

LEARNING/TEACHING

Attitude of Arabian Gulf University Medical Students towards Psychiatry

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ABSTRACT Introduction: *The attitude of medical students towards psychiatry has been studied extensively in the developed world. The inability to attract medical students to specialize in psychiatry has always been a serious challenge to psychiatric recruitment.*

Objective: *This study evaluates the attitude of medical students towards psychiatry and identifies associated factors.*

Methods: *Medical students from years 1, 4 and 7 at the College of Medicine and Medical Sciences (CMMS), Arabian Gulf University (AGU), constituted the study sample. One hundred and twenty two (87.1%) medical students completed the Attitude Towards Psychiatry–30 (ATP-30) scale and the study questionnaire.*

Results: *The attitude towards psychiatry was moderately positive (mean ATP score = 105.79, SD = 13.34). Twenty two (15.7%) students selected psychiatry as one of the top three career choices. Fifty five (72.3%) of the pre-clinical students agreed that teaching at the college is good or acceptable, compared to 11 students (44%) from the clinical phase. Female, younger and junior students had more positive attitudes than male, older and senior students. Factors such as exposure to material related to psychiatry, having a close relation with psychiatric illness and having a romantic relationship with a psychiatric patient were significantly related to the ATP score.*

Conclusion: *The results of the study did not support the hypothesis that the greater the exposure to psychiatry, the higher the ATP. Possible explanations for the low attraction of graduates to psychiatry in spite of the initial high ATP and ways to overcome this problem are discussed.*

Introduction

Attracting medical students to specialize in psychiatry has been identified as a problem worldwide (Abdul-Rahim & El-Assra, 1989; Sierles & Taylor, 1995).

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Several explanations have been suggested, one of which is related to the attitude or interest of medical students to psychiatry (Pan *et al.*, 1990; Wilkinson *et al.*, 1983; Yager *et al.*, 1982). Attitude was defined by Rezler as “an emotionally linked, learnt belief around an object or situation predisposing one to respond in some preferential manner” (Rezler, 1976). Attitudes towards psychiatry (ATP) have been studied extensively in developed and developing countries (Abdul-Rahim & El-Assra, 1989; Bapitsa *et al.*, 1993; Pan *et al.*, 1990). Factors associated with ATP were varied, which could be partially explained by the fact that researchers used different instruments in measuring attitude. (Burra *et al.*, 1982; Wilkinson *et al.*, 1983). Furthermore, the attitude of medical students is influenced by many factors that operate before and during enrolment in medical school (Zimny & Sata, 1986), such as the role of education providers (Creed & Goldberg, 1981; Galletly *et al.*, 1995; Sierles, 1982; Zimny & Sata, 1986).

Studies from the Middle East region that aimed to measure medical students' ATP failed to show any significant improvement in their attitude following their exposure to psychiatry during clerkship (Abdul-Rahim & El-Assra, 1989; Guttman, 1996).

This study aimed to determine the level of ATP of medical students at the College of Medicine and Medical Sciences (CMMS), Arabian Gulf University (AGU), Bahrain and to examine the factors associated to the academic experience of students during medical school and other personal factors. These personal factors included age, sex, nationality, interest in psychiatry as a career, having a close relationship with a person with mental illness or alcohol/drug problem or mental health professionals, and association with clubs or public societies with ties to psychiatry. Factors related to the students' academic experience included visiting psychiatric institutions, exposure to clinical and didactic teaching at different class levels. We would like to test the hypothesis that the greater the exposure to psychiatric teaching, the higher the ATP.

The curriculum at the CMMS, at the time of the study, was composed of three phases, premedical (18 months), pre-clinical (3 years) and clinical (2 years). The premedical phase consisted of pure and applied sciences tailored to meet the requirements of the medical phase. The pre-clinical phase included community medicine and learning through small group tutorial sessions. The clinical phase was composed of rotations in all major disciplines of medicine and surgery. Medical students at the CMMS are exposed to psychiatry in the second half of the first year by attending a course of introduction to psychology. Later, in the second, third and fourth year they learn more about the interplay between physical and psychological components of illnesses through problem based tutorials. The psychiatry block deals mainly with the following problems: schizophrenia, depression, drug dependency and organic brain disorder. In the clerkship, students spend 4 weeks of training in psychiatry at the university teaching

hospital. The process of admission of students to the CMMS and psychiatry teaching in the pre-clerkship and clerkship have not changed significantly over the years.

