

# Attitudes towards depression among non-psychiatric physicians in four tertiary centres in Riyadh

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## Abstract

Depression is a common mental illness that has a profound impact on an estimated number of 300 million people worldwide. Depression is stigmatised in communities and even physicians, especially, non-psychiatric physicians, which affects depressed patients' care. This study aims to investigate non-psychiatric physicians' attitudes towards depression in Riyadh, Saudi Arabia. The study surveyed 380 participants using Revised Depression Attitude Questionnaire. Non-psychiatric physicians in Riyadh are optimistic and have a positive perspective towards depression. Yet, the majority preferred dealing with physical rather than mental illness. Understanding the attitudes of medical practitioners is important to shape service delivery and assess training needs.

## Keywords

attitude, confidence, depression, non-psychiatric, physician, psychiatry, R-DAQ, Riyadh, Saudi Arabia, stigmatisation

## Introduction

Depression is a common mental health disorder that has a significant impact on approximately 350 million people of all ages worldwide (World Health Organization, 2018a). By 2030, depression is predicted to be the leading cause of disability in Disability-Adjusted Life Years (DALY), outpacing ischaemic heart disease and road traffic accidents (World Health Organization, 2014). Depression also significantly contributes to the global burden of diseases and is considered to be the primary cause of disability worldwide (World Health Organization, 2014).

Depression is accompanied by stigma, especially surrounding help-seeking behaviour (Barney et al., 2006). Barney et al. (2006) found that the stigma of depression is quite common in some communities and medical advice is not readily sought. Research evidence confirms that those suffering from depression fear negative responses and embarrassment when consulting health practitioners. Such concerns can, therefore, create barriers, hindering patients from consulting physicians about their issues and accessing help (Barney et al., 2006).

Stigma is a complex phenomenon and research within the context of help-seeking behaviour showed mixed results

(Barney et al., 2006; Schomerus et al., 2009). Kanter et al. (2008) found that stigma and depression may interact in a vicious cycle, where depression aggravates the effects of stigma and vice versa. The patient's background and culture can also cause stigmatisation, along with the physician's attitude (Ohtsuki et al., 2012). To address this issue, Botega et al. (1992) developed the Depression Attitudes Questionnaire (DAQ) to begin to examine attitudes towards depression by general practitioners in the UK. Since then the DAQ has been used to explore the attitudes of physicians towards depression in many countries, and has revealed considerable variation in the attitudes to depression of non-psychiatric physicians. For example, in the United Kingdom, Botega et al. (1992) found no significant negative attitudes towards depression among general practitioners, with similar findings reported for

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French family practitioners (Norton et al., 2011). However, studies carried out in Japan, Brazil and Nigeria showed negative attitudes towards depression by physicians (Botega and Silveira 1996; James et al., 2012; Ohtsuki et al., 2012). A more recent study exploring the attitudes of physicians in Pakistan, using the revised Depression Attitudes Questionnaire reported negative attitudes towards depression (Haddad et al., 2015, 2016). Given such variations in attitudes towards depression among physicians in different countries, it is worthwhile exploring the attitudes of physicians from a Middle Eastern perspective.

A few studies on depression and stigma have been published, and to our knowledge, there are no published studies on non-psychiatric physicians' attitudes towards depression in Saudi Arabia. Attitudes and knowledge of non-psychiatric physicians are important factors for the recognition and treatment of depression, as negative attitudes can interfere with patients' willingness to receive and comply with treatment. The aims of this study were to explore the attitudes of non-psychiatric physicians, assess their professional confidence, therapeutic optimism and perspectives regarding depression and its care using the R-DAQ.

## Methods

### *Study setting and participants*

This was a cross-sectional study using a self-administered questionnaire. The study included non-psychiatric physicians working in four government tertiary hospitals in Riyadh, Saudi Arabia. A convenience sampling technique was employed in distributing the questionnaire. A total of 380 non-psychiatric physicians consented to take part in the study. Ethical approval was obtained from individual hospitals.

