

HOW MEDICAL STUDENTS IN THEIR PRE-CLINICAL YEAR PERCEIVE PSYCHIATRY AS A CAREER: THE STUDY FROM BELGRADE

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SUMMARY

Background: Taking the Initiative to evaluate students' affinity toward psychiatry seems to be a global issue and is an essential part of programs to improve the status of the profession.

The aim of this study is to explore medical students' attitudes toward psychiatry in comparison to other residencies (internal medicine, surgery, pediatrics, gynecology and general medicine) in the pre-clinical year and to observe which factors influence the creation of these attitudes.

Subjects and methods: The survey included 114 students of the second year, School of Medicine in Belgrade (academic year 2007/08). The data was collected through a 23-item questionnaire.

Results: Fifteen percent of students stated that psychiatry was their career of choice, while 25% expressed a strong aversion. Psychiatry was ranked less attractive than internal medicine, surgery and pediatrics, but more attractive than general medicine or gynecology. Those who like psychiatry attributed more importance to an interesting and challenging job than to prestige and financial reward. Also, they found this field to be intellectually challenging and to rapidly expand the frontier of medicine. Students with negative attitude were convinced that psychiatry was lacking in scientific foundation and was clinically inefficient, they disliked intensive emotional involvement, exposure to stress and frequent unpleasant situations and had prejudices toward the patients or simply a lack of the interest.

Conclusion: The present study is the first of its kind in Serbia which used a precise and internationally comparable methodological instrument and It shows that pre-clinical medical students at the University of Belgrade, have a stronger affinity towards psychiatry when compared to their peers from most countries worldwide. Also, the study points out the fact that prejudices toward patients with mental dysfunctions and lack of confidence in the efficacy of psychiatric treatment should be specially targeted by the curriculum in the later part of undergraduate education. How this will affect the attitude of clinical students and graduates is to be examined.

Key words: attitudes – students – residency - psychiatry

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INTRODUCTION

In the first decade of XXI century only a minority of psychiatrists remember their discipline as the fastest-growing medical specialty, which it was in the years after World War II. During the last decades, this lucky minority of psychiatrists, sometimes blamed for psychiatry's over-promise, have been replaced by successors who have been

facing a boomerang - anxious years for the discipline. The anxious years for psychiatry are evident particularly in the western world (Sierles 2003).

About 30 years ago, the Lancet published a paper entitled "Who puts students off psychiatry?" (1979). The declining interest among medical students is seen as a particularly painful disapproval. Evaluation of the population of medical students

and explored their attitudes and affinity for choosing psychiatry as a career had started all around the world. A questionnaire, introduced by Feifel et al (1999), given to the first year medical students in California and Texas, showed that only 0.5% of medical students chose psychiatry as their future residency, and only 7.2% of students considered it a possible choice. In the UK, only 3% of students expressed a strong interest in a psychiatric residency (Rajagopal 2004), therefore it was not surprising that 12% of consultant psychiatrist posts in the UK remain vacant, according to the Annual Census of Psychiatric Staffing (2001).

The psychiatric community raised a question “How to win the hearts and minds of students in psychiatry?” (El-Sayeh 2006). Some initiatives started worldwide in order to raise the quality of psychiatric education in medical schools, to promote recruitment into the field and to improve the public's esteem for psychiatry.

In Serbia, the medical education is concurrent with undergraduate education and lasts six years. Per Curriculum, based on the principles of the Bologna Declaration (a process of unifying European higher education by making academic degrees and quality assurance standards compatible throughout Europe), psychiatry is taught in the fourth year of medical school as a single 30-week clinical course organized in 30 hours of theoretical lectures and 60 hours of alternating smaller group sessions at clinical sites. With 12.6 psychiatrists per 100,000 population (Lecic-Tosevski 2007), vacant positions for psychiatrists do not exist, but the fact is that competition for psychiatry as a career, evident during the last decades, has disappeared. Furthermore, our unpublished pilot-study showed that choice of psychiatry as a residency was associated with the lowest average marks during the School of Medicine in Belgrade, when compared with many other specializations.

In order to explore the students' affinity toward psychiatry as a career, the first step was an exploration of the students' affinity prior to exposure to the psychiatry course and without psychiatric clinical practice in their medical education.

The present study is the first of its kind in Serbia which uses a precise and internationally comparable methodological instrument. We believe that it will become an important reference point for further research on this issue.

SUBJECTS AND METHODS

The instrument of the study was a translated, adjusted and modified version of the questionnaire initially developed by Feifel (Feifel 1999), which was acquired and used with the author's permission. The questionnaire consists of 23 items. The majority of answers were provided in a four point Likert-type scale, three- and six-grade- scale forms, and some were presented in open answer form. Students were questioned by means of an anonymous survey about their opinions of the following six residencies: family medicine, internal medicine, surgery, pediatrics, gynecology and psychiatry.