Methods

The design used in this study is a cross sectional study design. The study sample consisted of all students in year 1 (69), year 4 (57) and year 7 (44) enrolled in the CMMS, AGU during the 1996–1997 academic year. The first and fourth year students completed the questionnaire and the ATP scale during a group college activity while year 7 students completed the questionnaire within one week during their clerkship. The questionnaire included information on basic demographic data, career preference, evaluation of psychiatry teaching in the college and in the hospital and factors that might affect career choice such as having a friend or a relative with mental illness or working in mental health services.

At the time of the study students in year 1 had not yet received any psychiatric teaching, while year 4 students received theoretical teaching in psychiatry and year 7 students both theoretical and clinical.

The ATP is a 5-point Likert-type scale designed and validated in Canada by Burra *et al.* (1982). The scale consists of 30 positively and negatively phrased items that measure the strength of the respondent's attitude to various aspects of psychiatry. The score of each positively phrased item was converted by subtracting it from 6. The ATP score is the sum of the total scores for positive and negative phrased items. A high score on the scale indicates a positive attitude towards psychiatry (maximum=150, minimum=30, logical neutral point=90).

The ATP scale was translated to Arabic and back translated to English by two psychiatrists. A third psychiatrist checked the final version for clarity. The final draft was pilot tested on 10 medical students prior to its application.

Data were entered and analyzed using SPSS for windows. The student *t*-test, ANOVA and regression analyses were used whenever applicable.

Results

A total of 140 (82.3%) students completed the questionnaire, 62 (89.9%) from year 1, 52 (91.3%) from year 4 and 26 (59.0%) from year 7. One hundred and twenty two (81%) had fully completed the ATP scale.

Demographic Characteristics

The mean age of respondents was 20.57 years with a standard deviation of 2.52 years. The majority (65%) were females. The sample population had

major representations from Bahrain (42.9%) and Qatar (17.9%) and minor representations from other Gulf States (Saudi Arabia 11.4%, Oman 9.3%, Kuwait 7.9%, United Arab Emirates 6.4%) and 4.3% from other nationalities.

Career Choice

Twenty two (16.2%) students intended to choose psychiatry as one of the top three career choices, of whom only four selected psychiatry as the first choice, eight as the second choice and 10 as the third choice. Of these students 20 (90.9%) were females, seven (31.8%) Bahraini, five (22.7%) Omani and four (18.2%) Qatari. Table 1 shows the distribution of students by study year and career first choice. Four students (2.9%) selected psychiatry as first choice, 20 (29.4%) surgery, 24 (17.6) pediatrics and 22 (16.2) medicine. None of the students in the final year selected anesthesia as first choice.

Student Evaluation of Teaching Psychiatry

Table 2 shows students rating of psychiatry teaching at the CMMS and the psychiatric hospital. Fifty five (72.3%) of year 1 and 4 students rated teaching at the college as good or acceptable compared to 11 (44%) of year 7 students, who rated teaching psychiatry in the hospital as such.

ATP Scale

The mean ATP score for respondents was 105.79 (SD=13.34). The median and mode were 105.50 and 102.00, respectively. Thirteen (10.7%) students scored below the neutral point (90). The distribution of ATP scores by class year and age is show in Table 3.

Young age was associated with higher scores of ATP ($p < 0.029$). Females and those who selected psychiatry as one of the top three career choices obtained significantly higher scores (Table 4), while students who selected pathology and radiology obtained the lowest ATP score (95.20) followed by those who selected obstetrics and gynecology (101.25).

