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Original Research Article

Knowledge, attitudes and practice among high school teachers toward students with mental disorders in Riyadh, Saudi Arabia

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ABSTRACT

Background: Mental disorders are highly prevalent among adolescents, and they correlate negatively with students' achievement, performance, and leadless school engagement and participation. School Teachers can contribute significantly to the early detection and intervention strategies for mental disorders among adolescents. This study estimates high school teachers' knowledge, attitude, and practice toward mental disorders and determines the association between selected demographic factors.
Methods: The ethical committee of King Saud University, Riyadh, Saudi Arabia, approved this cross-sectional study. Multistage random sampling was done, which included 62 male and 48 female high schools in Riyadh between August and December 2021. An Anonymous self-administered questionnaire consisting of 39-item was used for data collection.
Results: A total 487 responses were received from the high school teachers, on a scale of 10 maximum score, only (60.4%) showed adequate knowledge regarding mental disorders. Even though, Majority of teachers (76.2%) show a favorable attitude toward mental disorders on a scale of 24 maximum scores. Furthermore, approximately one-third of study participants (34.4%) on a scale of 4 points maximum show good practice toward mental disorders.
Conclusions: This study revealed teachers' lack of knowledge about mental disorders with poor practice. Even though school teachers have shown favourable attitudes in most aspects toward mental disorders, implantation of the mental health literacy program is recommended to enhance the essential role of school staff in providing the needed support for promoting student mental health.

Keywords: Knowledge, Attitudes, Practice, School teachers, Mental disorders

INTRODUCTION

A people's ability to lead a satisfying life, which includes developing and maintaining close personal relationships, is strongly influenced by their state of mental health or psychological wellness.[1] According to the World Health Organization (WHO) Mental health is defined as "a condition of well-being in which every individual fulfills his or her potential, copes with the usual demands of life, can produce successful and fruitful work, and contributes to her or his community".[2]

The importance and burden of mental disorders can be observed worldwide. Mortality and morbidity due to mental, neurological, and substance abuse disorders are global problems.[1] According to the WHO, a mental illness affects one member of every four families.[2] Furthermore, mental and addictive disorders affect about

one billion people, about 16% of the world population in 2016, with the prevalence of these conditions being similar in men and women.[3]

The WHO estimates that between 10% and 20% of children and adolescents worldwide have a mental illness.[4] Two of the most prominent psychiatric issues globally are depression and anxiety.[5] Depression or low mood affects approximately 12 percent of adolescents in the United States between 12 and 18.[4]

The burden of psychiatric disorders among adolescents and children was not reported in any national studies. However, some reports on subgroups of the population indicated a prevalence of 36.3-48.0%.[6,7,8,9,10] Among other indicators addressing prevalent health problems among nationally representative samples of adolescents, 14% and 6.7%, respectively, were found to have symptoms suggestive of depression and anxiety.[11] In addition, a Study in Hail region of Saudi Arabia showed that despite the favorable attitude of teachers within the targeted population toward students with mental health issues, they reported having limited information about most aspects needed for early detection dealing with and referral for specialized mental health counseling available in their school and community.[12]

Most teens spend most of their waking time in school with their teachers more than anyone, making schools the prime setting for early detection and intervention strategy for mental health problems among children and adolescents.[13] Unfortunately, unless the symptoms of mental illness are extremely distressing, they are often ignored and considered due to signs of weakness on the person's part. That is why teachers play a vital role in identifying students with mental health issues who present with clinical or subclinical symptoms.[13] However, some studies found a gap between teachers' roles and mental health; teachers needed to be informed about mental disorders because they served as gatekeepers to child and adolescent mental health services.[14] Although the prevalence rate of mental disorders is high in Saudi Arabia, there is still a lack of local studies that focus on knowledge, attitudes, and practice toward mental disorders among high school teachers. Furthermore, the results of this study might help identify areas where teachers lack basic knowledge about mental disorders and areas where school teachers may show negative attitudes toward students with mental disorders for further education to be implemented. Furthermore, it would emphasize the initiation of training programs to qualify teachers in providing assessment and closing the gap between the onset of the disease's symptoms and initiating treatment to mentally ill students.