### *Instrument*

A self-administered questionnaire was used for data collection. The first part included demographic information: name (optional), specialty, gender, nationality, age, hospital site and job title. The second part included the R-DAQ (Haddad et al., 2015), a 22-item scale designed to measure attitudes towards depression. R-DAQ consists of three factors: professional confidence in depression care, therapeutic optimism about depression and generalist perspective about depression occurrence, recognition and management. Professional confidence factor consists of seven items that measure practitioners' comfort, confidence and feeling well trained in providing care for depressed patients. Therapeutic optimism factor is composed of 10 negatively stated items about depression and its treatment. Generalist perspective factor consists of five items that measure the general knowledge about depression occurrence, recognition and management. Scoring is on a 5-point Likert-type scale and response options include: 1=Strongly

disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree. Out of the 22 items, 15 negatively stated items are reversed scored. Scores range from 22 to 110 with lower scores indicating a more negative/pessimistic view of depression and its management.

The R-DAQ and its previous version the DAQ have been used in many countries with vastly different cultures, making the comparison of attitudes towards depression with physicians from other parts of the world feasible. Moreover, the R-DAQ provides a Flesch Reading Ease score of 46.7, and a Flesch-Kincaid Grade level of 9.4, indicating that these items are likely to be understandable to a typical 14 to 15 year-old student. This is important because many physicians working in city hospitals speak English as a second language. Given the diverse nature of the Saudi health care system, subjects were given both, English and Arabic versions of the questionnaire to limit any language barrier. The translation process was carried out using the standard forward and back translation method described in the World Health Organization manual (World Health Organization, 2018b).

### *Procedure*

A pilot study involving seven participants was carried out in order to determine any problems associated with the collection of demographic information and the R-DAQ. Participant's name was optional in subsequent data collection forms. Following the pilot study, data collection took place between January and May 2016. A convenience sampling technique was implemented. Three of the authors (T.A., A.A.M., and A.A.) personally visited different specialties' offices, on-call rooms, departmental meetings and hospital continuous professional development (CPD) meetings at the four hospitals. The questionnaire was given to a sample of 380 physicians who consented to participate in the study.

### *Statistical analysis*

Statistical analysis performed using SPSS software (Statistical Package for the Social Sciences, version 24). The descriptive statistics for the demographic and R-DAQ variables were tabulated. Independent *t*-tests and analysis of variance (ANOVA) were performed to examine the association between R-DAQ scores and demographic variables. All statistical tests were two-tailed and the significance was set at  $p < 0.05$ . Exploratory factor analysis was performed. Adequacy of sampling was tested using Kaiser-Meyer-Olkin (KMO) and Bartlett's test. Factor solution of R-DAQ in this population was determined in light of eigenvalues ( $> 1.0$ ), the scree plot and the factor structure seen in the original R-DAQ study (Haddad et al., 2015). Oblique rotation (using Direct Oblimin) was performed on all of the extracted factors. The internal consistency of R-DAQ was

assessed using Cronbach's alpha values for the factors derived from the exploratory factor analysis in the study by Haddad et al. (2015).

## Results

### Demographics

A total of 380 physicians who participated in this study were recruited from four major governmental hospitals. Most of the participants were male (68.9%), aged between 28 and 50 years and Saudi nationals (56.8%). A large proportion of physicians worked as residents (46.8%) and specialised in medicine (40.5%). The details of the sociodemographic characteristics of the participants are shown in Table 1.

### Exploratory factor analysis

Exploratory factor analysis was performed on the R-DAQ and a three-factor dimension of the scale was found. The KMO measure of sampling adequacy was 0.75 and Bartlett's test of sphericity was significant ( $p=0.00$ ). The factor solution initially showed seven factors with Eigenvalues  $> 1.0$  accounting for 57.7% of the variance. The scree plot suggested a three-factor solution (Figure 1). Subsequently, factors were limited to three major factors due to their theoretical coherence and consensus with the original R-DAQ. Cronbach's alpha was 0.76 for all 22 items and factor reliability estimates were 0.74 for therapeutic optimism factor, 0.71 for professional confidence factor and 0.58 for generalist perspective factor. Factor loadings are shown in Table 2. Item 19 loaded with general perspective factor rather than professional confidence.

