

The Effect of a Clinical Posting in Psychiatry on the Attitudes of Medical Students Towards Psychiatry and Mental Illness in a Malaysian Medical School

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Abstract

Introduction: The stigma attached to mental illness and the mentally ill is a universal phenomenon and a major barrier to the provision of mental health services. Stigmatising attitudes among doctors themselves can result in compromised patient care. The aim of this research project is to study the impact of a clinical posting in psychiatry on the attitudes of medical students to mental illness and to psychiatry. This paper reports the results of the first phase of a longitudinal study. **Materials and Methods:** A total of 122 year 4 medical students responded to this study. The Attitudes Towards Mental Illness (AMI) and Attitudes Towards Psychiatry (ATP) questionnaires were administered before and after an 8-week attachment in psychiatry. **Results:** We found that students had somewhat favourable attitudes towards psychiatry and mental illness at the start of their attachment, with a mean score of 108.34 on ATP (neutral score, 90) and 68.24 on AMI (neutral score, 60). There was a significant increase in the mean scores of both scales following the psychiatric attachment for female students (ATP: $P = 0.003$; AMI: $P < 0.0005$), but not male students (ATP: $P = 0.435$; AMI: $P = 0.283$). **Conclusions:** An 8-week clinical posting of fourth-year medical students in psychiatry was associated with an increase in positive attitudes to mental illness and to psychiatry among female students but not among male students.

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Introduction

Psychiatry as a branch of medicine has seen numerous developments in recent decades. Neurobiological and social science research has improved our understanding of disorders such as major depression and schizophrenia and improved our capacity to provide cost-effective treatment and care. Better understanding and more effective interventions might be expected to improve attitudes, among the general public and among health professionals, to mental illness and to psychiatry.

However, stigma and unfavourable attitudes towards psychiatric patients and mental illness continue to exist among the general population, medical students, and the medical profession at large.^{1,2} In a study on freshman

medical students at 3 medical schools in North America, negative attitudes towards psychiatry were found to exist prior to formal medical training.³ Thus, it was not surprising that a study done among students in a Malaysian medical school revealed a student who, prior to contact with psychiatric patients, quoted "black magic" as the cause of mental illness.⁴

In Malaysia, as in many developing countries, the stigma associated with identification as a psychiatric patient may contribute to the commonly observed preference for help from the "more acceptable" traditional healers, even if it means that the patient is subjected to ineffective and sometimes dangerous treatments.⁵ Seeking help from a mental health professional is often a last resort.

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The unpopularity of psychiatry as a field of specialty has been a source of concern internationally. There have been opinions that the separation of psychiatry from mainstream medicine has contributed to this unpopularity.⁶ Brockington and Mumford⁷ have recommended changes in medical school admission criteria, such as admitting more students with non-scientific entry qualifications, as a means of increasing recruitment into psychiatry.

The aim of this longitudinal study is to examine the impact of a clinical psychiatry posting on the attitudes of fourth-year medical students to mental illness and to psychiatry, and then to re-examine attitudes after the fifth-year psychiatry posting and 3 years after graduation. It is hypothesised that a positive change in attitudes would take place after the posting.

On the basis of a pilot study, we expected that the psychiatry posting would be associated with an increase in positive attitudes. This paper reports the findings from the first phase of the study.

Materials and Methods

This study was approved by the Faculty of Medicine Research Committee, which scrutinised the technical and ethical aspects of the study. Fourth-year medical students, class of 2003/2004 at Hospital Universiti Kebangsaan Malaysia (HUKM), undergoing the compulsory 8-week posting in Psychiatry, were invited to participate.

These students were posted to the psychiatric department of HUKM and had exposure to patients attending the psychiatry clinic and wards. The students were divided into 6 groups, with each group comprising an average of 30 students, rotated through various clinical postings.

Participating students completed 2 questionnaires, the Attitudes Towards Psychiatry (ATP 30) and the Attitudes To Mental Illness (AMI) questionnaires, on the first day and the last day of the psychiatry posting.

- 1) The AMI questionnaire⁸ has 20 items that examines attitudes towards the causes, treatment and consequences of mental illness and its impact on individuals and society. The AMI was constructed by SP Singh using feedback received from students.⁸ The item responses are on a 5-point Likert scale with a higher score suggesting more positive attitudes. A score of 60 represents a neutral score. The scoring on some of the items are reversed to avoid response bias.
- 2) The ATP 30⁹ is a 30-item, Likert-type scale that examines attitudes to 1) psychiatric patients, 2) psychiatric illness, 3) psychiatrists, 4) psychiatric career choice, 5) psychiatric drugs, 6) psychiatric treatment, 7) psychiatric institutions and 8) psychiatric teaching. The questionnaire was constructed and validated by Burra.⁹ Positively phrased items were reversed by

subtracting the score from 6. A total score was calculated by adding all the item scores. A score of 90 represents the neutral point of the scale, with a higher score indicating more positive attitudes towards psychiatry.

