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Assessment of Physicians' Attitude Towards Mental Illness and Integrating Mental Health in Primary Health Care in Fayoum, Egypt

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ABSTRACT

Background: Physicians' attitude towards mental illness is crucial in providing the service and in the feasibility of integrating mental health in primary health care (PHC).

Objective: This cross-sectional study aimed to assess PHC physicians' attitudes toward mental illness and integrating mental health services into PHC facilities

Material and Methods: This is a cross-sectional study conducted on 105 primary health care physicians in Fayoum governorate, Egypt. For data collection, a self-administered questionnaire was used. It covers three themes: the basic characteristics of the physicians, their attitude towards mental illness using the Mental Illness Clinicians' Attitudes Scale version 4 (MICA 4). and their attitude towards integrating mental health into PHC.

Results: The mean MICA score was 44.4 ± 8.1 out of 96. A significant positive attitude was found among those younger than 40 years, females, urban residents, those with no postgraduate degree, and those working in an urban PHC facility. The mean score of attitude towards integrating mental health in PHC was 7.02 ± 2.03 out of 15. The majority of respondents (87.6%) believe in the necessity of integrating mental health in PHC.

Conclusion: Physicians' attitude was generally positive regarding mental illness and mental health integration in PHC. Further research is required to identify obstacles in integrating mental health in PHC.

Keywords: Primary health care, Integration, Mental illness, Physicians, MICA.

INTRODUCTION

Mental disorders are common representing 15% of the global disease burden [1]. It is estimated that mental disorders are affecting around 450 million persons worldwide, with around 25% of people suffering from some type of ill mental health in their lifetime [2], 75% of affected people in many low-income countries do not have access to needed treatment because of lack of fund and interest by most health policymakers [1].

It is common for non-specialists to be involved in the detection, treatment, and management of mental health issues in settings with limited resources where there is a shortage of mental health providers and/or they are unevenly distributed. For this reason, WHO encourages and reinforces the use of non-specialists in mental health care [3]. Because it improves health outcomes while maintaining affordability, incorporating mental health services within PHC is essential. Additionally, it is the most practical method to close the treatment gap and guarantee that mental health is covered by universal health care [3].

In Egypt, hospitals are primarily responsible for providing mental health services, and PHC is not given enough consideration in this regard [4]. Thus transformation from hospital-based to community-based mental health and the provision of accessible services are necessary [5].

However, the attitude of healthcare providers is not always positive or encouraging [6].

Studies have shown that the healthcare system creates a stigmatizing environment for those who have mental health issues. Part of these unfavorable experiences in the healthcare system might be attributed to healthcare professionals [7]. Stigma toward individuals with mental health problems has a severe social impact as well as a heavy burden for affected people [8]. The constant exposure to this stigmatizing attitude may lead to lack of access to care, poor compliance to treatment, as well as social marginalization, and can undermine the relationship between the patient and the healthcare provider [9]. Further investigations to explore PHC physicians' attitudes toward mental illness are required as most previous studies were conducted in the general population and little is known about the attitudes of PHC providers [10].

In the current study, we aimed to assess attitudes towards mental illness in a sample of PHC physicians and their attitudes towards integrating mental health care in PHC facilities.

Methodology

Study design and setting

A cross-sectional study was conducted in Fayoum Governorate, Southwest of Cairo, with an area of 1827 km² and a population reaching 4 million [11]. Fayoum Governorate is divided into seven districts that have urban and rural areas.

Sampling:

The study population was physicians working in PHC facilities in Fayoum Governorate. The inclusion criteria were: working full-time for more than one month and being in direct contact with patients. A total of 120 physicians working in PHC facilities at the end of July 2022 were targeted. The authors contacted them and sent them the questionnaire. One hundred and five

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complete responses were received with more than 87% response rate The sample size was calculated using open Epi with the study population set as 120 physicians at PHC facilities in Fayoum governorate and the assumption of a 50% response distribution, a confidence level of 95%, and a precision level of 5%.

