

Attitudes toward psychiatry among Irish final year medical students

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Summary – This study investigated the attitudes of medical students towards psychiatry, both as a subject on the medical curriculum and as a career choice. Three separate questionnaires previously validated on medical student populations were administered prior to and immediately following an 8-week clinical training programme. The results indicate that the perception of psychiatry was positive prior to clerkship and became even more so on completion of training. On completion of the clerkship, there was a rise in the proportion of students who indicated that they might choose a career in psychiatry. Attitudes toward psychiatry correlated positively with the psychiatry examination results. Those that intended to specialise in psychiatry achieved significantly higher examination scores in the psychiatry examination.

psychiatry / attitudes / medical students / medical education / medical speciality career choice

INTRODUCTION

The attitude of medical students towards psychiatry has direct relevance to patient management at the level of primary care (Eaton and Goldstein, 1977). Those who do not pursue a career in psychiatry are likely to be required to deal with psychiatric problems at some point during their career (Alexander and Eagles, 1986). The attitude of medical undergraduates towards psychiatry is also germane to the later recruitment of prospective psychiatrists (Das and Chandrasena, 1988).

While attitudes towards psychiatry appear to have a multifactorial determination, with the personality of the student (Walton, 1969), and their previous experience in psychiatry (Alexander and Eagles, 1986) being relevant, it remains controversial whether clinical clerkships can influence the attitude of medical students toward psychiatry.

Although several investigators (Wilkinson et al, 1983; Araya et al, 1992) have reported a positive change in attitude to psychiatry after a psychiatric clerkship, others (Kausch, 1969; O'Mahony, 1979) have failed to find any influence of a clerkship upon students attitudes (table I).

Comparisons across studies are hampered by the fact that methodologies, particularly questionnaires, have differed across studies. In an effort to resolve the issue, we measured the impact of the psychiatric clerkship upon Irish medical student attitudes by administering a series of three previously used anonymous attitudinal questionnaires both before and after their 8-week psychiatry clerkship.

SUBJECTS AND METHODS

Over the course of 1994, all final year medical students ($n = 116$) at one of the three medical colleges in Dublin

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Table 1. Studies examining the effect of clerkship on medical student attitudes to psychiatry.

Year	Study	Attitudes
1971	Bakewell et al	Positive
1976	Lau and Orford	Positive
1976	Goldney and Pilowski	Positive*
1979	O'Mahony	No change
1979	Kausch	Negative
1982	Burra et al	Positive
1982	Ghadirian and Engelsman	Positive
1983	Wilkinson et al	Positive
1986	Sivakumar et al	Positive
1992	Araya et al	Positive

* Increased psychological insight.

were asked to anonymously complete three attitudinal questionnaires on the first day of their clerkship prior to receiving any tuition in psychiatry, and again on the last day of their clerkship in psychiatry.

The mandatory 8-week psychiatry clerkship consisted of a one-week introduction to psychiatry during which the students received formal introductory lectures in psychiatry and attended daily patient case-presentations. Following this introductory week, they attended one of five centres for a 5-week clinical attachment during which each student was assigned to a multi-disciplinary clinical team. Under the supervision of the consultant and registrar, the students were involved in the clinical assessment of in-patients, as well as patients who were attending the day hospital, rehabilitation centre and out-patient departments. The students attended clinical team meetings and ward rounds during which they regularly presented case histories and clinical reviews. In addition to 4 hours of formal didactic lectures per week, tutorials in psychiatric history taking, patient interviewing skills, the formulation of differential diagnoses and case management (including psychiatric emergencies) were provided three times a week. Week six was spent attached to a child psychiatric unit where students were assigned to clinical teams. During week seven, the students visited a drug addiction unit, a forensic prison unit and centres for learning disability. Week eight consisted of revision with a tutor. All students underwent an end-of-term written and clinical examination.

Questionnaires

In order to facilitate a comparison with previous findings, we used the following three questionnaires which have been used in several published studies. All of these questionnaires have been validated as measures of the attitudes of medical students to psychiatry and have been previously shown to be sensitive to change. These

questionnaires included: the Attitudes to Psychiatry Scale, the Specific Attitude to Psychiatry Questionnaire, and the Das and Chandrasena Questionnaire.

The attitudes to psychiatry scale (ATP-30)

The attitudes to psychiatry scale (ATP-30) was validated on Canadian medical students and residents training in psychiatry. This is a 30-item questionnaire designed to measure the influence of psychiatric training on the attitudes to psychiatry held by undergraduate medical students (Burra et al, 1982). The ATP uses a 5-point Likert-type scale: 1; strongly agree, 2; agree, 3; neutral opinion, 4; disagree, and 5; strongly disagree. A total attitudinal score was computed for each respondent.

