



A Study of the Attitudes towards Mentally Ill People among a Sample of Primary Health Care Physicians in Saudi Arabia

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i60B34616

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/81023>

Original Research Article

**Received 15 October 2021
Accepted 20 December 2021
Published 21 December 2021**

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ABSTRACT

Background: Psychiatric illnesses are a public health problem worldwide, affecting people of all age. Mental health is an important sector of primary health care services. An increasing number of Saudi citizens and residents utilize primary healthcare services for mental health concerns; hence, there is a need to objectively assess these doctors' attitudes towards people with mental illness.

Objectives: Assessment of the attitudes toward mentally ill people among a sample of primary health care physicians in Saudi Arabia & determination of risk factors associated with bad attitudes.

Methods: A cross-sectional study was conducted over a period of 30 days (1st September 2021 to 30 September 2021). The study has been conducted on Convenient Sample of Arabic speaking physicians working in primary health care centers in Saudi Arabia who accepted to share in research. Demographic Data was gathered using an electronic self-administered questionnaire and physicians' attitudes towards mentally ill people have been evaluated by an Arabic previously validated Questionnaire.

Results: This study included 214 physicians, 114 male physicians and 100 females. 72% of participants have a highly positive attitude toward mentally ill patients with a mean score (50 ± 4) and only 28% of participants have a negative attitude with a mean score (38 ± 4). Better attitudes were significantly associated with being female, having (Board, PhD or Fellowship), working for less than a year and having a history of involvement in the care of a mentally ill person. There were no statistically significant differences regarding participants age, nationality, marital status, place and mode of residency, specialty, and having current or past history of mental illness.

Conclusions: Primary health care physicians in Saudi Arabia have positive attitudes toward mentally ill patients, female physicians, having (Board, PhD or Fellowship), working for less than a year and having a history of involvement in the care of a mentally ill person were significantly associated with better attitudes.

Recommendations: Further larger studies are needed on large number of primary health care centers physicians in Saudi Arabia and other Arab countries. Additional research and programmatic work are needed to understand the reasons for negative attitudes. Effective teaching and training programs is necessary to bring in positive attitude change towards mentally ill people among primary health care physicians.

Keywords: Attitudes; mentally ill; physicians; psychiatric; and primary health care.

1. INTRODUCTION

Psychiatric diseases are a global public health issue that impact people of all ages in both psychological and societal ways [1]. According to the Saudi National Mental Health Survey, the lifetime prevalence of getting a mental disease is estimated to be at 34.2 percent [2]. Primary health care (PHC) services include mental health as an essential component [3]. According to research in Saudi Arabia, one-third of primary health care patients suffer from psychological disorders [4].

The Ministry of Health (MOH) is the principal governmental body in Saudi Arabia tasked with providing preventative, curative, and rehabilitative healthcare to the Saudi populace. The Ministry of Health (MOH) offers medical services to inhabitants and residents of the

Kingdom through its network of primary health care (PHC) centers [5].

Primary care services, both preventative and curative, are provided by PHC centers, with patients requiring more advanced care being referred to public hospitals (secondary level of care) and those requiring more sophisticated care being transferred to central or specialized hospitals (the tertiary level of health care). The World Health Organization (WHO) recommends that all nations make PHC centers the primary point of contact for people suffering from mental illnesses.

Patients were sent to psychiatrists at general hospitals (secondary level) if PHC physicians couldn't handle them, and if psychiatrists in those settings couldn't handle them, they were referred to specialist mental hospitals or teaching hospitals (tertiary level) [6].

Patients are commonly referred to psychiatrists or other mental health experts after being assessed by physicians in general health institutions. One explanation for this is that patients frequently feel more at ease with doctors since they don't want to be judged by others for seeing a psychiatrist. As a result, GPs and specialists play an important role in the treatment of mental patients [7].