Regression analysis showed a significant negative linear relationship between the academic year and ATP scores with a regression coefficient (B) of 1.365, a constant regression coefficient of 110.273 and Beta of 0.237. Personal factors like exposure to material related to psychiatry, presence of a friend with a psychiatric illness and having a romantic relationship with someone who had a psychiatric illness were found to be significantly associated to the ATP score. Academic factors such as student perception of teaching, exposure to clinical psychiatry training, having visited the psychiatric hospital, relationship with mental health professionals, having a psychiatric illness or having relative with alcohol and drug dependency problems, significant family problems, and unpleasant experience with mental health personnel did not yield a significant association with ATP score.

Table 1. Students by their career first choice and class year

First choice	Year 1 (n=61)*	Year 4 (n=49)**	Year 7 (n=26)	All year (n=136)
Surgery	45.9% (28)	14.3% (7)	19.2% (5)	29.4 (40)
Pediatrics	13.1% (8)	20.4% (10)	23.1% (6)	17.6 (24)
Medicine	6.5% (4)	24.5% (12)	23.1% (6)	16.2 (22)
Ophthalmology/ear/nose/throat	13.1% (8)	8.2% (4)	3.8% (1)	9.5% (13)
Obstetrics and gynecology	11.5% (7)	2.0% (1)	15.4% (4)	8.8% (12)
Family physician	0.0% (0)	16.3% (8)	7.7% (2)	7.4% (10)
Laboratory/radiology	1.6% (1)	4.1% (2)	7.7% (2)	3.7% (5)
Psychiatry	3.3% (2)	4.1% (2)	0.0% (0)	2.9% (4)
Others	4.9% (3)	6.1% (3)	0.0% (0)	4.4% (6)
Total	100% (61)	100% (49)	100% (26)	100% (136)

*One response was missing

**Three responses were missing

Table 2. Student's evaluation of the psychiatric teaching at CMMS and the psychiatric hospital

Evaluation*	CMMS		Psychiatric hospital	
	N	%	N	%
Good	28	36.8	5	20
Acceptable	27	35.5	6	24
Not acceptable	13	17.1	5	20
Poor	8	10.5	9	20
Total	76**	100%	25	100%

*Excellent was not reported by any.

**34 responses were missing

Table 3. Students' response to ATP by study year and age

Study year	N	Age (mean/range)*	ATP score
Year 1	53	18.2 (17–20)	109.30
Year 4	45*	21.5 (20–23)	103.89
Year 7	24	24.1 (22–29)	101.58

*Age is unknown in three cases. $F=3.64$, p -value <0.029 .

Discussion

The response rates of year 1 and 4 students were high. The low response rate of year 7 (59.1%) students might have resulted from the introduction of the questionnaire at the examination period of the students. Only 2.9% of students intended to choose psychiatry as a future specialty which implies that psychiatry is not among their preferred subjects for specialization. Nevertheless, the obtained percentage was higher than reported from Saudi Arabia and comparable to those reported from the United Kingdom and the United States (Abdul Rahmin & AlAssara, 1989; Brook, 1983; Sierles & Taylor, 1995). However, the attitude of AGU medical students towards psychiatry was generally positive as over half of the respondents scored between 110 to 130 on the ATP scale. The mean ATP score for AGU students was higher than that reported for some Canadian and German Students (Burra *et al.*, 1982; Obladen *et al.*, 1996).

The negative linear relationship between students' ATP and by academic year, and the negative association with exposure to psychiatry teaching or relationship with mental health staff, do not support the initial hypothesis. The attitudes towards psychiatry are highest on college entrance and decrease with advancing age and seniority. Whether the drop over time in the ATP was related to decrease in interest in psychiatry or to increase in interest in other fields of medicine and surgery needs further clarification. Perhaps teachers

