

New Trends and Issues Proceedings on Humanities and Social Sciences Volume 4, Issue 8, (2017) 212-224



ISSN:2547-8818 www.prosoc.eu

Selected paper of 8th World Conference on Learning, Teaching and Educational Leadership, (WCLTA 2017) 26-28 October 2017, Universidade Aberta, Lisbon, Portugal

Analysis of decisional factors that influences the university training for candidates at physical therapy faculty in Eastern part of Romania

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Suggested Citation:

Iulian, A. D. & Maria, C. D. (2017). Analysis of decisional factors that influences the university training for candidates at physical therapy faculty in eastern part of Romania. New Trends and Issues Proceedings on Humanities and Social Sciences. 4(8), 212–224. Available from: www.prosoc.eu

Selection and peer review under responsibility of Prof. Dr. Jesus Garcia Laborda, University of Alcala, Spain [©]2017 SciencePark Research, Organization & Counseling. All rights reserved.

Abstract

An important component of a person's life is making decision to train in a profession conditioned by and linked to certain factors with various degrees of importance for each individual, according to the possibilities, social conjuncture or aspirations. This research aimed at analysing the importance of factors that influenced the decision of 298 candidates who choose to be trained professionally as physical therapists at the universities in Eastern Romania, during Summer 2016. The subjects with their voluntary involvement were inquired by a 12-item questionnaire before the admission examination. The results present tendencies that do not allow any generalisation, but emphasis on certain factors considered when choosing the profession. To conclude in Eastern Romania, for 2016 main admission, the determining factors were living near the university, the advice of friends and family and the desire to help people. For these three categories, the statistical analysis has shown high values.

Keywords: University, physical therapist, decision, factors.

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1. Introduction

Choosing a profession and a university education path is an important moment in everyone's life. Choosing a career is one of the premises for one's social insertion and it takes place in a larger context, involving personal, educational, economic and contextual factors. Career planning involves endeavours such as school orientation, professional orientation, and career counselling. Career decision represents a process of selecting a career path out of the alternatives that are available at one point of time, according to the socio-economic context and the person's skills and inclinations. It refers, on the one hand to the decision that must be made, and on the other, to the decisional process. Career decision consists in a series of choices that one makes as follows: choosing the school and specialization, a profession, an educational path, and ways to train one's professional skills.

The factors influencing the career decision are psychosocial (family, school, group of friends, demand on the labour market, 'trending professions' and prejudices regarding certain professions) or individual (intellectual level, skills, motivation and dominant personality traits). In a study, Starica (2012) revealed the fact that parents' involvement in choosing a teenager's career is a predictor of future academic trust and effectiveness over the course of one's university education, which can lead to drop in one's indecision about choosing a career path.

The teenagers' initial decision regarding where they will study, what university path will take and what professional career will embrace is made starting from a fundamental question (Panioara, Panioara, Lupacu & Negovan, 2013): to stay with or to leave their families. Thus, the career motivation of teenagers is a fluid concept influenced by multiple factors. The difficulties mentioned by teenagers in choosing their career, identified by (Code, Bernes, Gunn & Bardick, 2006) are: educational concern; security; satisfaction; failure; implication; wrong choice of job and need to decide (act of decision itself).

Panioara, Panioara, Lupacu and Negovan (2013) believed it to be obvious that all elements can be developed, educated, a growing process being necessary. They emphasized the following individual factors that offer consistent career aspirations in adolescence: high socioeconomic level, internal locus of control, self-esteem, high levels of educational aspirations, academic achievement and family integrity.

According to Code, Bernes, Gunn and Bardick (2006) the support received by the teenagers in choosing their career is insufficient. Their study showed that teenagers believe the following aspects to be important: worrying about money, lack of support, stress about difficulties in hiring, lack of satisfaction at work and lack of educational opportunities. Moreover, the study shows that adolescents feel unprepared to face the current realities of career. de Acedo Lizarraga, Ugarte, Lumbreras and Baquedano (2006) studied personality characteristics and showed that they affect adolescent objectives, which in turn affects the aspects of life such as education, vacation, social perceptions and interpersonal relationships.

