

## Changes in the Attitudes of Israeli Students at the Hebrew University Medical School toward Residency in Psychiatry: A Cohort Study

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**Abstract:** *Introduction:* Recruitment of medical students to the field of psychiatry has been on the decline in the western world over the last decades. Trends in students' interest in psychiatry is a topic of research studied by medical educators in many countries. Our aim was to examine changes in the attitudes of Israeli medical students toward different specialties, including psychiatry, over the course of their training. We attempted to identify trends and patterns in these perceptions. *Method:* A standard validated 26-item questionnaire was administered to 307 medical students during their clinical years at the Hebrew University Medical School in 2003–2004. The response rate of the current survey was 69%. The questionnaire evaluated medical students' opinions and perceptions towards psychiatry, compared with other medical specialties. The results were compared with those found by Abramowitz and Gofrit in 2005 dealing with the same student population during their preclinical studies in 2000–2002. *Results:* Psychiatry was ranked as the least attractive specialty by the whole population of students in their clinical years (4th–6th year) with an average of 14.9% of students regarding psychiatry as a possible career option; 32.8% of the same cohort considered psychiatry as a specialty during the preclinical years in medical school. Significantly, psychiatry's attractiveness was rated the lowest in many aspects, and most attractive in lifestyle. These opinions showed a marked deterioration from those expressed by the same cohort during the preclinical years. *Discussion:* Attitudes toward psychiatry at the start of medical school are positive. Thus the potential for recruitment of future psychiatrists among the students is good. However, the present study showed a marked negative change in medical students' perceptions towards psychiatry as a possible career choice during their training. The problematic image of psychiatry as a profession has been documented in several countries. Our findings are similar. In addition, we identify the decline in interest in selecting psychiatry as a possible residency as occurring during the clinical training years. Programs should be targeted to those who show initial curiosity and interest in the workings of the mind and spirit.

### Introduction

Many countries have investigated the tendency of medical students to choose psychiatry as a residency and career. They include the U.S.A., Canada, England, France, Norway and Sweden as well as China, Sri Lanka, Hong Kong and Venezuela (1, 2). The number of students selecting psychiatry as a career choice has decreased over the past 3–4 decades in the western world (3).

The residency selection process has been shown to be influenced by many factors, many of which change with time (4). Weissman et al. noted that pri-

mary interest as well as clinical experience affects the student's perception of different medical fields (5). The gradual exposure to clinical medicine provides the opportunity to mature and consider different options (6). Moreover, the social climate of medical school affects many students (4).

In recent years some changes regarding career selection by medical students have been documented. Richard et al. showed an increase in the attraction of non-clinical fields, such as medical management and administration among American medical schools' graduates (7). Dorsey et al. have noted that since the 1990s, more US students have chosen radiology and

dermatology, corresponding with a decline in interest in general surgery and family medicine. The explanation suggested for these observations is the growing importance of lifestyle and financial reward (8).

### **Trends Toward Psychiatry as a Residency**

The likelihood of selecting psychiatry as a career is influenced by the students' perception of the specialty. These perceptions are shaped by different factors. We will discuss separately the factors that influence the students and their opinions and perceptions towards psychiatry.

#### **Factors that influence the students**

An accepted distinction is made between factors affecting the student prior to medical school and factors arising from the years of medical education.

During the premedical phase of study, important factors include mental health courses in previous studies, pre-med exposure to mentally ill patients or previous work with a psychiatrist (6, 9, 10).

The years spent studying medicine certainly have a great impact in shaping the perceptions of medical students towards any specialty, including psychiatry.

The factors during the clinical years of training that appear to influence the selection of psychiatry as a career choice include:

- clerkship in psychiatry
- attitudes of psychiatrists and non-psychiatrists towards psychiatry
- clinical exposure to other specialties
- academic courses dealing with psychology and behavioral science
- the social climate within medical school
- the effectiveness of psychiatric treatment and the medical school's policy towards psychiatry in general (9–14).

Eagle and Marcos noted that as the knowledge and experience of the student relating to the field of psychiatry widens, there are less negative attitudes towards that specialty (4).

