# Beliefs and attitude toward mental illness among a sample of university students in Egypt

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#### Background

People's attitude and beliefs about mental illness set the scene for how they help, interact with, and provide opportunities for a person with mental illness.

# Objective

This study aimed to assess the beliefs and attitudes toward mental illness and psychiatric patients in the scientific and theoretical faculties among a sample of undergraduate students in Al-Azhar University, Egypt and to determine if there are any differences regarding the type of faculty or academic degree.

#### Participants and methods

A descriptive design was adopted for this study. Data collection took place from January to May 2019 via the beliefs scale for mental illness. A total of 1200 undergraduates were recruited from different faculties: 592 students from scientific faculties such as 'medicine, dentistry, pharmacy, science, and commerce'; and 608 from theoretical faculties such as 'Islamic, Arabic, and Humanistics.'

#### Results

Undergraduate students in Al-Azhar University for Girls showed positive attitudes toward mental illness regardless of their academic degrees, the type of faculty, or their residence. However, the scientific faculties showed a more positive attitude than theoretical faculties, also a direct positive relation was found regarding the academic degree. Negative attitude was found in students with a psychiatric history of mental illness and in those with a positive family history of mental illness. **Conclusion** 

Scientific faculties and advanced academic degree hold more positive beliefs and attitude toward mentally ill patients. There is possibility for additional research including studying the effects of educational interventions.

#### Keywords:

mental illness stigma, psychiatric disorders, stigma in Egypt, university students

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# Introduction

Mental illness is usually treated by individuals and families as a 'private issue' that was off-limits to others, except, medical professionals and other family members (Tork and Abdel-Fattah, 2015). People's beliefs about mental illness were interrelated to their attitudes, both of which set the stage for how they interact with people with mental illness as well as how they seek help and support when faced with a psychological problem themselves (Kobau and Zack, 2013). Mental illness is defined as a group of disorders causing severe disturbance in feeling, thinking, and relations (Abo El-Magd and Al Zamil, 2013). There is growing evidence of stigmatization toward mentally ill people all over the world not only in the general population,

but also among trained health professionals (Thornicroft *et al.*, 2009). Similarly, it has been established that mental illness is more stigmatizing than physical illnesses (Lee *et al.*, 2005). However,

new treatments have been developed and tested successfully to treat symptoms and reduce disabilities of many mental illnesses. Unfortunately, people suffering from mental illnesses usually do not seek out psychiatric services or choose to engage in them. One factor that prevents care seeking and ask for help is mental illness stigma (Corrigan et al., 2014). So stigma toward mental illness continues to be a main barrier for those with mental illness (Ciftci et al., 2013). Some studies have found that attitudes and beliefs about mental illness were more stigmatized in developing countries than in the West (Coker, 2005). These attitudes are usually reinforced by the way the media has portrayed mentally ill people that lead to discrimination and false ideas that mental ill people are lazy, dangerous, and/or incompetent (Maier et al.,

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2014). Accordingly, this stigma continues to be a challenge in Egypt and other developing countries in the management of mental illnesses.

People with mental illnesses must not only cope with their psychological, biological, and cognitive symptoms of psychiatric disorder but they had to deal with many negative consequences of stigma toward their mental illness such as social exclusion, restriction for employment and education, which in turn impair their quality of life (Hatzenbuehler *et al.*, 2013).

Many people hesitate to seek help or visit a psychiatrist because of their worry to be labeled as a 'psychiatric patient' and want to avoid the negative consequences related to stigma (Tork and Abdel-Fattah, 2015). Accordingly, negative attitudes toward mental illness worsen the quality of life of mentally ill patients (Abo El-Magd and Al Zamil, 2013).

Stigma was defined by the WHO as 'A mark of shame or disapproval of an individual which results in rejection, discrimination against, and exclusion of that individual from participating in a number of different areas of society' (Lyons *et al.*, 2015).

Every part of society has a unique way of dealing with mental illness, especially the youthful generation and university students. University may be the best place to develop an inclusive program for mental health, because the attitude and values of university students tend to affect society (Mahto *et al.*, 2009). The negative attitudes of the university students toward mentally ill people are due to lack of awareness and knowledge about mental illnesses (Jyothi *et al.*, 2015).

