Impact of differences in psychiatry curriculum of undergraduate medical and physiotherapy students on their attitude towards psychiatry

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ABSTRACT

Background: Negative attitude toward psychiatry (ATP) among medical students is a serious concern. Some studies have concluded that after training in the subject, attitude changes toward positive side. Currently in India, medical students have a less intense course without separate exam or binding to attend training whereas physiotherapy students have more intense course with separate subject exam and binding to attend training in psychiatry.

Objective: To ascerten and compare the positive and negative ATP in final year MBBS students and final year physiotherapy (BPT) students who have completed psychiatry curriculum.

Methods: This is a cross-sectional study with semi-structured pro forma for sociodemographic variables and ATP-30 questionnaire to evaluate ATP of 94 medical and physiotherapy students each. Nonparametric methods were used for statistical analysis with appropriate tests of significance and P value was set at 0.05.

Results: Mean ATP-30 score for medical students was 91.9 (standard deviation [SD] =7.0) and that of physiotherapy students was 105.8 (SD = 9.7), this difference in two groups was highly significant (Kruskal–Wallis H = 81.3, df = 1, P < 0.001). Of all medical students, 36 (41.4%) had negative attitude while only 2 (2.1%) of the physiotherapy students had negative ATP (χ² = 41.7, P < 0.001). Boys were 2.6 times more likely to have negative ATP than girls (relative risk = 2.6, P = 0.005).

Conclusions: Physiotherapy students with intense and planned training in psychiatry as an exam subject have significantly more positive ATP than medical students.

Key words: Attendance, attitude, psychiatry curriculum, under-graduate students

INTRODUCTION

Psychiatry is an important discipline in medicine. However, studies have shown that there is a strong negative attitude among both fresh entrants to medical school as well as students who have completed their medical training.¹,² Indian students have rated psychiatry significantly lower in regards to financially rewarding, enjoyment, work satisfaction, intellectual challenge, scientific basis, future prospects, etc.³ Attitude changes as new knowledge is acquired. A study has shown that as medical students undergo training in psychiatry, their attitude toward it becomes less negative.⁴ However, this varies according to the intensity of training and exposure to psychiatry wards and procedures.⁵ Paramedical students, especially nursing students are reported to have a significant negative attitude toward psychiatry (ATP) and mental...
illness, which gradually improved in successive years of training in psychiatry.[6,7]

In India, MBBS students have psychiatry as a part of internal medicine. There are only 22 theory lectures (each of 1 h) and 15 days clinical postings. Psychology is not included in their curriculum and there is no separate exam in psychiatry. A study by Rajagopalan and Kiruvilla has found that this little exposure of MBBS students does not have much impact on their ATP.[8] On the other hand, physiotherapy (BTh) students have more intense training of full 1-year psychiatry and psychology as a separate subject along with clinical postings and separate exam paper for psychiatry. The present study was done to explore the difference in the attitude of students of these two different courses having significantly different training programs in psychiatry.

Aims and objectives
To ascertain and compare the positive and negative ATP in final year MBBS students and final year physiotherapy (BTh) students who have completed their respective psychiatry curriculum.

MATERIALS AND METHODS

The study was conducted in March 2015 at MGM’s Medical College and Hospital, Aurangabad, Maharashtra, with intake capacity of 100 MBBS students. There is an institute of physiotherapy in the same campus with intake capacity of 90 BTh students. Prior approval from institute’s Ethics Committee was sought.

Study design
This was a cross-sectional study.

Sample size
We planned to approach all the final year undergraduate medical students and equal number of final year physiotherapy students for participation in the study. Hence, our target sample was of 100 final year MBBS and 100 final year BTh students (we also recruited those students who had failed in final year exam and are in odd batch, repeating the course), who have completed their respective psychiatry curriculum. Out of these, we could recruit only 94 medical and 94 physiotherapy students on three different visits to their class rooms due to absenteeism of remaining (both regular and odd batches).