David-Kacso, Haragus and Roth (2014) affirm that more than 80% of the Romanian senior high school students wish to continue their studies after graduation, even it is not a realistic aspiration in the conditions of the actual Romanian society. Vasiliu and Ciolca (2014) stresses that knowledge of career opportunities for students is a starting point for initial and continuing training. Physical therapy

The role of physical therapists is to improve mobility, relieve pain, and prevent or limit permanent physical disabilities of patients suffering from injuries and diseases. Also a physical therapist can be specialized in different areas of the field such as fitness, wellness and sports medicine. They can work in clinics, rehabilitation centers, acute-care and general hospitals, private and governmental agencies, the school systems with handicapped children, or be self-employed. In Romania, in the last year kinetoprophilaxy benefits during pregnancy have gained increasing popularity (Papp, Szabo & Szasz, 2015).

2. Methodology

This study aimed to analyze a series of aspects concerning the influences of various factors, influences that made 298 candidates choose to train professionally as physical therapists at the universities in North Eastern (Iași, Suceava and Bacău) and South Eastern Romania (Constanta and Galati), during the main admissions in the summer of 2016. Starting from the premise that final choice belongs to the candidates, the following hypotheses have been proposed:

- Could the place of residence be one of the main factors that would influence the decision to choose the location of the candidates enrolled to train as physical therapists in Eastern Romania?
- Knowing the influence that certain categories of people can have in directing and guiding the young people towards a certain career path, could one presume that the influence of family and social circles is considerable in the candidates' decision to choose to train as physical therapists in Eastern Romania?

The subjects were 298 candidates (139 males, 159 females), selected out of the ones who agreed to take part in this research and who chose to train as physical therapists in the universities from North Eastern (Iași, Suceava and Bacău) and South Eastern Romania (Constanța and Galați). The age distribution (N = 298) of the subjects was as follows: 18 y.o. – 19.13%, 19 y.o. – 43.96%, 20 y.o. – 10.74%, between 21 and 25 y.o. – 14.09%, between 26 and 30 y.o. – 5.03%, between 31 and 40 y.o. – 6.04%, between 41 and 50 y.o. – 1.00%. The oldest subject was 47 at the time of this study.

The 188 subjects (63.09%), aged 18–19, have graduated high school in 2015 and 2016. In this category, 87.23% (164 subjects) have graduated high school in the summer of 2016, right before the main admissions that were the basis for this study. The percentage of the 18–19 y.o. subjects who have graduated high-school in 2016, out of the total 298 subjects, is of 55.03. The percentage of all subjects who have graduated high-school in 2016 is of 57.05. The percentage of all subjects who have graduated high-school before 2000 was of 3.02, between 2000 and 2010, of 10.40%, and until, including, 2014, of 10.40%.

The main research method was the questionnaire-based inquiry. The research instrument was an adapted questionnaire composed of 12 items, applied either before the admission examination (Galați, Suceava and Bacău), or after it (Constanța and Iași). The questionnaire items comprised either choosing certain answers from a list, or writing other options than the ones presented, or freely expressing certain arguments that formed the basis for the subjects' decision.

In order to determine the complexity of the subjects' decision-making process or indecision, there was no specification at any of the items of how many answers can a person choose, leaving that to each individual's choice.

3. Results

The analysis of the first item asking the subjects directly to freely argue why they have chosen to study physical therapy allowed the following observations:

- For 20.81% of the subjects, the decision to train as physical therapists was motivated by the desire to 'help people', to 'offer help to the people needing rehabilitation' and to 'help the people with health problems' (Figure 1).
- For 33.56% of the subjects, the decision to train as physical therapists was based on their 'attraction for this field', 'the desire to have a career in this field'.
- 'A high income field and job' represented fundamental motives for which 8.05% of the subjects have chosen this program.