The specific attitude to psychiatry questionnaire (SATP)

The specific attitude to psychiatry questionnaire (SATP, Wilkinson et al, 1983) is a well validated questionnaire and has previously been used in research of the attitudes of both British and Chilean medical undergraduates to psychiatry. It contains 18 individual items relating to psychiatrists, psychiatry, and psychiatric treatment. Nine of the 18 items express positive views and nine express negative views. Attitudes are measured on a 4-point scale from 1 (strongly agree) to 4 (strongly disagree). There is no 'mixed feelings' category. Whilst there are no formal instructions from the authors regarding the calculation of a total score, it is possible to compute this using a method similar to that for the ATP-30.

The DAS and Chandrasena questionnaire

The Das and Chandrasena (1988) questionnaire contains 26 items and was validated on Canadian medical students. It is an extended version of the questionnaire developed by Nielsen and Eaton (1981). Response is on a 5-point Likert-type scale as for the ATP. It is not possible to calculate a total score using this questionnaire.

Completion of all three questionnaires took approximately 30 minutes. At the end of the clerkship the students were asked to indicate their interest in psychiatry as a career and were encouraged to use a free text section on the questionnaire to describe their own subjective opinion of psychiatry. Data relating to gender, age and marital status were also compiled.

Data were analysed using the Statistical Package for the Social Sciences (SPSS). Paired *t*-tests were used in the analyses of pre- and post-clerkship mean total scores. McNemar tests for paired observations were used in the analyses of student responses to questionnaire items pre- and post-clerkship and conventional *t*-tests to examine group differences. Pearson's correlation coefficient was used to examine correlations between continuous variables.

RESULTS

A total of 110 (51 males, 59 females) students participated (95%). Their mean age was 23.4 years (range 21-28, SD = 7.3) and the majority ($N = 105$) were single. The pre-clerkship mean score on the ATP-30 (logical neutral point: 90) was 98.4 (SD = 3.5) and this rose significantly ($t = -22.13$, $P < 0.001$) to 107.3 (SD = 2.3) post-clerkship. This change was significant for both males and females (table II). Post-clerkship, students were more likely (McNemar test, $P < 0.002$) to believe that "Psychiatry increases our understanding of medical and surgical patients" and less likely (McNemar test, $P = 0.03$) to believe that "Psychiatry has very little scientific information to go on". Finally, there was a trend (McNemar test, $P = 0.06$) toward students being less inclined to believe that "Psychiatry is so amorphous that it cannot really be taught effectively".

The SATP questionnaire has a neutral score of 45. The pre-clerkship mean SATP score of 49.5 (SD = 3.3) increased significantly ($t = -11.44$, $P < 0.001$) to 53.9 (SD = 1.4) at the end of the clerkship. This increase was significant for both male and female students (table II). The questionnaire is rated on a 4-point scale, but for the purpose of analyses of individual items these were collapsed into a dichotomous variable: agree (strongly agree, agree), and disagree (disagree, strongly disagree). Statistically significant changes occurred in three of the 18 items, item 13: "Psychiatrists are more concerned than other doctors to establish rapport with their patients", before the clerkship 58% of all students ($N = 57$) agreed with this statement and this rose to 85% ($N = 84$) post-clerkship (McNemar test, $P \leq 0.001$). Item 15: "Psychiatric skills are essential in general practice", prior to clerkship 57% ($N = 63$) of the students agreed with this whereas, 95% ($N = 104$) agreed with this statement after clerkship (McNemar test, $P < 0.001$). Before clerkship, 30% ($N = 33$) of students agreed with item 14: "Too little time is devoted to psychiatry in the medical curriculum" compared with 46% ($N = 48$) who agreed post-clerkship (McNemar test, $P = 0.03$). Additionally, there was a trend (McNemar test, $P = 0.07$) on item 10 for students to be less likely to believe post-clerkship that "Within medicine, psychiatry is one of the less important specialities" (16% vs 8%).

On the Das and Chandrasena questionnaire, post-clerkship, significantly more students (McNemar test, $P \leq 0.001$) expressed the view that psychiatrists should, where necessary, continue to have the legal power to treat patients against their will; the percentage of students who agreed with

Table II. Pre- and post-clerkship mean total scores for the ATP-30 and SATP questionnaires.