Respondents' anonymity was preserved. This cohort of students was told that they would be invited to participate in follow-up surveys at the start and end of their 2-week posting in psychiatry in the fifth (final) year of medical school, and again 3 years after graduation. We assured the students that their participation would have no influence on their academic performance as the data would be handled by research assistants. They were also informed that the analysis would be done after the end of their posting examinations, by one of the authors, MTA, who was not involved in the conduct of the posting. Matriculation numbers, which are maintained throughout their medical student career, were written on the questionnaires to enable linking of pre- and post-rotation scores and follow-up data. The data was securely stored on locked premises in the Department of Psychiatry.

We calculated Cronbach alpha reliability coefficient values to determine the internal consistency of both questionnaires, and obtained satisfactory values for both. The Cronbach alpha coefficient values for the AMI and ATP were 0.6114 and 0.7671, respectively.

Statistical Analysis

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) Version 10 for Windows (Chicago: SPSS, Inc). We used nonparametric methods as the data were not normally distributed.

We used the Wilcoxon matched-pairs signed rank test to show significant changes in the scores. *P* value was set at 0.05. We present here the results of the first phase (pre- and post-attachment in year 4) of the research project.

Results

Demographics

There were 122 (87 female and 35 male) respondents who completed the pre- and post-attachment questionnaires out of a total of 175 (98 female and 77 male) students in the 2003-2004 batch. This gave an overall response rate of 69.7% — 88.8% for females, 45.5% for males.

Overall, we found that students had generally favourable attitudes towards psychiatry and mental illness at the start of their attachment, with mean scores of 68.24 on AMI (neutral score, 60) (Table 1) and 108.34 on ATP (neutral score, 90) (Table 2). Taking all students into consideration, there was a statistically significant increase in the mean scores of both scales following the attachment (ATP: $t = 2.26$, $P = 0.026$; AMI: $t = 4.92$, $P < 0.0005$).

Table 1. Mean Scores for the Attitudes Towards Mental Illness (AMI) Questionnaire Before and After the Psychiatry Attachment

Scale	Group	Mean scores (SD)		Mean difference	P value	95% CI
		Pre-attachment	Post-attachment			
AMI	All students	68.24 (5.69)	70.78 (5.61)	2.54	<0.0005	1.52 to 3.57
	Males	68.39 (4.60)	69.52 (6.49)	1.13	0.283	0.98 to 3.23
	Females	68.20 (6.15)	71.20 (5.26)	3.00	<0.0005	1.79 to 4.21

Table 2. Mean Scores for the Attitudes Towards Psychiatry (ATP) Questionnaire Before and After the Psychiatry Attachment

Scale	Group	Mean scores (SD)		Mean difference	P value	95% CI
		Pre-attachment	Post-attachment			
ATP	All students	108.34 (8.05)	110.39 (10.90)	2.05	0.026	0.26 to 3.85
	Males	108.43 (8.21)	106.94 (12.95)	-1.49	0.435	-5.35 to -2.36
	Females	108.35 (8.09)	111.45 (9.77)	3.09	0.003	1.06 to 5.13

AMI Score

There was a significant difference between the pre- and post-attachment scores for female students ($P < 0.0005$) but not male students ($P = 0.283$).

There was no significant difference between male and female students for pre-attachment ($P = 0.87$) and post-attachment ($P = 0.149$) scores.

We identified statements showing significant change ($P < 0.05$), using the Wilcoxon matched-pairs signed rank test. Table 3 shows the items for which there were significant changes in scores and the level of students' agreement before and after the attachment.

For the sake of clarity, the "strongly agree" response and "agree" responses are combined here as a single "agree" response and the "strongly disagree" and "disagree" combined into a "disagree" response. The students generally thought psychiatric patients to be more likeable than not (Item 1) and were less inclined to think that violence resulted from mental illness (Item 3). They were also less likely to believe that electroconvulsive therapy (ECT) should be banned (Item 9) and that psychiatric drugs do more harm than good (Item 11). The belief that mental illnesses are genetic in origin increased (Item 15).

However, 2 statements on the AMI scale, Items 4 ("Those with a psychiatric history should never be given a job with responsibility") and 17 ("Care in the community for the mentally ill puts society at risk") produced findings contradictory to our expectations.

ATP Score

There was a statistically significant difference between the pre- and post-attachment scores for female students ($P = 0.003$), but not male students ($P = 0.435$).

There was a statistically significant difference between male and female students for post-attachment scores

($P = 0.045$), but there was no significant difference in pre-attachment scores ($P = 0.777$).

