

Choosing Psychiatry as a Speciality: Attitude of Medical Students

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Abstract

Context: Both the field of psychiatry and mental disorders are stigmatized heavily. Even doctors are susceptible to the stigma that still exists. Psychiatrists are thought to be less respectable, less prestigious, less recognized, and have a less scientific approach.

Aims: The goal of the current study was to determine how medical students felt about the speciality of psychiatry after being exposed to medical education for a variety of lengths of time.

Settings and Design: The study was carried out in Telangana at a private medical school. Two groups of participants, undergraduates and house surgeons, were formed from the total number of participants. A cross-sectional descriptive study was conducted.

Materials and Methods: The house surgeons and second year students were given socio-demographic and attitude toward psychiatry 30 items questionnaires, and the results were evaluated using the proper statistical methods.

Statistical Analysis Used: Student's t-test and Chi-square test using SPSS version 21.

Results: 52% of house surgeons and almost 84% of second year medical students ($P = 0.001$) had favourable attitudes of psychiatry. Only five second years (5%) and two house surgeons (1.8%) said they would like to pursue psychiatry as a career, while 73% said they would not like to specialise in the field.

Conclusions: Compared to the house surgeon group, second year medical students displayed a more positive attitude. Increased negativity in upper level classes may be a result of subpar psychiatric instruction during undergraduate training, as well as offensive statements and stereotypes made by medical educators and practitioners from other specialised streams.

Keywords: Attitude; Psychiatric hospital; Psychiatric illness; Psychiatrist, Stigma.

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INTRODUCTION

Stigma is viewed as the existence of an abhorrent or undesirable circumstance for a person or group of people. It involves other community members making disparaging remarks about someone they perceive to be deviating from the accepted norms of the group.¹ Everywhere in the world, there are psychiatric problems that are common. Adults with mental disorders impact around 10% of the population at any given moment.² By 2030, the

WHO predicts that unipolar depression would surpass ischemic heart disease and traffic accidents as the largest cause of illness burden.³

In both established and developing nations, stigma and cultural prejudices about psychiatry as a field, psychiatrists, and psychiatric patients persist. The majority of individuals in society are socially stigmatised and have bad attitudes regarding psychiatry and mental patients. Surprisingly, psychiatry as a speciality and psychiatrists are not exempt from societal pre-conceptions, stigma, and disparaging remarks among medical students, practitioners, and educators.^{4,5}

Medical practitioners' negative attitudes also influence medical students' negative attitudes. According to a meta-analysis by Schomerus et al., attitudes regarding psychiatry and patients have not changed considerably over the past two decades.⁶ Giving mental health treatment to people who are psychiatrically sick is greatly hampered by the general public's and mental health professionals' predominately unfavourable attitudes. Inattention to the necessary needs for mental health care, unnecessary referrals, indecent treatment, and a lack of social support and family acceptance are further effects. To provide effective mental health care services, it is essential to close the knowledge gap and raise awareness of mental disorders in society.^{7,8,9}

Existing stigma and unfavourable attitudes have an impact not just on patient treatment but also on medical students' decisions to choose psychiatry as a vocation. The majority of medical students view psychiatry as a difficult and unrewarding field.¹⁰ Few doctors choose to specialise in psychiatry, and there has even been reports of family pressure against choosing psychiatry as a career, which is another indicator of the stigma associated with psychiatric problems.¹¹

Although there are conflicting findings in the current research about undergraduate (UG) medical students' attitudes, they are generally unfavourable. There are research that demonstrate benefits from brief psychiatric training during undergrad.¹² Positive attitude effects were discovered to be transient, while a few other investigations revealed no change in attitude.¹³⁻¹⁵ There is a global issue with getting medical students to choose psychiatry as their area of specialisation.¹⁶ Showing a positive attitude and choosing psychiatry as a vocation are incompatible.¹⁷

One study found that the teaching of psychiatry at the undergraduate level was either disorganised or improper.¹⁸ According to other studies,

psychiatrists are thought to earn less money, have lower respect, and prestige than other specialists.^{16,17,18,19} Additionally, social stigma, the disapproving attitude of nonpsychiatric faculty, and the presumptive higher rate of psychiatric morbidity in psychiatrists are mentioned.^{20,21,22}

The majority of developing attitudes regarding speciality subjects happens throughout UG training. As a result, medical students' attitudes are crucial. Since medical students are the future psychiatric trainees, it is crucial to understand their attitudes about the field. The purpose of the study was to determine how undergraduate medical students (UGs) with varying years of medical education perceived, knew about, and felt about the field of psychiatry as a career choice.

