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Assessment of Adult Attitude Towards Mental Illness among Attendees of Family Medicine Outpatient Clinic at Suez Canal University Hospital, Ismailia Governorate, Egypt

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Abstract

Background: **Although mental health care has improved significantly over the last decades, many people still choose not to seek treatment due to stigma.** ***Aim:*** **To improve attitude towards mental illness.** ***Subjects and Methods:*** **A cross-sectional study was conducted on 215 participants aged >18 years who attended the Family Medicine outpatient clinic of SCU Hospital, Ismailia, Egypt to assess attitudes towards mental disorders and their association with their socio-demographic characteristics. Semi-structured questionnaires were used to collect data on demographic, socioeconomic status, and attitudes to Mental Illness.** ***Results:*** **Our study included 215 patients with a mean age of 47±13.4 years. About three-quarters of the participants were females (71.6%). It was found that the recruited participants had negative attitudes concerning the fear and exclusion of people with mental illness (19.03 ± 3.86). However, they had a more positive attitude towards causes of mental illness and the need for special services, integration of people with mental illness into the community, and understanding of mental illness (11.14 ± 2.02, 25.02 ± 4.09, 27.38 ± 3.41) respectively. Moreover, gender, crowding index, and socioeconomic status were significantly associated with participants' fear of and exclusion of people with mental illness where P values were (0.033, 0.023, 0.041) respectively.** ***Conclusion:*** **Although the Attitude toward mental illness was variable. The study highlights a huge understanding and tolerance towards mental illness and integrating patients with mental illness into the community. Anti-stigma programs are needed to boost people's acceptance of mental illness and strategies to increase social contact of the public with the mentally ill should be considered.**

Keywords: stigma, public, tolerance

Introduction

Mental illnesses have been receiving increasing attention from the scientific community during the past decades due to the burden they pose on people's lives. Mental illnesses are considered clinically significant conditions that affect thinking, emotions, and or behavior. It includes schizophrenia, bipolar disorder, and severe depression that are associated with significantly impaired functioning leading to disability[1]. In Egypt, almost one-fifth of the adult population struggle with mental illness[2]. And despite the improvement in healthcare services provided for mentally-

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ill individuals, they often choose not to seek such care or stop taking their medicines. One of the most important reasons behind this reluctance to seek support and treatment is the stigma mentally-ill people have to face every day[3]. Stigma is a negative label frequently attached to persons who deviate from social norms in some aspects, such as mental health[4]. People with mental illness face difficulties in social relationships, experience social isolation and withdrawal, homelessness, and unemployment[5]. Moreover, one in four families has at least one member struggling with a mental or behavioral disorder. These families are expected to provide physical and emotional support for their members and also bear the negative impact of the disease, ranging from the economic and emotional difficulties, the stress of coping with this disturbed behavior, the disruption of household routine, and the restriction of social activities[6]. Therefore, mental illness stigma hurts mentally-ill individuals and their families and it will sometimes lead to very devastating consequences[3]. Considering the increasing prevalence of mental illness worldwide and the high burden of the disease in Egypt and because patients with mental illnesses suffer a lot starting from stigma to isolation from work and life activity, this research was conducted to assess the attitudes of people towards mental illnesses and its stigma.

Materials and Methods

Study design
Cross-sectional study was conducted to assess the attitude of adult patient towards mental illnesses and the impact of their socio-demographic characteristics on this attitude.

Setting
This study was carried out at Family Medicine outpatient clinic at SCU hospital in Ismailia Governorate, Egypt. It was conducted between July 2018 to October 2018.

Study population
Two hundred and fifteen adult patients attending family medicine outpatient clinic for the management of their acute or chronic health problems, aged from 18 to 65 years old, and who accepted to participate in the study were included in the study. Selection of this age group as it is commonly assumed that older and younger adults have very different attitudes about seeking mental health services and that this is a major factor in reducing the use of mental health services by mentally ill patients.

Exclusion criteria
Patients who did not agree to participate in the study, or were diagnosed to have mental illness as schizophrenia, bipolar disorder and those who received treatment that may cause depression as a side effect were excluded from the study.