The Ministry of Health (MOH) is the principal government institution in Saudi Arabia tasked with providing preventative, curative, and rehabilitative healthcare to the Saudi people. The Ministry of Health (MOH) offers medical treatment to citizens and residents of the Kingdom through its network of primary health care (PHC) centers. By 2012, the overall number of PHC centers had risen from 1925 in 2007 to 2259. Makkah (23 percent) and Riyadh (22 percent) had the most expansion in the number of PHC centers (20 percent).

3201 General Practitioners (GPs), 2079 Internal Medicine, 399 Urology, 217 Chest illnesses, 313 Skin and Venereology, 1083 Anesthesia, 2466 Pediatrics, 5075 Psychiatry, and 766 Family Medicine professionals worked at MOH facilities in 2012. There were 2466 general surgeons, 1552 dentists, 817 orthopedists, 110 cardiothoracic surgery, 225 neuro surgery, 140 plastic surgery, 479 ENT, 67 ophthalmology, 1790 OBS/GYN, 503 cardiology among the surgeons, for a total of 26,266 surgeons [1].

In the research region of Riyadh province, there are 435 primary health care centers serving a population of 77395702. Referral hospitals, security forces medical services, army forces medical services, national guard medical affairs, ministry of higher education hospitals (Teaching hospitals), ARAMCO hospitals, royal commission for Jubail and Yanbu health services, ministry of education school health units, and the red crescent society are among the other government bodies. With 125 hospitals and 2218 dispensaries and clinics³, the private sector also contributes to the delivery of healthcare services, particularly in cities and big towns [3].

According to the Saudi Constitution, the government gives complete and unrestricted access to all public health services to all nationals and expatriates working in the public sector. Primary care services, both preventative and curative, are provided by PHC centers, with patients requiring more advanced care being

referred to public hospitals (secondary level of care) and those requiring more sophisticated care being transferred to central or specialized hospitals (the tertiary level of health care).

The World Health Organization (WHO) recommends that all nations make PHC centers the primary point of contact for people suffering from mental illnesses. Patients were sent to psychiatrists at general hospitals (secondary level) if PHC physicians couldn't handle them, and if psychiatrists in such settings couldn't handle them, they were referred to specialist mental hospitals or teaching hospitals (tertiary level). Over 700 psychiatrists (3.0 per 100,000) were found, with 380 practicing largely outpatient psychiatry and 263 working in mental hospitals. In outpatient clinics, there are 1980 psychiatric nurses and 1176 in mental institutions. Outpatient clinics employed 515 psychologists, social workers, and occupational therapists, while mental institutions employed 611 [4].

Mental health illnesses are common, and people of all ages, cultures, and socioeconomic level can be affected⁵. Patients are commonly referred to psychiatrists or other mental health experts after being assessed by physicians in general health institutions. One explanation for this is that patients frequently feel more at ease with doctors since they don't want to be judged by others for seeing a psychiatrist. As a result, GPs and specialists play an important role in the treatment of mental patients [6].

Anxiety and depression are the most frequent mental diseases, yet due to various hurdles, they are difficult to identify in basic care. The patient, physician, and health system, as well as organizational factors⁵, are commonly used to classify these obstacles [5].

Clinical treatment may be influenced by attitudes regarding psychiatric patients. Physicians' perspectives are likely to be similar to those of the general public, albeit physicians, unlike the general public, come into contact with psychiatrists and psychiatry patients through their official training or practice. As a result, a physician may develop a more objective view of psychiatry than the general public [8]. The most significant impediment to rehabilitation, development of appropriate care, treatment, and prevention of mental disease is a negative attitude toward persons with mental illnesses [9].

Other obstacles to successful treatment include a lack of money, a shortage of educated health care personnel, and the societal stigma associated with mental illnesses [10].

While primary care physicians' views regarding mental disease may influence their capacity to detect, treat, and refer patients with mental illnesses, there are few published trials in Saudi Arabia that have looked into primary care physicians' attitudes toward mentally ill persons. According to an Al-Atrah research done in Saudi Arabia's Riyadh Province, GPs and non-psychiatric specialists have a negative attitude toward mental patients, whereas family practitioners have a good attitude [5].