MATERIALS AND METHODS

Study Design

In a private medical college in telangana, a cross-sectional research was carried out. 120 second-year students and 132 house surgeons were each involved in the study. After receiving their signed agreement to participate in the study, they were given a standardised and structured questionnaire [Attitude Toward Psychiatry-30 (ATP-30)] and a semi-structured socio-demographic profile to complete. A total of 106 house surgeons and 100 second year students submitted the completed questionnaire to the researchers. The replies were noted, and SPSS version 21 was used to analyse the data.

The Attitude Toward Psychiatry-30

The ATP is a 5-point Likert scale created and approved by Burra et al. in Canada.²³ The scale, which consists of thirty items with positive and negative wording, gauges how strongly the respondent feels about various facets of psychiatry. A score of 1 indicates a very positive attitude, a score of 5 indicates a very negative attitude, and a score of 3 indicates a neutral attitude. Each item that was positively stated received a score that was converted by deducting it from 6. The range of the overall scores is 30 to 150. A global score of 90 (average score of 3) is thought to show a neutral attitude. A global score of 90 (scores of 1 and 2 combined) suggests a negative attitude toward psychiatry. A score of >90 (scores of 4 and 5 combined) denotes an overall favourable attitude. Thirty questions were examined individually and in groups of questions based on themes. After

receiving clearance from the Institutional Review Board and the college administration, the study was carried out.

RESULTS

The questionnaire was completed and turned in by 80.3% of house surgeons and about 83.3% of second year students. Chi-square test and Student's t-test were used to compare socio demographic and attitudinal differences across groups.

The average age of second-year students was 19.7 years and 24.13 years for house surgeons ($P = 0.001$) (Table 1). Other sociodemographic traits were statistically similar to one another (Table 2). Compared to the house surgeons, junior students show a higher positive view about psychiatry (83% vs. 48.1%; $P = 0.001$). The house surgeons and second-year students' respective mean ATP-30 scores were 94.5 and 99.7 ($P = 0.001$). Nevertheless, only 7 (6.6%) house surgeons and 10 (10%) second-

year students affirmed that they wished to pursue a career in psychology (Table 3). But the house surgeons had a stronger conviction that mental patients and disorders were fascinating ($UG = 3.06 \pm 1.07$, house surgeons = 3.46 ± 1.01 , $P = 0.007$). The house surgeons scored considerably higher than the other groups when the mean scores of items 13, 24, and 26 (Table 5) were compared between the groups ($P = 0.001$, 0.01, and 0.002, respectively). In addition, the group had a higher mean score on item number 23 (importance of psychiatry in MBBS curriculum) ($P = 0.003$). Responses to items 8 and 19 in Table 4 reveal that undergraduate students scored substantially higher (3.67 ± 1.06 vs. 2.9 ± 1.1 , $P = 0.001$ and 3.71 ± 1.1 vs. 3.03 ± 1.2 , $P = 0.001$) and had more unfavourable opinions of psychiatrists. Likewise, UG students scored higher on items 1, 2, 6, 7, 17, and 22 (Table 7) that relate to unfavourable attitudes of psychiatry and psychiatrists. The average scores for house surgeons are higher for items 20, 25, and 28, which relate to positive opinions of psychiatry (Table 6).

Table 1: Sociodemographic characteristics of the participants.

Variable	Group of Medical Students(N)	Age Mean Sd	Tscore (Df)	P
Age	House Surgeon(106) 2nd (100)	24.13±1.4 19.7±1.5	21.15 (204)	0.001
Characteristics	2nd Year	House Surgeon	X2(Df)	P
Sex				
Male	68(68)	67(63.2)	0.52(1)	
Female	32(32)	39(36.8)	0.56	
Family Type				
Nuclear	26	43	5.2(2)	0.07
Joint	26	19		
Nuclear Extended	48	44		
Locality				
Rural	56	62	0.13(1)	0.78
Urban	44	44		
Monthly Income in Rs.				
<10000	5	3	0.66(2)	0.71
10000-15000	56	60	-	-
>15000	39	43	-	-