Psychiatry training
For both the groups, same teachers in the psychiatry department of a Medical College in Aurangabad impart theory and clinical training as per schedule by the university. MBBS students had undergone 30 h of theory teaching in medical psychology in 1st year BTh and 32 h of theory teaching in psychiatry in 2nd year BTh along with 15 days (3 h each) of clinical posting in psychiatry ward. Another important difference in two courses is physiotherapy students have to pass exam in psychology in 1st year and psychiatry in 2nd year whereas medical students do not have psychiatry as a separate exam subject and even with internal medicine exam, only a short note is asked which is optional to solve. Medical students’ attendance of psychiatry theory and clinics is clubbed with medicine and allied subjects for fulfilling minimum attendance criteria for appearance in examination, while for physiotherapy students, being a separate subject minimum attendance criteria applies exclusively to psychiatry and hence there is higher likelihood of them attending training in psychiatry.

Assessment
We visited classrooms of these students in between two lectures with prior permission from concerned teachers taking lectures. Written informed consent was taken from each participant with promise of keeping their personal details anonymous. All the participants were provided with the predesigned and pretested questionnaire to record sociodemographic variables. ATP-30 questionnaire was used to assess their attitude. It is a 30-item questionnaire covering the following eight dimensions of ATP: (1) Psychiatric patients, (2) psychiatric illness, (3) psychiatrists, (4) psychiatric knowledge, (5) psychiatry as a career choice, (6) psychiatric treatment, (7) psychiatric institutions and (8) psychiatric teaching. The questionnaire has a combination of both positively and negatively phrased statements with scoring in the Likert format of 5 options ranging from 1 - strongly agree to 5 - strongly disagree. Positively phrased items (numbers 4, 5, 9–12, 14, 15, 18, 20, 23, 25, and 27–29) are reversed by subtracting the score from 6. Total score is calculated by sum of all the responses. It has a maximum score of 150. Based on prior surveys in medical students, ATP-30 total score of 90 is considered as neutral, score of <90 suggests negative attitude, and score above 90 shows positive ATP. This questionnaire has high face, concurrent, and construct validity with split-half reliability comparable to most of the attitudinal scales.[10]

Statistical analysis
Nonparametric methods were used for statistical analysis as data were not normally distributed. For class variables, Chi-square test or Fisher’s two-tailed exact test was used. For continuous variables, descriptive statistics (mean, percentages) was calculated to analyze the characteristics of participants. Mann–Whitney/Wilcoxon two-sample test (Kruskal–Wallis test for two groups) was used to assess differences between two groups. Kruskal–Wallis H (equivalent to Chi-square) was calculated and P value was set at 0.05.
RESULTS

Mean age of medical (MBBS) students was 21.9 (standard deviation [SD] =0.7) years whereas that of physiotherapy students was 20.6 (SD = 0.8) years. In medical students sample, 52 (55.4%) were males and 42 (44.6%) were females whereas that for physiotherapy, 11 (11.7%) were males and 83 (88.3%) were females. This sex difference in two groups was highly significant \( (P < 0.001) \). This was due to more female students pursuing physiotherapy course than males. Mean ATP-30 score for medical students was 91.9 (SD = 7.0) and that of physiotherapy students was 105.8 (SD = 9.7); this difference in two groups was highly significant (Kruskal–Wallis \( H = 81.3, df = 1, P < 0.001 \)).

Based on a neutral score of 90, students were grouped into those with total score <90 (negative ATP) and those with total score more than 90 (positive ATP). Of all medical students, 36 (41.4%) had negative attitude while only 2 (2.1%) of the physiotherapy students had negative ATP \( (\chi^2 = 41.7, P < 0.001) \). Boys were 2.6 times more likely to have negative ATP than girls \( (\text{relative risk} = 2.6, P = 0.005) \). Difference in the attitude of medical and physiotherapy students remains highly significant even when weighed for gender \( (\chi^2 = 86.3, P < 0.001) \). There were significant differences in the attitude of two groups across the eight domains that ATP-30 covers [Table 1].