- Out of the 298 subjects, 6.71% have motivated that they work in the therapeutic field and want to perfect or complete their skills, while the reason of 4.36% is financial gain as a result of practicing this profession.
- 6.71% of the subjects motivated their choice by 'passion for sport' and 'interested in the rehabilitation process'.
- Out of the 298 subjects, 7.38% have chosen to train as physical therapists due to the renown of the university in 2016.
- For 2.35% of the subjects, professional reorientation was the main reason, while for 4.03% the reason was that physical therapy is a 'successful profession', and 'there is a market for it abroad'.
- The rest of approximately 6.04% have stated other reasons, but since neither of these reasons was not over 2.00% individually, they were not taken into consideration.





The promotion of the educational offer, as a possible influence on the decision-making process of a certain segment of the population for enrolling in a certain university, represented a factor that was analysed. The choices of the subjects (item 2) were: high school teachers/school counsellors, educational caravans of the universities, friends, physical therapy university graduates, and the internet. For this research, of high interest were the academic factors (educational caravans of the university graduates, university websites and their pages on social media). The data analysis revealed the following:

- For 4.70% of the subjects, the caravans promoting the university education was one of the reasons that reinforced their decisions to study physical therapy.
- For 9.36% of the subjects, the opinions of the physical therapy university graduates have constituted also an important factor that influenced their decision to enrol in 2016.
- For 26.17% of the subjects, the information offered by the university websites have constituted also an important factor that influenced their decision to enrol in 2016 for such studies. Within this criterion, the universities' social media pages have generated reasons that influenced the subjects' opinion, for 3.36% of them.

The analysis of the *human factor* as possible determining factor in making the decision to become a physical therapist, at the university the subjects have applied to in 2016 (item 4), envisaged the determination of the role played by the parent, brother or sister, colleague, teacher, friend, or college professor. Thus:

- 'Parents' were the people influencing the decision for 33.56% of the subjects (Figure 2) in regards to enrolling in 2016 to study at that particular university.
- 9.40% of the subjects chose 'sibling' as their influencing factor to enrol in 2016 to study at that particular university.
- Overall, family represented a 'stimulus' in making the decision for 41.28% of the subjects (due to the fact that some of them chose both 'parent' and 'sibling', the cumulative percentage previously determined does not represent the sum between 33.56% and 9.40%; it must be said that data analysis took into calculation for the criterion 'parent' also the multiple answers example: 'parent' and 'sibling'. The same aspect was calculated also for the criterion 'sibling').
- For 40.60% of the subjects (Figure 2), the 'friend' was the one who had a major influence in their decision to study 'physical therapy and special motor skills' at the university the subjects have applied to in 2016. The fact that the answer 'friend' was chosen by 121 subjects, by itself or in combination with other answers, emphasizes the importance of this category for the subjects in choosing their profession and their university.
- The 'school mate' factor was chosen by 10.40% of the subjects (cumulating all expressed options in which this answer was highlighted by the subjects).
- 'Pre-university teacher' represented an influencing human factor for 19.46% of the subjects, while 'university teacher' (the seventh answer choice) represented an influencing human factor for 8.39% of the subjects. The importance of the human factor, such as the teachers (in both categories, preuniversity and university), is emphasized by the high number of subjects choosing these answers – 27.52%. This percentage indicates that one way or another, the teachers represented an important human factor, as shown by a quarter of the subjects' answers, during the admission to train as physical therapists at the university of their choice in 2016.

In order to statistically emphasize the unique values, eliminating the multiple options, Figure 2 shows also the percentages strictly determined by the single choices, percentage calculated out of 100% (298 options expressed by the subjects).



