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*Original Article*

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# Attitudes toward Psychiatry: A Survey of Medical Students at the University of Nairobi, Kenya

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**Objectives:** *The authors aim to determine the attitudes of University of Nairobi, Kenya, medical students toward psychiatry.*

**Methods:** *The study design was cross-sectional. Self-administered sociodemographic and the Attitudes Toward Psychiatry-30 items (ATP-30) questionnaires were distributed sequentially to every third medical student in his or her lecture theater before or immediately after the lectures. Analysis was done using SPSS version 11.5 and the results are presented in tables.*

**Results:** *Nearly 75% of the students had overall favorable attitudes toward psychiatry but only 14.3% considered psychiatry as a potential career choice. Sixty-six percent reported that they would not choose psychiatry as a career while the remaining 19.7% were not decided.*

**Conclusions:** *There is dissonance between positive attitudes toward psychiatry and the choice of psychiatry as a potential career. Therefore, there is a need to bridge the gap by addressing the various factors that potentially account for this dissonance.*

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A dissonance between a positive attitude toward psychiatry as a specialty and the choice of psychiatry as a career has been noted in a number of studies (1–5). Various explanations have been proposed for this phenomenon. According to one of the studies, the teaching of psychiatry at the undergraduate level was disorganized or not done properly (1). Other studies have reported that compared to other specialists, psychiatrists are perceived to earn less money, to be less respected, and to have less prestige (1, 6). Notwithstanding, psychiatry has been rated higher than any other discipline on intellectual challenge (5).

Although the studies mentioned so far (1–5) generally reported that disparity between a positive attitude and choice as a career exists, the actual levels of dissonance vary between studies and between countries. One probable explanation for this wide variation could be the differences

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in the level of coverage of the psychiatry course, the quality of the course, and the timing of exposure to psychiatry at the time of the surveys. Other likely factors include whether or not a neutral attitude was scored together with a positive attitude, and whether or not, at the time of the study, the students compared psychiatry with other specialties. These methodological differences do not therefore allow direct comparisons between the percentages reported in the various studies.

No similar studies have been carried out in Kenya, which suffers an acute shortage of psychiatrists, having, on average, one psychiatrist for every 500,000 people (7). Thus, an understanding of the attitudes of medical students toward psychiatry is important, as they are the potential trainees in psychiatry. This study aimed to fill that gap.

### Method

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#### Subjects

One third ( $N = 479$ ) of the 1,441 medical students at the University of Nairobi, Kenya, were asked to participate in this study.

#### The Instrument and Ethical Issues

A two-part instrument consisting of a sociodemographic questionnaire and the Attitudes Toward Psychiatry-30 items (ATP-30) (8) was distributed. The issues that were covered in the study explanation and consent included the purpose of the study—to understand the medical students' attitude to psychiatry as a subject and not in relation to other subjects—voluntary participation, and confidentiality. The students were informed 1) that they could withdraw their consent at any point during the study, 2) that no identifying information was to be supplied on the questionnaires, and 3) that all questionnaires, whether completely, partially, or not filled out at all, were to be folded and dropped into a ballot box as they left the lecture theater. There were no personal incentives or benefits to the students. The written instructions on the questionnaire were explicit that by the students voluntarily completion of the questionnaire, they were consenting to participate in the study. The sociodemographic questionnaire was developed to record personal data. The ATP-30 was designed by Burra et al. (8) to measure medical students' attitudes to psychiatry alone and its use has been reported extensively, even in studies published as recently as 2004 (3).

The research was cleared by the Kenyatta National Hos-

pital Research and Ethics Committee, and permission to conduct the study was sought and obtained from the Faculty Administration.