### Attitudes towards depression

Respondents' attitudes towards depression were measured with the R-DAQ. Overall, respondents showed a neutral to slightly positive attitude towards depression with a mean R-DAQ score and standard deviation (SD) of 76 and 8.3, respectively. The negatively phrased items were reverse scored for the overall mean calculations. Responses to R-DAQ items are presented in Table 3. For the factors, total mean scores and SDs were obtained as follows: professional confidence, 21.8 (SD 4.5); therapeutic optimism, 34.7 (SD 5.2); and generalist perspective, 20.1 (SD 2.9). Attitudes towards therapeutic optimism were mostly positive. Respondents were optimistic about depression management with less than one-fifth of the respondents agreeing with the statements: suicidal thinking could not be stopped (8.7%), antidepressants (8.7%) or psychological therapies (12.4%) were ineffective treatments, depression was unamenable to change (12.1%), and there was little to be offered if the initial treatments did not succeed (19.2%). Conversely, almost half the respondents endorsed a

**Table 1.** Characteristics and demographics of surveyed participants ( $n=380$ ).

Demographic	N	Percentage
Age		
> 50	18	4.74
28-50	239	62.89
< 28	113	29.74
Not disclosed	10	2.63
Job title		
Residents	178	46.84
Specialists	76	20
Consultants	56	14.74
Others <sup>a</sup>	52	13.68
Nationality		
Saudi	216	56.84
Non-Saudi	148	38.95
Not disclosed	16	4.21
Specialty		
Medicine	154	40.53
Paediatrics	82	21.58
Surgery	50	13.16
Intern	24	6.32
General practitioner <sup>b</sup>	10	2.63
Obstetrics and gynaecology	11	2.89
Emergency medicine	21	5.53
Miscellaneous <sup>c</sup>	14	3.68
Did not mention specialty	14	3.68
Hospitals		
King Abdulaziz Medical City	126	33.16
King Saud Medical City	82	21.58
Prince Sultan Military	64	16.84
Medical City		
King Fahad Medical City	108	28.42

<sup>a</sup>Others category includes interns, staff physicians, associate consultants, assistant consultants, fellows, and general practitioner.

<sup>b</sup>General practitioner category includes both general practitioner and family physicians.

<sup>c</sup>Miscellaneous category includes radiology, ophthalmology, ENT, dermatology, rehabilitation and physical medicine, and Hospice and Palliative Medicine.

pessimistic view of depression: depression constituted a lack of willpower (48.1%) or poor stamina (37.6%) or was related to old age (32.9%).

Generalist perspective factor received a positive response with the majority of respondents agreeing that recognition of depression was important for managing other health problems (89.5%), anyone could suffer from depression (86.6%), and the ability to recognise and manage depression is important for healthcare practitioners (85.0%).

Among the three factors of the R-DAQ, professional confidence factor was the least endorsed by the participants. Majority of respondents stated that they were more comfortable working with physical illness than with mental illness such as depression (77.8%). Less than half of the

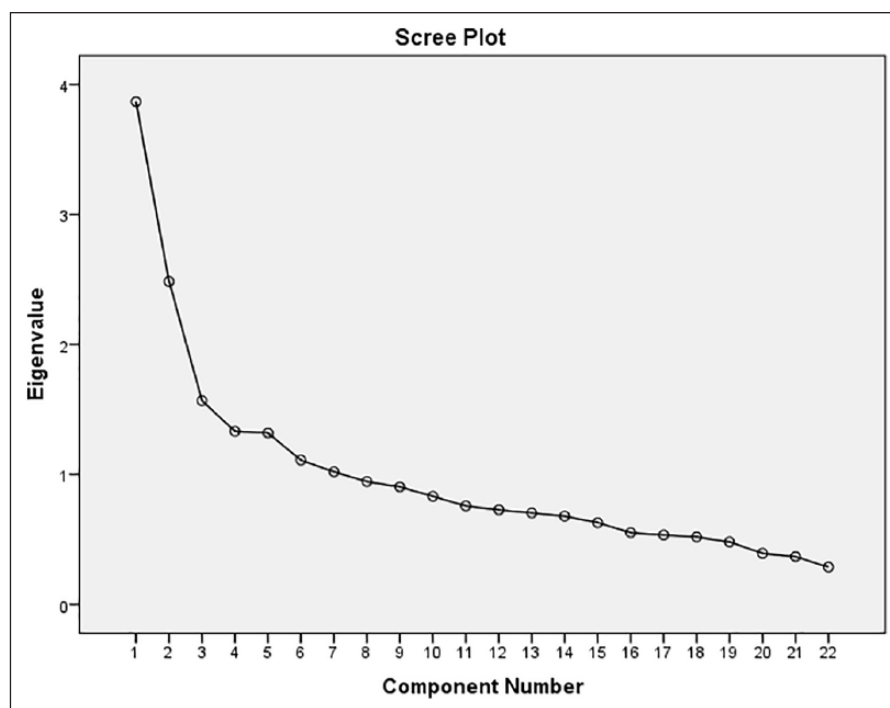


Figure 1. Scree plot.