Figure 2. Percentages of the unique options expressed for the 7 answer choices (red), compared to percentages of cumulative options (blue)

Item 4 also asked the subjects to present the arguments of the human factor that led them to choose the physical therapy career path, at the university where they enrolled in 2016. The analysis of the data has shown the following:

- 15.44% of the subjects were advised by the various categories of people to study physical therapy and special motor skills at the university of their choice in 2016 because this type of studies can offer them 'personal and professional satisfaction' and 'the possibility to help people' (Figure 3).
- For 18.12% of the subjects, the arguments offered by the people analyzed previously were 'decent, safe and successful work', 'financial gain' and 'ensured and well-paid work'.
- For 30.20% of the subjects, the arguments offered by the people analyzed previously were 'interesting field, sought-on profession' and 'marketable profession' (Figure 3).
- 34.23% of the subjects were advised by the various persons to study physical therapy and special motor skills at the university of their choice in 2016 because of the 'university renown', because that university's program 'is accredited', and because the 'studies are better acknowledged'.
- 2.01% of the options were determined for other advice and/or for the subjects who did not offer any arguments.



Figure 3. The percentage determined by the advice given to the subjects for the various categories analysed in item 4

Items 6 and 7 envisaged the determination of the closest university to the subjects' home ('What is the closest university to your home?'), and the possible connection between home and choosing the university where they can study 'physical therapy and special motor skills'.

Thus, for 29.87% of the subjects (Figure 4), the 'Vasile Alecsandri' University of Bacau was the closest university to their home. For 15.44% of the subjects, the universities of Constanța (Ovidius, The Naval Academy and Dimitrie Cantemir) represented the closest ones to their homes, while for 22.82% of the subjects, the universities of Galați (Dunărea de Jos, Danubius, Constantin Brâncuși and Andrei Şaguna) were closer to their homes, in 2016. The Iași universities were the closest ones to the homes of 20.80% of the subjects, while the Suceava universities were closer for 4.02% of the subjects.

The rest of the values (7.05%) were determined for the subjects who said that the closest university to their homes is in Bucharest, Braşov or France.



The analysis of the data has shown that for 29.87% of the subjects (Figure 5), the distance between their home and university represented a factor in choosing the university where they would enrol in the program 'physical therapy and special motor skills' (item 7), while for 70.13% this distance was not an important criterion.





In trying to determine the alternative career paths as a factor for the subjects' indecision to enrol in the program 'physical therapy and special motor skills', their decision to enrol in multiple universities or multiple study programs was also analysed. For that there was item no. 8.

According to the data analysed and presented in Figure 6, one fifth of the subjects enrolled multiple times in 2016. Their choice envisaged the training as physical therapists in other universities (7.05%) than the one where they were questioned, or the study of other programs than physical therapy, the one for which they were questioned (15.77). It can be seen that 77.18% of the subjects have clearly orientated toward training as physical therapists in one of the five universities in Eastern Romania that were analysed in this study.



Figure 6. 'Have you applied to other universities in this admission session – July 2016? Please specify the university and the study program'.

According to the data, 15.77% of the subjects who have enrolled to train as physical therapists at one or more universities, have also enrolled in the following programs: medicine, political sciences, sports and top motor performance, food industry, naval engineering, economy, police, architecture, languages, public administration, psychology.

In order to determine whether the renown of the university has represented a decision factor for the subjects, whether their decision to become a physical therapist was a firm one, and also to verify the validity of the answers given to items no. 6 and 7, the items no. 10 and 11 were created.

Thus, item 10 observed the subjects' opinion in regards to their motives for choosing one of the universities in Eastern Romania.

Out of the 298 subjects, 174 (58.39% – Figure 7) have chosen their university in 2016 because it was closer to their homes, while 68 (26.17%) have chosen it because of the renown of the university and its study program. Basically, for one quarter of the subjects, the notoriety level of the university that included the program 'physical therapy and special motor skills' has represented a main factor in deciding to train as physical therapists.

Figure 7 highlights other percentages showing reasons that motivated the subjects to choose their career path. Thus:

- 2.01% of the subjects have chosen their university according to the presence there of certain special category of people in their lives (relatives, girlfriend/boyfriend, friends).
- 3.69% of the subjects have chosen their university according to the complexity of the admission examination (thinking that the university of their choice has an easier admission process than other ones).
- For 3.36% of the subjects, personal desire has represented the main reason in choosing the university to train as physical therapists.
- 3.69% of the subjects have chosen their university according to their available financial support (the universities that are farther from their homes needing higher expenses).
- The fact that the Bacău university offers the program 'physical therapy and special motor skills' also in a part-time education format has constituted a good reason for 2.68% of the subjects to enrol in the 2016 admission examination of the 'Vasile Alecsandri' University of Bacau.