Therefore, our study aimed to estimate and evaluate the levels of knowledge, attitudes, and practices among high school teachers toward students with mental disorders in Riyadh and try to determine the association, if any were there, between selected sociodemographic factors such as gender, years of experience, marital status, teaching specialty and type of school with knowledge, attitudes, and practices.

METHODS

Study design and setting

We conducted an analytical cross-sectional survey in Riyadh, Saudi Arabia, from August to December 2021. Based to the General Authority of Statistics in Saudi Arabia they estimated the population in Riyadh city around 8,660,885 in 2019.

Sample size and sampling technique

The required sample size to conduct this study was calculated using the following formulae:

$$N = \frac{(Z_{\frac{\alpha}{2}})^2 \times P \times (1-P)}{d^2}$$

We referred to Kamel A, Haridi HK study, which estimated the level of teacher knowledge about mental health as 54%. At a confidence level of 95% and a 5% precision, the estimated sample size was 382. All high school teachers are considered our target population, excluding teachers with a history of mental illness.

Sampling starts by obtaining a list from “Makani,” The Educational Administrative Office Website. A total of 251 male high schools and 165 female high schools are located in Riyadh city. Multistage random sampling was done by assigning each school to one of the five areas in Riyadh (North, south, east, west, and Center). Further, we divided the schools based on sex, either male or female high schools. Approximately 12 schools have been randomly selected from each area for males and female schools. Of the 120 schools, we received the permission of 63 male schools and 48 female schools to distribute the online self-admirative questionnaire among the teachers through the school’s manager. A total of 487 participants was achieved. The participants provided informed consent after clearly defining the purpose of the study and the right of the participant to withdraw. In addition, they were assured of maintaining their privacy and confidentiality with no personal identifiers being requested.

Tool and data coding

The tool that has been used in this study to measure the teachers’ knowledge, attitude, and practice toward students with mental disorders was self-generated after an extensive review of the literature and other instrument tools. Furthermore, it has been reviewed and edited by experts in psychiatry, family medicine, and education. It consists of 39 questions, divided into four main sections, teacher sociodemographic characteristics (13 items),

teacher knowledge about mental disorders (10 items), attitude toward students with mental disorders (8 items), and lastly, teacher practice (8 items). We use (Yes and No) answers for the knowledge and practice section. Moreover, we give 1 point for the correct or positive response and zero for an incorrect or negative response. However, 3-point Likert scale was used for the attitude section, (3 = agree, 2 = neutral, and 1 = disagree). for each of the three sections, a total score was calculated by summing all items and using the 75th percentile as a cut-off point in which it could predict statistically strong and true levels for a certain parameter.[15] A pilot study was done on 20 teachers, ten male and ten female high school teachers, to check the clarity of the questionnaire. For the internal consistency and reliability test of the tool, Cronbach's alpha measure for each subset showed (0.73) for knowledge, (0.74) for attitude, and lastly (0.71) for practice.

Statistical analysis plan

The data analysis was done using SPSS 26.0 version statistical software. Descriptive statistics (frequencies, percentages, and measures of central tendency and dispersion) were used for the sociodemographic variable (i.e., sex, age, gender, marital status, and type of school). Above or below 75th percentile is used to define adequate or inadequate knowledge, positive or negative attitude, and good or poor practice. In addition, Chi-square and fisher's exact tests were used to assess the association between selected sociodemographic factors like gender, years of experience, marital status, teaching specialty, and type of school. P-values were considered statistically significant when less than 0.05.

RESULTS

Sample characteristics

Out of four hundred and eighty-seven respondents, four hundred and ten (92.8%) were aged 30 years or more, with a male to female ratio of 0.95:1. The mean age was 41.43, with a standard deviation of 7.5. Most teachers were married (86.9) and had children (84.4%). The mean years of experience were 15 years ± 8 SD. The majority of teachers, 75.4%, were from public schools. Teachers specialized in Humanitarians subjects comprise 57.7% of respondents (Table 1).