Table 2. Exploratory factor analysis for R-DAQ.

Factor 1		Factor 2		Factor 3	
Q.16	.616	Q.12	.586	Q.17	.683
Q.10	.473	Q.18	.529	Q.7	.683
Q.14	.445	Q.5	.497	Q.15	.654
Q.19	.408	Q.13	.478	Q.11	.599
Q.22	.359	Q.21	.461	Q.8	.435
Q.2	.310	Q.3	.407	Q.1	.337
		Q.20	.385		
		Q.4	.373		
		Q.9	.364		
		Q.6	.306		

DAQ: Depression Attitudes Questionnaire.

respondents indicated that they were comfortable dealing with the needs of patients suffering from depression, or showed confidence in their training or ability to assess and manage depressions; suicide risk assessment was the area in which they felt least confident.

### Relationship between attitudes towards depression and participant characteristics

Gender and physician's specialty were found to be significantly associated with professional confidence factor ( $p=0.038$ ) with male participants being more confident in depression care. Physicians working in paediatric specialties were the least confident among the other specialties reported.

The associations between the factors and participants' characteristics are shown in Table 4.

## Discussion

### Main findings

To our knowledge, this is the first study to explore the attitudes of non-psychiatric physicians in Riyadh towards depression using the R-DAQ. The majority of participants were medical residents and a convenient sampling method resulted in selecting whoever was available at the time of recruitment. Medical residents were most likely to be present in clinics, on ward rounds and in meetings. However, participants were recruited from a variety of specialties including medicine, obstetrics and gynaecology, paediatrics, surgery, and emergency medicine.

No significant associations were found between the R-DAQ factors and participant demographic information, except that female non-psychiatric physicians were found to be less confident on the professional confidence factor than their male counterparts. The gender difference in confidence has been observed in other studies as well. For example, a nationwide study in Japan assessed the clinical confidence among residents which showed that women were less confident than men (Nomura et al., 2010). The authors explained that the gender disparity in confidence was not merely related to educational opportunities, as even after adjustment for such variables, women were still less confident. One explanation is that women are more likely to

**Table 3.** Responses to R-DAQ items ranked by extent of agreement.

Depressive attitudes: R-DAQ factors and items	No. in agreement	Per cent	Mean	SD
<i>Professional confidence in depression care</i>	296	77.89	4.00	1.005
8 – I am more comfortable working with physical illness than with mental illnesses like depression (R)				
1 – I feel comfortable in dealing with depressed patients' needs	200	52.64	3.44	1.235
11 – My profession is well placed to assist patients with depression	176	46.31	3.29	1.083
7 – I feel confident in assessing depression in patients	167	43.95	3.19	1.009
15 – My profession is well trained to assist patients with depression	144	38	3.06	1.025
17 – I feel confident in assessing suicide risk in patients presenting with depression	124	32.63	3.00	1.034
<i>Therapeutic optimism/pessimism about depression</i>	183	48.15	3.22	1.130
5 – One of the main causes of depression is a lack of self-discipline and will-power (R)				
12 – Becoming depressed is a way that people with poor stamina deal with life difficulties (R)	143	37.63	2.88	1.235
9 – Becoming depressed is a natural part of being old (R)	125	32.90	2.80	1.091
6 – Depression treatments medicalise unhappiness (R)	104	27.36	2.90	0.969
21 – There is little to be offered to depressed patients who do not respond to initial treatments (R)	73	19.21	2.45	1.079
20 – Becoming depressed is a natural part of adolescence (R)	72	19	2.46	1.033
3 – Psychological therapy tends to be unsuccessful with people who are depressed (R)	47	12.40	2.26	0.941
18 – Depression reflects a response which is not amenable to change (R)	46	12.11	2.27	0.946
4 – Antidepressant therapy tends to be unsuccessful with people who are depressed (R)	33	8.68	2.14	0.868
13 – Once a person has made up their mind about taking their own life no one can stop them (R)	33	8.68	1.95	0.975
<i>Generalist perspective about depression occurrence, recognition and management</i>	340	89.48	4.21	0.696
16 – Recognising and managing depression is often an important part of managing other health problems				
22 – Anyone can suffer from depression	329	86.58	4.19	0.917
10 – All health professionals should have skills in recognising and managing depression	323	85	4.16	0.808
19 – It is rewarding to spend time looking after depressed patients	276	72.63	3.83	0.967
14 – People with depression have care needs similar to other medical conditions like diabetes, COPD or arthritis	269	70.79	3.78	1.027
2 – Depression is a disease like any other (e.g. asthma, diabetes)	278	73.15	3.86	1.235

DAQ: Depression Attitudes Questionnaire.