Previous studies found that medical students and those who are in contact with the mentally ill, either through professional or personal activities showed more positive attitudes toward the mentally ill, while the stigma was found to be higher among those who have less contact with mentally ill patients (Nguyen *et al.*, 2012; Kengeter, 2017). Thus, understanding the beliefs about the mentally ill people among university students is a basic step in addressing the problem of stigma toward mental illness in our society.

# Aim

This study was to assess the beliefs and attitudes toward mental illness and psychiatric patients in the scientific and theoretical faculties among a sample of undergraduate students in Al-Azhar University for Girls, Egypt, and to determine if there are any differences regarding the type of faculty or academic degree.

# Participants and methods Study design

A descriptive design was used in carrying out this study, which was conducted in Al-Azhar University for Girls, Cairo, Egypt. The data collection took place from January to May 2019.

# Participants

A total of 1200 undergraduate students were recruited from different faculties; 592 students from scientific faculties such as 'medicine, dentistry, pharmacy, science, and commerce' and 608 from theoretical faculties such as 'Islamic, Arabic, and Humanistics.'

# Study tools

The following data were collected:

- (1) Each student was required to fill out a sociodemographic questionnaire, which addressed age, residence, faculty type, academic degree, family history of mental illness, and history of any psychiatric disorder themselves.
- (2) The beliefs scale for mental illness: an Arabic questionnaire used to assess beliefs about mental illness in Arabic societies. The questionnaire consisted of 40 items and was classified into five subscales: the first subscale (nine items) measured the participants' attitude toward the nature of mental illness; the second subscale (11 items) measured the participants' knowledge about the etiology of mental illness; the third subscale (seven items) measured the participants' beliefs about methods of treatment of mental illness. The fourth subscale (five items) measured the participants' beliefs about the recovery of mental illness; the fifth subscale (eight items) measured the participants' knowledge and attitude toward the social effect of mental illness on patient's family.

# **Ethical considerations**

The study was conducted after approval of the Ethics Committee of Faculty of Medicine for Girls, Al-Azhar University. We also obtained informed oral consents from students who agreed to participate in the study. In a group setting, we verbally explained the objectives and benefits of this study and how to complete the questionnaires. Confidentiality of collected data was guaranteed to all participants.

#### Statistical analysis

Data in the current study were collected, revised, coded, tabulated, and analyzed using the Statistical Package for the Social Sciences (IBM SPSS) version 23 SPSS software package version 20.0 (Armonk, NY: IBM Corp). Quantitative data were existing as range, SD, and mean. One-way analysis of variance test was used to compare more than two groups. Meanwhile, qualitative variables were presented as percentages and numbers.  $\chi^2$ -test was used to compare the groups of qualitative variables. The confidence interval was set to 95% along with the margin of accepted error set to 5%.

| Table 1 Sociodemographic chara | acteristics of the participants |
|--------------------------------|---------------------------------|
|--------------------------------|---------------------------------|

| Characteristics                       | n (%)       |
|---------------------------------------|-------------|
| Age (mean±SD)                         | 20.1±1.52   |
| Residence                             |             |
| Rural                                 | 384 (32.0)  |
| Suburban                              | 432 (36.0)  |
| Urban                                 | 384 (32.0)  |
| Marital status                        |             |
| Single                                | 1152 (96)   |
| Married                               | 48 (4)      |
| Faculty type                          |             |
| Scientific faculties                  | 592 (49.3)  |
| Medicine                              | 290 (24.2)  |
| Pharmacy                              | 96 (8.0)    |
| Dentist                               | 88 (7.3)    |
| Science                               | 84 (7.0)    |
| Commerce                              | 34 (2.8)    |
| Theoretical faculties                 | 608(50.7)   |
| Islamic                               | 344 (28.7)  |
| Arabic                                | 86 (7.2)    |
| Humanistics                           | 178 (14.8)  |
| Academic year                         |             |
| First degree                          | 332 (27.7)  |
| Second degree                         | 186 (15.5)  |
| Third degree                          | 302 (25.2)  |
| Fourth degree                         | 316 (26.3)  |
| Fifth degree                          | 64 (5.3)    |
| Family history of psychiatric illness |             |
| Positive family history               | 170 (14.2)  |
| Negative family history               | 1030 (85.8) |
| history of psychiatric illness        |             |
| Positive history                      | 122 (10.2)  |
| Negative history                      | 1078 (89.8) |

So, the P value was considered to be significant at a level of less than 0.05.