Teachers' knowledge

Approximately (40%) of the teachers think that mental disorder is rare among adolescents, and almost all of the teachers (99%) correctly responded that depression among adolescents could affect their academic grades. However, only (16.6%) of the teachers know if it is right or wrong to ask depressed students about suicidal thoughts. Moreover, most of the teachers (89.5%) replied correctly that students with anxiety disorders tend to be more irritable than other students.

Table 1: Distribution of socio-demographic characteristics of study subjects (n=487).

Variable	(%)
Age	
<40	173 (35.5)
40-45	173 (35.5)
>45	141 (29)
Mean (SD)	41.43 (7.509)
Gender	
Male	237 (48.7)
Female	250 (51.3)
Marital state	
Married	423 (86.9)
Single	64 (13.1)
No. of children	
0	76 (15.6)
1-3	197 (40.5)
≥4	214 (43.9)
Years of experience	
≤10 years	166 (34.1)
11-21 years	183 (37.6)
≥20 years	138 (28.3)
Educational level	
Diploma	8 (1.6)
Bachelor's	403 (82.8)
Master	62 (12.7)
PhD	14 (2.9)
Region of school in Riyadh	
North	107 (22)
South	87 (17.9)
East	95 (19.5)
West	125 (25.7)
Central	73 (15)
Type of school	
Public	367 (75.4)
Private	120 (24.6)
Teaching specialty	
Science subjects	206 (42.3)
Humanitarian subjects	281 (57.7)
First degree relative diagnose with mental disorder	
Yes	68 (14)
Data are presented as number and percentages of participant	

The maximum knowledge scale was 10, in which the study participant mean score was 6.7 ± 1.45, and Participants who scored higher than the 75th percentile were identified as having adequate knowledge. They comprise (60.4%) of our study sample, with no association between the selected sociodemographic characteristics. However, we discovered a statistically significant association between teachers who participate in mental health training programs on coping with pupils who have mental disorders and better levels of knowledge of mental diseases (p-0.026) (OR: 1.752; CI 1.064-2.883) (Table 2).

Table 2: Study subjects' responses towards questions concerning their knowledge about students with mental disorders.

Question	Responses (%)	
	Correct	Incorrect
Do you believe mental disorders are rare disorders among adolescents?	296 (60.8)	191 (39.2)
Do you believe depression in adolescents does not affect their academic grades?	482 (99)	5 (1)
Do you believe increase or decrease in weight can be a sign of students with depression?	326 (66.9)	161 (33.1)
Do you believe diminished interest in activities and hobbies can be a sign of a student with depression?	393 (80.7)	94 (19.3)
People with depression often speak in a rambling and disjointed way?	112 (23)	375 (77)
Do you believe that Depression affects patients' memory and concentration?	436 (89.5)	51 (10.5)
Do you believe that it is not a good idea to ask someone if they are feeling suicidal in case you put the idea in their head?	81 (16.6)	406 (83.4)
Do you believe that Being easily fatigued can be a symptom of anxiety disorder?	249 (51.1)	238 (48.9)
Is it true that students with anxiety disorders tend to be more irritable than other students?	436 (89.5)	51 (10.5)
Do you believe that anxiety disorders are manageable?	456 (93.6)	31 (6.4)
Total score higher than 75th percent = 60.4%		
Maximum score = 10		
Overall level of knowledge among participants was Adequate in 294 (60.4%) and Inadequate 193 (39.6%), the Mean ± =6.7±1.45		

Table 3: Study subjects' responses towards questions concerning their attitude about students with mental disorders.