**Table 4.** Relationship between participant demographics and depression attitudes.

Comparison between demographics in the three factors						
Factor	Demographic variable	Results	p value	Difference in mean	95% Confidence interval	
1. Generalist perspective about depression occurrence, recognition, and management	Hospitals	KAMC > KFMC	0.02	1.0473	0.0740	2.0207
2. Therapeutic optimism/pessimism about depression	No significant associations					
	Genders	Male > Female	0.01	1.7777	0.5188	4.4490
	Specialties	Emergency Medicine > Surgery	0.01	3.5565	0.0998	7.0133
		Emergency Medicine > Paediatrics		4.6960	1.4478	7.9441
		General Practitioner > Paediatrics		5.7103	1.2724	10.1481
		Miscellaneous > Paediatrics		4.6410	0.6830	8.5990
		Intern > Paediatrics		4.2019	1.1179	7.2860
		Medicine > Paediatrics		2.5927	0.7441	4.4413
3. Professional confidence in depression care						

KAMC: King Abdulaziz Medical City; KFMC: King Fahad Medical City.

underestimate their abilities although they may outperform their male counterparts as reported by Lind et al. (2002). Similar findings for clinicians' attitudes towards depression in Europe also confirm a modest difference for several items of the DAQ items by gender (Haddad et al., 2011).

When comparing different specialties, non-psychiatric physicians working in paediatric specialties showed significantly less confidence compared to those working in emergency medicine, general practice and general medicine. This may highlight the lack of experience with the management of patients with depression in child services. However, the low number of participants in certain specialties may have exaggerated the difference between the specialties.

In general, non-psychiatric physicians in Riyadh showed neutral to slightly positive/optimistic attitudes towards depression as measured by the R-DAQ. In particular, positive attitudes regarding a generalist perspective towards depression were found. However, self-disclosure in questionnaires does not necessarily reflect actual practice, and a positive attitude here may not capture day-to-day individual practice (Kerr et al., 1995). More likely, self-reported measures may reflect idealised perspectives of good practice rather than actual practice (Kormos and Gifford, 2014).

Attitudes surrounding therapeutic optimism for depression were mostly positive with high agreement for the efficacy of antidepressant treatment and psychotherapy. These views could be have been biased since three of the four hospitals included do not have a dedicated psychiatric ward for admission of psychiatric cases, such as patients with severe or intractable depression in which treatment failure is usually seen.

Despite these positive attitudes, up to half the respondents had a pessimistic view of depression: depression constitutes a lack of willpower, poor stamina and was part of the aging process. Not surprisingly, an overwhelming strong preference by the non-psychiatric physicians in Riyadh was to work with patients with physical illness rather than depressive illness (item 8). These attitudes, if unchecked, can potentially lead to stigmatising views from healthcare professionals, blaming depressed patients for any treatment failures and possibly lowering empathy when managing patients with more severe cases of depression. Practitioner empathy has been found to be an important factor in patient health outcomes (Kelley et al., 2014).

Although the majority of respondents reported that it was rewarding to spend time with patients who were depressed, they were less confident in the management of depression; in particular, suicide risk assessment. We did not assess post-graduate training in psychiatry or courses attended by the participants. Therefore, it is difficult to determine whether these findings indicate negative attitudes towards depression or reflect a lack of training in working with patients with depression. Nonetheless, it is

essential that service providers should address this 'gap' in the management of depression.

### *Comparison with other studies*

Two studies have been conducted in physicians in the United Kingdom and in physicians in Pakistan. Compared to the Pakistani physicians, non-psychiatric physicians in Riyadh were generally less professionally confident in depression care. The Pakistani physicians were less confident than the UK sample of general practitioners and nurses (Haddad et al., 2015, 2016). The most striking difference between the present and previous studies was that the non-psychiatric physicians in Riyadh endorsed a higher preference for working with patients with physical illness rather than psychiatric illness such as depression.

Although the non-psychiatric physicians in Riyadh showed a somewhat pessimistic view of the causes of depression, these views were substantially less negative than those of the Pakistani physicians. In some aspects, the attitudes of non-psychiatric physicians in Riyadh were closer to those of the UK general practitioners and nurses. This finding may be explained by the fact that almost half of all the physicians in the study were expatriates.