Data collection:

Data were collected for two months between July 2022 and August 2022. An online self-administered questionnaire was used it consisted of three themes; The first covered the socio-demographic characteristics of the participants including years of experience in primary health care and training on mental health. The second part investigated physicians' attitudes toward mental illness. It was based on MICA 4 . MICA 4 was designed in English, and we used back-and-forward translation to prepare an Arabic version. MICA 4 consists of 16 items and uses a 6 points Likert scale (strongly agree to strongly disagree). MICA score is the sum of the scores for the individual 16 items to produce a single overall score ranging from 16 up to 96. Questions 3, 9, 10, 11, 12, and 16 are scored as follows: Strongly agree = 1, agree = 2, somewhat agree = 3, somewhat disagree = 4, Disagree = 5, strongly disagree = 6. For all other questions (1, 2, 4, 5, 6, 7, 8, 13, 14, and 15) the score is reversed. A high overall score indicates a more negative attitude [12, 13]. The third part included questions to explore participants' attitudes toward integrating mental health services into PHC. It consists of 5 questions and uses a 3-point Likert scale (agree, neutral, disagree). The score is the sum of the five questions ranging from 5 up to 15. Items 1, 2, 3, and 5 items are scored as follows: agree = 1, neutral = 2, and Disagree = 3. For question 4 the score is reversed. A high overall score indicates a more negative attitude. A pilot study was conducted with over 20 physicians before the actual survey to test the reliability of the questionnaire. The internal consistency of each section was good (Cronbach's alpha.0.71).

Ethical approval:

This study was approved by the Research Ethical Committee of the Faculty of Medicine, Fayoum University. We obtained approval and permission from the general director of the PHC to allow and facilitate data collection. A full description of the study and its purpose was written in the questionnaire. Submission of a complete questionnaire was considered consent for participation.

Statistical analysis

Analysis was carried out using SPSS version 27. Frequency distributions with numbers and percentages of qualitative variables and mean ± standard deviation (SD) of quantitative variables were produced. The comparison of the attitude scores according to physicians' basic characteristics was performed using the T-test (if the comparison is between two groups) and ANOVA test (if the comparison is between more than two groups). Pearson correlation between quantitative variables was calculated. Linear regression analysis was conducted to judge significant predictors of MICA scores. The significance level was set at $p < 0.05$.

RESULTS

A total of 105 physicians out of 120 working in PHC in Fayoum governorate at the time of the study completed the questionnaire. The mean age of the study respondents was (30.3 ± 6.4). More than half of the respondents were below 30 years of age. About two third (66.7 %) of the respondents were females, 77.1% lived in urban regions and 59% have no post-graduate qualification. 60.1% of the respondents work in rural units, 49.5% have worked in PHC for less than one year and 85.7% did not receive any training in mental health (**Table 1**).

Table (1): Basic characteristics of the study participants

Category	N (105)	%
Age in years		
<30	61	58.1
30-40	31	29.5
>40	13	12.4
Gender		
Female	70	66.7
Male	35	33.3
Residence		
Urban	81	77.1
Rural	24	22.9
Education		
No post graduate degree	62	59
Post graduate degree	43	41
Site of PHC facility		
Urban center	45	42.9
Rural unit	60	60.1
Years in job		
<1 year	52	49.5
1-5 years	16	15.2
6-10 years	18	17.1
>10 years	19	18.1
Previous Training		
No previous training	90	85.7
Previous training	15	14.3

Regarding the frequencies of different responses and the mean score for each item in the MICA 4, the response for each item varies between respondents. Items 6 (physicians know more than family about mental patients) and item 12 (no need for protection of the public from mental patients) reported the highest mean score values; 4.85± 1.2, and 4.42± 1.2 respectively, with above 70% of participants. Items with low scores were items 3, 8, 9, 11, and 15 with mean scores (1.44, 1.84, 1.43, 1.58, and 1.55) respectively (**Table 2**) and (**Figure 1**).

Table (2): Physicians' responses and mean score of the 16 items in (MICA 4)