#### Results

This table shows that the mean age of students was  $20.1\pm1.52$  The majority of students were single (96%), from suburban areas (36%), and those from rural and urban areas were equally distributed. The majority of students had negative past history of psychiatric illness themselves (89.8%) and negative family history (85.8%) (Table 1).

# According to faculty type

Scientific faculties represented 49.3% of the total sample and medical students represent the majority (24.2%), while theoretical faculties represented 50.7% and Islamic faculty students represented the majority of them (28.7%).

According to academic degree: first degree students represented 27.7%, fourth degree 26.3% and third degree 25.2%, second degree 15.5%, and fifth degree 5.3% (Table 2).

This table shows that knowledge about the nature of mental illness, treatment of mental illness, and attitude

Table 2 Beliefs toward mental illness according to the type of faculty

| BSMI subscales                     | Scientific Theoretical faculties faculties |             | t test | P<br>value |
|------------------------------------|--|-------------|--------|------------|
| Nature of mental illness           | 20.73±3.58                                 | 18.23±4.58  | 10.48  | <0.001     |
| Etiology of mental<br>illness      | 30.68±4.57                                 | 30.31±3.99  | 1.49   | 0.13       |
| Treatment of<br>mental illness     | 17.88±2.47                                 | 16.39±2.95  | 9.45   | <0.001     |
| Recovery from<br>mental illness    | 14.19±4.3                                  | 13.9±5.21   | 1.05   | 0.2        |
| Social effect of<br>mental illness | 24.34±4.46                                 | 22.96±4.87  | 5.11   | <0.001     |
| Total                              | 106.75<br>±9.55                            | 99.53±10.68 | 12.31  | <0.001     |

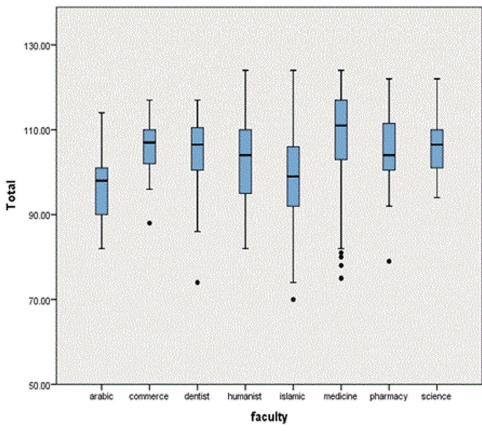
BSMI, beliefs scale for mental illness.

#### Table 3 Beliefs toward mental illness according to the academic degree

| BSMI subscales                  | First academic year | Second year | Third year  | Fourth year | Firth year  | F      | P value |
|---------------------------------|---------------------|-------------|-------------|-------------|-------------|--------|---------|
| Nature of mental illness        | 18.43±4.62          | 18.65±4.61  | 19.69±4.21  | 20.03±3.27  | 23.34±3.80  | 22.471 | < 0.001 |
| Etiology of mental illness      | 30.19±4.53          | 29.81±4.26  | 29.91±4.19  | 31.43±4.01  | 32.28±3.67  | 9.742  | < 0.001 |
| Treatment of mental illness     | 16.62±3.03          | 16.60±2.42  | 17.13±3.03  | 17.54±2.49  | 19.25±1.93  | 15.721 | < 0.001 |
| Recovery from mental illness    | 13.97±5.45          | 13.53±4.74  | 14.21±4.99  | 14.02±3.90  | 15.21±4.06  | 1.603  | 0.171   |
| Social effect of mental illness | 22.68±4.62          | 22.87±5.01  | 22.45±4.34  | 25.50±4.24  | 27.25±3.77  | 34.536 | < 0.001 |
| Total score                     | 99.46±11.00         | 99.52±10.22 | 101.52±9.41 | 107.80±8.93 | 116.50±5.12 | 68.776 | < 0.001 |

BSMI, beliefs scale for mental illness.

#### Figure 1



Total score of beliefs scale for mental illness according to faculty.

about social effect of mental illness were significantly higher in scientific faculties. The total score of beliefs toward mental illness was also significantly higher in scientific faculties (Table 3).