Statement	Responses (%)		
	Agree	Neutral	Disagree
I don't mind having a student with a mental disorder in my classroom	283 (58.1)	143 (29.4)	61 (12.5)
I believe that students with mental disorders should be placed in a special school	99 (20.3)	123 (25.3)	265 (54.4)
I think that students with mental disorders are like other students with organic diseases	288 (59.1)	52 (10.7)	147 (30.2)
I believe that mental disorders are merely a mix of black magic and evil eye	25 (5.1)	101 (20.7)	361 (74.1)
I believe that faith healers are better at treating mental disorders	86 (17.7)	175 (35.9)	226 (46 .4)
We should consider consulting a psychiatrist when experiencing mental health problems	459 (94.3)	19 (3.9)	9 (1.8)
I believe that recognizing students with depression is a part of my responsibility	309 (63.4)	109 (22.4)	69 (14.2)
I believe that students with mental disorders are dangerous on their classmates	159 (32.6)	145 (29.8)	183 (37.6)
Total score higher than 75th percentile = 76.2%			
Maximum score = 24			
Overall attitude scores were positive in 371 (76.2%) and negative in 116 (23.8%) with mean score=19.5 ± 2.7			

Teachers' attitudes

Tables 3 highlights the attitudes of school teachers toward mental disorders. Fifty-eight percent of school teachers do not mind having a student with a mental disorder in their classroom, and approximately (54%) of the teachers disagree on placing students with mental disorders in a special school. However, most teachers

(94.3%) would consider consulting a psychiatrist when experiencing mental health problems. Furthermore, only (17.7%) believe that faith healers are better at treating mental disorders. The maximum attitude score was 24, and the study participants attained a mean score of 19.5 ±2.7. The majority of the teachers score higher than the 75th percentile (76.2%), indicating a favorable attitude toward mental disorders, with a statistically significant association between married teachers and overall higher positive attitude toward mental disorders (p-0.033) (OR: 0.545; CI 0.310-0.959).

Teachers' practice

Tables 4 highlight the practice of school teachers toward mental disorders. Around (75%) of the study participants encountered students with a mental disorder in their career, and (57.1%) feel confident in helping a student with a mental disorder. However, only (18%) receive training on dealing with students with mental disorders.

Reading books or articles on how to deal with a student having a mental disorder was reported by (43.9%) while (40%) of the schools' teachers stated that their school had written policy in how to deal with a student who has a mental disorder, especially in private school (55.8%) (p<0.001) (OR: 0.424; CI 0.279–0.644). However, (40.4%) of teachers did not know whether their schools had written policies or not.

Figure 1 highlights Teachers' selection for more than one proposed method on promoting awareness about mental disorders. Having a psychologist in every school was the most frequently selected choice between the other proposed options by more than (80%). Social media campaigns to increase the knowledge about mental disorders come second (62.4%), while the third choice was workshops and webinars held at the school (57.9%). Lastly, the maximum attainable score of teachers' practice toward mental disorder was four, and the mean score of the study participant was 1.9 ± 1.2. Moreover, the overall percentage of teachers who scored above the 75th percentile was only (34.3%) with a higher proportion among male teachers (p<0.001) (OR: 0.483; CI 0.33–0.707) and in private school teachers (p-0.029) (OR: 0.625; CI 0.409–0.955).

Table 4: Study subjects' responses towards questions concerning their practice about students with mental disorders.

Question	Responses (%)	
	Yes	No
Do you feel confident in helping a student with a mental disorder?	278 (57.1)	209 (42.9)
Did you get any training on how to deal with a mentally ill student?	89 (18.3)	398 (81.7)
Did you read any books or articles on how to deal with a mentally ill student?	214 (43.9)	273 (56.1)
Are you interested in participating in mental health education programs?	362 (74.3)	125 (25.7)
Total score higher than 75th percentile = 34.3%		
Maximum score = 4		
The overall practice scores were good in 167 (34.3%) and poor in 320 (65.7%)		