Item	Strongly agree	Agree	Somewhat Agree	Somewhat disagree	Disagree	Strongly disagree	Mean (SD)
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
No further reading on mental health.	12 (11.4)	9 (8.6)	3 (2.9)	8 (7.6)	53 (50.5)	20 (19.0)	**2.66 (1.6)**
No enough recovery to have a good quality of life.	0 (0.0)	14 (13.3)	2 (1.8)	25 (23.8)	42 (40.0)	22 (21.0)	**2.47 (1.2)**
Mental health is a respectable specialty.	68 (64.8)	32 (30.5)	3 (2.9)	0 (0.0)	2 (1.9)	0 (0.0)	**1.44 (0.7)**
No disclosure of self-mental illness to friends.	11 (10.5)	22 (21.0)	23 (21.9)	6 (5.7)	34 (32.4)	9 (8.6)	**3.54 (1.6)**
Mental patients are dangerous.	14 (13.3)	46 (43.8)	1 (1.0)	23 (21.9)	16 (15.2)	5 (4.8)	**4.04 (1.5)**
Physicians know more than Family or friends about mental patients.	33 (31.4)	49 (46.7)	3 (2.9)	14 (13.3)	6 (5.7)	0 (0.0)	**4.85 (1.2)**
No disclosure of self-mental illness to colleagues	18 (17.1)	31 (29.5)	4 (3.8)	28 (26.7)	17 (16.2)	7 (6.7)	**3.85 (1.6)**
Working in mental health is not important as in other health fields.	0 (0.0)	7 (6.7)	1 (1.0)	7 (6.7)	43 (41.0)	47 (44.8)	**1.84 (1.1)**
No mistreating patients even if instructed by a senior colleague.	78 (74.3)	22 (21.0)	0 (0.0)	0 (0.0)	2 (1.9)	3 (2.9)	**1.43 (1.0)**
Talking to mental patients at ease.	15 (14.3)	28 (26.7)	28 (26.7)	4 (3.8)	20 (19.0)	10 (9.5)	**3.15 (1.6)**
Physical health assessment in mental patients is important.	50 (47.6)	53 (50.5)	0 (0.0)	0 (0.0)	2 (1.9)	0 (0.0)	**1.58 (0.7)**
No need for public protection from mental patients.	3 (2.9)	5 (4.8)	22 (21.0)	3 (2.9)	59 (56.2)	13 (12.4)	**4.42 (1.2)**
Physical complaints are attributed to their mental illness.	1 (1.0)	11 (10.5)	1 (1.0)	17 (16.2)	39 (37.1)	36 (34.3)	**2.19 (1.3)**
General physicians should not complete an assessment for a mental patient.	9 (8.6)	34 (32.4)	5 (4.8)	20 (19.0)	24 (22.9)	13 (12.4)	**3.48 (1.6)**
Using terms such as ‘crazy’ to describe mental patients.	1 (1.0)	0 (0.0)	0 (0.0)	8 (7.6)	37 (35.2)	59 (56.2)	**1.55 (0.8)**
Working with a colleague with a mental illness.	30 (28.6)	55 (52.4)	16 (15.2)	2 (1.9)	2 (1.9)	0 (0.0)	**1.96 (0.8)**