A South African study examined the attitudes of a group of non-specialist medical doctors working in primary healthcare services toward mental illness. The study found that more than half of the study participants had a positive attitude toward mental illness, but male physicians reported feeling less at ease when dealing with mentally ill patients [11].

Female medical students have a more positive attitude toward psychiatry than male medical students, according to Baptista et al. [12].

According to a research conducted in India by Kodakandla et al. [13], the majority of medical interns saw mentally ill patients as hazardous, unpredictable, unable of taking on large duties, incapable of being a good parent, and lacking in interpersonal and social skills.

According to a research done in Kenya, non-psychiatric physicians over the age of 40 have more favourable attitudes regarding mental disease than younger physicians⁷. Another research in Nepal indicated that medical students and interns in Nepal had favorable or neutral opinions regarding mental illness and psychiatry [14]. In a Nigerian study of health personnel' attitudes toward psychiatric patients, more over half of the participants had favorable views of people with mental illnesses [15]. According to another study, undergraduate medical students had a neutral opinion toward psychiatry and patients with mental illnesses [16].

According to another survey, more than 70% of postgraduate Indian resident physicians see mentally ill patients as friends and believe they are as employable. Whoever they were who had

an unfavorable attitude toward schizophrenia patients [17].

Physicians who had friends or family members who suffered from mental illness, or who themselves suffered from a mental disease, were less stigmatized [18].

According to a Japanese research, healthcare practitioners who have had past experience to mental illness had more positive views about the mentally ill [19].

As a growing number of Saudi citizens and residents seek primary healthcare for mental health issues, it is necessary to analyze these practitioners' attitudes and expertise of mental disease objectively.

The general aim of the study was to improve attitude toward mental illness among primary health care physicians in Saudi Arabia. While the study specific aims were: To assess the attitude toward mentally ill people among a sample of primary health care physicians in Saudi Arabia, to detect the differences in attitudes towards mental patients according to age, gender, nationality, marital status, work status, number of work years, residency, and academic qualification and to compare between the different subgroups of the study those who have past history of mental illness, those who have been exposed to mentally ill people, and those who have not.

We hypothesized that Arabic speaking physicians working in primary health care centers in Saudi Arabia have bad attitudes toward mentally ill people.

2. SAMPLE AND METHODS

A cross-sectional study has been conducted over a period of 30 days (1st September 2021 to 30 September 2021). This study was approved by Eradah Complex & Mental Health Najran Research Committee, Najran, Saudi Arabia before data collection.

This study has been conducted on Convenient Sample of Arabic speaking physicians working in primary health care centers in Saudi Arabia who accepted to share in research.

Two electronic questionnaires have been distributed by link through Telegram, and

WhatsApp for Arabic speaking physicians working in primary health care centers in Saudi Arabia who have been invited to share in our research, Invitations explaining the purpose of the study were sent through private messages. Questionnaire links have been open from 1st September 2021 to 30 September 2021, and reminders have been sent every 7 days for non-responders.

The first one is a self-administered questionnaire for collecting demographic data and characteristics (age, gender, nationality, marital status, work status, number of work years, residency, academic qualification, history of having mental disorder and history of knowing mental patient or participating in mental patient caring).

The second one is an Arabic previously validated Questionnaire has been used to achieve research purpose (Attitudes toward mental illness Scale by Zainab Choucair), which is composed of three axes consist of 20 sentences [20].

The Attitudes Towards Mental Health Problems Scale (ATMHP) is a self-report scale aimed at the assessment of attitudes toward mental health that involve several factors relating to attitudes and shame (internal, external, and reflected shame) when facing mental health problems²⁰. The reliability of the scale items is 0.87 [20].

