

Original Research Article

Knowledge and attitude towards mental illness among health and non-health university students in Riyadh

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ABSTRACT

Background: Mental illness can affect anyone regardless of age, gender, and residence. Studying the attitude and knowledge about mental illnesses among university students is important, because they are the future decision makers dealing with such problems. The aim of this study was to assess level of knowledge and attitude towards mental illnesses among health and non-health university students in Riyadh.

Methods: This study was a cross-sectional study on students of the governmental universities in Riyadh with both health and non-health speciality. The total sample size was 587 students. The questionnaire was designed electronically, and the link was distributed through social media. It included socio-demographic questions, 17 questions to assess knowledge and 22 questions to assess the attitudes. The statistical tests used were chi square, independent sample t-test, spearman's correlation and multiple linear regression tests.

Results: More than half of the participants had a positive attitude toward mental illness (52%). Only 13.46% of university students had good knowledge about mental illness. Significant higher level of good knowledge and positive attitude were reported among health college students compared to non-health (24.7% versus 7.9% for good knowledge and 60.8% versus 48.3 for positive attitude respectively). Attitude towards mental illness can be successfully predicted by using the knowledge score about mental illness and the type of college.

Conclusion: Low percentage of university students had good knowledge about mental illness and their attitude towards mental illness was generally positive. Health college students had better attitude and knowledge about mental illness than non-health.

Keywords: Mental illness, Attitude, Knowledge, University students

INTRODUCTION

Mental health is defined as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”.¹ Worldwide, one in four people reports sufficient criteria for at least one mental illness at some point in his life. Collections of indications across all studies reveal that one in every five individuals (17.6%) had experienced mental issues within the past year.

Adding up to 29.9% in their lifespan. The total mental-illness globally expenses reach approximately \$2.5 trillion and by the year 2030 the expenses are expected to reach \$6 trillion. In the United State alone, mental illness costs about \$193.2 billion yearly.² In Saudi Arabia, a study on high school students was conducted to estimate the prevalence of mental illness, the percentage of mental illness in the study population was around (48%). It was discovered that females have a higher rate of mental illnesses (51%) than males (41%).³

Social stigma is defined as a "construct that includes negative attitudes, feelings, beliefs and behavior towards a collective of individuals".⁴ Findings indicate that feeling stigmatized causes loss of self-esteem, confidence and self-efficacy. This will produce a limited belief in recovery.⁵ There is a widespread stigmatization of mental illness and negative attitudes toward mental illness in some countries. According to findings from the 2006 Health Styles Survey, it has been believed that among young age groups (18-24 years) about 24% consider the mentally ill person as a dangerous person and 38.9% find them to be erratic and unbalanced.⁶

In Saudi Arabia, a study in Al-Hassa at King Faisal University of medicine found that students who did not experience psychiatric training, agreed that psychiatric sessions are helpful most of the time (59%). However, following a rotation in psychiatry, the percentage has increased to 89%.⁷ This indicates the ultimate importance of explaining the current level of knowledge and attitude towards mental illness among university students. Studying the level of attitude and knowledge about mental illnesses among students of health and non-health colleges is important, because they are the future decision makers dealing with such problems.

This study was conducted to assess knowledge level and attitude towards mental illness among university students in Riyadh and to compare these levels between health and non-health students.

METHODS

Study design and setting

A cross-section study was conducted at the governmental universities of Riyadh.

Study population

Students of the governmental universities of Riyadh of both genders with health and non-health specialties.

Inclusion criteria

All students in the governmental universities in Riyadh (King Saud University, Princess Noura Bint Abdulrahman University, Imam Mohammed bin Saud Islamic University and King Saud University for Health Sciences) were enrolled in the study.

Exclusion criteria

Students of private universities were excluded.

Sampling technique

The samples were convenient sample. A questionnaire was designed electronically, and the link was distributed

through social media applications (example: WhatsApp and Twitter).

Sample size

The sample size was calculated by using epi-info software online.⁸ By entering the total number of governmental university student in Riyadh (23,4640) with 95% Confidence interval (CI) and 80% power of study. The calculated sample were 384.⁹ The total collected sample size in this study was 587 students.

Data collection tools

Online self-administered questionnaire was designed and composed of three parts: Socio-demographic characteristics, knowledge and attitude toward mental illness.