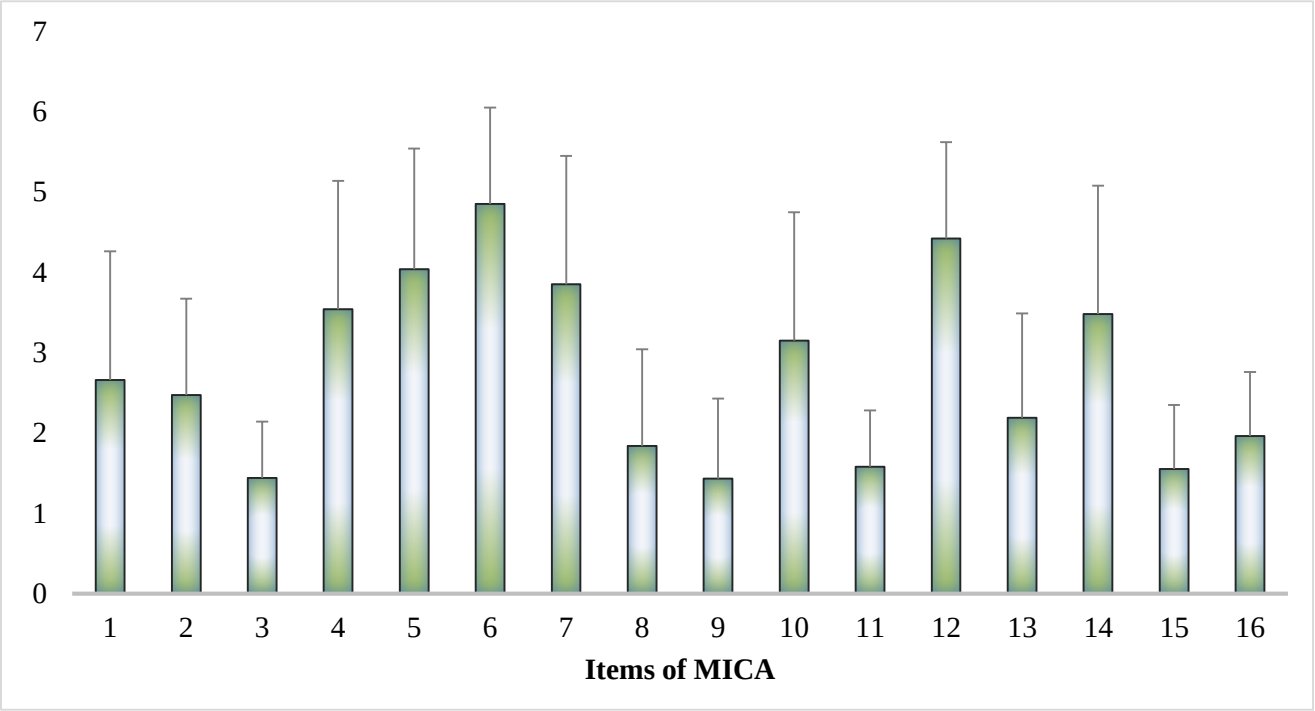

Figure (1): The mean scores of items of MICA.

As depicted in **Table 3**, responses were clarified to assess physicians' attitudes towards the integration of mental health in PHC, responses were clarified and received positive replies. The majority of physicians (87.6%) believed that integrating mental health is necessary. Most participants (84.8%) reported that they want training on mental health (**Table 3**).

Table (3): Physicians' attitude toward integrating mental health in primary healthcare

Item	**Agree**	**Neutral**	**Disagree**	**Mean (SD)**
	N (%)	N (%)	N (%)	
Mental illness rates are increasing in Egypt.	91 (86.7)	11 (10.5)	3 (2.9)	1.2(0.4)
Integrating mental health in primary health care is necessary.	92 (87.6)	9 (8.6)	4 (3.8)	1.2 (0.5)
Circumstances and resources in primary health care could allow the integrating of mental health.	76 (72.4)	20 (19)	9 (8.6)	1.4 (0.6)
Faith protects against mental illness.	47 (44.8)	20 (19)	38 (36.2)	2.1 (0.9)
Want to have training on mental health?	89 (84.8)	6 (5.7)	10 (9.5)	1.3 (0.6)

The mean MICA score of PHC physicians was 44.4 ± 8.0 out of 96 and the mean score of the physicians' attitude toward the integration of mental health in PHC was 7.02 ±2.0 out of 15. Both attitudes were positively correlated with a correlation coefficient of 0.5 P-value <0.001 (figure 2).

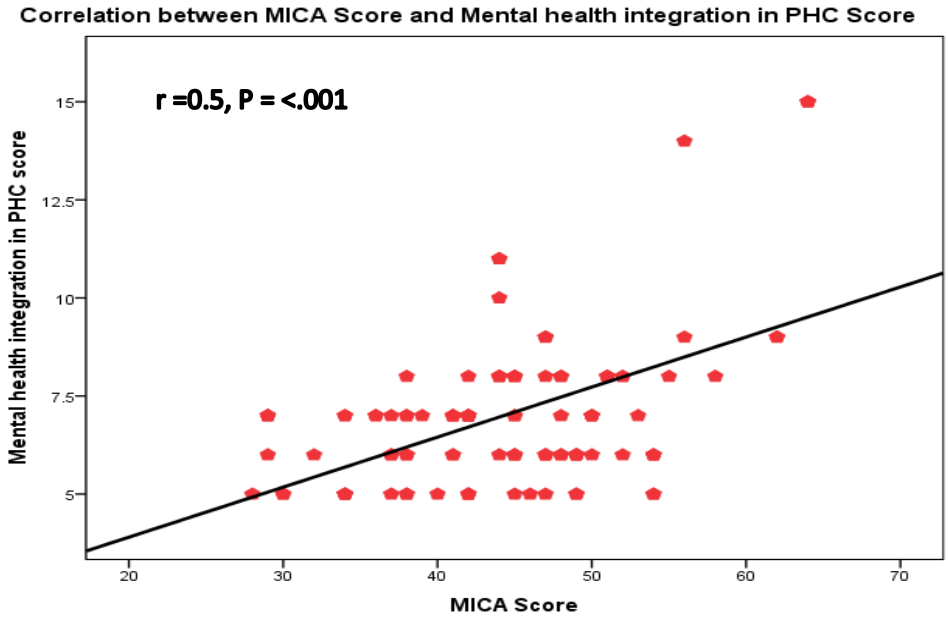

Figure (2): Scatter diagram showed the correlation between the MICA score and attitude toward mental health integration in primary health care score.