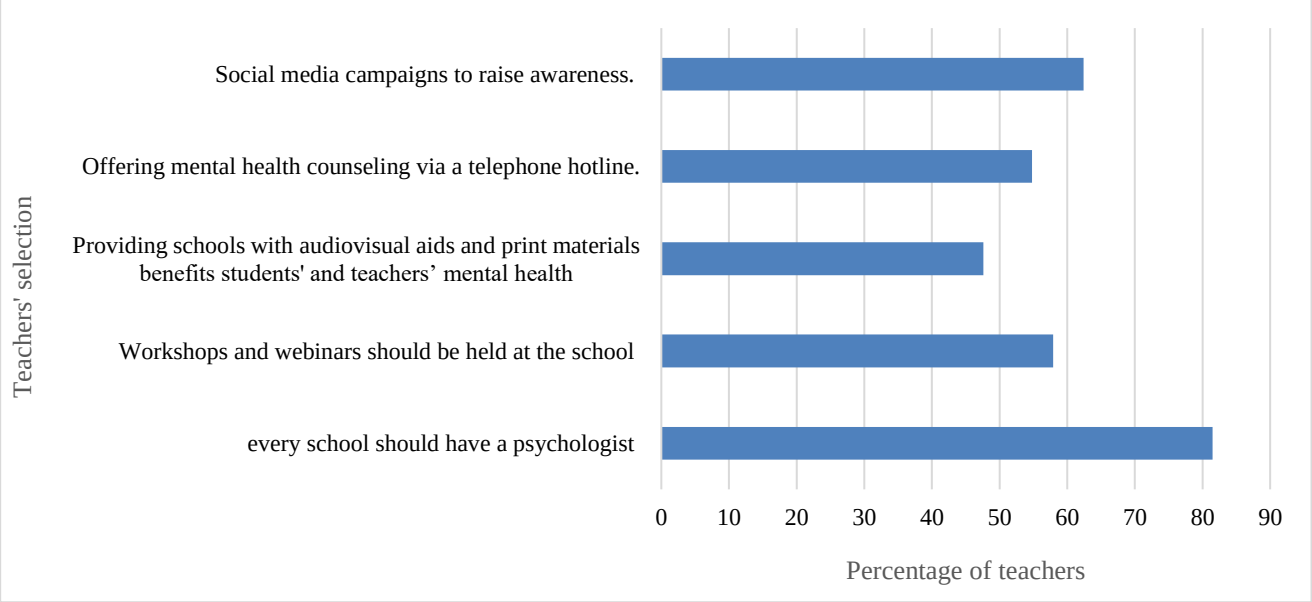

Figure 1: Teachers' selects from proposed methods on how to promote awareness about mental disorder, value may not add to 100% since teacher may choose more than one option.

Table 5: Analysis of teacher sociodemographic characteristic associated with adequate level of knowledge, positive attitude and good practice.

Variable	No. of respondent	Knowledge			Attitude			Practice		
		Adequate N (%)	OR (CI)	P value	Positive N (%)	OR (CI)	P value	Good N (%)	OR (CI)	P value
Gender										
Male	237	139 (58.6)	1.150 (0.8-1.654)	0.450	184 (77.6)	0.855 (0.563–1.299)	0.463	100 (42.2)	0.491 (0.336-0.72)	<0.001*
Female	250	155 (62)			187 (74.8)			66 (26.4)		
Marital status										
Married	423	255 (60.3)	0.921 (0.600-1.761)	0.921	329 (77.8)	0.545 (0.310-0.959)	0.033*	142 (33.6)	1.187 (0.689-2.047)	0.536
Single	64	39 (60.9)			42 (65.6)			24 (37.5)		
Years of experience										
10	166	95 (57.2)			124 (74.7)			51 (30.7)		
11-20	183	116 (63.4)		0.501	137 (74.9)		0.516	65 (35.5)		0.526
21	138	83 (60.1)			110 (79.7)			50 (36.2)		
Teaching specialty										
Humanitarian subjects	281	165 (58.7)	1.178 (0.814-1.703)	0.384	219 (77.9)	0.797 (0.524-1.212)	0.288	102 (36.3)	0.791 (0.540-1.159)	0.229
Science subjects	206	129 (62.6)			152 (73.8)			64 (31.1)		
Type of school										
Public	367	218 (59.4)	0.847 (0.553-1.297)	0.445	278 (75.7)	0.907 (0.555-1.481)	0.696	115 (31.3)	0.617 (0.404-0.943)	0.025*
Private	120	76 (63.3)			93 (77.5)			51 (42.5)		

OR odds ratio, CI confidence interval, *Significant level <0.05.