The psychiatry clerkship has been shown to strongly influence, both positively and negatively, medical students' attitudes and perceptions toward

the specialty (9). The positive features of the psychiatry clerkship are exposure to patients with good prognosis and effective treatment, the opportunity to provide the students active participation during the treatment process, and exposure to psychiatrists who demonstrate enthusiasm for their specialty and enjoy teaching students (4, 6, 9, 12). The duration of psychiatry's clerkship has been shown to be less important (6).

In addition, other experiences during medical school also have a significant influence on forming students' perceptions of the various specialties. For example, the negative attitudes of non-psychiatry faculty and house staff contribute to the deterioration of the image of the specialty (6, 9–11).

#### **Opinions and perceptions of the students towards psychiatry**

Surveys conducted among medical students during the early stages of medical school reflect their perceptions towards psychiatry before the clinical exposure to the field. Residency in psychiatry was ranked by American and Australian students as least attractive in comparison to internal medicine, surgery, pediatrics, family practice and gynecology on both of these surveys (3, 15). In Israel, psychiatry's attractiveness was rated fourth following pediatrics, surgery and internal medicine, but more attractive than gynecology and family medicine (16).

Comparison of the results from different countries using the same standard questionnaire demonstrates that students, at the start of their medical school training, ranked the attractiveness of psychiatry as being the lowest with regard to the prestige of the specialty, the degree of "drawing on all aspects of medical training" and the degree to which patients are helped. Nevertheless, the Israeli study found that among the specialties, psychiatry was perceived as providing the highest intellectual challenge (3, 15, 16).

#### **Medical education and preferred specialties in Israel**

The clinical clerkships at the Hebrew University Faculty of Medicine commence in the 4th year with 12 week rotations in internal medicine and pediatrics. During the 5th year students rotate through nine clinical rotations, with the major ones being psychia-

try, gynecology, general surgery and neurology. During the 6th year, students have selective rotations in internal medicine, pediatrics, surgical subspecialties, a compulsory family medicine rotation and a period of elective study.

The most commonly selected specialties among Israeli physicians in 2003 were internal medicine, pediatrics, family medicine, gynecology and psychiatry. Almost half of Israeli specialists practiced in these fields, with 5.6% of all specialists being psychiatrists (17).

Compared to European countries, the ratio of psychiatrists per 100,000 populations in Israel is favorable at 13.7 (18).

According to Reiss et al. (13), the ten most popular residencies in Israel between the years 1980–1995 were internal medicine, pediatrics, gynecology, family medicine, ophthalmology, psychiatry, surgery, cardiology, orthopedics and ENT; 80% of the Israeli physicians chose one of these specialties.

An early paper on the subject published in the *Israel Journal of Psychiatry* (19) demonstrated that more than half of psychiatry residents in Israel started residency in other fields before switching to psychiatry.

A survey of Israeli preclinical students' opinions and attitudes towards a residency in psychiatry was conducted by Abramowitz and Gofrit at the Hebrew University Medical School during 2000–2002. They found that 32.8% of the students considered residency in psychiatry. The only significant difference between those who thought of becoming psychiatrists and those who did not was the ethnic background — all the students who were interested in psychiatry were Jewish (16).

In this article, we report on the same cohort as they progress through their studies in clinical medicine during the 2003–2004 academic years. The same student population, surveyed by Abramowitz and Gofrit, was queried on their attitudes towards selecting psychiatry as a residency using the same questionnaire as in the original study. The main hypothesis was that there will be a difference in the percentage of the interested students in psychiatry residency between preclinical and clinical years. We will show the similarities and differences in this cohort of students' views, and try to shed light on the factors influencing their decision process.

## Subjects and Methods

Medical students at the Hebrew University Hadassah Medical School in Jerusalem, Israel were surveyed during the 2003–2004 academic year while attending the clinical period of their medical education (4th–6th years). The same cohort was surveyed during their preclinical studies (1st–3rd years) in medical school during 2000–2002 (16).

We administered the questionnaire anonymously during the last weeks of the academic year to ensure that all the students had completed all of their clerkship rotations.

