education and corresponding occupations after graduation. Many such students hear from one or the other source about which program is good and which ones are not. In a way, there is a group of programs which are very popular among the students and this popularity may affect the student choice. In such cases, some of these students may not even know much about the program and yet choose this major as they believe it is good since it is very popular.

As we see from Figures 1 and 2, almost 84% of the medical students were affected (43% of them are affected a lot) by the popularity of the programs. Moreover, when we look at the high scoring students, 87% of these students were affected by the popularity of the program. This in fact tells how important the popularity of the program is for major choice decision of the students.

Additionally, we looked at different degree programs in Figures 3 and 4, we see that for students enrolled in Pharmaceutical program, the popularity of the program is not as effective as it is for General Medicine, Dentistry and Public Health: around 67% of the students enrolled in Pharmaceutical program were affected by popularity of their program, while this number is around 85% for the other three programs. In Azerbaijan, many students aiming to go to Medical Schools target becoming a doctor one day. Working in Pharmacy may not be their dream occupation. In that sense our results mimic the general belief people have in the country.

As much as popularity of program or occupation is important, popularity of the university is another important variable that affects student choice of major. In fact, it is really hard sometimes to differentiate these two variables: for example, Law program in Harvard University is very prestigious program. However, it is hard to tell which one is more dominating, the prestige of the program or prestige of the university. Nevertheless, this difference exists, and some student can clearly differentiate these two variables. It is true that in some cases students who want to study Economics, may change their major as long as they will study that new major in more prestigious university. When we look at Figures 1-4, we see that this variable is not effective as much as others for medical students in Azerbaijan: around half stated that their choice was affected by the popularity of the university (where 20% of them stated that they got affected a lot). This may not be surprising, as there is only one central university that has most of the medical programs. All the other universities are branches of the main one in regions.

**Job opportunities and Salary**

Another important variable in major choice decision of most of the students in any program is job opportunities after graduation and starting salaries. In fact, many students who go for Business and Economics programs are mainly affected by the possible job opportunities and high salaries in this area. We wanted to understand how effective and important these two
factors are in major choice of the medical students. As we see from Figures 1 and 2, around 86% of the students were affected (around 45% of them were affected a lot) by the possible job opportunities in this area. On the other hand, potential salary after graduation did not affect the major choice of the medical students as much as possible job opportunities did. This in a way implies that being employed after graduation is relatively more important for medical students than salary. Moreover, when we look at how these two variables affected different groups of students, we see that, for international students, both of these variables are more important than the local students. This difference can be clearly explained by the difference in the salary levels in medical area in Azerbaijan and in developed countries: only in past 5 to 7 years, salary level in medical area in Azerbaijan started to increase significantly. Prior to that this area was not very popular for salary levels.

Moreover, when we consider different degree programs, we see from Figures 3 and 4 that for students studying in Dentistry, possible job opportunities and salary levels affected their choice of major more than they did students studying the other three degree programs. In Azerbaijan, licensed dentists can open their private clinics and may earn all the profit themselves. The same is not true for the other degree programs as it is really hard to launch and run a private hospital. In that sense, this difference in importance level of job opportunities and salaries for different programs can be justified by this advantage of the dentists.

**Parent suggestion**

Parents play important role in any person’s life and their development. Decisions on which school to attend are usually made by the parents since (i) not many kids can differentiate between schools at age of 7 and (ii) parents are the ones covering all the costs of the education and thus budget constraint affects their choice as well. When it comes to choose of university and major, although students reach mature age, parents still help and guide and, in some cases, intervene choices of the students. In some cases, this intervention is done slowly for many years prior to graduation. If one asks the proportion of the students in Azerbaijan whose choice of major was done based on the parent suggestion or will, this number will be around 50%, if not more. To understand to what extend this is true for medical students, we conduct our analysis. As we see from Figures 1 and 2, differently from school teachers, parental suggestion is important variable in major choice of the students. Also, when we look at Table 4 and Figure 4, we see that suggestion of parents was important factor in choice of major for all degree programs, while its importance was slightly higher for Dentistry major.

**School teacher suggestion**

Similar to parents, school teachers also play important role in any person’s life. In most cases, school teachers try to guide and help their senior students, especially bright ones, in choosing their future path and thus their program of studies. The give a lot of suggestions on which programs and which universities are going to be good fit for this student and which ones are not. Students may or may not take this advice. As we see from Figures 1-4, for students in Medical School, school teachers advice did not play much of a role in their major choice decision. Given how much desire to help the society and general interest to the major affected student choice, having low numbers for school teacher advice is not surprising: students have already made their minds that they want to be a person that will help and treat the people and have long lasting desire for this occupation. Therefore, even without the advice of their teachers, they knew what they want.
Wish to help society and general interest in the occupation

Many people form young ages wish to be a doctor or teacher. When you ask the reason for such a choice, the usual response is to help society. It is undeniable and hard to describe how crucial and important medical professions are. Understanding this from movies or cartoons students watch, many of them want to become a doctor from young ages. As they grow up, they get to encounter doctors more every time they get sick and get to love the doctors who treat them. This helps them to understand the importance of this occupation more and more and creates desire to help society as well by treating and healing others who are in need.

As we see from Figures 1-4, desire to help the society and general interest in the profession are crucial two variables that affect the major choice of the students the most: more than 90% of the students stated that these two variables affected (around 70% of them were affected a lot) their choice of major. Moreover, when we look at the distribution of the different majors, we see that for students in all the programs marked these two variables are very crucial.

This is in fact a very pleasant news to hear as having such prospective doctors that chose their major with desire to help the society is important.

Conclusion

With this study, we tried to identify the factors influencing major choice decision of the first-year medical students of the current year (2019), how the chosen set of factors differ with their level of influence and importance. The results of the study showed that, although a high percent of the student showed “job opportunities” to be one of the main affecting factors in their choice of major, they evaluated “salary” as a factor not so effective on their choice. From the advice group, “parent suggestion” was observed to having effect on their children’s major choice. on the contrary to “parent’s suggestion”, “school teacher’s suggestion” did not show to have as much of an importance when making their choice. “Popularity of the occupation” showed a major influence level on the students compared to the “popularity of the university” and lastly, ending the study on a positive note- “wish to help society” was rated as the most influencing factor that have affected them in choosing their major.

Statements and Declarations

Ethics approval and consent to participate

The study conducted in this paper complies with national guidelines and survey was conducted based on willingness of students to participate in the study. Data was collected anonymously.

Contribution statement

Each author made equal contributions to the design of the work, acquisition, analysis, and interpretation of data. Moreover, each author has approved the submitted version and agreed on accountability of the presented results.

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Competing interests

The authors report there are no (financial or non-financial) competing interests to declare.
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