Our Inclusion criteria were, being an Arabic speaking physician working in primary health care centers in Saudi Arabia who accepted to share in research. Our sample included males and females without discrimination. We have excluded Non-Arabic speakers, Physicians working in hospitals and non-physician medical staff.

Data were analyzed using R version 4.0.5. Numerical variables; were described using mean, standard deviation, median, interquartile range, minimum and maximum. For categorical variables; frequency and percentage were applied. For data analysis, Wilcoxon rank-sum test, the Kruskal-Wallis rank sum test followed by Dunn's post hoc test, and Spearman's rank correlation test were performed. All tests were two-tailed. A p-value of less than 0.05 was considered statistically significant with a 95% confidence interval (CI).

3. RESULTS

This study included 214 physicians, 114 (53%) male physicians and 100 (47%) were female, with median age 31 years and interquartile range (27:41) years.

One hundred forty-one (66%) of the participants were Saudi citizens, while seventy-three (34%) were Non Saudi. Of our sample 124 (58%) were married, 77 (36%) single, 10 (4.6%) divorced, and 3 (1.4%) were widows.

Regarding residency, 94 (44%) of the study sample were from Saudi Arabian southern region, 65(30%) from the western Region, 27(13%) from the central region, 16(7.4%) from the northern region, and 12(5.6%) were from the eastern Region. Of the study population 171(80%) of the sample were living with their families, while 43(20%) were living alone.

Highest academic qualifications of the sample population were: Bachelor of Medicine 131 (61.2%), Post-graduation Diploma 12 (5.6%), Master degree 27 (12.6%) and Board / PhD / Fellowship 44(20.6%).

Regarding number of work years, 39 (18%) participants had Less than a year of work, 39 (18%) participants had 1-2 years, 55 (26%) participants 3-5 years, 38 (18%) participants 6-10 years, and 43 (20%) participants had more than 10 years of work.

One hundred twelve (52%) participants were family medicine physicians, 87 (41%) were General Practitioner and 15 (7%) participants had other specialties. Forty-eight participants (22%) have current or past history of mental illness, while 166 participants (78%) haven't. One hundred sixty-two participants (76%) have the experience of involvement in care of a mentally ill person, while 52 participants (24%) haven't. Socio-demographic distribution of the study sample is shown in Table (1).

Evaluation of the attitude items showed that 72% of participants have a highly positive attitude toward mentally ill patients with a mean score (50±4) and only 28% of participants have a negative attitude with a mean score (38±4).

Table (2) showed that there was weak negative significant correlation between age of the participants and their attitudes toward mentally ill patients it means that younger participants have better attitudes than older participants [p< 0.001].

Table 1. Socio-demographic distribution of the study sample

		Frequency	Percent
Gender	Male	114	53%
	Female	100	47%
Nationality	Saudi	141	66%
	Non Saudi	73	34%
Marital status	Married	124	58%
	Single	77	36%
	Divorced	10	4.6%
	Widow	3	1.4%
Place of residency	Southern region	94	44%
	Western Region	65	30%
	Central Region	27	13%
	Northern region	16	7.4%
	Eastern region	12	5.6%
Residency style	Live with family	171	80%
	Alone	43	20%
Highest academic qualification	Bachelor of Medicine	131	61.2%
	Board / PhD / Fellowship	44	20.6%
	Master's	27	12.6%
	Post-graduation Diploma	12	5.6%
Number of years of work	Less than 1 year	39	18%
	1-2 years	39	18%
	3-5 years	55	26%
	6-10 years	38	18%
	More than 10 years	43	20%
Specialty	Family medicine	112	52%
	General Practitioner	87	41%
	Other specialties	15	7%
Current or past history of mental illness	No history of mental illness	166	78%
	Has history of mental illness	48	22%
History of involvement in care of a mentally ill person	Involved	162	76%
	Not involved	52	24%

Table 2. Attitude score correlation with Age

Characteristic	Age, [23,67] ¹	p-value ²
Attitude score	48 (42, 51.8)	<0.001

¹Median (IQR)

²Spearman's rank correlation test

As shown in table (3), female participants showed statistically significant better attitudes toward mentally ill patients in comparison with male participants [p= 0.003].