Table 2: Attitude Toward Psychiatry-30 scores in terms of cutoff value 90 representing attitude toward psychiatry in both the groups (n=206)

Group	Attitude			X2(Df) 27.5(2)	P 0,001
	Positive (Atp>90)(%)	Neutral (Atp=90)(%)	Negative (Atp<90)(%)		
House Surgeons N=(106)	51(48.1)	7(6.6)	48(45.3)		
2nd Year (N=100)	83(83)	2(2)	15(15)		

X2-CHI SQUARE TEST, df- Degree of freedom, ATP- Attitude Towards Psychiatry

Table 3: I would like to be a psychiatrist (item 4 in attitude toward psychiatry 30)

Responses	2nd Year (N)	House Surgeon(N)	T(Df)	P
Strongly Agree (%)	10(10)	7(6.6)		
Agree	40	49		
Neutral	23	15	7.2(4)	0.12
Disagree	26	39		
Strongly Disagree	1	4		

t-t value, dt-degree of freedom

Table 4: Means of scores on items measuring attitude toward psychiatric patients and illnesses.

Items	Group of Medical		Students Mean Sd	T(Df)	P
	2nd Year	House Surgeons			
-Psychiatry Patients are Human (27)	3.7± 1.1	4.0± 0.97		2.2(204)	0.02
-Psychiatric Illnesses need Attention (12)	3.48 ± 1.4	3.70 ± 1.3		1.02(204)	0.30
-Psychiatric Patients are Interesting (29)	3.06± 1.07	3.46± 1.01		2.7(204)	0.007
-Interesting to Unravel Cause (18)	3.58± 1.04	3.85 ± 1.03		1.4(204)	0.16

SD-standard deviation , t-t value , df-degree of freedom

Table 5: Responses of items measuring attitude toward psychiatric teaching

Items	Group of- Medical Students		Mean Sd	T(Df)	P
	2Nd Year	House Surgeon			
Most of the Facts in Psychiatry are Vague(26)	3.01± 1.1	2.7± 1.06		-2.2(204)	0.02
Psychiatry has very little Scientific Information(13)	3.41 ±1.07	2.8± 1.04		-4.3(204)	0.001
Psychiatry is so Unscientific that even Psychiatrists Can't Agree to Scientific Basis(24)	3.06± 0.96	2.7± 0.93		-2.6(204)	0.01
Psychiatric Teaching Increases Understanding of Medical & Surgical Patients(9)	3.45± 0.93	3.20± 0.97		-1.7(204)	0.08
Psychiatry is an Important Part of Curriculum(23)	3.22± 1.20	3.72± 1.13		3.06(204)	0.003
Students who think their Psychiatric Ug Training Valuable(10)	3.37± 1.0	3.37± 1.4		-0.44(204)	0.66
Psychiatry is so Amorphous that it Cannot be Taught Effectively(30)	2.82± 1.2	2.50± 0.87		-1.8(204)	0.07

SD-Standard deviation , t-t value , df- difference of freedom , p significant (two tailed) 0.05

Table 6: Mean responses of items measuring attitude toward psychiatric treatment and hospitals

Items	Group of Medicos		Mean Sd	t(df)	p
	2nd Year	House Surgeon			
Efficacy of psychotherapy (5)	3.30±1.09	3.4±1.1		0.44 (204)	0.66
Psychotherapy is fraudulent (8)	3.67±1.06	2.9±1.1		-4.7 (204)	0.001
With therapy, patients improve (14)	3.3±1.1	3.6±0.9		2.36 (204)	0.02
Psychiatric treatment causes patients to worry about symptoms (16)	2.9±0.91	2.69±0.87		-2.6 (204)	0.009
Little that psychiatrist can do for their patients (19)	3.71±1.1	3.03±1.2		-4.2 (204)	0.001
Psychiatric treatment has become effective (25)	3.5±1.05	3.94±0.86		2.77 (204)	0.005
Psychiatric hospitals little more than prisons (3)	3.15±1.1	2.70±0.9		-3.3 (204)	0.001
Psychiatric hospitals have specific contribution to make to the treatment of mentally ill (20)	3.4±1.05	3.93±0.96		3.3 (204)	0.001

SD - Standard deviation; t - t value, df - Degree of freedom, P significant (two tailed); 0.05

Table 7: Means of scores on items measuring attitude toward psychiatrists and psychiatry