Sample technique
convenience sampling technique sufficient enough to demonstrate a 15% prevalence of negative attitudes among the adults, a 95% confidence interval so the sample size was calculated to be 215.

Study Procedure
Every participant was asked to answer 3 structured interview questionnaires which were previously translated and validated in Arabic, and they included a demographic questionnaire, socioeconomic status (SES) questionnaire, and an Attitude to Mental Illness questionnaire. *The demographic questionnaire* surveyed data related to the participant's age, gender, and marital status. Then participant's *socioeconomic status* was assessed using the

modified scoring system of Fahmy and El-Sherbini for measurement of SES in health research in Egypt[7]. It consists of 7 domains with a total score of 84. The final scores were categorized into very low, low, middle, and high. Finally, the participant's attitude towards mental illness was evaluated by *Attitudes to Mental Illness questionnaire*[8], which included a number of statements about mental illness. Participants were asked to indicate how much they agreed or disagreed with each statement through a 5-point Likert scale. The questions also included other aspects such as descriptions of people with mental illness and the participant's relationships with them, personal experience of mental illness, and perceptions of mental health-related stigma and discrimination.

Ethical considerations

All procedures performed in the study were in accordance with the ethical standards of the institutional research committee, and with the 1964 Helsinki declaration and its later amendments. The participants were assured that their refusal to participate or withdraw at any time didn't affect the integrity of their care in the family medicine outpatient clinic. Acceptance of participation after clarifying the aim of the study was based on informed written consent that was approved by the Research and Ethics Committee at FOM SCU from all participants or their parents/Legally authorized representative of illiterate participants. The confidentiality of data was assured.

Statistical Analysis

Data were analyzed using IBM Statistical Package for Social Sciences software (SPSS), 23rd edition. Continuous data were expressed as mean ± standard deviation and categorical data as percentage. T-test was used to compare between quantitative, while Chi-square or Fisher's exact tests were used to find the relations between adult attitudes toward mentally ill patients versus different demographic characteristics of the participants. Results were considered statistically significant at a p-value of less than 0.05.

Results

Our study included 215 patients with a mean age was 47±13.4 years. About three quarter of participants were females (71.6%), housewives or unemployed (67.4%), lived in urban areas (85.6%), and were of low socioeconomic status (58.6%). About 40% of the participants were illiterate and those who only can read and write represent 20%. About half of the participants were only able to meet their routine expenses. Regarding healthcare, 38.1% of them had access to more than one healthcare facility and 27% had access to private health facilities (Table 1). Adult attitude toward mental illness is shown in (Table 2). Regarding fear and exclusion of people with mental illness, the overall total score for this domain was 19.03 ± 3.86 points, which points out the negative attitude of the participants concerning that domain. Statements 3, 15 and 18 had the highest percentage of agreeing in that domain (95%, 92.6%, and 93%, respectively), which reflects high negative attitudes. Meanwhile, as for their understanding and tolerance of mental illness, the overall total score for that domain was 27.38 ± 3.41 points, reflecting positive attitudes. Statements 9, 10, and 23 had the highest percentage of agreeing (89%, 92%, and 94% respectively). However, statement 11 and 13 showed a high percentage of disagreeing (92% and 91%, respectively), which all reflects a positive attitude towards mental illness concerning that domain.

