

## FACTORS INFLUENCING FRENCH MEDICAL STUDENTS TOWARDS A CAREER IN PSYCHIATRY

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### SUMMARY

**Background:** There is a need to increase the recruitment to psychiatry in France. Our aim in this study was to compare factors influencing career choice between French medical students considering and not considering psychiatry as a specialty.

**Subjects and methods:** Quantitative cross-sectional online survey on 145 French students in their last year of medical school.

**Results:** 22.7% of our sample considered choosing a career in psychiatry. A preference for a career in psychiatry was associated with more frequent history of personal/familial mental illness, higher ratings of psychiatric teaching, more weeks of compulsory psychiatry teaching and placement, during which students had more often met patients in recovery and been asked their opinion on patients. Students considering psychiatry as a career also emphasized more the need for a good work-life balance, and presented better attitudes toward psychiatry.

**Conclusions:** Improving opportunities of interactions between students and psychiatrists or psychiatric patients might help to improve recruitment in psychiatry.

**Key words:** recruitment - career choice – psychiatry – personality - education

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### INTRODUCTION

WHO has identified a worldwide shortage of psychiatrists (WHO 2008), whereas the need for psychiatrists is growing fast. In France, even though the number of training positions in psychiatry have been raised, approximately 20% of psychiatric jobs in the public sector are not occupied (Cour des comptes 2011). Moreover, mean age of the almost 14,000 psychiatrists in France in 2007 was 51.6 yr-old (Touppillier 2007), so clearly, more young psychiatrists will be required over the next 10 yrs. Therefore, there is a need to increase recruitment into psychiatry. In order to achieve that goal, a better understanding of factors influencing students' career choice towards psychiatry would be helpful.

Our aim in this study was to compare factors influencing career choice between French medical students considering and not considering psychiatry as a specialty.

### SUBJECTS AND METHODS

We performed a quantitative, cross-sectional, online survey on French students in their last year of medical

school (6th year). We compared demographic, educational, environmental, and psychological factors between students considering a career in psychiatry and students not considering it. This study was part of a multicenter study, involving 17 countries: the International Study on Students' Career Choice in Psychiatry (ISoSCCiP).

#### Online survey

We used an online survey tool with secure access, anonymity for the participants (only the IP address was logged), and the possibility to send reminders.

The data gathered through the survey were demographics, educational factors before medical school (factors determining the choice to go to medical school, subjects studied for final school-leaving examinations), educational factors during medical school (types of lectures, quality and quantity of psychiatric lectures and placements), environmental factors (views on lifestyle and career opportunities, sources of information for career choice), and psychological factors (questionnaire on attitudes toward psychiatry based on the validated ATP-30 (Burra et al. 1982)), and a dimensional personality questionnaire

based on the big five model, the International English Big Five Mini-Markers (Thompson 2008).

## Subjects

During academic years 2010-2011 and 2011-2012 we gathered 430 6th-yr medical students' emails through the local students' associations from two medical schools: Besançon (n=211) and Dijon (n=219). Each student was sent an invitation email to take part in the study, with an internet link to the online survey. After a few weeks, to maximize response rate, a reminder was sent to those who had not yet taken part in the survey (Asch et al. 1997). In Besançon, one of the investigators also came to a lecture at the medical school to advertise about the survey and encourage students to participate.

159 of the 430 students answered the questionnaire (response rate = 37%). Among them, two did not agree to take part in the study, and 12 did not complete the questionnaire. Overall, 145 students were included in the study. 45% (n=65) of them were from Besançon, 55% (n=80) from Dijon.

This study was approved by the ethical board of Besançon University Hospital. All participants gave their consent to the study.

## Statistics

Mann-Whitney U-tests or Students' t-tests were used for group comparisons of continuous variables. Chi-square or Fisher exact tests were used for dichotomous variables. R v2.13 (The R Foundation for Statistical Computing) was used to perform statistical analyses. Significance level was set at 5% ( $P < 0.05$ ).

## RESULTS

### Demographics and career choices

70% of our sample was female, and mean age was  $24.6 \pm 1.1$  yrs. 70% came from a rural area or a small city. The most popular career choice was general practice: 52.4% answered either "Definitely decided to" or "Seriously considering" choosing this specialty (see table 1). The second most popular choice was psychiatry with 22.7% of the students considering choosing this specialty. Surgery was the most dismissed specialty: 64.8% answered that there was "No way" they would choose this specialty.