#### Administration of the Instrument

The medical students were approached by the principle investigator, with prior arrangement, either before or soon after a lecture when the students were still seated. {-**AUTHOR: PLEASE IDENTIFY "PRINCIPLE INVESTIGATOR" – IS IT THE FIRST AUTHOR? THANKS!**} There were multiple administration times as the students in the different year groups were not all attending the same lectures. Furthermore, the timing of questionnaire distribution was not related to any particular course but to the lectures when all students would be in class. The sampling procedure ensured that one out of every three medical students had an equal chance to participate in this study. At the time, there were two other different studies running concurrently (one on students' beliefs about psychiatry and the other on students' perceptions of their educational environment) and each study aimed at recruiting one third of the students. The principle investigator distributed the questionnaires for this study sequentially to every third student according to their sitting positions. As all the medical students had agreed to participate in either one of the three concurrent studies, it was therefore expected that 479/1441 (33.2%) students would participate in this particular study. The students were asked to read the study explanation and then complete the questionnaires. The folded questionnaires were placed inside a ballot box as they left the lecture theater.

#### Analysis

For purposes of analysis, the items on the ATP-30 are scored on a 5-point scale with a score of 1 denoting a highly negative attitude, 5 denoting a highly positive attitude and a score of 3 denoting a neutral response. The total global scores range from 30–150. A global score of less than 90 (scores of 1 and 2 combined) suggests a negative attitude to psychiatry, a score of more than 90 (scores of 4 and 5 combined) denotes an overall positive attitude, while a global score of 90 (average score of 3) is considered to represent a neutral attitude. Each of the 30 questions was analyzed independently and thematically with groups of questions together.

The data were analyzed using the SPSS (SPSS version 11.5) (9). Between-group sociodemographic and attitudinal differences were analyzed using  $\chi^2$  tests.

## Results

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### Sociodemographic Data

The response rates for the various sociodemographic variables varied and the average response rate across all the variables was 97.2%. There were significantly more males (54.9%,  $N=479$ ,  $p=0.032$ ) than females, the majority of the students were single (95.9%,  $N=465$ ,  $p<0.001$ ), and there were more respondents in their 2nd (33.3%,  $N=444$ ) and 4th (29.5%) years of study ( $p<0.001$ ). {AUTHOR: PLEASE PROVIDE N VALUE FOR 29.5% IN PREVIOUS SENTENCE} The students were predominantly Protestant (72.9%,  $N=473$ ,  $p<0.001$ ) and their ages ranged between 18 and 39 years, with a mean age of 23 years.

### The ATP-30

The questionnaires were returned by 451 out of the 479 students who received them, giving a return rate of 94.2%. However, only 279 students (58.2%) responded to all the ATP-30 items (a total of 172 questionnaires were returned with incomplete answers). Some comparisons on gender and year of study were made between the entire group and the group of students who completed all the ATP-30 items and no significant differences were found.

The ATP-30 global scores for those students who responded on the sociodemographic variables of gender and year of study were analyzed. Of the 279 students who responded to all the ATP-30 items, the average response rate on gender and year of study was 93.0%. More than 20% (21.9%) of the students reported generally unfavorable attitudes toward psychiatry, 74.9% held favorable attitudes, and 3.2% were undecided. More females than males were undecided ( $p=0.024$ ) and there were significant variations in the attitudes of students in different years of study ( $p<0.001$ ). The medical students in the University of Nairobi, Kenya, are introduced to the behavioral sciences course (their first contact with psychiatry) during their second year of study, and to clinical exposure to psychiatry during the third and fifth years. More than a third of those in their second year of study (and who had already been exposed to psychiatry) reported generally unfavorable attitudes toward psychiatry. Compared to other years of study, a greater percentage of students in their first year of study (who had not yet been exposed to psychiatry) reported favorable attitudes to psychiatry (Table 1).

The responses to item 4 of the ATP-30 ('I would like to be a psychiatrist') were considered particularly important

because they provided a link between overall general attitudes and career choice. The details of the responses to this item are presented in Table 2. Only 14.3% of the students indicated that they would choose psychiatry as a career.