Items	Group of Medicos		t(df)	p
	2nd Year	House Surgeons		
Psychiatrists seem to talk nothing but sex (7)	3.60±0.98	2.9±1.04	-4.7 (204)	0.001
At times it is hard to think of psychiatrists equal to other doctors (22)	3.4±1.1	2.6±1.07	-4.5 (204)	0.001
I would like to be a psychiatrist (4)	3.3±1.1	2.6±0.9	-1.9 (204)	0.05
Psychiatrist tend to be as stable as average doctors (15)	3.45±0.94	3.33±1.00	-1.16 (204)	0.24
Psychiatrists get less satisfaction from their work than other specialists (17)	3.25±0.91	2.7±0.91	-3.5 (204)	0.001
If I were asked what I considered to be the three most exciting specialties psychiatry would be excluded (21)	2.82±1.27	2.39±1.06	-2.9 (204)	0.004
The practice of psychiatry allows the development of really rewarding relationship with people (28)	3.62±0.091	4.03±0.78	3.2 (204)	0.001
Psychiatry is unappealing because it makes little use of medical training.(1)	3.4±2.7	2.7±1.20	-3.98 (204)	0.001
On the whole, people taking up psychiatric training are running away from Participation in real medicine (6)	3.13±1.0	2.79±0.9	-2.8 (204)	0.005
Psychiatry is a respectable branch of medicine (11)	3.13±1.16	3.24±1.2	0.41 (204)	0.68
Psychiatrists talk a lot but do very little (2)	3.32±1.16	2.7±1.08	-3.8 (204)	0.001

SD – Standard deviation; t – t value; df – Degree of freedom, P significant (two tailed); 0.05

DISCUSSION

The goal of the current comparative study was to determine how medical students with varying years of medical education felt about psychiatry as a field of study and a potential career path. Compared to house surgeons, second year medical students are more upbeat. Other investigations that were undertaken in Bahrain and Kenya¹⁷ also produced similar results.²⁴ It is unclear if this change in attitude toward psychiatry was brought on by a decline in interest in the profession or a rise in interest in other areas. A negative attitude was displayed by 15% of second year students and 45.3% of house surgeons.

The fourth item, "I'd want to be a psychiatrist," has drawn special attention since it shows a connection between general attitude and profession choice. Only 10 students (10%) from the second year and 7 (6.6%) from the house surgeon group chose to become psychiatrists. A similar gap between having a positive outlook and selecting psychiatry as a vocation was discovered in studies conducted in Kenya, Pakistan, the USA, and Kenya^{17,25} as well.²⁶ One Israeli research indicated that just 6% of medical students who choose to pursue psychiatry as a residency chose the field as their profession.²⁷

The pervasive stigma associated with mental illnesses is one explanation for the possibility of dissonance. The speciality is avoidable because to societal stereotypes that are associated with

medical personnel.

We discovered that both groups had a good attitude toward psychiatric patients and mental diseases, and they all concurred that such patients are not just people but also intriguing and in need of a great lot of care (Table 4). Similar findings were observed in a second study²⁵ that used a slightly different approach and questionnaire and was done at medical colleges in Karachi and Abbottabad, Pakistan.

Both groups demonstrated that psychiatry is a crucial component of the medical college curriculum, that it aids in their ability to comprehend both medical and surgical patients, and that their undergraduate study in the subject was beneficial. Despite the fact that the majority of students concurred that psychiatry is imprecise and unscientific. It could be because, in contrast to other medical or surgical specialities, psychiatry lacks confirmatory tests like laboratory analysis or imaging and instead relies more on psychological tests and instruments to explain a variety of diseases (Table 5). In contrast to a research conducted in Pakistan, which found indifferent answers for the majority of the categories related to knowledge and instruction, our study's findings are positive.²⁵

In addition, students expressed a favourable attitude toward half of the questions about psychiatric hospitals and treatment (Table 6) and agreed that psychiatric hospitals have a unique role

to play in the treatment of those who are mentally ill, that psychiatric treatment is now effective, and that psychotherapy is effective. Junior students, in contrast to interns, believed that psychiatry was false and that psychiatric facilities were little more than prisons. Both groups acknowledged that psychiatrists are limited in what they can do for their patients. The difference in attitude may be brought about by second year students seeing mental units less often, especially indoor wards.