The mean MICA score was significantly influenced by age, gender, residence, postgraduate qualification, workplace, and the period of working (P = 0.03, P = 0.002, P= 0.029, P= 0.025, P= 0.046, and P= 0.044 respectively). Low scores (positive attitude toward mental illness) are found among respondents whose ages ranged from 30-40 years, females, those living in an urban region, those with no postgraduate qualification, those working in urban centers, and those working more than 5 years. The mean score of the attitude toward the integration of mental health was significantly influenced by gender and residence (P= 0.02, and P= 0.03 respectively) with low scores (positive attitude) found among females and those living in urban areas (**Table 4**).

Table (4): Relation between participants' characteristics and attitude scores

variable	MICA 4 Score		Mental health integration attitude Score	
	Mean (SD)	P-value	Mean (SD)	P-value
Age				
<30	44.7 (7.7)	**0.03**	7.4 (2.2)	**0.08**
30-40	43.4 (9.7)		6.5 (1.9)	
>40	45.85 (4.9)		6.3 (0.9)	
Gender				
Female	42.7 (7.6)	**0.002**	6.6 (1.4)	**0.02**
Male	47.8 (7.9)		7.8 (2.8)	
Residence				
Urban	43.5 (7.5)	**0.029**	6.7 (1.3)	**0.03**
Rural	47.6 (9.4)		8.2 (3.3)	
Education				
No post-graduate degree	42.97 (7.6)	**0.025**	6.9 (1.6)	**0.52**
Postgraduate degree	46.56 (8.4)		7.2 (2.5)	
Site of PHC facility				
Urban center	42.6 (7.8)	**0.046**	6.6 (1.2)	**0.07**
Rural unit	45.8 (8.0)		7.3 (2.4)	
Years in job				
<1 year	44.5 (6.9)	**0.044**	7.1 (1.6)	**0.43**
1-5 years	44.2 (10.0)		7.6 (3.4)	
6-10 years	40.6 (9.6)[a]		6.7 (1.1)	
>10 years	40.6 (6.4)[b]		6.6 (2.2)	
Previous Training				
No previous training	44.5 (8.2)	**0.957**	7.1 (2.1)	**0.55**
Previous training	44.3 (6.9)		6.7 (1.4)	

Table 5 showed that The mean MICA 4 score was significantly lower among respondents with favorable responses in all five items exploring mental health integration (p= <0.05).

Table (5): Relation between MICA 4 score and items of attitude towards mental health integration

Item	**MICA 4 Score**	
	Mean (SD)	**P-value**
Mental illness rates are increasing in Egypt		
Agree	43.8 (7.0)	.000
Neutral	44.3 (11.0)	
Disagree	64.0 (0.0)	
It is necessary to integrate mental health in primary health care.		
Agree	43.3 (7.4)	.000
Neutral	48.6 (5.8)	
Disagree	62.0 (4.0)	
Resources in primary health care could allow the integrating of mental health.		
Agree	42.5 (7.6)	.000
Neutral	47.3 (5.4)	
Disagree	54.2 (8.8)	
Faith protects against mental illness		
Agree	46.5 (7.9)	.04
Neutral	42.1 (7.5)	
Disagree	43.1 (8.2)	
Want to have a training on mental health		
Agree	43.2 (7.1)	.000
Neutral	43.3 (6.4)	
Disagree	54.2 (10.8)	

Significant predictors of the MICA 4 Score are gender, education, and years of work. For gender, the mean was 4.7 higher in males than the average in females (reference) controlling other variables in the model.

For education, the mean was 4.7 higher in participants with postgraduate education than the average in those with no post-graduate education (reference). For years in work, the mean was 8.2 higher in participants who are working for less than 5 years than the average in those > 5 years (reference) (table 6).

Table (6): Linear regression analysis to predict MICA 4 Score

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	P-value
(Constant)	15.436	13.404		1.152	.252
Age	.402	.320	.317	1.256	.212
Sex(male)	4.709	1.600	.276	2.943	**.004**
Residence (rural)	1.530	1.860	.080	.822	.413
Site (rural unit)	2.779	1.555	.171	1.787	.077
Education (postgraduate)	4.744	2.122	.290	2.235	**.028**
Years of jobs (less than five years	8.204	3.897	.487	2.106	**.038**
Previous training (no)	.690	2.216	.030	.312	.756

DISCUSSION

Negative attitude toward mental illness is widely spread in the community not only among the general population but also among healthcare providers. As the prevalence of mental illness rises, the detrimental effects on those who are mentally ill are becoming more important [14].