Figure 7. Percentage of the reasons that motivated the 2016 candidates to train as physical therapists in one of the five universities in Eastern Romania

According to the data shown in Figure 7, the 'university renown' and the 'home' represent more than 80% of the subjects' options, which highlights the main reasons of the subjects' decision to train as physical therapists in the analysed area of Romania.

The item 7 data (Figure 5) shows that although for 70.13% of the subjects 'home' was not a criterion in choosing the study program 'physical therapy and special motor skills', the conjecture made that most of them (58.39%) have chosen their university for being 'closer to home', because it is in their 'home town', because they can 'get to the university easier', *etc.* This comparative analysis shows that 'home' is a criterion that was very important for the candidates in choosing to be trained as physical therapists, in 2016.

Item 11 - If the University ... would not have had undergraduate studies in physical therapy, would you have studied this subject at another university or would you have chosen another program at the same University ... ?' allowed the determination of the subjects' motivation in choosing the city of their university. The analysis of the data shows the following:

• 59.40% of the subjects (*N* = 177) would have enrolled in the same study program (KMS in Figure 8) if the university where they had enrolled in July 2016 would not have had the study program 'physical therapy and special motor skills'. Correlating the high percentage of the factor 'home' with the fact that a part of the subjects were financially or materially conditioned (ensuring lodging over the course of the studies being one of the main influencing factors for many Romanian students in making the decision to study at certain universities or certain programs), the value of 59.40% can be interpreted as being very high in regards to the clear decision for this career path of 177 subjects. In other words, the fact that the university closer to the subjects' homes had the program 'physical therapy and special motor skills' was a welcomed help for them. However, the 177 subjects (59.40%) or their families would have been willing to make an effort to study 'physical therapy and special motor skills' as an undergraduate program also at another university, if the one closer to their homes would have contained this study program.



Figure 8 Percentage for item no. 11

- 34.23% of the subjects (N = 102) would have enrolled in the same university but in another study program if the university where they had enrolled in July 2016 would not have had the study program 'physical therapy and special motor skills'. This percentage can indicate multiple aspects that can be considered causes in making a certain choice: their home close to the university represented a criterion in choosing the undergraduate studies; these subjects were indecisive in regards to their training as physical therapists, or other factors have influenced their opinion (finances, parental support, etc.).
- 6.37% of the subjects (N = 19) would have enrolled in another university and another study program if the university where they had enrolled in July 2016 would not have had the study program 'physical therapy and special motor skills'.
- In order to determine the possible orientation of the candidates toward another Romanian university, thinking that the university where the subjects have enrolled and have taken an admission examination would not have in their curriculum the program 'physical therapy and special motor skills', the last item of the questionnaire was created (item 12). After analysing the options for each university included in the research (Iași, Bacău, Suceava, Constanța, Galați or another university centre), the following aspects were determined:
- Out of 298 subjects, 205 would still choose a university from Eastern Romania. Thus, 68.79% of the subjects would still choose one of the 5 universities included in this research, while 31.21% would choose other universities (in the order of percentage: București, Brașov, Cluj, Timișoara and Sibiu), to study physical therapy.
- Out of the 205 subjects who would still train in Eastern Romania as physical therapists, 40.00% of them would have enrolled to study 'physical therapy and special motor skills' in lasi universities. 29.76% of the subjects would have enrolled in the 'Vasile Alecsandri' University of Bacău, while 13.66% would choose the 'Dunarea de Jos' University of Galati. The 'Ovidius' University of Constanta would have been chosen by 10.24% of the 205 subjects, while the 'Ştefan cel Mare' University of Suceava, by 6.34%.