### Factors influencing career choice in psychiatry

#### Demographic factor

Gender did not influence the choice for a career in psychiatry (69.7% vs 67.9% female in the group of student considering, and not considering psychiatry, respectively).

### Educational factors before medical school

Own vocation was the most influential factor to determine the choice to go to medical school. Only a history of personal/familial mental illness that had partially determined the choice to go to medical school had a positive influence on the choice for a career in psychiatry (see table 2). Subjects studied for final school-leaving examinations did not influence the choice for a career in psychiatry (see table 3).

### Educational factors during medical school

At their entrance in medical school, only 29.0% (36.4% for the students considering psychiatry, 26.8% for the students not considering psychiatry) had a clear idea on which specialty they would choose in the end.

The overall level of psychiatric teaching influences the choice for a career in psychiatry. Students considering psychiatry systematically rated higher their teaching, especially small group teaching and clinical placements (see table 4).

The presence of lectures on philosophy, psychology, ethics, communication skills, or sociology during medical school did not influence the choice for a career in psychiatry (data not shown).

Access to psychiatry teaching and placements influenced the choice for a career in psychiatry. Compared to students who did not consider psychiatry, students considering psychiatry had had more weeks of compulsory psychiatry teaching and placements, ( $10.5 \pm 4.1$  vs  $7.5 \pm 3.7$  wks;  $p = 0.01$ ), had had access to one or more than one psychiatric placements, or to specialist service placements, like child and adolescent psychiatry, and had seen more frequently patients in recovery from their illness or wanting to seek help (45.5% vs 25.9%  $p = 0.03$ ), and 57.6% vs 37.5% ( $p = 0.04$ ), respectively; see table 6). Median of the main placement in psychiatry was the 5th year (from 1st to 7th year). Students considering psychiatry were significantly more likely to have had their placement in 5th year of medical school or later, compared to students who did not consider psychiatry (79.3% vs 52.6%, respectively;  $p = 0.03$ ). During their placement, students considering psychiatry had been asked more frequently their opinion on patients (45.5% vs 25.0%,  $p = 0.02$ , See table 7).

### Environmental factors

Compared to students who did not consider psychiatry, students considering psychiatry felt more often that this specialty had a better work-life balance than other ones (81.8% vs 54.5%;  $p = 0.04$ ), and they attached less importance to the pay (9.1% vs 37.5%;  $p < 0.01$ ), and prestige (3.0% vs 17.0%;  $p < 0.01$ ) of their job. Academic opportunities, competition for training places, flexible working hours, job prospects, and likelihood of suffering from emotional drain/burnout when choosing a career in psychiatry were evaluated to be the same by students considering and not considering psychiatry.

**Table 1.** Likelihood to choose a specialty among 6<sup>th</sup>-yr's medical students

Specialty	Definitely decided to do	Seriously considering	Possible	Unlikely	No way
General Internal Medicine	0.7	4.1	10.3	33.1	51.7
Obstetrics & Gynecology	3.4	6.2	14.5	20.0	55.9
Anesthetics	2.8	6.2	12.4	22.8	55.9
Radiology	4.8	2.8	13.8	24.1	54.5
Psychiatry	11.0	11.7	13.8	24.1	39.3
Accident and Emergency Medicine	1.4	8.3	18.6	32.4	39.3
Clinical Laboratory Sciences	0.7	3.4	6.2	14.5	75.2
General Practice	28.3	24.1	15.9	15.9	15.9
Pediatrics	1.4	10.3	15.9	27.6	44.8
Surgery	7.6	6.2	4.8	16.6	64.8

Results are for each specialty, percentage of students choosing the corresponding answer. For example, 11.0% of students said they had definitely decided to do psychiatry.