Socio-demographic questions were included such as age, sex, level of educational (health and non-health) and residence.

The knowledge questions consisted of 17 questions, with the following responses: yes, no and I do not know. The correct answer scored 1 point, and the wrong answer as well as "don't know" scored 0. Furthermore, participants were categorized into having a good, fair or poor knowledge. Knowledge was considered good from 75% or higher of the maximum score (from 13-17 points), fair from 50% to 74% (from 8-12 points). And poor if less than 50% (less than 8 points).

The attitude assessment involved 22 questions, and the responses were scored quantitatively on a five-point Likert scale (strongly agree, agree, neutral, disagree and strongly disagree). Strongly agree response was given a score of 5 points and strongly disagree scored 1 point. Negative statements had a reverse scoring. The attitude was divided into positive, neutral and negative categories. Total attitude score was calculated for each individual and participants who got 22 to 51 were categorized as having negative attitude, participants who had 52 to 80 were categorized as having neutral attitude and score from 81 or higher was categorized as positive attitude.

Reliability and validity

A pilot study was conducted on 22 students at Princess Nora University. After analyzing their feedback, few modifications were done. The reliability of the questionnaire was very good according to the reliability test by SPSS, cronbach's alpha was 0.8 for the attitude questions.

Statistical analysis

Statistical analysis was done using the Statistical package of social science (SPSS) version 22.0.¹⁰ Data were coded and tabulated according to their level of measurement.

categorical variable were presented in frequency tables and scale variables were presented using mean \pm standard deviation (SD). The applied statistical tests were chi square test, tow independent t test, correlation test and multiple linear regression test. The alpha cutoff point for significance was 0.05.

RESULTS

Table 1 demonstrates some characteristics of the study population. More than half of participants were female (60%). The mean age of the studied sample was 21 ± 1.7 years. The majority of the participants were single (94%). Regarding residence, the main 5 sectors of Riyadh city were represented in the studied sample. Higher percentage of participants (36.12%) lived in the eastern region and lower percentage (8%) lived in the middle. 67% of the participant were from non-health colleges and 33% were from health colleges (Table 1).

Table 1: Sociodemographic characteristics of the studied sample (n=587).

Variable	Frequency	%
Gender		
Male	231	39.4
Female	356	60.6
Total	587	100.0
Social status		
Single	553	94.2
Married	26	4.4
Separated	7	1.2
Divorced/Widow/widower	1	0.2
Total	587	100.0
Living		
North of Riyadh	186	31.7
East of Riyadh	212	36.1
West Riyadh	68	11.6
North of Riyadh	74	12.6
Middle of Riyadh	47	8.0
Total	587	100.0
Collage		
Health	194	33.0
Non-health	393	67.0
Total	587	100.0

Figure 1 demonstrated the attitude towards mental illness among university students in Riyadh. More than half had a positive attitude toward mental illness (52%), however 46.68% had a neutral attitude and less than 1% had a negative attitude (Figure 1).

Figure 2 demonstrated the knowledge level of university students about mental illness. The results showed a high percentage of having fair knowledge (59.9%) and 26.58% had poor knowledge. Only 13.46% of university students had good knowledge about mental illness (Figure 2).

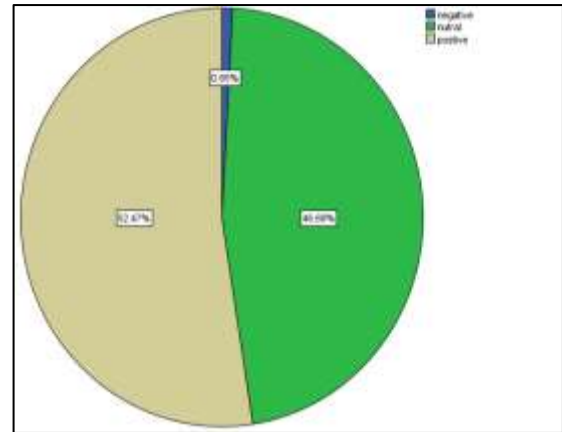


Figure 1: Attitude towards mental illness among university students in Riyadh.