. Table 1. Socio-demographic characteristics of the participants who attending family medicine outpatient clinic at SCU hospital (n=215)	
Age (years), Mean ± SD	47 ±13.4
Gender	**n (%)**
Male	61 (28.4)
Female	154 (71.6)
Residence	
Rural	184 (85.6)
Urban slum	26 (12.1)
Urban	4 (1.9)
Occupation	
Housewife/ unemployed	145 (67.4)
Unskilled manual work	21 (9.8)
Skilled manual work	10 (4.7)
Trades	9 (4.2)
Semiprofessional/clerk	28 (13)
Professional	2 (0.9)
Education	
Illiterate	84 (39.1)
Read and write	43 (20)
Primary school	29 (13.5)
Secondary	29 (13.5)
Intermediate	17 (7.9)
Graduate	10 (4.7)
Postgraduate	3 (1.4)
Economy	
In debt	60 (27.9)
Just meet routine expenses	105 (48.8)
Meet routine expenses and emergencies	35 (16.3)
Able to save/invest	15 (7)
Health care	
More than one source	82 (38.1)
Free governmental health services	57 (26.5)
Health insurance	18 (8.4)
Private health facilities	58 (27)
Crowing index	
≤ 1 person per room	105 (48.8)
> 1 person per room	110 (51.2)
Family Equipment	
< 5 equipment	78 (36.3)
≥ 5 equipment	137 (63.7)
Socioeconomic status category	
Very low	43 (20)
Low	126 (58.6)
Middle	40 (18.6)
High	6 (2.8)

Table 2. Attitude of participants towards mental illness (n=215)			
Statement	**Mean ± SD**	**Agree (%)**	**Disagree (%)**
Fear and Exclusion of People with Mental Illness			
• As soon as a person shows signs of mental disturbance, he should be hospitalized	2.57 ± 0.68	204 (94.9)	11(5.1)
• People with mental illness are a burden on society	3.28 ± 0.15	113 (52.6)	102 (47.4)
• People with mental illness should not be given any responsibility	1.21 ± 0.97	16 (92.6)	199 (7.4)
• A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered	2.39 ± 1.32	51 (76.3)	164 (23.7)
• I would not want to live next door to someone who has been mentally ill	2.33 ± 1.14	36 (16.7)	179 (83.3)
• Anyone with a history of mental problems should be excluded from taking public office	1.94 ± 0.91	14 (93.5)	201 (6.5)
• It is frightening to think of people with mental problems living in residential neighborhoods	2.13 ± 0.99	87 (40.5)	128 (59.5)
• Locating mental health facilities in a residential area downgrades the neighborhoods	3.16 ± 1.03	96 (44.7)	119 (55.3)
Total	**19.03 ± 3.86**		
Understanding and Tolerance of Mental Illness			
• Virtually anyone can become mentally ill	2.40 ± 1.13	53 (24.7)	162 (75.3)
• People with mental illness have for too long time been the subject of ridicule	3.31 ± 1.36	124 (57.7)	91 (42.3)
• We need to adopt a far more tolerant attitude toward people with mental illness in our society	4.22 ± 0.77	192 (89.3)	23 (10.7)
• We have a responsibility to provide the best possible care for people with mental illness	4.43 ± 0.82	198 (92.1)	17 (7.9)
• People with mental illness don't deserve our sympathy	4.35 ± 0.85	199 (7.4)	16 (92.6)
• Increased spending on mental health services is a waste of money	4.37 ± 0.83	197 (8.4)	18 (91.6)
• As far as possible, mental health services should be provided through community-based facilities	4.30 ± 0.65	203 (94.4)	12 (5.6)
Total	**27.38 ± 3.41**		
Causes of Mental Illness and the Need for Special Services			
• Lack of self-discipline and willpower	3.69 ± 1.06	129 (60.0)	86 (40.0)
• There is something about people with mental illness that makes it easy to tell them from normal people	4.07 ± 0.90	184 (85.6)	31 (14.4)
• There are sufficient existing services for people with mental illness	3.39 ± 1.01	124 (57.7)	91 (42.3)
Total	**11.14 ± 2.02**		
Integrating People with Mental Illness into the Community			
• Mental illness is an illness like any other	3.92 ± 1.15	166 (77.2)	49 (22.8)
• Less emphasis should be placed on protecting the public from people with mental illness	3.08 ± 1.27	105 (48.8)	110 (51.2)
• Mental hospitals are an outdated means of treating people with mental illness	2.58 ± 1.05	52 (24.2)	163 (75.8)
• No one has the right to exclude people with mental illness from their neighborhoods	3.71 ± 1.30	143 (66.5)	72 (33.5)
• People with mental illness are far less of a danger than most people suppose	3.07 ± 1.06	98 (45.6)	117 (54.4)
• Most women who were once patients in a mental hospital can be trusted as babysitters	1.78 ± 0.97	19 (8.8)	196 (91.2)
• The best therapy for many people with mental illness is to be part of a normal community	3.91 ± 1.12	165 (76.7)	50 (23.3)
• Residents have nothing to fear from people coming into their neighborhoods to obtain mental health services	3.61 ± 0.87	139 (64.7)	76 (35.3)
• People with mental health problems should have the same rights to a job as anyone else	3.08 ± 1.15	93 (43.3)	122 (56.7)