**Table 2.** Factors that determined the choice to go to medical school by career choice

	Considering psychiatry	Not considering psychiatry	p
Own vocation	2.35±0.76	2.38±0.74	0.84
Parent's wishes	0.65±1.05	0.47±0.78	0.48
School advice	0.35±0.88	0.53±0.89	0.20
Wider family and friends advice	0.78±1.07	0.95±0.97	0.38
Portrayal of doctors in books, television and the media	0.69±1.00	0.80±0.87	0.52
Doctor in the family	0.23±0.73	0.45±1.01	0.40
Personal/family experience of physical illness	0.86±0.92	0.79±0.98	0.78
Personal/family experience of mental illness	1.06±1.00	0.31±0.84	<0.01
Work experience	0.60±1.10	0.84±1.07	0.20

Results are means ± standard deviations. The score is a scale from -1 (Negative influence) to 3 (Very important)

**Table 3.** Subjects studied for final school-leaving examinations by career choice

	Considering psychiatry	Not considering psychiatry	p
Art/ Design	6.1	6.2	1.00
Biology	93.9	88.4	0.52
Chemistry	90.9	92.0	1.00
Classical Languages	27.3	37.5	0.28
Economics	100.0	96.4	0.57
French	75.8	83.9	0.28
General Studies	63.6	46.4	0.08
Geography	81.8	90.2	0.22
History	84.8	89.3	0.54
Information Technology	6.1	6.2	1.00
Literature	27.3	29.5	1.00
Maths	97.0	92.0	0.46
Modern Languages	51.5	35.7	0.10
Music	18.2	21.4	0.69
Philosophy	75.8	83.9	0.28
Physics	60.6	71.4	0.24
Psychology	3.0	1.8	0.54
Religious Studies	0.0	1.8	1.00
Sociology	0.0	0.9	1.00
Sports Science	12.1	16.1	0.58
Technology	0.0	3.6	0.57

Results are percentage of students that studied the subject

**Table 4.** Overall level of psychiatric teaching by career choice

	Considering psychiatry	Not considering psychiatry	p
Lectures	0.38±0.94	0.07±1.09	0.23
Small group teaching	-0.21±1.26	-1.06±1.15	<0.01
Clinical placement	0.87±1.14	-0.31±1.27	<0.01

Results are means ± standard deviations. The score is a scale evaluating the quality of teaching from -2 (Poor) to 2 (Good)

**Table 5.** Types of psychiatry teaching and placements by career choice

	Considering psychiatry	Not considering psychiatry	p
Lectures and tutorials	69.7	76.8	0.41
Psychiatry special study module	39.4	30.4	0.33
Psychiatry elective	18.2	4.5	0.02
One main psychiatry placement	51.5	30.4	0.03
More than one psychiatry placement	18.2	0.9	<0.01
Specialist service placements e.g. child and adolescent	45.5	25.0	0.02
Visit to secure units/prisons	18.2	6.2	0.08

Results are percentage of students that had the teaching/placement

**Table 6.** Different patients' stages of illness at which the students saw them during their psychiatry placements by career choice

	Considering psychiatry	Not considering psychiatry	p
Acutely unwell inpatients	63.6	50.9	0.20
People in recovery from illness	45.5	25.9	0.03
People wanting to seek help e.g. addictions service or psychotherapy	57.6	37.5	0.04
People with prodromal symptoms	18.2	16.1	0.77
People with chronic symptoms	78.8	69.6	0.31
People presenting to emergency services in crisis	51.5	48.2	0.74

Results are percentage of students that saw patients at the described stage of illness.

**Table 7.** Highest level of responsibility students were given by career choice

	Considering psychiatry	Not considering psychiatry	p
No responsibility	24.2	40.2	0.09
Was asked opinion on patients seen during ward rounds/clinic	45.5	25.0	0.02
Was the first to clerk a patient	12.1	3.6	0.08

Results are percentage of students that had the described level of responsibility.

Regarding the sources of information used to help the process of choosing a career path, there were no differences between students considering psychiatry and other students. Overall, the most frequently cited sources of information were junior clinicians during placements (62.6%), senior clinicians during placements (57.3%), other students (56.5%), and friends and family (50.4%). Books (35.9%), or academics or lecturers (35.1%) came later, before university tutors (9.2%), and careers fairs (6.1%).