The ATP-30 items were grouped under four themes suggestive of directly and indirectly expressed negative and positive attitudes. These themes and those items which were endorsed by 50% or more of the students who responded are summarized as shown in Table 3. {AUTHOR: REGARDING "50% OR MORE OF STUDENTS" – IS THAT ACROSS ALL YEARS OF STUDY?} The number of questionnaires that were returned with the particular item unanswered is indicated in parentheses. The number of items representing directly and indirectly expressed positive attitudes was more than those indirectly and directly expressing negative attitudes. For the remaining 13 items, there was no majority expression of either positive or negative attitudes.

## Discussion

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This study, the first of its kind in Kenya, has a limitation due to the fact that the entire sample of 479 students did not respond to all the questions and in particular, to all the individual ATP-30 items. The poor response to all the items could be attributed to several factors. First, the students were informed that completing the questionnaires was a voluntary exercise and they were not obliged to respond to any or all of the items. Second, to avoid discussion of the answers among themselves, the students were required to complete the questionnaires either before or immediately after the scheduled lectures. This may have caused them undue pressure in responding to all the items. Third, this was the first time the medical students were being asked for their opinions regarding any specialty, and although they were assured of anonymity, the students may still have felt reluctant to offer their opinions. However, the overall response rate for the ATP-30 was 58.2%, which is slightly higher than the 52% response rate reported for a U.K. study using the same instrument (3). In the Kenyan study, the response rates for the sociodemographic variables were higher than for the ATP-30, perhaps because on the former, the students were being asked for factual data which is easier to respond to.

Since the responses were kept anonymous and participation in the study was voluntary, the response rates reported are acceptable as a true reflection of the students'

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attitudes. The interpretations of these Kenyan results vis-à-vis results from other studies are subject to various caveats. Direct comparisons can only be made if it can be

shown that the students were similar in level of training and timing of exposure to psychiatry. Another consideration to make is whether psychiatry was rated on its own or

**TABLE 1. Global ATP-30 Scores Representing Attitudes toward Psychiatry by Gender and Year of Study (N = 279)**

Variable	n	Unfavourable ATP-30 < 90	Neutral ATP-30 = 90	Favourable ATP-30 > 90	$\chi^2$ (df) p
Gender					
Male	153	22.9	1.9	75.2	5.089 (1) = 0.024
Female	116	21.6	5.2	73.3	
Year of study					
1 <sup>st</sup>	18	11.1	0	88.9	58.331 (4) <0.001
2 <sup>nd</sup>	64	36.0	4.7	59.3	
3 <sup>rd</sup>	46	17.4	6.5	76.1	
4 <sup>th</sup>	87	16.1	2.3	81.6	
5 <sup>th</sup>	33	21.2	3.0	75.8	

**TABLE 2. "I would like to be a psychiatrist" (Item 4 on ATP-30)\***

Rating	Students who completed all ATP-30 items (N = 279)						Total
	Year of study n (%)					Not indicated	
	1	2	3	4	5		
Strongly agree	0	2 (0.7)	2 (0.7)	3 (1.1)	2 (0.7)	0	9 (3.2)
Agree	6 (2.1)	14 (5.0)	3 (1.1)	5 (1.8)	0	3 (1.1)	31 (11.1)
Neutral (no opinion)	6 (2.1)	11 (3.9)	15 (5.4)	8 (2.9)	8 (2.9)	7 (2.5)	55 (19.7)
Disagree	2 (0.7)	15 (5.4)	9 (3.2)	17 (6.1)	5 (1.8)	5 (1.8)	53 (19.0)
Strongly disagree	4 (1.4)	22 (7.9)	17 (6.1)	54 (19.4)	18 (6.5)	16 (5.7)	131 (47.0)