Regarding the participants' attitude towards the causes of mental illness and the need for special services, the overall total score for that domain was 11.14 ± 2.02 points; thus, participants had positive thoughts regarding the causes of mental illness and the need for special services. Statement 2 had the highest scores in that domain with mean scores 4.07 ± 0.90 points with a percentage of agreeing 85.6% reflecting a positive attitude. Finally, regarding integrating people with mental illness into the community, the overall total score for that domain was 25.02 ± 4.09 points; therefore, participants supported integrating people with mental illness into the community. Statements 4, 22 and 19 had the highest scores in that domain with mean scores 3.92 ± 1.15, 3.91 ± 1.12 and 3.71 ± 1.30 points, respectively and percentage of agreeing 77.2%, 76.7% and 66.5%.

Table 3. Association between attitude of participants attending family medicine outpatient clinic at SCU hospital regarding fear and exclusion of people with mental illness subscale and their socioeconomic characteristics

Variables	Attitude		Test-value	p-value
	Positive (n= 66)	Negative (n= 149)		
Age (years), Mean ± SD	44.45 ± 11.83	42.09 ± 13.11	-1.525[a]	0.21
Gender, n (%)				
Male	12 (18.2)	49 (32.9)	4.86[c]	**0.033***
Female	54 (81.8)	100 (67.1)		
Crowding index				
≥ 5 equipment	40 (60.6)	97 (65.1)		
Socioeconomic status category				
Very low	8 (12.1)	35 (23.5)	7.98[c]	**0.041***
Low	47 (71.2)	79 (53)		
Middle	11 (16.7)	29 (19.5)		
High	0	6 (4)		

[a] *p-values are based on Independent t-test. Statistical significance at p < .05.*
[b] *p-values are based on Chi-square test. Statistical significance at p < .05*
[c] *p-values are based on Fisher's Exact test. Statistical significance at p < .05*

(Table 3) shows the relationship between adult attitude regarding fear and exclusion of mental illness domain and their socio-demographic characteristics. It was found that those with a low crowding index had significantly more positive attitude than those with a high crowding index (P=0.023). Moreover, participants with a higher socioeconomic status had significantly more positive attitude than those with lower ones (P=0.041). In (Table 4), regarding understanding and tolerance of mental illness and its association to their socio-demographic characteristics, the researcher found that those in debt had significantly more negative attitudes than those with better financial status (P=0.048). Regarding integrating people with mental and its association with their socio-demographic characteristics, it was found that females had significantly more positive attitudes than males (p=0.001). (Table 5). (Figure1) shows that 69% of the participants expressed negative attitudes

regarding fear and exclusion of people with mental illness while only 31% were positive one. Almost all the participants (97%) had a positive attitude concerning understanding and tolerance of mental illness (Fig. 2). (Fig. 3) shows that 97% of the participants had positive attitudes regarding the causes of mental illness and the need for special services. The majority of the participants (81%) had positive attitudes concerning integrating people with mental illness into the community (Fig. 4).