This study explored physicians' attitudes toward mental illness by using the MICA. The mean MICA score was (44.4 ± 8.1) which represents an overall positive attitude and this is somehow similar to an Emirati study where their mean score was (47.8 ± 10.8) [6]. A positive attitude was also reported in some countries in Latin America (36.3± 8.3) [15], South Africa [16], and Cambodia [17] but a negative attitude was found in Qatar [18], and Zambia [19].

Various factors influence the attitude toward mental illness, especially cultural factors. In the Arab world, cultural values influence attitudes and even types of sought treatments [20].

Lack of faith, religious non-commitment, evil eyes, and evil spirits are perceived as causes of mental illness [21]. Favorably the situation in our study was somehow different, as more than half of our study physicians did not have this opinion. This positive consideration has much impact on our study physicians' attitudes regarding both mental illness and integrating mental health in primary health care. We found that both attitudes were correlated with **Vistorte *et al.*** [15] who stated that primary physicians with negative attitudes prefer not to integrate mental health in PHC. Hence, negative attitudes were identified as some of the main obstacles preventing mental health integration in PHC [19].

Our study revealed a significant association between attitude and socio-demographic characteristics. Younger age groups held a more positive attitude toward mental illness than the other age groups. This is similar to **Minty *et al***. [16] but it differs from **Noblett *et al***. who found age has no influence [22]. We found that being a female was a predictor of a positive attitude this is compatible with **Ghuloum *et al*** and **Noblette *et al*.** reporting female physicians had a significantly positive attitude [18, 22].

Education was associated with a more positive attitude as found by **Ghuloum *et al*** [18] and **Abi Doumit** [23]. On the contrary, we found acquiring a postgraduate degree is associated with a more negative attitude. Interest in specialty could explain this change in physicians' attitudes.

Living in an urban area and working in urban facilities were associated with a more positive attitude. Cultural and resource differences could explain such findings. Similarly, **Salama and colleagues** [6] found the place of work affects the attitude of physicians. Also, **Ma *et al***. [10] in china reported a more negative attitude in rural areas.

Attitude improves with experience as demonstrated by various studies. [24] Working in primary health care for more than 5 years was associated with a more significant positive attitude. Working for a considerable period exposes physicians to more contact and interaction with people with mental illness. This contributes to a better understanding, more observing the impact of negative attitudes, and more appreciation of the rights of mentally ill people.

This is in line with the results of **Salama *et al***. [6] and **Ghuloum *et al***. [18] but **Alfredsson and colleagues** [17] reported no difference between years of experience and attitude.

On the other hand, there were some negative beliefs among the studied group as demonstrated by the high mean score of some of the MICA questions and it comes in agreement with a study conducted in Egypt. [14] Considering that family and friends of mentally ill patient know less about them as reported by most of the respondents may reflect a diminished knowledge on the nature of the disease. This is very different from **Salama *et al***. [6] who found that 68% of the respondents had a favorable response. On the other hand, there was somehow an agreement between our results and **Salama *et al***. [6] regarding the belief in the need for protection from mentally ill patients. This also could explain the difference between the proportion of physicians admitting the necessity of integrating mental health in PHC (87.6%) and the proportion of those perceiving that the circumstances and resources in primary health care could facilitate that (72.4%).

Consequently, more effort and resources are still needed to guard against negative attitudes and to develop a comprehensive multidisciplinary approach to make it possible to integrate mental health into primary health care [25].

CONCLUSION AND RECOMMENDATIONS

Physicians' attitude toward mental illness and mental health integration in PHC is highly positive and correlated. Both attitudes were influenced by age, gender, residence, and site of PHC. Being a female, having no postgraduate degree, and working for more than 10 years are predictors of a positive attitude.

Further research is required to identify obstacles in integrating mental health in PHC as well as training on mental health.

STRENGTHS AND LIMITATIONS

From our perspective, the strengths of this study include being the first to assess this topic in Fayoum governorate and one of the early studies in Egypt. Nevertheless, our study is not without limitations; the study was conducted in only one governorate using on line questionnaire may limit the generalizability to other populations. Also, it merely displayed that the Physicians' attitudes and practices may be different.

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