After the postings, students showed statistically significantly more positive attitudes in 8 out of 30 items. After 8 weeks, the students were less likely to think that psychiatric hospitals resemble prisons (Item 3). There was an increased interest among students in taking up psychiatry as a career (Item 4). The belief that the majority of their fellow students found their undergraduate training in psychiatry valuable had also increased (Item 10). Most of the students did not exclude psychiatry from their list of the top 3 postings (Item 21). There was also a willingness to consider psychiatry as the most important part of the curriculum in medical schools (Item 23). At the end of their posting, more students agreed that psychiatric treatment had become more effective in recent years (Item 25); there was less agreement that facts in psychiatry are really just vague speculations (Item 26).

Three items showed findings contrary to what had been expected: that psychiatrists seem to talk about nothing but sex (Item 7); that it is interesting to try and unravel the cause of a psychiatric illness (Item 18); and that psychiatric patients are often more interesting to work with than other patients (Item 29).

Discussion

The medical students in this sample had generally favourable attitudes towards psychiatry and mental illness at the commencement of their clinical posting, as reflected by the mean scores for both questionnaires. These positive attitudes could be attributed to the fact that the students were exposed to mental disorders in the integrated problem-based module during their first 2 years in medical school. They also had to undertake a 3-week history-taking and interview technique module in their third year, which included clerking of psychiatric patients. The significant

Table 3. Individual Items from the 2 Scales Showing Significant Change ($P < 0.05$) Following Psychiatric Attachment

No.	Statement	Pre-attachment		Post-attachment		z value	Two-tailed <i>P</i>
		% agree	% disagree	% agree	% disagree		
AMI							
1	Psychiatric patients generally speaking are difficult to like.	30.4	40.1	27.1	59.1	2.475	0.013
3	Violence mostly results from mental illness.	45.9	42.7	32.8	55.8	2.672	0.008
4	Those with a psychiatric history should never be given a job with responsibility.*	10.6	80.4	14.7	74.6	2.276	0.023
9	ECT should be banned.	1.6	66.4	3.2	90.2	4.188	<0.0005
11	Psychiatric drugs do more harm than good.	7.3	68.0	3.3	85.3	3.148	0.002
15	Mental illnesses are genetic in origin.	49.2	26.3	68.9	14.8	3.024	0.002
17	Care in the community for the mentally ill puts society at risk.*	4.9	77.9	14.8	70.5	2.507	0.012
20	Patients with chronic schizophrenia are incapable of looking after themselves.	43.5	23.0	38.0	40.5	2.604	0.009
ATP							
3	Psychiatric hospitals are little more than (not very different from) prisons.	18.0	63.2	13.2	75.2	2.313	0.021
4	I would like to be a psychiatrist.	9.0	38.5	24.0	33.1	3.957	<0.0005
7	Psychiatrists seem to talk about nothing but sex.*	1.6	88.5	4.9	86.8	2.217	0.027
10	The majority of students report that their psychiatric undergraduate training has been valuable.	66.4	0.8	79.4	3.4	2.290	0.022
18	It is interesting to try to unravel (discover) the cause of a psychiatric illness.*	88.5	3.3	79.4	10.0	2.559	0.011
21	If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded.	38.0	30.5	31.4	39.6	2.034	0.042
23	These days, psychiatry is the most important part of the curriculum in medical schools.	48.4	18.0	63.7	9.9	2.879	0.004
25	In recent years psychiatric treatment has become quite effective.	74.4	1.7	87.6	2.5	3.091	0.002
26	Most of the so-called facts in psychiatry are really just vague speculations.	20.6	24.8	14.2	35.0	2.199	0.028
29	Psychiatric patients are often more interesting to work with than other patients.*	16.5	40.5	15.0	49.2	2.402	0.016

* Incongruent with expected findings

increase in positive attitudes towards psychiatry and mental illness in our sample was seen in females only, which contributed to the rise in positive attitudes seen when males and females were analysed together as a group. There was also a statistically significant difference between males and females in their post-attachment ATP scores, which is a finding worthy of further evaluation. We have observed over the past few years that females make up the majority of trainees taking up psychiatry (60% to 70%) in the Masters of Medicine (Psychiatry) programme in HUKM. This implies that female medical students do have more positive and empathetic attitudes towards those with

emotional and mental problems, and therefore more positive attitudes towards psychiatry as a whole. However, this observation may have arisen due to the relatively higher response rate seen among female students, and also the larger female sample size as compared to males.