The questionnaire used in this study was originally developed by Feifel et al. (15) and permission was obtained for its use and to modify several questions to match it to the Israeli population. The questionnaire consisted of 26 questions, with the majority requiring a response on a 5-point Likert scale. The questions were phrased in a way that the students would be blind to the specialty of psychiatry that was investigated.

Although not all medical specialties were covered, our questionnaire follows the groundwork laid down by Reiss et al. (13) that specifies the most popular residencies in Israel including the six residencies surveyed in our questionnaire. Moreover, the five most frequently selected specialties among Israeli physicians are internal medicine, pediatrics, family medicine, gynecology and psychiatry (17). These specialties, along with surgery, are the six specialties surveyed in the present article. Finally, Feifel et al. (15) used the same six residencies in his questionnaire, and our intention was to use similar methodology.

In general, the questionnaire included the following areas:

1. The demographic background of the student;
2. The degree to which the student was considering a possible career among six medical specialties (family medicine, internal medicine, pediatrics, surgery, obstetrics/gynecology and psychiatry);
3. The degree to which the student found these six specialties attractive as a career, with regard to aspects such as financial reward, lifestyle, job satisfaction, enjoyable work, degree to which patients are helped, etc.;

4. The student's estimation of the degree to which others (classmates, physicians and family) respected the skills of physicians in various specialties (internal medicine, surgery, pediatrics and psychiatry);
5. Influences of the clerkship rotation at any one of the specialties on the attitudes of the student towards choosing it as a possible residency.

### Statistical methods

The hallmark question was the one dealing with the tendency to choose psychiatry residency. Subjects were divided into three groups by their intentions: Those who considered psychiatry as a "high chance" or "possible chance"; those who had expressed "no opinion" and those who rejected the option to choose psychiatry as a career (i.e., gave a "very unlikely" or an "unlikely" answer).

Data was analyzed using the SPSS13.0 (Statistic Package for Social Science) program.

Association between two categorical parameters such as gender and the tendency to become a psychiatrist was examined by Chi-square test. Comparison of three independent groups such as years 4th, 5th and 6th for ordinal quantitative variable was done by the non-parametric Kruskal Wallis test. Comparison of independent groups for variable such as age was calculated using ANOVA. Association between the years and the tendency to choose psychiatry was done by Linear-by-Linear association in addition to chi square.

McNemar test was used in order to compare two results of the same person.

## Results

### The sample

The questionnaires were distributed to all medical students in their 4th, 5th and 6th years of study, a total of 307; 212 questionnaires were collected from the students, so the overall response rate was 69%, with 68% of the 4th year, 71% of the 5th year and 68% of the 6th year students completing the survey.

### Demographic data

The three groups were compared on demographic characteristics such as age, religion and former studies. No significant differences were found between students in the different years: 54.2% of the respondents were male and 45.8% female; 89.6% were born in Israel; 90.1% were Jewish, 5.2% Moslems and 4.7% Christians; 62.7% classified themselves as secular, 21.3% religious and 16% traditional. Most of the respondents (69.7%) started their medical studies between the ages of 20–23. A total of 95% studied biology or exact sciences in high school. Only 1.4% majored in the humanities and 0.5% in the social sciences.

Since the questionnaires were distributed and collected anonymously, there is no data regarding the overlap between the preclinical and clinical cohorts. However, no significant differences were found between the preclinical and clinical samples on demographic data such as gender, religion or religiosity.

### Preferred residencies

Table 1 provides the results of respondents' likelihood of choosing specialties as a career.