This demonstrates that UGs are not only ignorant of the scientific underpinnings of non-pharmacologic modes of therapy, but also that psychiatric instruction and training are in a bad state at the UG level.¹⁸ It underlines the necessity of integrating community health services with mental health institutions.

The majority of students do not view psychiatry as a viable career option; psychiatry would not be included in their list of the top three exciting specialties, and unlike junior students, the house surgeons concurred that psychiatrists are not on par with other medical professionals, receive less satisfaction, talk a lot but perform very little, and that those pursuing psychiatric training are avoiding taking part in actual medical practice. It could be because medical educators and practitioners from other specialized divisions frequently make ignorant stereotypical statements and remarks about psychiatrists. The similar issue was mentioned by Al-Ansari et al. in their study carried out in Bahrain in 2002.²⁴ Medical educators frequently say that psychiatrists have a negative public image because they only prescribe sedatives and tranquillizers, and their work is neither intellectually challenging nor financially gratifying. Additionally, it has been hypothesized that psychiatrists themselves are more prone to mental problems.²⁸

Some solutions and potential interventions might be recommended to lessen the stigma that is now prevalent worldwide and to make psychiatry a more desirable career option.

Instead than shortening them, psychiatric clerkships should last longer. Through their extensive exposure to our field, medical students will learn to fully understand the work that we perform. Students should be exposed to several psychiatric subspecialties such as sleep and headache clinics, child psychiatry, addiction psychiatry, and geriatric psychiatry. By highlighting the nature, prognosis, and treatment of mental disorders with higher relapse/recurrence risks, such as drug dependency and schizophrenia, the misconception

that psychiatrists can do little to help their patients might be changed. We must come up with creative approaches to introduce them to our field. Interest will be generated by excellent instruction and clerkships with a range of clinical experiences. Modern neuroimaging tools can assist undergrads demonstrate the neurological underpinnings of mental diseases, which can improve public understanding of psychiatry.

This research, like many others, has certain limitations, notably its small sample size and exclusivity to medical students from one institution. In order to illustrate the general image of the country, it is advised that a research be carried out with a bigger sample size and homogeneous qualities of individuals from different medical colleges representing different parts of the country. Our area of interest was known to the research participants, which may have impacted some of their responses.

CONCLUSIONS

In the current study, we found that the medical students have multiple lacunae in their knowledge about psychiatric patients, psychiatric illness, psychiatric treatment, psychiatrist and subject of psychiatry. The second year medical students have more positive attitude than the intern students. Increasing negative attitude in higher classes might be due to poor social image of psychiatrist, relatively financially unrewarding specialty, poor teaching in under graduation, lesser duration of psychiatric clerkship, ridiculous stereotypic comments and remarks by medical teachers and practitioners belonging to other specialty branches. Through exposure in depth and high quality teaching and clerkship containing a variety of clinical experience will decrease the negative attitude. It has been felt that psychiatry remains neglected subject during the UG training. Thus, there is a need to reassess and modify accordingly the UG medical student's current curriculum. Therefore, it is necessary to review and adjust the present curriculum for UG medical students.

