Assessment of Public Knowledge and Attitude Toward Mental Illnesses in Mosul City - Iraq

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ABSTRACT

Background: Mental health is an integral part of health; in every society, there is persistent prejudice and societal rejection of those who have mental illness. Out of all the health issues, the general population has an inadequate knowledge of mental disorders.

Subject and Method: A Cross-sectional study was adapted to assess the public's knowledge and attitude toward mental illnesses. Data was collected from 800 participants who agreed to participate after visiting different health institutions in Mosul City during the data collection period. The data was collected over four months, from the 1st of November 2023 to the 1st of March 2024. Data was collected via a modified standardized questionnaire through a direct face-to-face interview with each participant. SPSS Version 26 software program was used for data analysis.

Results: Of 800 participants, with a mean age of 35.92, females form 55.1% of the study population, 83.4% of participants were from urban regions, 63.9% were unemployed, 53.6% were married, and 37% had a university education. The proportion of participants with overall accepted knowledge scores was 52%. Age, occupation, education, and marital state had a significant association with knowledge level. The overall positive attitude toward mental illness was 76.5%, and there were no significant differences in positive attitudes between different sociodemographic strata.

Conclusions: About half of the study population had poor or inadequate knowledge about mental illnesses. The knowledge level is associated with some sociodemographic features of participants. On the other hand, the study population had a relatively unfavorable attitude about mental illnesses with no significant association with the study populations' sociodemographic features.

It is advised that health education about mental health problems be enhanced by using community campaigns and local media.

Keywords: mental illnesses, knowledge, attitude.

تقييم معارف ومواقف المواطنين تجاه الامراض النفسية في مدينة الموصل ـ العراق

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الخلاصة

الخلفية: ان الصحة العقلية هي جزء لا يتجزأ من الصحة العامة، في كل مجتمع هناك اجحاف مستمر ورفض اجتماعي لأولئك الذين يعانون من الامراض النفسية. ان من بين كل القضايا الصحية، لا توجد معرفة كافية لعامة السكان حول الامراض النفسية.

المشاركين وطرق العمل: تم الاعتماد على الدراسة المقطعية لغرض تقييم معرفة ومواقف المشتركين حول الامراض العقلية .حيث تم جمع البيانات من ٨٠٠ مشترك ممن وافقوا على المشاركة وذلك بعد ان تمت زيارة مختلف المؤسسات الصحية في مدينة الموصل حيث كانت فترة جمع البيانات ٤ اشهر من الأول من شهر تشرين الثاني لسنة ٢٠٢٣ الى الأول من شهر اذار لسنة ٢٠٢٤. ولقد تم جمع البيانات من خلال استبيان معياري ومعدل وذلك عن طريق المقابلة المباشرة مع كل مشارك تم تحليل البيانات باستعمال برنامج SPSS ، الاصدار ٢٦.

النتائج: من بين ٨٠٠ مشترك كان ٣٣.٨% من المشتركين هم من الفئه العمرية (١٨-<٢٩) سنة وبمتوسط عمر ٣٥.٩٢ سنة. وشكلت الاناث نسبة ٥٥.١% من المشاركين، و٨٣.٤ % من المشاركين كانوا من المناطق الحضرية، و٦٣.٩% كانو غير موظفين ،٥٣.٦% كانوا متزوجون ،٣٧% كانوا حاصلين على التعليم الجامعي. كانت نسبة المشاركين الذين لديهم مستوى مقبول للمعرفة حول الامراض العقلية هي ٥٢% ولقد كان للعمر والمهنة والحالة الزوجية ارتباط احصائي معنوي بمستوى المعرفة.
اما نسبة المشتركين الذين كانت لهم مواقف إيجابية تجاه الامراض العقلية فقد كانت ٧٦.٥% ولا توجد فروقات ذات دلالة إحصائية في المواقف الإيجابية بين مختلف الفئات الاجتماعية.
الاستنتاجات والتوصيات: لقد كان لغالبية المشاركين في الدراسة معرفة ضعيفة او غير كافية عن الامراض النفسية .و كان للمستوى المعرفي للمشاركين ارتباط معنوي ببعض الخصائص والسمات الاجتماعية والديموغرافية .ومن ناحية أخرى فقد كان للمشاركين مواقف غير ايجابية نسبيا حول الامراض النفسية مع عدم وجود ترابط كبير مع الخصائص الاجتماعية والديموغرافية للمشتركين مع مواقفهم.
ولذلك ينصح بتعزيز التثقيف الصحي وتوفير وسائل صحية كافية للعلاج والاستشارات حول الامراض النفسية والعقلية على ان تكون متوفرة ومتاحة لخدمة جميع الناس.