\*Thirty-five students did not complete this item

**TABLE 3. Thematic Grouping of Items Expressing Attitudes toward Psychiatry**

No.	Items for which there was $\geq 50\%$ endorsement	% (Missing)
<b>Negative attitudes directly expressed</b>		
1	Psychiatry makes so little use of medical training	59.2 (26)
7	Psychiatrists seem to talk about nothing but sex	80.3 (39)
8	The practice of psychotherapy is fraudulent since there is no evidence that it is effective	63.1 (33)
19	There is very little that psychiatrists can do for their patients	69.9 (105)
<b>Negative attitudes indirectly expressed</b>		
4	I would like to be a psychiatrist	66.0* (35)
6	On the whole, people taking up psychiatric training are running away from participation in real medicine	63.5 (41)
21	If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded	60.2 (103)
23	These days, psychiatry is the most important part of the curriculum in medical schools	75.6* (109)
<b>Positive attitudes directly expressed</b>		
9	Psychiatric teaching increases our understanding of medical and surgical patients	62.3 (41)
12	Psychiatric illness deserves at least as much attention as physical illness	88.1 (19)
14	With the forms of therapy now at hand most psychiatric patients improve	54.1 (18)
18	It is interesting to try to unravel the cause of a psychiatric illness	76.7 (22)
20	Psychiatric hospitals have a specific contribution to make to the treatment of the mentally ill	80.7 (104)
25	In recent years, psychiatric treatment has become more effective	56.3 (107)
27	Psychiatric patients are just as human as other people	80.6 (104)
28	Practice of psychiatry allows for development of really rewarding relationships	62.0 (110)
<b>Positive attitudes indirectly expressed</b>		
22	At times it is hard to think of psychiatrists as equal to other doctors	57.7* (103)

\* Endorsed a ratings of "disagree" and "strongly disagree"

in relation to other specialties. As a consequence of methodological differences, percentages of positive attitudes obtained in different studies are not useful for comparisons between studies unless it can be shown that they meet the conditions that allow for direct comparisons.

The pattern of dissonance between positive attitude toward psychiatry and the choice of psychiatry as a future career at the time of this study allows some comparisons with other studies, subject to the caveats discussed above. The finding that there was a dissonance between positive attitude to (74.9%) and career choice of (14.3%) psychiatry is similar to that reported from a study in Spain (4)—51.7% and 6% respectively. It should be noted that more students in their first year of study reported generally positive attitudes to psychiatry, and this happened before they had been introduced to psychiatry. However, students in the higher year groups reported less favorable attitudes, and this was after they had been exposed to psychiatry. It would seem that toward the end of their courses, various factors cause medical students to become more disinclined toward psychiatry, hence leading to lower numbers of students choosing psychiatry as a career. Similar patterns of dissonance have been reported in Israel (5), the United States (10) and Pakistan (1).

Some explanations for the Kenya situation and possible intervention can be suggested. It was possible that several intervening factors could have influenced the change from favorable attitudes toward psychiatry during the earlier years of medical school to less favorable attitudes during the latter years. Negative comments from teachers and professionals in other clinical disciplines, the manner in which psychiatry is presented and taught by teachers in psychiatry, the observed “recovery” of psychiatric patients compared with other medical conditions, and the more scientific and objective approaches such as laboratory investigations used with patients suffering from physical conditions compared to the approaches used with patients with psychiatric conditions may all discourage students. Further studies are therefore needed to delineate more precisely the negative intervening factors so as to provide evidence-based interventions to either maintain or increase the proportion of medical students with positive attitudes as they advance toward the final years of their study.

However, the themes presented in Table 3 provide some clues for identifying factors that lead to both negative and positive attitudes. A good starting point would therefore be to work on minimizing the effects of the negative factors and to maximize the effects of the positive ones. The bio-

psychosocial model in the management of both physical and psychiatric disorders would help the students and future specialties to appreciate more clearly the relevance of psychiatry in relation to other medical disciplines.