Table 1. Degree to which 4th-6th year medical students consider careers in various specialties (percent)

	Internal medicine	Pediatrics	Psychiatry	Surgery	Gynecology	Family medicine
Very unlikely	9.5	11.9	23.1	23.9	8.8	12.6
Unlikely	20.5	24.2	41.3	28.5	31.2	34.1
No opinion	20	18.8	20.7	16.2	27.5	26.1
Possible chance	25.3	24.2	9.4	16.2	17.9	20.3
High chance	24.7	20.9	5.5	15.2	14.6	6.9



Table 2. *Trends of students' tendencies towards choosing psychiatry residency throughout medical school (percent)*

Tendency *	Preclinical	Clinical			
	1st-3rd year**	4th-6th year	4th year	5th year	6th year
Not interested	36.7	64.4	47.1	68.5	76.9
Indifferent	30.5	20.7	30	19.7	12.3
Interested	32.8	14.9	22.9	11.8	10.8

\* "Not interested" are those who noted "Unlikely" and "Very unlikely"

"Indifferent" are those who noted "No opinion"

"Interested" are those who noted "Possible chance" and "High chance"

\*\* Attitudes of preclinical students (N=181) were investigated by Abramowitz and Gofrit (16). There were no statistically significant differences between first, second and third years.

Psychiatry (5.5%) and family medicine (6.9%) received the lowest rating chosen as a career with certainty. Internal medicine (24.7%) was identified as having the highest likelihood of being selected, followed by pediatrics (20.9%), surgery (15.2%) and gynecology (14.6%). A paired comparison between psychiatry and each of the other fields demonstrated that a residency in psychiatry is the least interesting for the students ( $p < 0.01$  using McNemar test).

To get a better understanding of student attitudes towards psychiatry residency, subjects were divided into three groups: (1) those that ranked psychiatry highly (combined ranking of "high chance" and "possible chance"); (2) students who were indifferent to residency in psychiatry ranked it as "no opinion"; (3) those who rejected a psychiatry residency (combined ranking of "unlikely" or "very unlikely"); 64.4% indicated that psychiatry was the specialty they were least likely to select as a career, followed by surgery (52.4%), family medicine (46.7%), gynecology (40.0%), pediatrics (36.1%) and internal medicine (30.0%).

Comparing the demographic data of these three groups shows two statistical significant differences. Among the students who see psychiatry residency as a positive option [for them] there is a majority of women (62.5%). Second, all of these students listed themselves as "Jewish" on the questionnaire.

### The development of the tendency to choose psychiatry during medical studies

Table 2 represents the results of an analysis of students' perceptions towards psychiatry as they progress through their medical training. The analysis included the results of the study by Abramowitz and

Gofrit on the same cohort of students examined in the current research who were surveyed during their preclinical studies.

The development of the tendency to choose residency in psychiatry was examined by the association between that tendency and the year of studies. As described earlier, the tendency was categorized into three different groups: those who are interested in psychiatry, subjects who are indifferent and students who are not interested in choosing a career in the field.

As a whole, the deterioration from 32.8% who were interested in psychiatry during the preclinical years to 14.9% during the clinical period was found to be significant ( $p < 0.0001$ ) using one sample Chi square. The main hypothesis was that there will be a difference in the percentage of the interested students in psychiatry residency between preclinical and clinical years. We had 212 students in the clinical years out of which 14.9% declared their interest in psychiatry. Assuming  $\alpha = 5\%$  (2 tailed), there will be more than 99% power to prove that 14.9% is significantly different from 32.8% reported in the preclinical years.

The statistical significance of the decline from 32.8% who were interested in psychiatry during preclinical studies (16) to 22.9% at the end of 4th year was found as borderline ( $p = 0.065$  using Chi square). The statistical significance of the association between 4th, 5th and 6th years and choosing psychiatry was found to be borderline as well ( $p = 0.093$  by Chi-square). However, the trend of decline from 22.9% in the 4th year to 11.8% during the 5th year and 10.8% in the 6th year is statistically significant ( $p = 0.049$  using Linear-by-Linear association).

In summary, during the clinical years of medical school there are strong signs of deterioration in the interest towards psychiatry residency.

### Opinions of Israeli medical students about psychiatry

The students were asked to rate the attractiveness of the specialties described earlier according to parameters such as prestige, life style, financial reward, etc.

The attractiveness of psychiatry among students was significantly the lowest compared to other specialties on the following issues: job satisfaction, prestige among physicians and prestige in the community, the degree to which patients can be helped, drawing on all aspects of medical training, rapidly advancing understanding and treatment of illness and reliable scientific basis.