This table shows that knowledge about the nature of mental illness, etiology of mental illness, treatment of mental illness, and attitude about social effect of mental illness were significantly positive with academic degree (direct proportion). The total score of beliefs toward mental illness was also significantly positive with final academic degrees (Fig. 1).

This figure shows that students in the faculty of medicine had the highest score while students in the faculty of Arabic had the lowest score (Table 4).

This table shows no significant difference among the participants according to their residence (Table 5).

This table shows that knowledge about the nature of mental illness, etiology of mental illness, and attitude about social effect of mental illness were significantly negative in those with a positive history of mental illness. The total score of beliefs toward mental

Table 4 Beliefs toward mental illness according to residence

| Table 4 Benero toward mental mileso dooording to residence |        |          |        |        |                   |
|--|--------|----------|--------|--------|-------------------|
| BSMI subscales   | Rural  | Suburban | Urban  | F      | <i>P</i><br>value |
|  |        |          |        |        | value             |
| Nature of mental   | 19.22  | 19.28    | 19.91  | 3.087  | 0.046             |
| illness  | ±4.17  | ±4.55    | ±4.11  |        |                   |
| Etiology of  | 30.94  | 30.08    | 30.53  | 4.104  | 017               |
| mental illness   | ±4.23  | ±3.69    | ±4.90  |        |                   |
| Treatment of   | 17.59  | 17.10    | 16.68  | 10.137 | 0.000             |
| mental illness   | ±3.03  | ±2.83    | ±2.53  |        |                   |
| Recovery from  | 14.78  | 13.51    | 13.90  | 7.451  | 0.001             |
| mental illness   | ±5.58  | ±3.82    | ±4.82  |        |                   |
| Social effect of   | 23.70  | 23.22    | 24.04  | 3.091  | 046               |
| mental illness   | ±5.17  | ±4.22    | ±4.75  |        |                   |
| Total  | 103.73 | 102.17   | 103.50 | 2.555  | 0.078             |
|  | ±11.43 | ±9.94    | ±10.91 |        |                   |

BSMI, beliefs scale for mental illness.

illness was also significantly negative in those participants (Table 6).

This table shows that knowledge and beliefs toward mental illness were significantly negative in participants with a positive family history of mental illness.

# Discussion

Stigma toward mental illness is an international concern and research is needed to know about its

Table 5 Beliefs toward mental illness according to the history of mental illness among participants

| BSMI<br>subscales                     | Negative<br>psychiatric<br>history<br>( <i>n</i> =1078) | Positive<br>psychiatric<br>history<br>(n=122) | t test | P<br>value |
|---------------------------------------|---|---|--------|------------|
| Nature of<br>mental<br>illness        | 19.62±4.22  | 18.04±4.74                                    | 3.863  | 0.001      |
| Etiology of<br>mental<br>illness      | 30.84±3.99  | 27.47±5.51                                    | 8.449  | <0.001     |
| Treatment<br>of mental<br>illness     | 17.19±2.85  | 16.54±2.53                                    | 2.431  | 0.015      |
| Recovery<br>from mental<br>illness    | 13.99±4.74  | 14.49±5.15                                    | 1.079  | 0.281      |
| Social effect<br>of mental<br>illness | 23.83±4.63  | 21.93±5.19                                    | 4.241  | <0.001     |
| Total score                           | 103.99±10.24  | 95.19±11.95                                   | 8.827  | < 0.001    |

BSMI, beliefs scale for mental illness.

basis, consequences, and mechanisms in order to improve stigma and its impact (Ku, 2007). The negative attitude towards mentally ill patients is high among the general population (Saridi *et al.*, 2017), as well as among university students (Javed *et al.*, 2006). So fighting stigma toward mental illness became a main concern in international mental health policy (Haro *et al.*, 2014).