DISCUSSION

In addition to acting as a link between the home and the community, schools are critical in identifying children suffering from mental illnesses early.[16] Nevertheless, despite this, the findings of this study and prior studies revealed that teachers lacked awareness concerning mental problems among pupils.[12,17,18,19]

Although local studies in Saudi Arabia reported that the prevalence of mental disorders among adolescents ranged from 34.1% to 48%,[5, 6] and our study participants reported that they had encountered students who have a mental disorder at some point in their careers, forty percent (40 percent) of school teachers responded that mental disorders are uncommon among adolescents.

However, on the other hand, teachers demonstrated a great understanding of some signs and symptoms of mental disorders, such as a reduced internist, inactivity, and its effect on concentration in the case of depression. However, poor comprehension of others was shown by the vast majority of respondents (77%) who answered incorrectly to questions such as: speaking in a rambling manner is a sign of depression and being easily exhausted is not a sign of anxiety. Furthermore, a lack of information on mental health issues may be a barrier to counseling, supporting, and promoting students' mental health.

One of the school teachers attributed the lack of knowledge to a high teaching load and other obligations.[16] Additionally, this may explain why only (63.4%) of school teachers believe that recognizing pupils with mental problems is a part of their responsibilities. It is possible that insufficient training of school teachers (18.3 percent) on dealing with mental diseases contributed to the fact that only (57%) of them were confident in their ability to help pupils with mental disorders. According to a recent study, this lack of training is one of the possible explanations of school staff's lack of understanding concerning mental problems.[17]

Furthermore, most teachers stressed on the importance of receiving training to spot the signs and symptoms of mental illnesses.[20] Additionally, most schools staff (74%) express an interest in engaging in a mental health literacy program. Teachers' knowledge, confidence in assisting students with mental disorders, and stigmatizing attitudes toward mental disorders improved due to the mental health training programs.[21] In addition, the effects of these programs extended beyond that, as evidenced by the fact that they indirectly improve pupils' knowledge of mental health as a result of the information they received from school personnel.[22]

Teachers who were married have demonstrated a more positive attitude toward students with mental disorders than single teachers. This finding was similar to the findings made by others.[12]

Only 21.9% of teachers are adequately informed about the resources available for school mental health services. The teacher's knowledge about the available mental health services for the school and student is essential.[12] However, (40%) of our study participants do not know if their school has written a policy on dealing with students having mental disorders. Some teachers express a desire for additional support, training, counselor, and more coordination between all mental health services to promote students' mental health.[20] Teachers perceived the availability and accessibility of the mental health services as one of the challenges facing student mental health.[16] Most of the teachers (81.5%) emphasized the importance of having a psychologist in each school to deal with a mental health disorder, indicating that teachers are aware of their lack of knowledge and inability to provide sufficient support required to maintain their students' mental health.[12] Also, (62.4%) of them suggested utilizing Social media campaigns to increase their knowledge about mental disorders.

Limitation

One of the study's limitations is the lack of a globally validated assessment tool that could be used to measure all of the levels of teacher knowledge, attitude, and practice that were investigated.

Furthermore, because it was limited to the Riyadh metropolitan area, the findings may not generalize to other parts of Saudi Arabia, such as the outskirts of the capital or other rural areas.

CONCLUSION

Only a small percentage of teachers receive training on how to deal with students who have mental disorders, even though the findings of this study revealed a lack of knowledge in some aspects of mental disorders and poor practice in some areas. Schools can serve as excellent environments for detecting and identifying students suffering from psychological stress. A mental health literacy program should also be implemented to strengthen the critical role of school personnel in providing the necessary support for promoting students' mental health. Ongoing research on this subject in a school setting is required and highly recommended.

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