While it is relatively easier to compare patterns of dissonance between positive attitude and preferred choice across studies, the same does not apply when interstudy comparisons of preferred choice of psychiatry are made. Some comparisons between the results of this study and others were made but these were subject to the caveats discussed. The 14.3% rating of psychiatry as a preferred career choice in the Kenyan students is similar to the rate of 15.9% reported in Australia (6) but higher than 7.2% reported in the United States (10) and 3.0% in the United Kingdom (3). The Kenyan finding is however less than half of the 32.8% rate reported in Israel (5). Nonetheless, a preference for psychiatry as a specialty at the time of study does not necessarily translate into eventual choice of psychiatry as a career. As seen in the Israeli study, even though 32.8% of the students considered residency in psychiatry as a future career, only 6% entered residency in psychiatry (5).

Some general trends found in other countries have been replicated in this study. In view of the complexities of any direct comparisons with findings elsewhere, the real import of this study can only be contextualized to the Kenyan situation. A study in Zimbabwe, an African country comparable to Kenya at the time of the study, reported on only 46 medical students in their next to last year of medical school (11). The students “tended to hold positive attitudes toward psychiatry.” However, no percentages were provided for those with positive attitudes or for those who considered residency in psychiatry to allow comparison with this Kenyan study.

The challenge, which is not unique to Kenya, is how to reduce the dissonance between positive attitude to psychiatry as a specialty, and the actual choice of psychiatry as a career. The fact that the students expressed neutral attitudes on almost half (13 out of 30) of the items of the ATP-30 suggests that, with more appropriate exposure to and advocacy for psychiatry, more students could develop positive attitudes to psychiatry. In addition, the fact that psychiatry was a preferred career choice for 14.3% of the students suggests that psychiatry is a significant option for students. The findings of this study call for further investigation in Kenya on the factors influencing medical students’ attitudes to psychiatry in general, and those factors that determine the eventual choice of psychiatry as a career in particular.

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### References

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1. Niaz U, Hassan S, Hussain H, et al: Attitudes toward psychiatry in pre-clinical and post-clinical clerkships in different medical colleges of Karachi. *Pak J Med Sci* 2003; 19:253–263
2. Strebel B, Obladen M, Lehmann E, et al: Attitudes of medical students towards psychiatry. 'instellungen von Studierenden der Medizin zur Psychiatrie Eine Untersuchung mit einer in das Deutsche übersetzten' *Nervenarzt* 2000; 71:205–212
3. Rajagopal S, Rehill KS, Godfrey E: Psychiatry as a career choice compared with other specialties: a survey of medical students. *Psychiatric Bulletin* 2004; 28:444–446
4. Pailhez G, Bulbena A, Coll J, et al: Attitudes and views on psychiatry: a comparison between Spanish and U. S. medical students. *Acad Psychiatry* 2005; 29:82–91
5. Abramowitz MZ, Bentov-Gofrit D: Attitudes toward psychiatry as a prospective career among students entering medical school. *Acad Psychiatry* 2005; 29:92–95
6. Malhi GS, Parker GB, Parker K, et al: Attitudes toward psychiatry among students entering medical school. *Acta Psychiatr Scand* 2003; 107:424–429
7. Ndeti DM, Ongecha FA, Mutiso V, Kuria M, Khasakhala LI, Kokonya DA: The challenges of human resources in mental health in Kenya. *S Afr Psychiatry Rev* 2007; 10:33–36
8. Burra P, Kalin R, Leichner P, et al: The ATP 30: a scale for measuring medical students' attitudes to psychiatry. *Med Educ* 1982; 16:31–38
9. SPSS Inc. SPSS (11.5) for Windows. Chicago, Ill: SPSS. Available at <http://www.spss.com/spss>
10. Feifel D, Moutier CY, Swerdlow NR: Attitudes toward psychiatry as a prospective career among students entering medical school. *Am J Psychiatry* 1999; 156:1397–1402
11. Rao NR, Meinzer AE, Manley M, et al: International medical students' career choice, attitudes toward psychiatry, and emigration to the United States. *Acad Psychiatry* 1998; 22:117–126