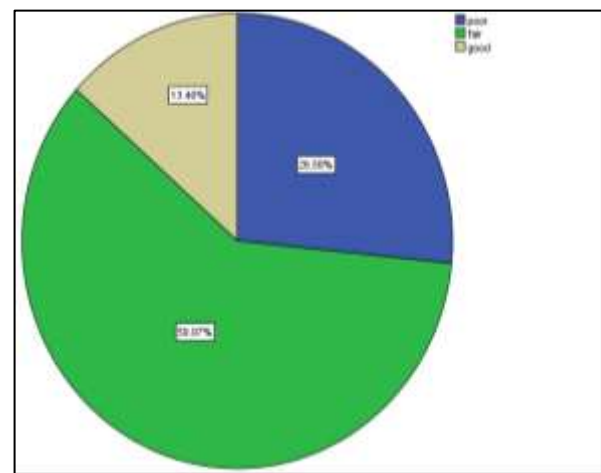


Figure 2: Knowledge about mental illness among university students in Riyadh.

As shown in figure 3; more than half of participants responded positively to most questions assessed the attitude towards mental illness. About 60% of university students disagreed to the following statements: “I feel scared when I see a patient with mental illness walking near me,” “the marriage to a person who previously suffered from mental illness will fail” and “mental illness can’t be cured completely”. However, one third of them agreed that intellectual abilities of people who have been treated in psychiatric hospital will be affected and even 91% agreed that companies should not hire people who have already experienced mental illness (figure 3).

Table 2 demonstrated comparison between knowledge and attitude towards mental illness among health and non-health university students in Riyadh. It was found that higher level of good knowledge about mental illness was reported among health college students compared to non-health (24.7% versus 7.9% respectively). The students from health colleges also demonstrated higher level of positive attitude towards mental illness compared to non-

health (60.8% versus 48.3%). All these differences were statistically significant ($p < 0.05$) (table 2).

Table 2: Comparison between knowledge and attitude towards mental illness among health and non-health university students in Riyadh.

Variables	College (n=587)		Chi square test
	Health (%)	Non-health (%)	
Knowledge	Poor	34 (17.5)	122 (31)
	Fair	112 (57.7)	240 (61.1)
	Good	48 (24.7)	31 (7.9)
Attitude	Negative	1 (0.5)	4 (1)
	Neutral	75 (38.7)	199 (50.6)
	Positive	118 (60.8)	190 (48.3)
Total	194 (100)	393 (100)	

* $p < 0.05$

** $p < 0.01$

Table 3: Factors affecting the attitude towards mental illness among university students in Riyadh.

Factors	Spearman's correlation test	Attitude score
Age	Pearson correlation	-0.07
	Sig. (2-tailed)	0.124
	n	451
Knowledge score	Pearson correlation	0.219**
	Sig. (2-tailed)	0.000
	n	587
GPA	Pearson correlation	0.050
	Sig. (2-tailed)	0.251
	n	536

** $p < 0.01$

Factors affecting the attitude towards mental illness among university students in Riyadh were investigated in table (3). There was a highly significant positive correlation between the attitude score and the knowledge score about mental illness ($r = 0.2$, $p < 0.01$). The table also revealed that there was no correlation between the attitude score and both age and Grade point average (GPA) of students ($p > 0.05$) (Table 3).

Gender was found to have a significant effect on both knowledge level and attitude towards mental illness among the studied sample. Females showed significant higher scores of both knowledge and attitude than males (10.1 ± 2.2 versus 9.6 ± 2.4 in knowledge and 82.3 ± 10.9 versus 80.3 ± 11.6 in attitude score), $p < 0.05$ (Table 4).

Table 4: Comparison of the mean score of both knowledge and attitude between males and female in the studied sample.

Variables	Gender	N	Mean	Std. Deviation	t-test
Attitude score	Male	231	80.3420	11.65780	-2.02*
	Female	356	82.2640	10.98849	
Knowledge score	Male	231	9.6277	2.48647	-2.73**
	Female	356	10.1713	2.25835	

* $p < 0.05$

** $p < 0.01$

Table 5: Predictors of attitude toward mental illness among university students in Riyadh.

Coefficients ^a					
Model	Unstd. coefficients		Std. coefficients	t	Sig.
	B	Std. error			
Constant	72.913	2.922		24.951	0.000*
Knowledge score	1.002	0.199	0.210	5.040	0.000*
Type of college	-0.830	0.998	-0.035	-0.832	0.406

** $p < 0.01$ Dependent variable: Attitude score

Table 5 demonstrated multiple linear regression analysis that was used to predict the attitude towards mental illness among university students in Riyadh. Total attitude score was entered to the model as the dependent variable and total knowledge score as well as type of college (health or non-health college) were entered as independent variables. The model was statistically highly significant ($p = 0.000$). Attitude towards mental illness can be successfully predicted by using the knowledge score about mental illness and the type of college (Table 5).