In general, physiotherapy group had higher scores (indicating positive attitude) on statements in each domains except on those related to psychiatric treatments where they had lower scores than medical group on a statement “psychiatric treatment causes patients to worry too much about their symptoms.” On a domain of “psychiatry as career choice,” both groups had lower scores indicating negative attitude for psychiatry as the career option. We cross-checked the attendance of both groups for theory and clinical postings and found that majority of the medical students had attendance between 30 and 50% with very few above 80%, while most of the physiotherapy students had fulfilled required attendance criteria of 75% and 80% for theory and practical and had

### Table 1: Mean scores of statements in ATP-30 questionnaire for final year MBBS and final year physiotherapy students

| Attitude domains          | Statements*                                                                 | MBBS  | BPT h | Kruskal–Wallis H | \( P \) |
|---------------------------|------------------------------------------------------------------------------|-------|-------|------------------|-------|
| Psychiatric patients      | If we listen to them, psychiatric patients are just as human as other people | 3.4   | 3.3   | 0.94             | 0.3   |
|                           | Psychiatric patients are often more interesting to work with than other patients | 3.0   | 3.6   | 10.5             | 0.001 |
| Psychiatric illness       | Psychiatric illness deserves at least as much attention as physical illness   | 3.4   | 4.3   | 39.4             | <0.001|
|                           | It is interesting to try to unravel the cause of a psychiatric illness       | 3.4   | 3.2   | 3.30             | 0.06  |
| Psychiatrists             | Psychiatrists talk a lot, but do very little                                | 3.5   | 4.3   | 19.04            | <0.001|
|                           | Psychiatrists seem to talk about nothing but sex                            | 3.0   | 4.2   | 47.48            | <0.001|
|                           | Psychiatrists tend to be at least as stable as the average doctor           | 2.9   | 2.8   | 0.14             | 0.7   |
|                           | Psychiatrists get less satisfaction from their work than other specialists   | 2.8   | 3.0   | 1.19             | 0.2   |
|                           | There is very little that psychiatrists can do for their patients            | 3.0   | 4.2   | 48.06            | <0.001|
|                           | At times, it is hard to think of psychiatrists as equal to other doctors     | 3.0   | 3.4   | 7.97             | 0.004 |
| Psychiatric knowledge     | Psychiatry is a respected branch of medicine                                | 3.5   | 4.0   | 15.7             | <0.001|
|                           | Psychiatry has very little scientific information to go on                  | 2.6   | 3.8   | 45.17            | <0.001|
|                           | Psychiatry is so unscientific that even psychiatrists cannot agree as to what its basic applied sciences are | 2.9   | 3.6   | 21.8             | <0.001|
|                           | Most of the so-called facts in psychiatry are really just vague speculations | 2.9   | 3.4   | 13.08            | <0.001|
|                           | It is quite easy for me to accept the efficacy of psychotherapy             | 2.3   | 3.0   | 15.5             | <0.001|
|                           | The practice of psychotherapy basically is fraudulent since there is no strong evidence that it is effective | 3.5   | 4.1   | 18.17            | <0.001|
|                           | With the forms of therapy now at hand, most psychiatric patients improve   | 3.3   | 3.4   | 1.49             | 0.2   |
|                           | Psychiatric treatment causes patients to worry too much about their symptoms | 2.8   | 2.2   | 12.2             | <0.001|
|                           | In recent years, psychiatric treatment has become quite effective            | 3.9   | 3.5   | 2.1              | 0.1   |
| Psychiatry as a career choice | Psychiatry is unappealing because it makes so little use of medical training | 3.4   | 3.9   | 9.7              | 0.001 |
|                           | I would like to be a psychiatrist                                           | 2.2   | 2.3   | 0.14             | 0.7   |
|                           | If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded | 2.8   | 2.8   | 0.05             | 0.8   |
|                           | The practice of psychiatry allows the development of really rewarding relationships with people | 3.2   | 3.4   | 2.59             | 0.1   |
|                           | On the whole, people taking up psychiatric training are running away from participation in real medicine | 2.7   | 3.4   | 11.4             | <0.001|
| Psychiatric institutions  | Psychiatric hospitals are little more than prisons                          | 2.6   | 2.9   | 3.8              | 0.05  |
|                           | Psychiatric hospitals have a specific contribution to make to the treatment of the mentally ill | 2.9   | 4.05  | 41.40            | <0.001|
| Psychiatry teaching       | The majority of students report that their psychiatric undergraduate training has been valuable | 3.1   | 3.5   | 4.5              | 0.03  |
|                           | These days psychiatry is the most important part of the curriculum in medical schools | 3.07  | 3.8   | 21.9             | <0.001|
|                           | Psychiatry is so amorphous that it cannot really be taught effectively      | 3.2   | 3.3   | 0.67             | 0.4   |
|                           | Psychiatric teaching increases our understanding of medical and surgical patients | 2.9   | 3.8   | 23.75            | <0.001|