However, in relation to lifestyle, psychiatry was ranked first together with pediatrics, above the other examined specialties.

Comparing these opinions with those expressed by the same population during the preclinical years shows a marked reduction. During the preclinical phase of medical studies psychiatry was ranked the lowest on the following aspects: the degree to which patients can be helped, drawing on all aspects of medical training, rapidly advancing understanding and treatment of illness and reliable scientific basis (16). The current research reveals that not only in these aspects psychiatry tends to remain as least attractive of the specialties investigated, but that new aspects in which psychiatry is least attractive (such as job satisfaction and prestige) are added.

### Opinions of Israeli medical students about psychiatrists

The students rated their perception of physicians' professional skills among the various specialties. Psychiatrists received the lowest appraisals — only 50% of the students have a positive perception of the professional skills of psychiatrists, compared to 97% towards internal medicine physicians, 83.7% gynecologists, 73.3% pediatricians, and 59.2% who perceived general surgeons positively in terms of their professional skills.

A paired comparison using the McNemar test between psychiatrists and physicians from each of the other fields demonstrated the following: the difference between psychiatrists and surgeons was found as borderline significant ( $p=0.056$ ), while the differences between psychiatrists and the rest of the physicians were found significant ( $p<0.001$ ).

In addition to their own estimations, students were requested to estimate the perceptions of others (classmates, physicians and family) in relation to the professional skills of other physicians in the various specialties. According to students' estimations, psychiatrists command the least respect compared to other physicians by friends, family and colleagues.

Moreover, it seems that students believe that other physicians are the most critical of psychiatrists' professional skills. The students estimated the non-psychiatric physicians' respect towards psychiatrists as the lowest compared to the respect from classmates and family. In order to examine the trend of other physicians' opinions as they seem to medical students, a comparison was made between preclinical and clinical observations (Figure 1).

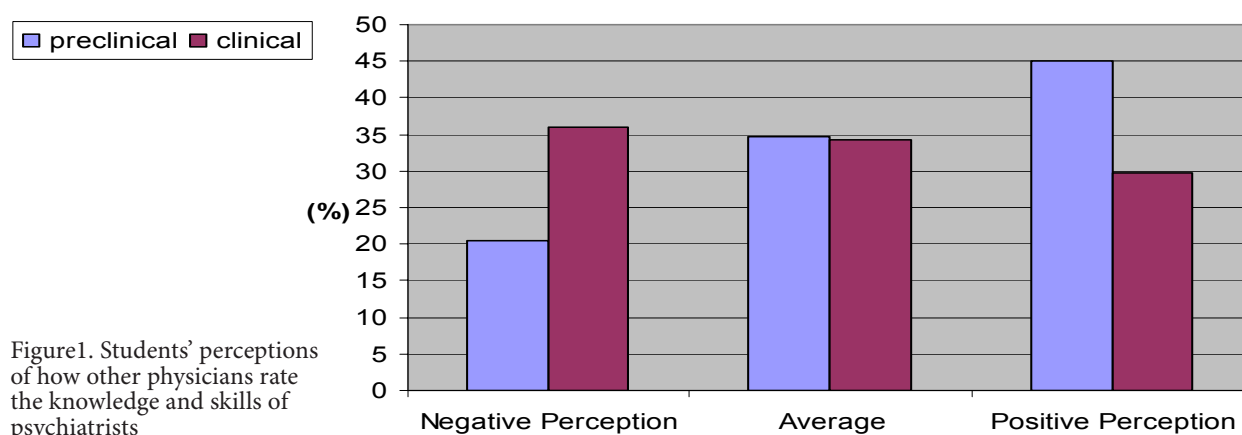


Figure 1. Students' perceptions of how other physicians rate the knowledge and skills of psychiatrists

Students in the clinical years are more likely to perceive that non-psychiatric physicians have negative perceptions of psychiatrists compared to students in the preclinical years.

### Influence of psychiatry clerkship

Respondents' perceptions of the attractiveness of psychiatry pre- and post-clerkship are shown in Table 3; 4th year students did not answer that question because the clerkship in psychiatry takes place during the 5th year.

