Original Article :

Attitude Towards Psychiatry Among Northern Border University Medical Students: Before and After the Psychiatry Module

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Abstract

Background and Aims:

The attitude towards psychiatry is crucial for undergraduate medical students, as they will encounter patients with mental disorders in their future careers. This study aimed to assess the attitudes of Northern Border University (NBU) medical students towards psychiatry before and after their psychiatric training.

Methods:

A quasi-experimental institution-based study was conducted among 5th-year medical students at NBU. The study utilized the "Attitudes Toward Psychiatry-30 Items" (ATP-30) questionnaire as the data collection instrument, administered both before and after the psychiatry module .Data analysis used SPSS, employing Chi-square tests and parametric statistics with a significance level set at $p < 0.05$.

Result:

Sixty-eight medical students participated in the study. While the overall ATP-30 scores did not show a significant change after the Psychiatry Module, the initial attitudes were generally positive. There was no significant association between total scores and socio-demographic factors such as gender, origin, marital status, economic levels, academic performance, family history of psychiatric illness, or past psychiatric history. However, prior contact with psychiatric patients was significantly associated with a positive attitude before the module (P= 0.048). Specific groups showed significant improvement in ATP-30 scores after the module: female students (P= 0.007), students aged 21-23 years (P= 0.041), students previously diagnosed with psychiatric illnesses (P= 0.037), and students with low academic performance (P= 0.018).

Conclusion:

Psychiatry training didn't significantly improve the overall attitudes of students. Further research is needed to explore the reasons behind this and to develop targeted approaches for groups that didn't show a change in their post-module attitudes.

Key words:

Attitude towards psychiatry, medical students, medical education, ATP-30

Introduction:

Mental health is an ignored subject in medicine, and there is limited health budget expenditure in many countries [1]. This neglect and various other factors contribute to students' disinterest in psychiatry, resulting in fewer medical students choosing it as a career compared to other medical specialties [2]. The attitude formation toward medical specialties mostly occurs during education and training, supported by numerous studies conducted by medical educators in health professions. Some studies concentrated solely on the impact of undergraduate exposure to psychiatry, regardless of the teaching methods or faculty expertise involved. Others factored in these elements when assessing the quality of the exposure. However, many longitudinal cohort studies highlighted the issue of the decline in positive attitudes toward psychiatry over time, even after initial enthusiasm was generated [3].

Health policymakers and investigators do not usually give sufficient attention to the issue of students' disinclined attitude towards Psychiatry [4]. However, the medical student's attitude to Psychiatry has been assessed in several countries such as the United Kingdom, China, the U.S.A, Germany, Bahrain, Kenya, Nigeria, Malaysia, and India [2,5-13]. Most of these studies show that students generally develop a positive attitude toward psychiatry after completing their psychiatry placements. This shift in perception could enhance the quality of psychiatric care provided by other specialists and general practitioners. Moreover, improved attitudes toward a specialty can influence career choices, potentially increasing recruitment in psychiatry, a field facing global shortages.

Attracting medical students to psychiatry as a career has been challenging, as stigma and negative perceptions continue to hinder efforts to foster positive change in the field. The stigma extends beyond psychiatric patients and also affects psychiatrists, as well as the field itself, with some mistakenly believing it lacks a scientific base, especially with the negative reinforcement of the derogatory comments from physicians of other specialties with erroneously expected less prestige and financial return [14]. However, undergraduate teaching is expected to influence these negative views and hence generate a favorable attitude towards the specialty.

The study has been conducted by the Faculty of Medicine of Northern Border University (NBU) located in Ar'ar in the northern border region of Saudi Arabia. The main aim of this study was to assess the attitudes towards psychiatry among medical students; before and after being exposed to the psychiatry module, and its

relations to different socio-demographic factors.

Method:

The study was a quasi-experimental institution-based study, carried out among undergraduate medical students of Northern Border University (NBU) in Ar'ar city in the northern border region of Saudi Arabia. The study population consisted of 5th-year medical students, as the undergraduate psychiatry module is conducted during the 5th year lasting for 5 weeks. The study designed, as a sampling technique, to use total coverage of the students in the intended year and they were all invited to participate at the beginning and the end of the module.