The questionnaire included the following:

1. Socio-demographic characteristics of students;
2. Generic factors influencing the choice of residency (lifestyle, societal recognition, salary, dynamic and challenging job, opportunity to help others, importance of having a “lobby” in the career field, interest in research, diagnostic/therapeutic procedures and quality of doctor-patient relationship);
3. Affinity towards each of the six offered residencies;
4. Opinions on miscellaneous aspects of professional life, such as: lifestyle, salary, professional satisfaction, characteristics of the residency itself, professional and social recognition, intellectual challenge, probability of successful treatment, technological progress of diagnostic and therapeutic procedures, prospective, strong scientific foundation, comfort and networks within the medical field;
5. Student's perceptions of societal opinion on different specialists.

The sample included second year medical students, attending the School of Medicine, University of Belgrade. The sole inclusion criterion was having entered the second year of studies in 2007.

The sampling method used in this study was random cluster sampling. The appropriate number of participants was 84, calculated on the account of our unpublished pilot-study, to achieve a power of 0.80 at 0.05 alpha levels. There were 413 sophomores studying at the Medical School of Belgrade in the academic year 2007/08. They were divided into five groups in alphabetical order (surnames) and each group was divided into four subgroups. The total number of subgroups was 20.

The expected number of participants to provide 84 valid subjects was 120 (we expected a response rate of 70%, as in our pilot-study). One subgroup consisted of approximately 30 students, so we randomly selected four subgroups (clusters) for the purpose of the survey. The questionnaires were distributed during physiology classes and it took 15-20 minutes to fill them out.

The data was analysed using relative frequencies (percentages), means with standard deviations or medians with inter-quartile ranges. The associations between variables were assessed by Spearman's correlation of ranks. The database was created in Microsoft Excel 2003, while statistical analyses were performed using SPSS for Windows 13.0.

RESULTS

Out of 122 students intended to participate in our study, 119 (97.5%) were present. The number of valid questionnaires retrieved was 114 (95.8%). Seven (6.1%) cases contained missing or extreme data, and were thus omitted from subsequent analyses. The number of participants who entered the analysis was 107.

Socio-demographic data of the sample are given in the table 1.

Affinity toward career in the offered clinical residencies

Students' rating of the interest in the offered clinical residencies is shown in Figure 1.

The arguments for negative perception of psychiatry as a career

The students who answered that they would never choose psychiatry as a career gave these arguments:

1. In 46% of cases they argued that psychiatry as a field was extremely emotionally challenging, with high exposure to stress and frequent unpleasant situations. In addition, many of them showed prejudices towards psychiatric patients;
2. 25% of students were convinced that psychiatry was a field lacking in scientific foundation, while psychiatric practice was considered too theoretical, clinically inefficient or simply boring;
3. The remaining 29% of students simply said they were not interested in psychiatry.

Factors associated with perception of psychiatry as a potential career

Students with high affinity toward psychiatry attributed more importance to "have an interesting and challenging job" ($\rho=0.22$ $p=0.03$) and less importance to prestige ($\rho=-0.28$; $p<0.01$) and financial reward ($\rho=-0.21$ $p=0.04$). The importance of diagnostics and therapy, as one of the aspects of medicine, was negatively correlated with students' affinity toward psychiatry ($\rho=-0.20$; $p=0.03$).

Table 1. Descriptive data on the sample (n=107)

		Mean	Standard deviation / SD
Age at entering the School of Medicine		18.8	0.6
Age at the time of the survey		20.1	0.7
Academic marks average		8.1	0.9
		N	%
Sex	Male	32	28.1
	Female	82	71.9
Size of students' hometown (by number of inhabitants)	>500.000	42	36.8
	100.000-500.000	14	12.3
	10.000-100.000	36	31.6
	<10.000	22	19.3
Religious affiliation	Orthodox Christian	107	95.5
	Atheist		4.5
Pre-finished secondary school	Grammar-school	71	62.3
	Nursing secondary school	43	37.7