Table 3. 5th and 6th year students' attitudes towards psychiatry before and after clinical clerkship (percent)

	Not attractive*	Neutral	Attractive
Before	32	27.6	40.4
After	37.3	23.9	38.8

\* Attractivity was rated on Likert scale between 1 "very attractive" and 5 "strongly not attractive"

"Attractive" is the sum of those who rated 1 and 2

"Neutral" reflects those who rated 3

"Not attractive" is the sum of those who rated 4 and 5

No statistical significance was found between the impression of psychiatry prior and after the clinical rotation. However, a detailed analysis revealed many changes in the students' perceptions of psychiatry because of the clerkship. Among the group of 40.4% of subjects who ranked this specialty as attractive prior to the clerkship, only 44.4% of the students maintained this view, while 35.1% had changed their minds after the clerkship to a negative perception of psychiatry. Among the 32% of students who had a negative view of psychiatry before the clerkship, 44.1% maintained their point of view while 27.9% indicated that they had developed a positive perception of psychiatry.

According to these findings, it appears that while more students develop a negative view of the profession during the clerkship, there are a small number of students for whom the opposite occurs.

All the students who expressed an interest in psychiatry after the clerkship rated it as attractive before the clerkship as well. Therefore, the clerkship in itself, although important, does not appear to change the impression of psychiatry among those who consider it as a career.

The two most important factors that influenced students' perceptions during the clerkship were meeting the patients (identified by 90.7% of the students) and meeting the psychiatrists (83.9%).

### Discussion

We have been intrigued, as have other psychiatrists and medical educators through the years, as to what influences a medical student to select psychiatry as a career (20). Several research papers have been published on the inclination of medical students to select psychiatry as a career during the pre-clinical stages of their training. In the present study, we examined the changes in attitudes at different times during the clinical years, and compared them with results of the same cohort during the preclinical studies.

We report a response rate of 69%, high for this type of survey. From a demographic perspective the sample was similar to other samples of medical students in Israel (21). Therefore, it may serve as a reflection of the whole population of Israeli medical students.

### Medical students' perceptions of psychiatry

Psychiatry's attractiveness among Israeli medical students is the lowest compared to the five other specialties referred to in the questionnaire (internal medicine, general surgery, pediatrics, gynecology and family medicine). This low rating stays constant for most of the items.

Of the subjects 14.9% during their 4th, 5th and 6th years of study declared their interest in selecting psychiatry far behind the other specialties examined. Moreover, when asked to rank physicians from various specialties, students rated psychiatrists as the lowest of all physicians in terms of the respect felt towards them by the students, other physicians, classmates and family members.

Similarly, the low image of psychiatry compared to other specialties is maintained when reviewing specific attitudes and opinions of the students. When asked to rate the attractiveness of specific aspects of different specialties, students rated psychiatry the lowest in many aspects, such as job satisfaction, prestige and the degree to which patients are helped. These negative perceptions of psychiatry are not unique to Israeli medical students. Students from

other countries, such as the United States and Spain, have been shown to have similar views of psychiatry (2, 15, 16).

Interestingly, psychiatry was rated highest on the aspect of lifestyle (together with pediatrics).

### **Deterioration in medical students' perceptions of psychiatry**

A deterioration of psychiatry's image among Israeli medical students is reflected in our results during the years in medical school. This decline is true for the tendency to choose psychiatry as a residency as well as the attitudes and perceptions of the students about that field. Analyses of the data gives the impression that the decline takes place during the clinical years.

One of the most important factors that influence the students' perception of psychiatry is the clinical clerkship in that discipline.

The results of the current survey show that the clerkship impacts upon a large portion of medical students both positively and negatively, as noted before by Nielsen and Eaton (9). However, the impression of psychiatry after the clerkship alone cannot explain the continued decline of interest in psychiatry among Israeli students. An explanation for the limited effect of psychiatry's clerkship was given by Baxter et al., who suggested that the clerkship's influence is temporary. Other clinical exposures may have a greater negative impact on the medical students (11).