The research Instrument was a two-part questionnaire, starting by an inquiry about socio-demographic data; which elicited some details of the subjects such as age, gender, marital status, socio-economic status, family history and past history of psychiatric disorders. The second part of the questionnaire was the "Attitudes toward Psychiatry-30 items" (ATP-30); which is a 30 items scale that has been validated [15] and has been used internationally in many studies to assess attitudes to psychiatry. It measures participants' views and the strength of these views to various aspects of psychiatry. It is composed of four groups or subscales which involve the attitude towards: psychiatric patients and illness, psychiatry and psychiatrists, psychiatric knowledge and teaching, and finally psychiatric hospitals and treatment[16,17]. The questionnaire is self-reporting, so it was distributed to the medical students to complete in two stages; at the beginning of the psychiatry module and the last day after sitting for the final psychiatry exam.

The data obtained were analyzed using the Statistical Package for Social Sciences (SPSS). The mean scores of the scale before and after the module were compared with each other and with the results of other studies. Chi-square and parametric statistics were used to analyze categorical and numerical variables respectively. P-value < 0.05 was considered as a level of significance.

Results:

A total of 68 medical students fully completed all the questionnaires (Table:1). The response rate was 95.8 % out of a total number of 71 students. The number of male students was 29 (42.6 %), and most of the student's ages were between 21-23 years (83.8 %, n= 57) (Table: 1). 6 students (8.8 %) came from rural origin while 61 (89.7 %) come from urban areas. Most of the students who participated in this study were single (92.6 %). Regarding the Academic performance of the students, 34 students (50 %) reported achieving excellent

or good results in the last exam, 29 students (42.6 %) for good results, and 3 (4.4 %) reported less than good results. Among the participants, 46 (67.6 %) rated themselves as "above average" regarding their economic status, in addition to 19 (27.9 %) and 2 (2.9 %) for "average" and "below average" respectively (Table:1). Twenty-three students (33.8 %) had personal contact with a psychiatric patient before starting the module. This refers to experiences outside their academic curriculum, such as family or social interactions, voluntary work, or prior medical encounters where they met and interacted with someone diagnosed with a psychiatric condition. Ten students (14.7 %) have a family history of psychiatric disorders, and only 4 students (5.9 %) have been previously diagnosed with psychiatric disorders (Table: 1). All students had attended a clinical course in other specialties before the psychiatric module.

Table 1: Distribution of students according to different sociodemographic factors:

sociodemographic factors		N	%
Gender	Male	29	42.6 %
	Female	39	57.4 %
Age	18-20	1	1.5%
	21-23	57	83.8%
	24 and more	10	14.7%
Students' Origin	Urban	61	89.7%
	Rural	6	8.8%
	Missing	1	1.5%
Marital status	Married	5	7.4%
	Single	63	92.6%
Economic Status	Above Average	46	67.6%
	Average	19	27.9%
	Below Average	2	2.9%
	Missing	1	1.5%
Students' Contact with Patients	Yes	23	33.8%
	No	45	66.2%
Students' Last Examination Results	Excellent	34	50.0%
	Good	29	42.6%
	Less than Good	3	4.4%
	Missing	2	2.9%
Family History of Psych. Disorders	Yes	10	14.7%
	No	58	85.3%
Students' Past Psychiatric History	Yes	4	5.9%
	No	63	92.65%
	Missing	1	1.5%
Total		68	100%

Regarding students' attitudes, they were essentially positive before starting the module. There was no statistically significant association between the positive total score and the socio-demographic factors like the gender, origin, marital status, and economic levels of the students (Tables: 2). Prior contact with psychiatric patients was found to have a statistically significant association with the positive attitude among the students before starting the psychiatry undergraduate learning (P-value = 0.048), (Table: 2). On the other hand, no significant association was found with the students' academic performance, family history of psychiatric illness or past psychiatric history (Tables: 2**).**

Table 2: comparison between means of ATP scores according to different factors (before psychiatric training):

Sociodemographic and other factors		Mean of ATP scores	Std. Deviation	P-value
Gender	Male	107.17	10.896	0.061
	Female	101.31	13.656	
Age	18-20	102.00	0	0.939
	21-23	104.05	13.058	
	and more 24	102.60	12.527	
Students' Origin	Urban	103.80	12.430	0.462
	Rural	106.33	17.061	
	Missing	89.00	0	
Marital status	Married	98.80	24.427	0.367
	Single	104.21	11.681	
Economic Status	Above Average	103.98	11.444	0.838
	Average	102.89	16.360	
	Below Average	111.00	11.314	
	Missing	99.00	1	
Students' Contact with Patients	Yes	108.09	12.792	0.048
	No	101.62	12.383	
Students' Last Examination Results	Excellent	104.62	15.172	0.745
	Good	103.90	103.90	
	Less than Good	97.00	97.00	
	Missing	99.00	11.314	
Family History of Psych. Disorders	Yes	108.10	15.751	0.254
	No	103.07	12.236	
Students' Past Psychiatric History	Yes	112.50	18.735	0.308
	No	103.40	12.404	
	Missing	95.00	0	

There was no statistically significant change in the ATP-30 total scores before and after psychiatry module (Table: 3). However, the study revealed statistically significant change towards more positive attitude in the subscale of psychiatric knowledge and teaching after being exposed to the module (P-value = 0.012), (Table: 3).