The present study showed that undergraduate students in Al-Azhar University for Girls hold positive attitudes toward mental illness, regardless of the type of faculty or academic degree (106.75±9.55 for scientific faculties and 99.53±10.68 in theoretical faculties). This finding is in agreement with

Tork and Abdel-Fattah (2015), who studied 232 undergraduate female students in Qassim University, KSA, Similar result was also reported by Savrun et al. (2007), who surveyed 700 final-year University students from the Management and Economics Faculty in Istanbul, Turkey. The researchers in previous studies reported that women had positive attitudes and were less stigmatizing toward patients with mental illness and attributed a positive view of female university students toward the mentally ill to their comparatively optimistic attitudes about the treatability of mental illnesses. However, the result in our study was not in agreement with the Egyptian study by Shehata and Abdeldaim (2019), who studied 705 students from Tanta University, Egypt, where they found that the majority of university students had a negative attitude toward patients with mental illness; this difference may be

Table 6 Beliefs toward mental illness according to family history of mental illness

| BSMI<br>subscales                     | Negative<br>family history<br>( <i>n</i> =1030) | Positive<br>family history<br>( <i>n</i> =170) | t test | P<br>value |  |  |
|---------------------------------------|---|--|--------|------------|--|--|
| Nature of<br>mental<br>illness        | 19.78±4.18                                      | 17.52±4.50                                     | 6.443  | <0.001     |  |  |
| Etiology of<br>mental<br>illness      | 31.01±4.00                                      | 27.36±4.63                                     | 10.760 | <0.001     |  |  |
| Treatment of<br>mental<br>illness     | 17.44±2.70                                      | 15.21±2.83                                     | 9.921  | <0.001     |  |  |
| Recovery<br>from mental<br>illness    | 14.23±4.78                                      | 12.90±4.69                                     | 3.371  | 0.001      |  |  |
| Social effect<br>of mental<br>illness | 24.07±4.30                                      | 21.03±6.120                                    | 7.964  | <0.001     |  |  |
| Total                                 | 105.01±9.09                                     | 91.49±12.67                                    | 16.876 | < 0.001    |  |  |
| RSML boliefe scale for montal illness |   |  |        |            |  |  |

BSMI, beliefs scale for mental illness.

attributed to different sociodemographic selection in the present study.

As regards beliefs scale for mental illness scale items according to the type of faculties, the present study showed significantly more positive beliefs toward mentally ill patients among scientific faculty students. We also found that knowledge about the nature of mental illness, treatment of mental illness, and attitude about social effect of mental illness were significantly positive in scientific faculty students. This result comes in agreement with

Abo El-magd and Al Zamil (2013), as they found that the medical students had a more positive attitude toward mental illness and psychiatric patients than nonmedical students. Similarly, Poreddi *et al.* (2014) compared between the attitude of 266 of nursing and business management colleges in India and revealed that nursing students had a more positive attitude toward mental illness. However, this result was in contrast to Zolezzi *et al.* (2017), who studied 282 students from Qatari University to determine if there are any differences based on college type, where they found that the overall attitude and knowledge about mental illness was more positive among students in nonsciencebased colleges than in science-based colleges.

Regarding academic degree in different faculties, we found that knowledge about the nature of mental illness, etiology of mental illness, treatment of mental illness, and the attitude about social effect of mental illness were significantly positive with advanced academic degree (direct proportion). The total score of beliefs toward mental illness was also significantly positive with advanced academic degrees (99.46±11.00 in those in the first degree compared with those in 116.50±5.12 in the fifth degree). This result is in agreement with Poreddi et al. (2014), who found that university students had negative attitudes toward patients with mental illness and, moreover, they found that the students attitude changed and become less negative at final degree after awareness about mental illness.Several studies have shown that attitudes about mental illness are obviously related to various demographic variables such as residence (Savrun et al., 2007; Sun et al., 2014). This study, however, found that there is no correlation between the beliefs and attitude of students and their residence. This can be explained by the fact that our sample were from the same age, sex, and educational level.

In this study we found that students with a positive psychiatric history or those with positive family history had a negative attitude toward mental illness. This was different from the Jordanian study by Rayan and Jaradat (2016), who found that students with a history of receiving mental health counseling services expressed more willingness to seek professional psychological help. This difference may be attributed to that students in our sample may not seek psychiatric advice.

# Conclusion

Scientific faculties and advanced academic degree hold more positive beliefs and attitude toward mentally ill patients. There is the possibility for additional research including studying the effects of educational interventions.

#### Limitation and recommendation

The participants were women and therefore sex differences could not be examined. So, we recommend to repeat the same study among undergraduate students in Al-Azhar University for Boys.

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#### **Conflicts of interest**

There are no conflicts of interest.

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