Investigators have dealt with the negative influence towards psychiatry from non-psychiatry house staff (6, 9, 10, 11). Zimny and Sata noted that this is the most negative factor that harms psychiatry's image (10). Our findings agree with that notion. When the students rated their assessment of others' (classmates, physicians and family) opinions about various physicians, those who were seen to least respect the skills of psychiatrists were (the students' perceptions of) other physicians. Moreover, the trend of physicians' opinions towards psychiatrists (as rated by the medical students) parallels the negative trends towards psychiatry and the tendency of medical students to become psychiatrists throughout medical school.

Characteristics of the Medical Students who Consider Psychiatry as a Career Among Israeli subjects, being Jewish and female increases the likeli-

hood of selecting psychiatry as a career choice. The importance of religion as a factor influencing career choice among preclinical students was previously recognized (16). The current study records the importance of gender for selection of psychiatry among Israeli medical students. A possible explanation may lie in our finding that psychiatry scores high on the aspect of controllable lifestyle. The linkage between the growing importance of lifestyle among medical school graduates and the increasing proportion of female students was previously made by Dorsey et al. (8).

### **Future Directions**

The current survey attests to a serious image problem concerning the field of psychiatry. Students maintain incorrect perceptions of the field, such as viewing psychiatry as a non-advancing field despite the great breakthroughs of the last decades. Furthermore, the survey suggests a negative impact of the non-psychiatric, medical staff on those ideas and perceptions. However, some questions remain open.

First, the current survey deals with the impact of Israeli medical education on Israeli medical students. However, more than half of the licenses issued in Israel every year are given to those who studied medicine abroad (17). Throughout its history, immigration to Israel has granted local psychiatry some important contributions. Today, when immigration to Israel from the former Soviet Union has declined to a trickle, there is likely to be a serious shortage of psychiatrists in the future. Therefore, new educational strategies should be planned and evaluated in order to improve recruitment among Israeli graduates.

Another open issue concerns negative influences which affect the poor image of psychiatry. Although it seems that non-psychiatry physicians play a role in the declining image of psychiatry throughout medical school, this issue should be further elucidated. For example, it might be useful to assess general physicians' opinions about psychiatry and psychiatrists. It might also be beneficial to evaluate the attitudes of medical students before and after the major clerkships such as internal medicine or general surgery, in order to find whether one specialty affects attitudes towards psychiatry more than others. Another as-



pect that should be examined is the role of the medical school's policy towards psychiatry in general, the curriculum in particular, and the policy of the number of hours allotted to the subject during the clinical and preclinical years.

Third, the effect of the clerkship in psychiatry should be clarified. Our research reveals a mixed effect on the students so that many questions remain open for future investigation.

Our finding that only Jewish medical students opt for psychiatry may be the equivalent of the old myth of psychiatry being a "Jewish profession" (22). In Israel, where a very large portion of the population speaks Arabic, it is important to find new ways for psychiatry to appeal to students of different cultures and backgrounds.

Medical educators and administrators should be concerned about the phenomenon of the decline in psychiatry's image and seek ways to modify this negative trend. Improving the school's influence on the image of psychiatry is important, not only to avoid a future shortage of psychiatrists, but also to improve the attitudes of future doctors towards psychiatry. Efforts should be made to preserve interest in psychiatry, which is much stronger among students at the early stages of medical education.

The fact that students initially have positive feelings towards psychiatry points to the possibility of remediation. For example, admission committees might be encouraged to select more candidates who majored in the humanities or social sciences, as our study shows that under 2% had previously majored in these areas. A wider preclinical and clinical exposure to psychology and behavioral sciences could be included in the curriculum. During the rotation in psychiatry, the students might spend more time at mental health clinics and in liaison psychiatry so as to see patients with better prognosis improve as the result of treatment.

In conclusion, educational programs need to target those who show initial curiosity and interest in the workings of the mind and spirit.

Hopefully, a combination of such changes will lead to a better image of psychiatry, a wider recruitment of first-rate medical school graduates, better cooperation with other physicians, and eventually better service provided to the mentally ill.

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