	Pre-clerkship Mean (SD)	Post-clerkship Mean (SD)	t-value	P ^a
<i>ATP-30 questionnaire</i>				
Total ($n = 98$)	98.4 (3.5)	107.3 (2.3)	-22.13	< 0.001
Males ($n = 45$)	99.0 (3.4)	107.1 (2.5)	-17.12	< 0.001
Females ($n = 53$)	97.9 (3.6)	107.1 (2.5)	-14.42	< 0.001
<i>SATP questionnaire</i>				
Total ($n = 105$)	49.5 (3.3)	53.9 (1.4)	-11.44	< 0.001
Males ($n = 49$)	49.4 (1.7)	54.0 (1.6)	-17.16	< 0.001
Females ($n = 56$)	49.7 (4.2)	53.8 (1.4)	-6.06	< 0.001

^a paired *t*-test (two-tailed).

this statement rose from 3.6% ($N = 4$) to 40% ($N = 42$) post-clerkship.

In the free text section which was provided to enable students express their spontaneous opinions, 37 students (34%) expressed negative or critical attitudes towards psychiatry. Examples of these negative attitudes included statements that psychiatry was a 'vague' or 'non-scientific' area of medicine, that it was 'too emotionally consuming' and 'depressing' and that it was associated with 'low job satisfaction' because 'patients were too demanding' or because the students believed that positive results from psychiatric treatment were 'unlikely to occur' or 'take too long to develop'. When compared to the remainder of the group, those students who expressed negative or critical opinions were found to have a significantly lower score on the pre-clerkship ATP-30 ($t = -2.01$, $P = 0.05$) but were no different in the pre-clerkship SATP score ($t = -0.95$, $P = 0.35$). Those students who spontaneously expressed negative attitudes were found to have significantly lower scores on both the post-clerkship ATP-30 ($t = -2.05$, $P = 0.04$) and SATP ($t = -2.25$, $P = 0.03$) when compared to the remaining students. In addition, there was a trend for these students to have poorer psychiatry examination results ($t = -1.76$, $P = 0.08$). When the group who expressed negative or critical opinions about psychiatry were analysed separately, their attitudes to psychiatry did improve over the course of the clerkship. Their mean score on the ATP-30 rose from 97.4 (SD = 2.9) pre-clerkship to 106.6 (SD = 2.6) post-clerkship ($t = -14.38$, $P < 0.001$). Similarly, the pre-clerkship mean score on the SATP rose from

49.1 (SD = 3.1) to 53.4 (SD = 1.4) post-clerkship ($t = -6.93, P < 0.001$).

In response to the question: "Have you ever considered taking up psychiatry?", prior to the clerkship 45% ($N = 49$) indicated that they had, compared to 57% ($N = 62$) post-clerkship (McNemar test, $P < 0.05$). However, those students who indicated that they had considered a career in psychiatry did not differ significantly in terms of their post-clerkship ATP-30 ($t = 0.96, P = 0.34$) and SATP ($t = 0.63, P = 0.53$) questionnaires when compared to those who stated they had not considered this as a career option. When the students' career choices were analysed by gender, there was a trend (McNemar test, $P = 0.06$) for more males than females to report that they had considered pursuing a career in psychiatry.

All of the students passed the final medical examination in psychiatry. The mean result in the class was 60.2% (range 49-76, SD = 7.6). Those students who at the end of their clerkship stated that they had considered a career in psychiatry scored significantly ($P < 0.05$) better 61.4% (SD = 7.4) vs 58.3% (SD = 8.0), in their psychiatry examination than those who did not intend to pursue a career in psychiatry.

Although there was a correlation ($r = 0.49, P < 0.001$) between the pre-clerkship scores on the ATP-30 and SATP questionnaires, this was stronger ($r = 0.82, P < 0.001$) between the post-clerkship scores on the ATP-30 and SATP questionnaires. There were no statistically significant relationship between pre-clerkship ATP-30 scores and subsequent psychiatry examination results. However, the pre-clerkship SATP questionnaire results correlated ($r = 0.35, P < 0.001$) positively with subsequent examination results. Both the post-clerkship ATP-30 and the SATP questionnaire scores correlated strongly ($r = 0.92, P < 0.001$ and $r = 0.82, P < 0.001$ respectively) with examination results.

DISCUSSION AND CONCLUSION

These data indicate that Irish medical students have a positive attitude to psychiatry even prior to the start of their clinical training in psychiatry, as evidenced by both the ATP-30 and the SATP questionnaires. Additionally, it confirms the findings of previous studies (Wilkinson, 1983; Araya et al, 1992) which indicate that a positive attitudinal change toward psychiatry can be brought about by the clerkship.