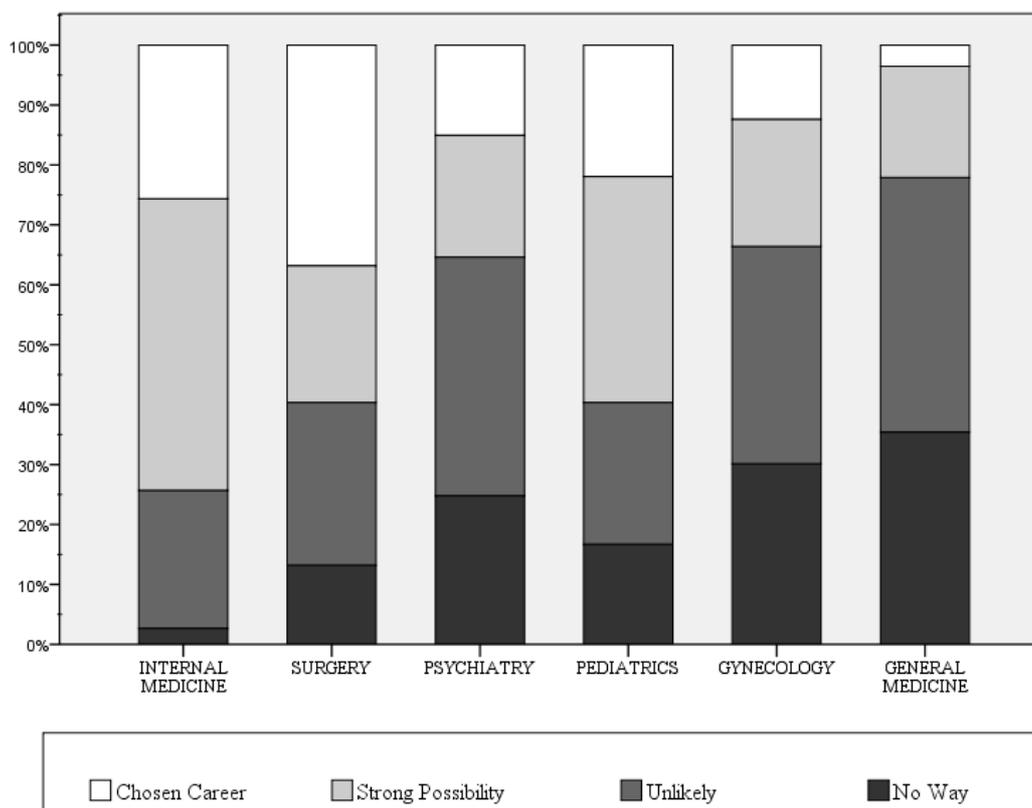


Figure 1. The affinity towards six clinical residencies

Students' opinion on residency in miscellaneous aspects of professional life

Psychiatry was singled out as the most attractive by none of the fourteen given aspects of professional choice (see Method, ad. 4). "Intellectually challenging" was the highest ranked feature of psychiatry, but still psychiatry was ranked third, after surgery and internal medicine. On the other

hand, psychiatry was ranked the lowest in the following aspects: lifestyle, probability of successful treatment, drawing on all aspects of medical training, technological progress of diagnostic and therapeutic procedures, scientific foundation, comfort and networks within the medical field (Table 2.).

Table 2. Residency rank in relation to miscellaneous aspects of professional life (Rank range: 1-6)

The aspect	Best ranked residency	Psychiatry (rank)
1 Financial reward	Surgery	4
2 Lifestyle	Pediatrics	6
3 Job satisfaction	Surgery	5
4 Interesting subject matter	Surgery	4
5 Intellectually challenging	Surgery	3
6 Prestige among medical community	Surgery	5
7 Prestige among public	Surgery	5
8 Degree to which patients are helped	Surgery	6
9 Drawing on all aspects of medical training	Internal Medicine	6
10 Advancing understanding and treatments	Surgery	6
11 Bright and interesting future	Surgery	5
12 Based on scientific foundation	Surgery	6
13 Enjoyable work	Pediatrics	6
14 Association with colleagues in specialty	Surgery	6

The affinity toward psychiatry was associated with the students' perception of the knowledge and skills of psychiatrists ($\rho=0.24$; $p=0.01$), potency of psychiatry to expand the boundaries of medical science ($\rho=0.28$; $p<0.01$), and of role model psychiatrists whom students meet or knew ($\rho=0.24$; $p=0.02$).

DISCUSSION

The present study included 107 students from School of Medicine in Belgrade in their pre-clinical year and showed that 1/6 of them show a strong affinity towards psychiatry as a career of choice. Internal medicine, surgery and pediatrics were ranked more attractive than psychiatry, while the interest in psychiatry was higher in comparison to general medicine or gynecology. The attractiveness of psychiatry was associated positively with personal affinity toward "having an interesting and challenging job" and consideration of the field as providing an "intellectual challenge". In addition, the students' opinion of the knowledge and skills of psychiatrists, the potency of psychiatry to expand the boundaries of medical science and role models of psychiatric professionals who the students knew, influenced their attitudes strongly.

On the contrary, students who valued highly the importance of prestige among the medical or general community and financial reward in their future careers, as well as importance of diagnostics and therapy, had a low affinity toward psychiatry.