Table 3: ATP-30 Subscales Before and After the Psychiatry Module (N=68):

	ATP To:	Patients	Psychiatrists	Knowledge	Treatment	ATP-30 Total score
Before	Mean	3.919	3.377	3.204	3.465	103.81
	Std. Deviation	0.610	0.538	0.476	0.491	12.803
After	Mean	3.860	3.455	3.429	3.577	106.50
	Std. Deviation	0.627	0.627	0.546	0.667	16.376
P-value		0.580	0.441	0.012*	0.266	0.140

The ATP-30 scale was further compared before and after psychiatry module according to sociodemographic factors in table 4. It showed that there was a statistically significant improvement in ATP after attending psychiatry module in female students (P-value = 0.007), students in the age group between 21-23 years (P-value = 0.041), students who have been previously diagnosed with psychiatric illnesses (P-value = 0.037), and students with low academic performance (P-value = 0.018) (Table: 4).

Table 4: comparison between means of ATP scores before and after psychiatric training according to different factors:

Different factors Mean (ATP)		Before		After		P-value
		SD	Mean (ATP)	SD		
gender	Male	107.17	10.896	105.69	12.427	0.634
	Female	101.31	13.656	107.10	18.925	*0.007
Age	18-20	102	0	97	0	NA
	21-23	103.86	13.024	107.90	16.823	*0.041
	24 and more	103.67	12.796	98.56	11.534	0.343
Students' Past Psychiatric History	Yes	112.50	18.735	124.50	21.362	0.037*
	No	103.40	12.404	105.21	15.609	0.342
Students' Last Examination Results	Excellent	104.62	15.172	106.24	19.001	0.541
	Good	103.90	10.147	106.31	13.880	0.398
	Less than Good	97.00	9.165	114.33	11.590	0.018*
Family History of Psych. Disorders	Yes	108.10	15.751	109.80	18.831	0.770
	No	103.07	12.236	105.93	16.031	0.138

Discussion:

This study aimed to assess the attitudes towards psychiatry among northern border medical students; before and after being exposed to the Psychiatry module, in their fifth year of the curriculum. The number of female participants was higher than males in keeping with the proportional number of gender distribution of the batch. The majority of the students reported coming from urban areas. However, still some who are living in rural areas has an equal chance of learning medicine in keeping with the equity principle of education. The majority of the students were unmarried which is expected with their age between 21 to 23 years and below.

The study showed that the attitude towards psychiatry was positive even before starting the psychiatry module, which may reflect the students' awareness of the various domains included in the ATP-30 questionnaire. This is an important factor highlighted, as the minimal change observed afterward suggests that the students were already knowledgeable, indicating a substantial pre-existing positive attitude towards psychiatry. This observation was reported by different previous studies from countries such as; Bahrain [7], as a study was done on medical students from the College of Medicine and Medical Sciences (CMMS), Arabian Gulf University (AGU), and found the attitude towards psychiatry to be moderately positive (mean ATP score = 105.79, SD = 13.34). A similar result was reported by a cross-sectional study, of Lebanese medical students from all medical faculties, and regions in Lebanon, using the ATP-30 scale, and involving 607 participants. Among them, 95.1% had a positive attitude towards psychiatry [18]. Similar findings were also reported in studies from Sudan [19], and Nigeria [10]. It was also seen in many western countries including Hungary, Germany, Austria, and Switzerland [20].

The study revealed no statistically significant association between the ATP-30 score and gender, aligning with findings from studies in Germany where mean ATP-30 scores ranged around 108–112 for both genders, showing that gender did not influence perceptions significantly [21]. Also in Thailand, male and female students showed similar levels of positive attitudes towards psychiatry, with overall ATP-30 scores typically ranging from 100 to 105 for both groups [22]. In Sudan, ATP-30 mean scores were 101.5 for males and 102.3 for females [19], Nigeria, the average scores for both genders were around 99 to 103, indicating no significant gender-based difference in attitudes toward psychiatry [9]. However, other studies have shown varying results regarding the relationship between gender and attitudes

toward psychiatry. At Arabian Gulf University in Bahrain, females scored significantly higher [7], In the United States, women were twice as likely as men to choose psychiatry in the 1970s and 1.5 times as likely in the 1990s [23]. Also, an Ethiopian study reported that female medical students had significantly more positive attitudes towards psychiatry than males [24]. Conversely, Malaysian male medical students exhibited a more positive attitude compared to their female counterparts [11].