The significant increase in scores of the AMI Items 1 and 3 over the duration of the posting can be attributed to the direct contact between the students and patients in the psychiatric ward and clinics; while Items 9, 11 and 15 reflect the theoretical content taught throughout the attachment. We are encouraged by the significant increase in healthy attitudes seen in 8 of the 30 items in the ATP. For

example, the willingness to consider psychiatry as a career option and that psychiatry is an important part of the curriculum are key attitudes that bode well for the future of psychiatry in Malaysia. Some items produced responses which implied change of attitudes that were opposite of what we had expected. In the AMI, the pattern of response to items 4 and 17 seem to imply that the students have not been adequately exposed to community psychiatry and rehabilitation during their psychiatric posting.

The strength of this study lies in its prospective design and the fact that we studied the effect of intervention in the form of a clinical posting in psychiatry, on the attitudes of medical students. The high Cronbach alpha reliability coefficient values contribute to the validity for both questionnaires in our sample. We can also infer that the questionnaires have construct validity based on the change in scores following the attachment. We acknowledge several limitations in our study. Firstly, administering the questionnaire on the first and last days of the psychiatry posting may have prompted desirable responses, the students wanting to “please” their lecturers. This may arise due to social desirability bias, which can be addressed in future by using a social desirability scale. Secondly, assessing the students right after the psychiatric posting may not reflect enduring attitudes. As such, our results, particularly the increase in positive attitudes, should be interpreted with caution until further data are obtained from the same cohort in year 5 and 3 years after graduation. Thirdly, the difference in response rates between male and female students means that some conclusions, especially the difference in change in attitudes between the genders, cannot be made with confidence.

Our findings are similar to that done elsewhere,^{10,11} in terms of an increase in positive attitudes towards mental illness and psychiatry, following the psychiatry posting.

We can also take heart of the fact that similar studies have been done on medical students from different cultures, for example that done by Al-Ansari and Alsadadi¹² using the same questionnaire. They found that the attitudes towards psychiatry amongst Arabian Gulf University medical students was also moderately positive (mean ATP score = 105.79; SD = 13.34), and, most interestingly, that females tend to have more positive attitudes than their male counterparts, which is in agreement with our findings.

Other authors have reported findings contradictory to our study. For example, Calvert,¹³ who studied medical students in the first, third and final years of medical school found that although medical students developed slightly more positive attitudes towards psychiatric patients and their illnesses with progression through their curriculum, attitudes towards psychiatry as a field in general became less favourable. On the other hand, a study done on medical

students from India found that the overall attitude towards psychiatry did not differ among students before and after psychiatric education.¹⁴

Similarly, other studies have also failed to find an improvement in attitudes toward the mental health profession and patients.^{15,16}

Some studies that do report a positive change in attitudes have shown this to be transient,^{17,18} and that attitudes have been shown to become more negative after graduation; hence the prospective design of our study, to study the same cohort of students again in their fifth year of medical school, and 3 years after graduation. It has also been found elsewhere that junior doctors tend to lack confidence when dealing with psychiatric patients.¹⁹ We are concerned about this trend and are of the opinion that the litmus test of a clinical clerkship in psychiatry is the persistence of positive attitudes way beyond the years in medical school. The results of the final phase of our study 3 years after the cohort has graduated may help to throw some light on this.

Although we would like to, it is not possible to extrapolate from our study whether the psychiatric training itself, prior experience with the mentally ill, or both, may have contributed to the positive change in attitudes. There has been an association between medical students' prior experience with mental illness in general, either through personal or professional activities, and more positive attitudes towards the mentally ill,²⁰ a factor that we could study in future. Interestingly, comments about psychiatry being “too unscientific” or a “pseudo-science” have been found to exist among first-year Australian medical students,²¹ whereas we obtained generally positive attitudes towards the biological and genetic basis of psychiatry (AMI Items 11 and 15) in our study. This is not surprising as the Australian students were studied in their first year, before any formal exposure to psychiatry, which strengthens our hypothesis that the content taught during the fourth-year attachment does influence medical student attitudes towards psychiatry and mental illness.

We have learnt through this study that it is possible to inculcate healthy attitudes in our medical students through a well-structured clinical clerkship in psychiatry. These healthy attitudes will go a long way in instilling confidence among our future doctors in dealing with patients with mental health problems. The findings from our study are timely, as we are in the process of designing a new medical curriculum in the Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM) that shall commence in June 2005. Significant findings from our study can act as a reference point in further strengthening the syllabus and eliminating existing weaknesses in the present clinical psychiatry curriculum.

Conclusion

In summary, the results of our study reveal a significant increase in positive attitudes towards psychiatry and mental illness among female students, but not among male students. Whether this change in attitudes is transient or persistent will be clearer when the results from the remaining 2 phases of our study are made available. The response pattern of specific items in both questionnaires over the 2 assessment periods allow us to make inferences as to the specific elements in the psychiatry syllabus that may contribute to the changing attitudes. This will enable us to tailor the curriculum to meet the mental health needs of the nation.

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