Table 4. Associations of examined factors and ATP

Factor	Group	N	Mean ATP	t-test/ANOVA	p-value
Sex	Male	43	100.63	-3.28*	0.001
	Female	79	108.59		
Psychiatry as a career	Yes	19	118.37	4.88*	0.001
	No	103	103.47		
Exposure to material related to psychiatry	Yes	66	103.32	-2.23*	0.028
	No	56	108.69		
Presence of close person with psychiatric illness	Yes	60	108.63	2.36*	0.020
	No	62	103.03		
Presence of romantic relationship with psychiatric patient	Yes	27	111.81	2.73*	0.007
	No	95	104.07		
Perception of teaching psychiatry in the college	Good	26	103.73	0.342**	NS
	Acceptable	25	101.76		
	Not acceptable	11	101.81		
	Poor	6	107.00		
Perception of clinical rotation in the psychiatric hospital	Good	5	110.20	1.231**	NS
	Acceptable	6	103.17		
	Not acceptable	5	94.00		
	Poor	8	99.75		
Exposure to clinical psychiatry	Yes	24	103.08	-1.11*	NS
	No	98	106.45		
Visiting psychiatric hospital	Yes	77	105.69	-0.11*	NS
	No	45	105.95		
Having a friend who is a psychiatrist	Yes	32	104.72	-0.53*	NS
	No	90	106.17		
Having mental disorder	Yes	3	109.00	0.43*	NS
	No	116	105.64		
Having a significant family problem	Yes	23	108.39	1.04*	NS
	No	99	105.18		
Having a close person who is drug or alcohol dependent	Yes	24	102.58	1.32*	NS
	No	98	106.57		

Note: three missing cases. *t-test; **ANOVA.

from other specialties are actively discouraging students from psychiatry by making negative remarks about psychiatry or the attitude toward psychiatry in the college in negative. The second possibility got some support by the fact that clinical problem discussed in tutorials are few and the time allocated for clerkship is shorter than similar programs in other universities. In addition, psychiatrists were not chosen as examiners in all final year clinical and oral examinations.

The positive attitude towards psychiatry was 10 times higher in female students compared to males. The relationship between gender and the attitude toward psychiatry in different studies have reached different conclusions. Several studies have reached to similar findings with regard to the female

students ATP to this study (Abdul-Rahim & El-Assra, 1989; Alexander & Eagles, 1986; Baptista et al., 1993; Egale & Marcos, 1980; Shelley & Webb, 1986). In the 1970s women from the United States were twice as likely as men to choose psychiatry and 1.5 times as likely in the 1990s (Sierles & Taylor, 1995). In this study analysis of factors that could influence career choice among both genders was not done because of the small numbers. This issue and other factors could be both evaluated in an accumulative longitudinal research.

Medical students who attained the highest ATP score were those who intended to select psychiatry as their first career. This finding and the significant relationship between ATP score and preference of psychiatry as a field ($p < 0.001$) give further support to the validity of the ATP-30 as a measurement scale for ATP. The negative association of ATP and the intention of choosing other branches of medicine and surgery such as gynecology and obstetrics is in accordance with other studies (Baptista *et al.*, 1993). The significant association between ATP score and having a friend, family member or a boy/girlfriend with a mental disorder emphasizes the effect of relationship on determining ATP. Therefore, medical students who show interest in psychiatry at college entry should be encouraged to visit the psychiatry facilities and to be invited to meet the staff. This finding is in line with that reported by Zimny and Sata (1986). Relationship with persons having alcohol or drug dependency problems did not yield similar findings. This could be attributed to the social and religious attitude towards alcohol and drug use in the Arab countries.

Conclusion

This study showed that AGU medical students have a moderate positive attitude towards psychiatry. The younger, female and junior students displayed more positive attitudes than older, male and senior students. Medical students who intended to specialize in psychiatry obtained the highest scores while those who were planning to specialize in pathology or radiology had the lowest scores.

To overcome the problems of recruiting more graduates to specialize in psychiatry, one should focus on promoting positive contact between medical students and people with mental disorders, improve teaching methods of psychiatry and approach students with high ATP individually during their clerkship phase.

In order to examine the factors associated accurately, we suggest a follow up of students who obtain high and low scores at college entry on an ATP-30 scale over the whole college period.

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