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REFERENCES

1. Taşkın E, EO Flood. Stigmatization, discrimination and mental illness. *Psychiatry Psychology Psychopharmacology*. 2004;12(Annex 3):5-12.
2. WHO. *Investing in Mental Health Magnitude and Burden of Mental Disorders*. Geneva: WHO; 2003. p. 8.
3. WHO. *Global Burden of Disease 2004 Update*. Geneva, Switzerland: WHO; 2004. [Last accessed on 2018 Mar].
4. Murthy RS, Khandelwal S. Undergraduate training in psychiatry: World perspective. *Indian J Psychiatry*. 2007;49:169-74.
5. Mukherjee R, Fialho A, Wijetunge K, Checinski K, Surgenor T. The stigmatization of psychiatric illness: The attitudes of medical students and doctors in a London teaching hospital. *Psychiatr Bull*. 2002;26:178-81.
6. Schomerus G, Schwahn C, Holzinger A, Corrigan PW, Grabe HJ, Carta MG, et al. Evolution of public attitudes about mental illness: A systematic review and meta-analysis. *Acta Psychiatr Scand*. 2012;125:440-52.
7. Kishore J, Gupta A, Jiloha RC, Bantman P. Myths, beliefs and perceptions about mental disorders and health-seeking behavior in Delhi, India. *Indian J Psychiatry*. 2011;53:324-9.
8. Kleinman A, Cohen A. Psychiatry's global challenge. *Sci Am*. 1997;276:86-9.
9. Mino Y, Yasuda N, Tsuda T, Shimodera S. Effects of a one-hour educational program on medical students' attitudes to mental illness. *Psychiatry Clin Neurosci*. 2001;55:501-7.
10. Cutler JL, Harding KJ, Mozian SA, Wright LL, Pica AG, Masters SR, et al. Discrediting the notion "working with 'crazies' will make you 'crazy'": Addressing stigma and enhancing empathy in medical student education. *Adv Health Sci Educ Theory Pract*. 2009;14:487-502.
11. Chawla JM, Balhara YP, Sagar R, Shivaprakash. Undergraduate medical students' attitude toward psychiatry: A cross-sectional study. *Indian J Psychiatry*. 2012;54:37-40.
12. Holm-Petersen C, Vinge S, Hansen J, Gyrd-Hansen D. The impact of contact with psychiatry on senior medical students' attitudes toward psychiatry. *Acta Psychiatr Scand*. 2007;116:308-11.
13. Fischel T, Manna H, Krivoy A, Lewis M, Weizman A. Does a clerkship in psychiatry contribute to changing medical students' attitudes towards psychiatry? *Acad Psychiatry*. 2008;32:147-50.
14. Kuhnigk O, Strebel B, Schilauske J, Jueptner M. Attitudes of medical students towards psychiatry: Effects of training, courses in psychiatry, psychiatric experience and gender. *Adv Health Sci Educ Theory Pract*. 2007;12:87-10.
15. Muga F, Hagali M. What do final year medical students at the University of Papua New Guinea think of psychiatry? *P N G Med J*. 2006;49:126-36.
16. Tharyan P, John T, Tharyan A, Braganza D. Attitude of 'tomorrow's doctors' toward psychiatry and mental illness. *Natl Med J India*. 2001;14:355-9.
17. Ndeti DM, Khasakhala L, Ongecha-Owuor F, Kuria M, Mutiso V, Syanda J, et al. Attitudes toward psychiatry: A survey of medical students at the University of Nairobi, Kenya. *Acad Psychiatry*. 2008;32:154-9.
18. Abdul-Rahim, El-Assra. Attitude of Arabian Gulf University medical students toward psychiatry. *Educ Health*. 2002;15:180-8.
19. Pailhez G, Bulbena A, Coll J, Ros S, Balon R. Attitudes and views on psychiatry: A comparison between Spanish and U.S. medical students. *Acad Psychiatry*. 2005;29:82-91.
20. Malhi GS, Parker GB, Parker K, Carr VJ, Kirkby KC, Yellowlees P, et al. Attitudes toward psychiatry among students entering medical school. *Acta Psychiatr Scand*. 2003;107:424-9.
21. Byrne P. Stigma of mental illness. Changing minds, changing behaviour. *Br J Psychiatry*. 1999;174:1-2.
22. Rich CL, Pitts FN., Jr. Suicide by psychiatrists: A study of medical specialists among 18,730 consecutive physician deaths during a five-year period, 1967-72. *J Clin Psychiatry*. 1980;41:261-3.
23. Burra P, Kalin R, Leichner P, Waldron JJ, Handforth JR, Jarrett FJ, et al. The ATP 30-a scale for measuring medical students' attitudes to psychiatry. *Med Educ*. 1982;16:31-8.
24. Al-Ansari A, Alsadadi A. Attitude of Arabian Gulf university medical students towards psychiatry. *Educ Health (Abingdon)* 2002;15:180-8.
25. Khan SA, Yousafzai AU, Mehira RK, Inam-ul-Haq. Attitude of medical students towards psychiatry in NWFP. *J Ayub Med Coll Abbottabad*. 2008;20:44-6.
26. Sierles FS, Taylor MA. Decline of U.S. medical student career choice of psychiatry and what to do about it. *Am J Psychiatry*. 1995;152:1416-26.
27. Abramowitz MZ, Bentov-Gofrit D. The attitudes of Israeli medical students toward residency in psychiatry. *Acad Psychiatry*. 2005;29:92-5.
28. Rettenbacher MA, Burns T, Kemmler G, Fleischhacker WW. Schizophrenia: Attitudes of patients and professional carers towards the illness and antipsychotic medication. *Pharmacopsychiatry*. 2004;37:103-9.