Table 4. Association between attitude of participants attending family medicine outpatient clinic at SCU hospital regarding understanding and tolerance of mental illness and their socioeconomic characteristics

Variables	Attitude		Test-value	p-value
	Positive (n=209)	Negative (n=6)		
Age (years), Mean ± SD	43.02 ± 12.85	45.67 ± 11.51	-1.51[a]	0.13
Gender, n (%)				
Male	61 (29.2)	0	2.45[b]	0.187
Female	148 (70.8)	6 (100)		
Read and write	42 (20.1)	1 (16.7)		
Primary school	29 (13.9)	0 (0)		
Secondary	29 (13.9)	0 (0)		
Intermediate	17 (8.1)	0 (0)		
Graduate	10 (4.8)	0 (0)		
Postgraduate	3 (1.4)	0 (0)		
Economy, n (%)				
In debt	55 (26.3)	5 (83.3)	6.48[b]	**0.048***
Just meet routine expenses	104 (49.8)	1 (16.7)		
Meet routine expenses and emergencies	35 (16.7)	0 (0)		
Able to save/invest	15 (7.2)	0 (0)		
Low	122 (58.4)	4 (66.7)		
Middle	40 (19.1)	0 (0)		
High	6 (2.9)	0 (0)		

[a] *p-values are based on Mann-Whitney U -test. Statistical significance at p < 0.05.*
[b] *p-values are based on Fisher's Exact test. Statistical significance at p < .05*

Discussion

Cross-sectional study was conducted to assess the adult attitude toward mental illnesses and the impact of their sociodemographic characteristics on this attitude. 215 participants attending family medicine outpatient clinic at SCU hospital, aged from 18 to 65 years were included in the study. Mean age of the participants was 47±13.4 years. They were predominantly females (71.6%), housewives or unemployed (67.4%), lived in urban areas (85.6%), and were of low socioeconomic status (58.6%). About 40% of the participants were illiterate and those who only can read and write represent 20%. About half of the participants were only able to meet their routine expenses. Regarding healthcare, 38.1% of them had access to more than one healthcare facility and 27% had access to private health facilities. In the current research, the recruited participants adopted a negative attitude regard-

ing their fear and exclusion of patients with mental illness. Our results were consistent with the results of the research which was conducted by Siu et al who assessed the attitude of the Chinese community towards mental illness and found that less than one-third felt afraid of talking to people with mental illness and opposed the presence of residential hostels

for people with mental illness near to their households [9]. In a similar study in Ghana, the majority of the participants agreed that mentally-ill individuals should be hospitalized as soon as they show any signs, more than half of the participants thought that the mentally ill were a burden on society; however, more than half of the participants also disagreed that it was foolish to marry a previously mentally-ill man or that people with mental illness should be excluded from taking public office[10].

Table 5. Association between the attitude of participants attending family medicine outpatient clinic at SCU hospital regarding integrating people with mental illness and their socioeconomic characteristics

Variables	Attitude		Test-value	p-value
	Positive (n= 183)	Negative (n= 32)		
Age (years), Mean ± SD	42.12 ± 12.68	46.84 ± 12.59	-1.95	0.053
Gender, n (%)				
Male	59 (32.2)	2 (6.3)	9.05[b]	**0.001***
Female	124 (67.8)	30 (93.8)		
Occupation, n (%)				
Housewife	116 (63.4)	29 (90.6)	8.44[c]	0.11
Unskilled manual work	20 (10.9)	1 (3.1)		
Skilled manual work	10 (5.5)	0		
Trades	8 (4.4)	1 (3.1)		
Semiprofessional/clerk	27 (14.8)	1 (3.1)		
Professional	2 (1.1)	0		
Low	103 (56.3)	23 (71.9)		
Middle	38 (20.8)	2 (6.3)		
High	6 (3.3)	0		

[a] *p-values are based on independent t-test. Statistical significance at p < 0.05.*
[b] *p-values are based on Chi-square test. Statistical significance at p < .05*
[c] *p-values are based on Fisher's Exact test. Statistical significance at p < .05*