This negative attitude was aggravated by prejudices toward psychiatric patients and lack of confidence in the efficacy of psychiatric therapeutic tools.

Students' affinity toward psychiatry has been evaluated for almost a century. However, the methodology and general conditions were inconsistent and this prevented the matter from being discussed unambiguously. By extracting data which are the most comparable to ours, we found several important studies from different parts of the world: US, Europe, Africa, Australia and Middle East (interestingly, similar research with Chinese or Japanese students has not been published yet, while data from India were less comparable).

Over several decades, affinity toward psychiatry has declined in US (Sierles 2003). In 1999, between 11% (Feifel 1999) and 19% (Balon

1999) of medical students considered psychiatry as a choice, but on entering the residency only 2.9% to 3.6% (in 1998 and 2003, respectively) remained so (Sierles 2003). The reasons for such decline, particularly in 1970-90, are many but are not clear. However, some authors suggest that there is potential for improvement because of the fact that US psychiatrists have received better financial reward as well as overall amplification in education during recent years, but no data exist as yet (Sierles 2003).

In comparison to US and many Western-world countries, students of the Hebrew University (Abramowitz 2005) are much more interested in psychiatry. By using methodology similar to ours, it was shown that 48% of students in preclinical years considered psychiatry as a possible career choice, and authors noted that such an attitude is due to the long tradition of psychiatry as a "Jewish" profession.

Considering the percentage of pre-clinical students who would never choose psychiatry, the Belgrade sample (65%) consisted of more subjects in comparison to Hebrew University (52%) (Abramowitz 2005), but less than the US sample (89%, as shown by Feifel 1999).

In Australia (Tonge 2005), which has many vacant positions in psychiatry, about 16% of students showed an affinity toward psychiatry, a rate similar to the one found in Belgrade. In addition, responses indicated that Australian medical students saw psychiatry as distinctly less 'attractive' than other career options and psychiatry was regarded as more interesting and intellectually challenging, but also as lacking a scientific foundation, not being enjoyable and failing to draw on training experience (Malhi 2003).

In Spain, the number of students with affinity toward psychiatry in preclinical years was 4.2% (Pailhez 2005), but the questionnaire developed by Balon et al. (1999) included 12 residences and also the possibility to tick "none of the above". Similarly to our data, students have shown the strongest affinity toward internal medicine, pediatrics and surgery.

In Pakistan, a recent study included 380 students, with mean age 21 years, 57% female, mostly Muslims (98.4%). Only 7.6% reported psychiatry to be either their chosen career or a highly likely choice (Syed 2008).

In Nairobi, Kenya, recently published data showed that 75% of the students had overall

favourable attitudes toward psychiatry: 14.3% considered psychiatry as a potential career choice, 66% had negative attitude, while the remaining 19.7% were hesitant (Ndetei 2008).

The aforementioned data show attitudes toward psychiatry as a career around the world, but before any clinical experience with psychiatry. The effect of a psychiatric attachment on students' affinity and intention to select psychiatry as a career is the next step to be evaluated. Although some authors (McParland 2003) reports that students' attitudes to psychiatry improved, intentions to pursue psychiatry as a career increased during the attachment and these changes were predicted by specific experiences during the attachment (encouragement from consultants, seeing patients who respond well to treatment, being directly involved in patient care), improvement of affinity during Medical School is not always in case. A decrease of interest during studies was also reported by some authors (Gat 2007).

Moreover, it is also important to follow the sample further and explore what happens in final decision making, i.e. on entering the residency. According to Cameron and Persad (Cameron 1984), about 14% of Canadian psychiatrists had decided to enter the specialty before starting medical school, while 58% selected the specialty after graduation. Sierles and Taylor (Sierles 1995) stated that 'most authors believe the psychiatry clerkship is the most important medical school influence on recruitment'.

Our group is continuing its interest in the topic, and for our next assessment we will address students who have completed their psychiatric rotation.

The limitation of the present study is the inclusion of medical students only from the University of Belgrade, and not from other smaller universities, thus we can not make a more general conclusion regarding the whole country.

CONCLUSION

Pre-clinical medical students at the University of Belgrade, Serbia, show a stronger affinity towards psychiatry when compared to their peers from many other countries and their interest is in the upper-medium rank. Prejudices toward patients with mental dysfunctions and lack of confidence in the efficacy of psychiatric treatment should be

especially targeted by the curriculum in later education, and it will be necessary to evaluate the effects of such an intervention on clinical students and graduates. This present study was the first of its kind in Serbia which used a precise and internationally comparable methodological instrument. We believe that these results will become an important reference point for further research in this field and will contribute to better recruitment and retention of future psychiatrists.

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