There was no significant difference between Saudi and Non Saudi participants.

There was no significant difference between single, married, divorced and widow sub groups.

There was no significant difference between participants live in Saudi Central Region, Eastern region, western region, Northern region and Southern region sub groups.

There was no significant difference between participants live alone and those live with their families.

Regarding the highest academic qualifications groups, by performing Dunn's post hoc test, we found a statistically significant difference between Bachelor of Medicine's median (48) and Master's median (42) with a p-value (0.035). Also, we found a statistically significant difference between Board / PhD / Fellowship's median (49) and Master's median (42) with a p-value (0.031).

Regarding years of work, by performing Dunn's post hoc test, we found a statistically significant

difference between Less than a year's median (52) and 1-2 years' median (47) with a p-value (0.0037) and a statistically significant difference between Less than a year's median (52) and 3-5 years' median (48) with a p-value (0.0133). Also, results show a statistically significant difference between Less than a year's median (52) and 6-10 years' median (46) with a p-value (0.0016) and a statistically significant difference between Less than a year's median (52) and more than 10 years' median (46) with a p-value (0.0053).

There was no significant difference between participants in different specialties.

There was no significant difference between participants having current or past history of mental illness and those who have not.

Participants who have a history of involvement in the care of a mentally ill person showed statistically significant better attitude toward mentally ill patients in comparison with participants who have not [$p < 0.001$].

Table 3. Statistical analysis results for differences in attitude toward mentally ill patients between the sample sub groups

			Attitude score		p-value
			Median	IQR	
Gender	Male	N=114 (53%)	46.5	39.2 : 50	0.003
	Female	N=100 (47%)	49	45 : 52	
Nationality	Saudi	N=141(66%)	49	43 : 52	0.235
	Non Saudi	N=73 (34%)	46	40 : 51	
Marital status	Married	N=124 (58%)	47	41.8 : 50.2	0.587
	Single	N=77 (36%)	48	44 : 52	
	Divorced	N=10 (4.6%)	44.5	38.2 : 52.8	
	Widow	N= 3 (1.4%)	48	47 : 52	
Place of residency	Southern region	N= 94(44%)	48	43 : 52	0.394
	Western Region	N= 65(30%)	47	40 : 50	
	Central Region	N=27(13%)	49	46.5 : 50.5	
	Northern region	N=16(7.4%)	45.5	38.8 : 51.2	
	Eastern region	N=12(5.6%)	44.5	40.8 : 50	
Residency style	Live with family	N=171(80%)	48	42 : 52	0.306
	Alone	N= 43(20%)	47	39 : 50	
Highest academic qualification	Bachelor of Medicine	N=131(61.2%)	48	43 : 52	0.05
	Board / PhD / Fellowship	N= 44(20.6%)	49	45.5 : 50.2	
	Master degree	N= 27(12.6%)	42	39 : 47	
	Post-graduation Diploma	N=12(5.6%)	43	40.8 : 50	
Number of years of work	Less than 1 year	N= 39(18%)	52	47 : 54.5	0.002
	1-2 years	N= 39(18%)	47	40 : 49.5	
	3-5 years	N= 55(26%)	48	43: 50.5	
	6-10 years	N=38(18%)	46	39 : 50	
	More than 10 years	N= 43(20%)	46	40.5 : 51	
Specialty	Family medicine	N=112(52%)	48	42 : 50.2	> 0.9

			Attitude score		p-value
			Median	IQR	
	General Practitioner	N= 87(41%)	48	40:52	
	Other specialties	N=15 (7%)	47	46 : 49	
Current or past history of mental illness	No history of mental illness	N=166 (78%)	48	42:51	0.7
	Has history of mental illness	N=48 (22%)	47.5	41:52	
History of involvement in care of a mentally ill person	Involved	N=162(76%)	49	43:52	<0.001
	Not involved	N=52 (24%)	44	38:48	

4. DISCUSSION

The goal of this study was to look at primary health care physicians' views about mentally ill persons and see what factors influenced them.