On the other hand, our findings were inconsistent with the findings of an Ethiopian study that found that the majority of participants agreed that a woman would be foolish to marry someone who was mentally ill and that they wouldn't live next door to someone with mental illness[11]. In the current research, the recruited participants showed a huge understanding and tolerance towards mental illness and mentally ill people. Similarly, Barke et al reported that the Ghanaian community adopted a tolerant attitude towards mental illness. More than half of their participants felt that mentally ill persons deserve sympathy and have for too long been the subject of ridicule, Moreover, the majority felt responsible to provide the best possible care for the mentally ill [9]. Meanwhile, in the English community, people were even more tolerant. Over 90% felt responsible to provide the best possible care for the mentally ill [11]. On the other hand, these findings disa-

greed with the results of the Ethiopian study which reported that most of their participants rejected the statement "We need to adopt a far more tolerant attitude toward the mentally ill in our society" and agreed that mentally ill didn't deserve sympathy and were better to be avoided [11]. These differences in attitude are probably due to socio-demographic variations in the studied populations. Our participants supported integrating patients with mental illness into the community. They agreed that it's the best therapy for many mentally ill people; however, they showed less support for trusting a previously mentally ill woman as a babysitter and that the mentally ill should have equal job opportunities. A possible explanation for this discrepancy is that people might want to help the mentally ill by providing them the best care, but due to public fear of the mentally ill, they wouldn't want to interact with someone mentally ill or involve him/her in their daily life. Evans et al reported that about 78% of their participants viewed mental illness like any other illness and that the mentally ill should be a part of the community, but only 22.6% would trust a once mentally-ill woman to be a babysitter[12].

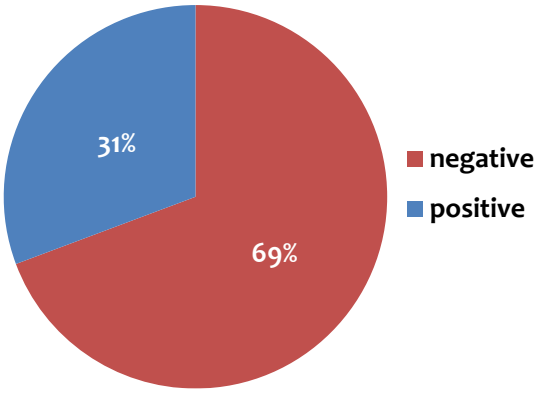

Figure 1. The attitude of participants attending the family medicine outpatient clinic at SCU hospital regarding fear and exclusion of people with mental illness

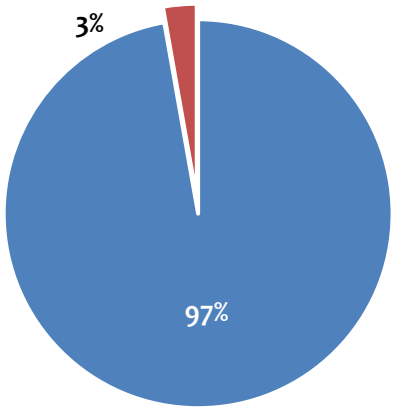

Figure 2. The attitude of participants attending the family medicine outpatient clinic at SCU hospital regarding understanding and tolerance of mental illness

Meanwhile, Barke et al found that 54.6% of their participants agreed that no one has the right to exclude the mentally ill from their neighbourhood; yet, 42.1% believed that the mentally ill should be isolated from the community[10]. In the current study, participants strongly believed that mentally ill people can be easily distinguished from normal people. Barke et al found that 79.7% of their Ghanaian participants agreed with this, compared to 18.3% in the English population[10]. This may reflect the level of health care service provided. Barke et al suggested that the statement "there is something about mentally ill people that makes them easy to tell from normal people" does not necessarily reflect participants' stigmatizing attitudes, but reflects a context where psychiatric treatment is the exception rather than the rule[10]. Our participants thought that the lack of self-discipline and willpower were the main causes of mental illness. Barke et al reported that 61.2 % of their Ghanaian participants saw the lack of moral strength and willpower as a cause of mental illness [10]. However, in the English study, Evans et al reported that only