#### **Psychological factors**

Students considering psychiatry had a higher score at the attitudes towards psychiatry scale, meaning they had more positive views on psychiatry, compared to

students who did not consider psychiatry (67.8±4.9 vs 60.2±6.0;  $p<0.01$ ).

Personality traits, based on the big five model, did not differ between students considering psychiatry and students not considering psychiatry: levels of conscientiousness, openness, extraversion, neuroticism, and agreeableness were not statistically different.

## **DISCUSSION**

70% of the sample was female, which is in line with data on current medical students population in France. 70% of French psychiatric trainees are female, which fits the fact that gender did not influence the choice for

a career in psychiatry. This highlights the trend towards a feminization of doctors in general and psychiatrists in particular.

Before medical school, a history of personal/familial mental illness was associated with more likeliness to consider psychiatry as a career. It is interesting to note that compared to other students, students that considered specialization in psychiatry did not chose different subjects for final school-leaving examinations. This implies that in order to improve recruitment in psychiatry, it might not be effective to choose students based on what they have been studying before medical school, including very psychiatry-oriented subjects such as psychology.

To improve recruitment in psychiatry, the main effort should focus on improving the quality and quantity of psychiatric teaching and placements. Small group teaching seems of interest. But even more, clinical placement was in our study a key player for the choice of a career in psychiatry: a higher number and quality of the placements, which did not need to happen early in the curriculum, were associated with a choice for psychiatry. More responsibility during the placements might help too. Doctors met during placements, especially junior ones, also seem of importance. The central role of placements for career choice in psychiatry has already been underlined in other studies (Shelley et al. 1986, McParland et al. 2003, Maidment et al. 2004, Kuhnigk et al. 2007).

More broadly, destigmatization of psychiatry is of importance: the opportunity for medical students to meet patients in recovery or seeking help, and more positive attitudes toward psychiatry were associated with a choice for psychiatry. Moreover, we showed that students choosing psychiatry did not train more specifically before or during medical school (e.g. in arts or humanities), and that they had the same personality dimensional traits as students considering other specialties. This emphasizes the fact that students choosing psychiatry seem to have the same academic and personality profile as their colleagues.

On that note, the only personal difference between students considering and not considering psychiatry could be values: a better work-life balance and less importance given to pay and prestige were associated with a career choice in psychiatry.

Our study has limitations. First, the response rate was 37%, meaning that our sample might not be fully representative of the medical students population. The aim of the study was clearly presented to be related to career choice in psychiatry, therefore there might be a bias of recruitment. Indeed, 22.7% of the students considered choosing a career in psychiatry, which is higher than expected in the general medical students population. We think that this bias did not importantly affect our results since we compared students considering psychiatry with students considering other specialties, some of whom definitely did not consider

psychiatry as a career (see table 1), we therefore have a broad sample of students.

Second, it cannot be excluded that students choosing psychiatry had more placements in psychiatry because they were already interested in this specialty. Given the cross-sectional design of this study, we only showed an association between placements and career choice in psychiatry, not a causal link. However, at their entrance to medical school, only 29.0% of the students (36.4% for the students considering psychiatry) had a clear idea about which specialty they would choose in the end. This is the exactly the same result that was found in a population of French psychiatric trainees (Andlauer 2008). As a consequence, we can think that a majority of the students chose psychiatry as a career after their different experiences in medical school, notably their placement.

Finally, our sample consisted mainly of students from a rural area (70%), therefore a population of more urban areas could produce different results.

## CONCLUSION

Improving opportunities of interactions between students and psychiatrists or psychiatric patients might help contributing to improve recruitment in psychiatry. More than personality traits or academic curriculum, the quality and the quantity of psychiatric placements during medical school seem to be key for the choice of a career in psychiatry.

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**Conflict of interest:** None to declare.

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Choosing a Career in Psychiatry: Influential Factors Within a Medical School Program Katharina Manassis, M.D., Mark Katz, M.D., Jodi Lofchy, M.D. Stephanie Wiesenthal, M.D.

Objective: To examine the influence of initial interest, pre-clerkship experiences, clerkship experiences, and enrichment activities on choosing a career in psychiatry. To determine whether enrichment activities were a key factor in influencing career choice of medical students who initially had a low interest in psychiatry, our first hypothesis, the sample was divided into high and low interest groups using a median split.