4. Discussions

In an investigation assessing the factors affecting career choice among 474 undergraduate speechlanguage pathology and audiology students (from four universities), the majority of participants (70%; N = 331) indicated that the desire to work in a helping profession most directly affected their decision to become a speech-language pathologist or audiologist (Stone & Pellowski, 2015). In our study 20.81% of the subjects, the decision to train as physical therapists was motivated by the desire to 'help people', to 'offer help to the people needing rehabilitation' and to 'help the people with health problems.

This study concluded that the majority of nursing students had high professional values, and when students' scores were compared, American students had higher professional values, and in career choice, they considered primarily fitness of the profession to themselves and their goals, while Turkish students primarily thought of their living conditions.

Laughland-Booy, Mayall and Skrbis (2014) agree with theorists who note that career choices are still strongly influenced by a person's location in the class structure. Their findings suggest that while a more privileged location may afford young people security from many potential risks and problems, this may in fact encourage a non-reflexive perspective and they may choose careers based on social norms rather than ability. It is young people from less privileged backgrounds who tend to demonstrate reflexivity in their career planning. In our study the place of residence can be considered one of the main factors influencing the decision in the choice of training in the profession of physical therapist in Eastern Romania.

Janaudis-Ferreira, T. et al. (2016) have investigated 120 students that they were interested in specializing in Cardiorespiratory Physiotherapy. The most common factors that positively influenced students' decision to consider specializing were job accessibility, potential salary, and positive experiences in the area.

Barfield, Cobler, Lam, Zhang and Chitiyo (2012) identify differences in allied health education enrolment influences and enrolment barriers between minority and Caucasian students. Participants (N = 601) consisted of students enrolled in kinesiology-based allied health education programs. 'Personal influence,' 'career opportunity,' and 'physical self-efficacy' were all significantly stronger enrolment influences among African–American students than among Caucasian students, and 'social influence,' 'experiential opportunity,' 'academic preparation,' and 'physical self-efficacy' were all perceived as significantly greater barriers compared with Caucasian students.

The results obtained by David-Kacso et al. (2014) in their study showed that educational level of the parents had the strongest effect on the students' aspirations. Conversations with parents and aspirations of friends also influenced the respondents' own future plans. In contrast, perceived teachers' support and school-related attitudes of youth from the neighbourhood had no significant effect on the aspiration of the students. In our study social group has been identified as a decision-making factor in influencing the subjects for training as physical therapists in eastern part of Romania.

Relevant results about career path of students have been obtain by Crian, Pavelea and Ghimbulu (2015) in a study that showed: students are poorly informed about job opportunities, their expectations for the future are not connected with their own knowledge and abilities, they do not have a coherent career plan and encounter major barriers in the career decision process. Those results are important for career counsellors as they can be used in the development of career guidance programs in the university environment. We are aligning with the recommendations exposed that students need a better career counselling during their adolescent and young adults age.

4.1. Limitations of this study

This study did not take into consideration the ethnic criteria and the respective values that can influence one's decision.

5. Conclusions

• The place of residence can be considered one of the main factors influencing the decision in the choice of training in the profession of physical therapist in Eastern Romania. This may also be based on the fact that the subjects' places of origin do not excel in terms of the economy, knowing that the eastern region of our country does not have a high economic power. Thus, the financial and material support for attending studies is conditioned by the presence of future physical therapists as close as possible of their home. This aspect could be interpreted that the subjects' financial

resources (including here their families' financial resources, most of the candidates being young, and still supported financially by their families) counted as an influencing factor in deciding to train as physical therapists.

- *The social group* (friends, colleagues) is surprising by its share as a decision-making factor in influencing the subjects for training as physical therapists, for the candidates from Eastern Romania.
- The notoriety of the study program or of the university center was also a decisive factor in the selection of candidates for admission in the field of 'physical therapy' in 2016 in Eastern Romania. A quarter of the investigated candidates chose a university center in the targeted regions to the detriment of other university centers in the other regions due to their perception of the reputation and the image of the institutional setting where they would form in the profession of physical therapist.

Ethical considerations

Ethical approval was obtained from the Ethics Commission. Informed consent was received from the students.

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