15.7 % of their participants agreed with this item [12]. The socio-demographic differences between the studied populations can explain the variation in results. Moreover, other studies reported public beliefs about other causes of mental illness. A study by Bener and Gholoum reported that most of the studied Arabs thought that alcohol or drug abuse may result in mental illness [13]. In Egypt, people thought mental illnesses were due to exposure to sudden fright, possession of evil spirits, use of magic, head accidents, emotional trauma, heredity, or due to the evil eye [14]. Meanwhile, there was less agreement of the statement *"there are sufficient existing services for people with mental illness"*. The English study reported that only 24% of their participants agreed with this statement[12]. whereas in the Ethiopian study, 65% agreed with the statements[11]. This may reflect people's expectations and perceptions of sufficient services more than the true existing service. A study conducted in Egypt clarified that families of mentally-ill individuals reported a lack of support and negative attitudes from health professionals.

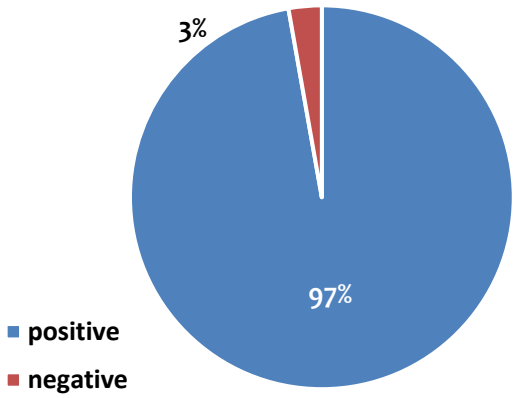

Figure 3. *The attitude of participants attending the family medicine outpatient clinic at SCU hospital regarding causes of mental illness and the need for special services*

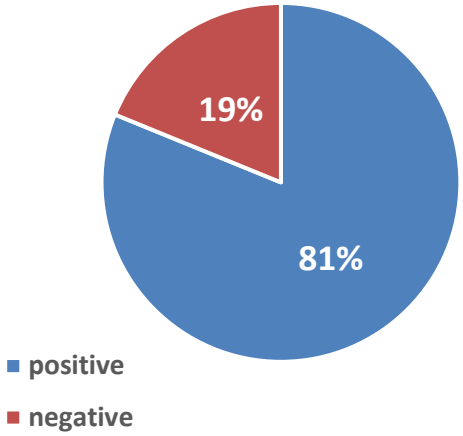

Figure 4. *The attitude of participants attending the family medicine outpatient clinic at SCU hospital regarding integrating people with mental illness into the community*

Moreover, they indicated that the majority of Egyptians prefer visiting private practitioners if they can afford to, rather than being admitted to hospitals because of the stigma associated with psychiatric treatment [14]. In the current study, we found no significant association between age, gender, and public attitude to mental illness, except for their beliefs of mental illness causes which were significantly related to age. On the other hand, Holzinger et al demonstrated that women had more positive reactions and were less angry with mentally-ill people than men[15]. Angermeyer et al reported that negative attitudes towards mental illness were positively associated with age[16].

Study limitations

Due to the nature of this study and the quite long forms that needed to be filled in, we used a convenience sampling technique. This can be biased and unrepresentative. Moreover, this study was a cross-sectional regional study that was conducted on participants who attended

family medicine outpatient clinic at SCU hospital; therefore, the findings of it cannot be generalized, and may not reflect the beliefs and attitudes of the Egyptian community.

Conclusions

This study revealed an inconsistent attitude of the adult population. Although they adopted a negative attitude regarding their fear and exclusion of patients with mental illness, they showed a huge understanding and tolerance towards mental illness and mentally-ill people and supported integrating patients with mental illness into the community. Anti-stigma programs are needed to boost people's acceptance of mental illness and strategies to increase social contact of the public with mentally-ill individuals should be considered when designing these programs. Moreover, multi-centric large studies are needed to have a clearer view of the Egyptian community's attitude to mental illness. The data sets during and/or analyzed during the current study available from the corresponding author on reasonable request

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Competing interests
The author(s) declare that they have no competing interests.

Authors' contributions
All authors contributed to the study's conception and design. Material preparation, data collection, and analysis were performed by all authors. The manuscript was written by Menna Soliman Atta and all authors had read and approved the final manuscript.

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