The current study did not prove a statistically significant association between the ATP-30 score and any of the sociodemographic factors such as; origin, marital status, and economic levels of the students. However, having previous contact with psychiatric patients was found to be associated with a positive attitude among the students, with some similarity between an Indian study [25] and another one done at the same time in UK [13]. In contrast to this, students' academic performance reflected by the last examination results, family history of psychiatric illness, or being previously diagnosed with a mental disorder were not found to be associated with attitude towards psychiatry among the medical students. This is similar to finding of a Sudanese study included four medical faculties [19].

Despite the improvement towards a more positive attitude total score' means from: 103.81 to 106.50, this change was not statistically significant. This may be explained by the already existing positive attitude towards psychiatry among the students even before starting the module especially if some positive messages were conveyed to them from their senior colleagues who underwent the module previously as strongly expected especially with the media coverage of their enrichment activities in mental health campaigns and participation in research that was presented in high caliber international conferences. The other possible reason for not observing significant attitude change may be due to the small sample size. However, some prior studies found that attitudes improved after exposure to psychiatry [26 -29,] while other studies reported negative outcomes [30, 31] or no significant effect [32]. This discrepancy suggests that the impact of clinical exposure may be influenced by complex factors.

As there was no statistically significant change in the overall attitude before and after the module, the student's attitude was further analyzed and its four groups or subscales were compared before and after the psychiatry module. No significant change was proved except in the subscale of attitudes towards psychiatric knowledge and teaching, which improved after the module.

Although the overall student attitudes

did not significantly change after completing the module, it was demonstrated that, when excluding male students, female students showed a significant improvement in their attitudes. This is similar to the finding of a Malaysian study conducted by JP Reddy et al. that showed a significant difference between the pre and post attachment scores in female students but not in male students [12].

This may be attributed to several factors. Female students might be more receptive to new learning experiences, particularly those that challenge pre-existing perceptions and stereotypes. Additionally, they may exhibit greater empathy and openness towards psychiatric patients, leading to more substantial attitude changes. Conversely, male students might have more stable or entrenched views that are less susceptible to change over a short period of clinical exposure.

The study showed a significant difference between the pre- and post-module ATP scores in students who had been previously diagnosed with a psychiatric disorder, and this can be attributed to their personal experiences and insights. These students may have a deeper understanding and empathy for psychiatric conditions, making them more responsive to the educational content and clinical exposure provided in the module. Their lived experiences likely contribute to a more profound reassessment of their attitudes, resulting in a notable improvement in their post-module ATP scores.

One more finding in this study was the significant improvement in ATP in students with low academic performance after the module which may be due to the impact of practical, hands-on learning experiences provided during the module. These students might benefit more from experiential learning methods, such as clinical attachments, which offer direct interaction and engagement with real-world scenarios. This practical exposure can enhance their understanding and attitudes more effectively than traditional classroom-based learning. Additionally, the positive reinforcement and confidence gained through successfully engaging in clinical activities could lead to a marked improvement in their attitudes towards psychiatry.

Limitations:

The study has some limitations. First, the small sample size, although it encompasses nearly the entire number of students for the intended year, may limit the generalizability of the results. Second, the data for the second stage of the study were collected on the last day of the module, immediately following the final psychiatry exam. This timing may have influenced the students' responses to the questionnaire, as

their performance on the exam could have affected their answers.

Conclusion:

The student's attitude toward psychiatry was essentially positive even before starting the psychiatry module. The study did not prove a significant association between positive attitude and the socio-demographic factors including the gender, origin, marital status, and economic levels of the students. Likewise, no significant association was found with the student's academic performance, family history of psychiatric illness, or past psychiatric history. Prior contact with psychiatric patients was found to have a statistically significant association with the positive attitude among the students.

The overall student attitudes did not show significant change after attending the psychiatry module. However, there was significant improvement in specific groups, including female students, students aged 21-23 years, students who had been previously diagnosed with psychiatric illnesses, and students with low academic performance.

Further studies with larger sample sizes are recommended to provide more insight into the effect of exposure to undergraduate psychiatry training and education on Saudi students' attitudes. Utilizing a suitable study design, such as a quasi-experimental design, would be beneficial for achieving this objective.

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