DISCUSSION

Studying the level of attitude and knowledge about mental illnesses among students of health and non-health colleges is important, because they are the future decision makers dealing with such problems. The present study demonstrated that the level of knowledge about mental illness among university students was not high. Only 13% of them had a good level of knowledge. This was particularly true for knowledge about causes of mental illness. In consistent with these findings, Gureje et al reported that knowledge about mental illness was very poor in the Nigerian community specific regarding the

causative factors of mental illness.¹¹ The present study also revealed that the level of good knowledge was significantly higher among health students than non-health. This may be due to their curriculum and the scientific medical material included in their study which increase their understanding of the nature of mental illness.

As regards the attitude assessment, the present study reported that more than half of the participants had positive attitude towards mental illness. This could be explained by the fact that the studied sample were university students and this could be attributed to their high level of education. A previous study among the Saudi population stated that almost all of the participants consider a psychiatric patient is insane which indicates the negative attitude towards mental illness. That study also found that people with low educational level had a more negative attitude regarding the ability of a mentally ill patient to adapt socially.¹² Contradictory to our findings, a study conducted in Nigeria reported that, people with mental illness are seen as aggressive, unable to control themselves or their decisions, irresponsible and unable to tolerate accountability.¹¹ This contradiction in the results of attitude towards mental illness can be attributed to the difference in the study population in each study. Our study was conducted on university students, however, the previously mentioned two studies were conducted on general population.

The current study also revealed that the attitude was significantly higher among students from health colleges than non-health. Consistently with these findings in Northern Italy, all healthcare and technical-social staff within the field of mental healthcare agreed with fact that the mentally ill should neither be viewed as inferior, subjected to coercion or a threat to society so they have positive attitude towards mental illness.¹³ Moreover, another study was conducted in Umm AL-Qura University and investigated medical and non-medical female students' attitudes toward mental illness and psychiatric patients. It was reported in that study that, medical students had a more positive attitude toward mental illness and psychiatric patients than non-medical students.¹⁴

In this paper, gender significantly affected the level of attitude towards mental illness. The mean score of attitude was significantly higher among females than males. This could be due to the fact that females had a significant higher level of knowledge about mental illness than males in the present study. Another study conducted among Saudi population had similar findings and demonstrated that most of the respondents with good general background knowledge regard psychiatric disorder were females.¹² In agreement with these findings, Petrus et al conducted a study in Hong Kong on secondary school students to investigate their attitude towards mental illness. That study reported that female students had a better attitude towards mental illness than males.¹⁵ Finally, the current research proved that there was a significance association between the level of knowledge and attitude towards mental illness, where the total knowledge score can predict the total

attitude score of the participants. In agreement with these findings, a comparative study done in India for assessing knowledge and attitude towards mental illness among rural and urban college students and found that, having a good knowledge resulted in better attitudes towards people with mental illness, due to the encouragement of believing that mental illnesses can be managed or treated.¹⁶ All these findings suggest that education tackles stigma issues by challenging incorrect and inappropriate stereotypes regarding mental illnesses.

CONCLUSION

It was found that only 13.46% of university students had good knowledge about mental illness. Knowledge level was significantly higher among students from health colleges than those from non-health colleges. The attitude toward mental illness was generally positive and was affected by gender, the type of study either health or non-health as well as the level of knowledge about mental illness. Neither age nor GPA of students affect their attitude level. Health college students had better attitude and knowledge about mental illness than non-health. Attitude towards mental illness among university students can be successfully predicted by using the knowledge score about mental illness and the type of college.

Recommendation

It is recommended to conduct further studies about the attitude towards mental illness among general population and possible factors that may affect it. It is also recommended to increase the content about mental health in high school curriculum. This will decrease the gap between health and non-health students' knowledge level and will consequently affect the total attitude of all university students from both health and non-health colleges.

Strengths and limitations

The study used a large, nationally representative youth population from all governmental universities in Riyadh. However, the study included a specific age group so the results can't be generalized to the whole Saudi population.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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