The majority of participants in the current survey have a very good attitude toward mentally ill people, according to the findings. This is in line with the findings of Minty et al. [11] and Risal et al. [14]. According to the literature, doctors and other healthcare workers have positive opinions about patients with mental illness, which is similar to our study. Physicians, on the other hand, have been shown in several studies to exhibit unfavorable views about persons with mental illness [21,22,23].

Younger primary health care physicians had better attitudes toward mentally ill patients than older primary health care physicians, according to our research. This is consistent with Minty et al. [11] 's estimates, although it differs from Noblett et al's conclusions [23]. Even while older people were more accepting of mentally ill persons, they were less likely to favor community psychiatric care and integration, according to Ewalds-Kvist et al. [24].

Female participants in our study had a statistically significant better attitude toward mentally ill individuals than male participants. Noblett et al. [23], Minty et al. [11], and Stuber et al. [25] all came to similar conclusions. This may be due to the emotional character of women and their proclivity to sympathize. However, it differs from the findings of Saeed and McCall [10], Sujaritha et al. [26], and Sri et al. [27].

Our study reported that primary health care physicians having (Board, PhD or Fellowship) showed statistically significant better attitude toward mentally ill patients in comparison with other qualifications. This is different from results reported by Sujaritha et al. [26] and Sri et al. [27] who reported that level of qualification did not influence mental illness attitudes. Findings of our study could be explained by exposure to psychiatry at the post graduate level, which increased awareness of mental illness.

Our study revealed that primary health care physicians who worked for less than a year showed statistically significant better attitude toward mentally ill patients in comparison with other subgroups. This is in line with results reported by Lam et al. [28] who found that physicians having longer years of practice tended to have more worries or stigma on mental health patients. On the other hand it is different from the findings of Mukherjee et al. [29] who found that those with more clinical experience are more sympathetic towards the mentally ill people, and results of Vistorte et al. [30] who found that years of experience did not hold any association with stigmatizing attitudes.

Our study found that there was no significant difference between participants having current or past history of mental illness and those who have not, this is different from results found by Eksteen et al. [18].

Our study reported significant correlation between involvement in the care of a mentally ill person and attitude toward mentally ill patients, this is consistent with result estimated by Fujii et

al. [19]., Vistorte et al. [30] and Lam et al. [28]. However, it is different from that reported by Chandramouleeswaran et al. [17] who found that personal contact with an individual with a psychiatric condition did not increase the positivity of mental illness attitudes.

Our study reported that there was no significant difference between participants in different specialties, this is in line with the findings of Saeed and McCall [10].

Within available literature, the overall impression is that there is no consistent sociodemographic predictor of mental illness attitudes as the relationship between variables and attitudes differs across studies, suggesting that these interactions may be complex and multifaceted. The interplay between demographic factors and cultural influences is also likely to play a role in how mentally ill people are viewed by others [11].

5. CONCLUSIONS

Primary health care physicians in Saudi Arabia have positive attitudes toward mentally ill patients, female physicians, having (Board, PhD or Fellowship), working for less than a year and having a history of involvement in the care of a mentally ill person were significantly associated with better attitudes in comparison with other subgroups.

6. RECOMMENDATIONS

Further larger studies are needed on large number of primary health care centers physicians in Saudi Arabia and other Arab countries. Additional research and programmatic work are needed to understand the reasons for negative attitudes. Effective teaching and training programs is necessary to bring in positive attitude change towards mentally ill people among primary health care physicians.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT

Each item had to be answered for the questionnaire to be validated. Participation was voluntary and anonymous and took place online. Completing the survey was considered implied consent to participate in this study.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
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