On the generalist perspectives about depression, non-psychiatric physicians in Riyadh were equally or even more positive in their attitudes compared to the Pakistani physicians. The most notable difference was viewing depression as any other physical illness in this study (item 2).

Since the R-DAQ attitudes retained nine of the items from the original DAQ, some comparison of these items with previous research is still possible (Haddad et al., 2015). The non-psychiatric physicians in Riyadh showed similar attitudes in regards to the potential therapeutic effect of depression treatment (items 18 and 21) when compared to the Pakistani, United Kingdom, Italian and French physicians (Haddad et al., 2011). The non-psychiatric physicians in Riyadh were somewhat less likely to see depression as a natural part of the aging process or due to personal weakness when compared to the Pakistani physicians, who in turn were more likely to see these attributes as part of depression compared to the UK and European clinicians. Similar results were noted for attitudes on comfort with addressing the needs of patients with depression (item 1) between the Saudi, Pakistani, UK and European practitioners, but a higher level of reward for looking after patients with depression was endorsed by the non-psychiatric physicians in Riyadh (item 19). Conversely, a Japanese study found that none of its physicians indicated feeling comfortable dealing with patients suffering from depression. Moreover, the Japanese physicians also endorsed the view that antidepressant and psychological therapies tend to be unsuccessful, item 3 and 4 (Ohtsuki et al., 2012).

Exploratory factor analysis for this population was consistent with previous findings of a three-factor model

(Haddad et al., 2015, 2016). However, item 19 'it is rewarding to spend time looking after depressed patients' did not load with the professional confidence factor, instead, it loaded with the generalist perspectives about depression factor. It is likely that the non-psychiatric physicians in Riyadh saw this item as part of a general view of depression rather than a professional confidence issue. Finally, professional confidence factor accounted for the major variance in the original study of R-DAQ by Haddad et al. (2015), whereas most of the variance for the non-psychiatric physicians in the present study was explained by the therapeutic optimism about depression factor.

### Strengths and weaknesses

Participants were recruited from four major tertiary hospitals in Riyadh. The study had sufficient power to perform the planned statistics at the required level of precision. The R-DAQ with its improved psychometric properties and readability was appropriate to examine the attitudes of non-psychiatric physicians in Riyadh. With the exception of one item, our findings were consistent with the three-factor structure of the questionnaire with adequate levels of internal consistency as proposed by the authors of the original study using the R-DAQ. This may reflect cultural differences in the understanding and management of depression by non-psychiatric physicians in Riyadh compared to the research findings by Haddad et al. (2015).

A randomized sampling technique was practically difficult to accomplish given the fact that two of the hospitals included in the study were military hospitals who were concerned about disclosing their data to the research members. In addition, there are general difficulties in recruiting medical practitioners (Levinson et al., 1998; Van Geest et al., 2007). Therefore, a convenient sampling method the most feasible option, which is likely to limit the generalisability of our findings.

Although the R-DAQ has improved readability compared to the DAQ, some physicians found it difficult to conceptualise the term 'medicalise' in the context of depression, which again highlights cultural and language differences among different populations.

### Implications

It is important to understand the attitudes of medical practitioners to shape service delivery, manage treatment outcomes and assess training needs. Overall, non-psychiatric physicians in Riyadh showed positive attitudes in professional confidence towards patients with depression. However, a preference for working with patients with physical illness rather than psychological problems and lack of confidence in working with suicidal patients may point towards a gap in post-graduate training in mental health or a lack of appropriate clinical supervision for management

of psychiatric issues. In particular, female practitioners and those working in paediatric services may benefit from mental health training and clinical supervision for psychiatric disorders, especially because training in mental health issues can lead to increased positive attitudes towards patients with depression (Norton et al., 2011).

### Conclusion

This study explored the attitudes of non-psychiatric physicians in Riyadh. Overall, physicians were optimistic, confident in depression management and held positive attitudes towards patients with depression. However, preference towards dealing with physical rather than mental illness, lack of confidence in the management of suicidal ideation, and pessimistic explanations for the cause of depression were found.

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### Availability of data and material

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Ethical approval and consent to participate

Ethical approval from the ethical committee in KAIMARC [reference: Protocol SP15.029] was obtained, and approval from each hospital was sought to do the study. A consent form was attached with the questionnaire while distributing the surveys for the participants.

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