However, a particular methodological issue must be addressed: studies, especially those conducted by psychiatrists involved in their training, examin-

ing attitudes of medical students prior to their clerkship may induce an 'expected' group response. Despite assurances of anonymity, students may not necessarily believe this to be the case, and so adjust their responses accordingly. The post-clerkship responses may also induce an 'expected' response. We took several measures to reduce bias from fear of revealing negative attitudes, and to diminish any tendencies to give a socially favourable response: firstly, participation was optional; secondly, students were assured that their responses would not interfere with their final medical examination and thirdly, that the data would not be analysed prior to completion of their undergraduate medical training. Furthermore, we allowed a free text response to allow students express their opinion of psychiatry after their clerkship experience and to outline the reasons why they would or would not like to pursue a career in psychiatry. The responses in this free text were sufficiently disparate to assure us that the students were expressing their genuine opinions.

Both the ATP-30 and the SATP questionnaires appear equally useful instruments for determining medical student attitudes to psychiatry as indicated by our finding that those students who availed of the free text option to express negative or critical opinions of psychiatry had significantly lower scores on these questionnaires post-clerkship compared to the remainder of the students. In addition, it appears that students' attitudes to psychiatry influence how well they perform in the final year psychiatry examination. There was a trend for students who expressed subjective opinions that were critical of psychiatry to have poorer examination results. Furthermore, both the post-clerkship ATP-30 and SATP scores were significantly correlated with examination results for the entire group. However, only the SATP applied before the clerkship began, correlated with future exam results, albeit more weakly than the same instrument applied post-clerkship.

We found that for the entire group the post-clerkship ATP-30 and SATP scores were significantly improved when compared to the pre-clerkship scores. This supports previous findings (Burra et al, 1982; Wilkinson et al, 1983) that medical students are positively influenced toward psychiatry by undergoing a patient-orientated clerkship. While one-third of students expressed spontaneous opinions which were negative about psychiatry, these individuals were significantly more positive in their attitude to psychiatry after completing their clerkship compared to before it. Interestingly, of all three questionnaires it was a question from the Das and Chandrasena Questionnaire that revealed the

greatest attitudinal shift: before commencing psychiatry clerkship only 3.6% of the medical students believed that psychiatrists should have the legal power to treat a patient without their consent. After 8 weeks training in psychiatry the proportion who agreed with this statement rose to 40%. Despite this, 60% of medical students who completed training still did not believe that patients with a psychiatric illness should be treated without their consent.

After completing the clerkship, we found a significant rise in the proportion of students who stated that they had considered specialising in psychiatry. There was a trend for more males than females to report that they had considered it as a career option. While there have been other reports (Shelley and Webb, 1986; Araya et al, 1992) of an increase in the number of females choosing a career in psychiatry, our data would suggest that it is not because of a more positive attitude toward psychiatry, because post-clerkship females did not differ from males in terms of attitudes to psychiatry. In addition, those students who stated that they had considered a career in psychiatry did not differ from those who had not considered it as a career option, in terms of their post-clerkship attitude to psychiatry, as reflected by the ATP-30 and SATP scores. Not surprisingly, those students who did intend to specialise in psychiatry scored significantly better in their examination results.

While these data demonstrate a shift in medical students immediately after clerkship, such changes may not be permanent. The transient nature of attitudinal changes has been well described (Wilkinson et al, 1983; Shelley and Webb, 1986; Araya et al, 1992). Perhaps stated career intention may also be transient, in that career intention in the final medical year may not necessarily translate into an actual career choice post-internship. It may be that students are attracted to pursue a career in the clerkship they have just completed. Some support for this hypothesis comes from examining students stated career choice prior to the commencement of psychiatry. In this study the preceding clerkship was obstetrics and gynaecology. At completion of that clerkship, more than twice as many students wished to pursue a career in obstetrics and gynaecology than any other speciality. However, by completion of the clerkship in psychiatry, there was more than a fifty per cent drop in the number of medical students who stated that they wished to pursue their previously stated career intention of obstetrics and gynaecology. Interestingly, these were not students who subsequently stated an intention to pursue psychiatry as a career.

Walton (1969) suggests that students psychiatric

career attitudes are already well formed before exposure to clinical psychiatry and are in fact relatively uninfluenced by the teaching provided. Our findings that after completing the clerkship, there was a positive attitudinal change and an increase in number of students stating that they had considered a career in psychiatry appear to contradict this theory. However, our findings in relation to the dramatic fall-off in career intention among those who had just completed their undergraduate training in obstetrics and gynaecology by 8 weeks, cast some doubt over the validity of cross-sectionally evaluating career intention during the clinical training years. To date, a definitive link between the attitudes of medical students towards psychiatry and their career path rather than pre-graduation intention has not been demonstrated (Shelley and Webb, 1986). To adequately elucidate these relationships, a prospective follow up of medical students before and after clerkship, after qualification and on completion of internship is indicated.

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