*Scores for positively framed items are reversed by subtracting the score from 6. Thus, higher the score, more positive is the attitude
got their attendance signed by the Head of the Psychiatry Department, which was sent to the university before exams.

DISCUSSION

The present study highlights the impact of different factors in the curriculum on ATP. Amount of training, designation as a separate subject for exam, and need to meet minimum attendance criteria are few factors that differed among the two study groups. Negative attitude for psychiatry has been reported among both fresh entrants as well as those who have completed their medical curriculum. Earlier studies have shown that attitude improves with training in the subject. In the present curriculum, medical students’ attendance in psychiatry training is affected by the fact that psychiatry does not have a separate subject exam, and there is no minimum attendance criteria specific for psychiatry. This has been reported to be an important hindrance in developing positive attitude toward mental illness as well as psychiatry. It has been reported that only 5% of the medical students have attended 50% or more of their allotted psychiatry training. The same study also found that this negative attitude does not change much even after completion of posting in the psychiatry department during internship. Mental health needs of society in our country cannot be met solely by specialists in the field. General practitioners and other specialists should have basic knowledge of psychiatry and psychiatric illnesses so that their attitude toward mental illness and mental health improves. Our doctors of future if harbor such negative ATP even after completion of their training, they may not be able to do justice to the mentally ill in society in general and patients in their own specialty in particular, as psychological factors play an important role in physical disorders. Negative attitude for psychiatry as a career choice and toward scientific basis of psychiatry are also important findings replicated from previous studies. Even those students with career interest in psychiatry were concerned about low career and social rewards in psychiatry. Manohari et al. had reviewed the current status of psychiatric undergraduate training in India and suggested important changes in teaching methodology and assessment process. Incorporation of these in training of medical students may improve their interest in subject to some extent. Findings of the present study are good argument for positive impact of more detailed psychiatry curriculum with status as an exam subject for the undergraduate medical students which is a long-standing demand of the Indian Psychiatric Society. It is interesting to see that medical humanities, medical ethic, and other subjects are being considered to be incorporated in medical curriculum, but not yet psychiatry. Physiotherapy students, who hardly will be involved in direct mental health care, have psychiatry as a separate exam subject (since 2014–2015, psychiatry and psychology have been clubbed as one exam subject), then why not medical students will be an integral part of mental health care delivery in country?

CONCLUSIONS

Our study highlights the importance of differences in training on attitude of students toward psychiatry. A well-planned psychiatry curriculum with separate exam in the subject definitely plays a role in developing positive attitude toward psychiatry.

Limitations

Small sample size, involvement of single center, and cross-sectional study design are the obvious limitations of the present study. Attitude is shaped by many variables such as sociocultural factors and upbringing, which have not been assessed in the present study. We tried to minimize informant bias by keeping pro forma anonymous and by using ATP-30 which has a mix of positive and negatively framed questions.

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Conflicts of interest

There are no conflicts of interest.

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