الكلمات المفتاحية : الامراض النفسية ، المعارف ، المواقف.

INTRODUCTION

Mental health (MH) is an essential component of overall health, and mental illnesses (MI) are an important cause of morbidity and disability, which greatly lower people's quality of life. [1] Mental health is a complex public health issue in both developed and developing nations that face a heavy burden from mental disease because of its contribution to 6.6% of worldwide disability-adjusted life years and 18.9% of global years lived with disability. [2] These illnesses affect approximately 10% of adults worldwide at any time and account for 14% of the world's disease burden. About 25% of people in developed as well as developing nations experience one or more mental or behavioral illnesses. These diseases have a negative social and financial impact and might include stigmatization, social rejection, and the emotional strain of caring for family members who are disabled. [3-5]

Mental disorders are medical problems that cause alterations in behavior, thought, or feeling (or a mix of these). These disorders are linked to distress and/or difficulties interacting with others. Multiple factors, including biological, genetic, and environmental, are thought to contribute to mental diseases. [6] Unfortunately, people with mental illnesses are perceived negatively by the public, who think they are weak, dangerous, ignorant, and incapable of carrying out assigned tasks. Patients consequently face alienation, isolation, and exclusion from the community. [7] Because of this impression, these individuals are associated with many negative attributes and may even be rejected by society. [4,8] Actually, the overall societal perception of MI is linked to the capacity of individuals with MI to reintegrate into society and perform their previous roles. [8]

This stigmatizing behavior by the community consequently prevents mentally ill persons from keeping up their regular social interactions and delaying seeking treatment, which in turn affects the recovery and rehabilitation processes. [3] Moreover, stigma even exceeds mental diseases and extends to involved mental health professionals. [9] According to the World Mental Health Report "2022," it is believed that the biggest obstacles to postponing or refusing to seek treatment are stigma and a lack of knowledge regarding mental health [10,11]. Furthermore, it was found that knowledge about various aspects of mental illness is associated with a reduction of stigma and improved mental health outcomes by facilitating early detection and improving the use of mental health services. [1,12,13]

The incidence of mental diseases can be reduced, and individuals can receive support in overcoming their condition and helping others deal with it by raising awareness and altering attitudes and beliefs. [10,2] A critical component of any psychiatric treatment is lowering barriers between the public and mentally ill people by evaluating any gaps in the general public's knowledge, perception, and attitudes about different MIs and managing this gap accordingly. [14,5] Accordingly, this study evaluates public knowledge and attitudes toward mental illnesses in Mosul City.

SUBJECTS AND METHODS

A cross-sectional study design was executed to assess the knowledge and attitude of participants toward mental illnesses. Preceding data collection, the Nineveh Health Office gave formal approval to facilitate data collection from the hospitals and primary healthcare centers involved in the study. Participation was entirely voluntary, and participants' confidentiality was preserved.

The study was conducted in Mosul with several health institutions, including outpatient departments of two major hospitals and four primary health centers selected as a study setting for data collection. Data collected over four months began from the 1st of November 2023 to the 1st of March 2024. A random sample of both sexes, who agreed to participate and were eighteen years and older, and apparently with no mental illness, was involved in achieving the study's objectives. People under eighteen years and those who rejected participation were excluded from participation. The maximum predicted sample size was calculated by using the formula for cross-sectional studies:

$N=Z^2P\ (1-P)/d^2$ at the 95% confidence interval (CI). It also uses the anticipated prevalence or proportion (50%) and a 5% marginal error. The calculated sample size is 384, multiplied by 2 (for design effect) to 348*2 = 768.

A modified standardized questionnaire form was used through personal interviews with each participant to collect the required data for this study. The content validity of the questionnaire was determined judgmentally by a review of the teaching staff of the Family and Community Medicine Department at the College of Medicine/ University of Mosul. The form was translated into Arabic to facilitate respondent understanding and promote public participation. The form consists of three sections, 1st one related to information about the sociodemographic features of the participants. The 2nd part involves ten questions designed to assess knowledge about MI, and their answers were yes or no. The 3rd part was to identify participants' attitudes toward MI and their answers using the five linkers scale (strongly agree, agree, borderline, strongly disagree, disagree). The gathered data was symbolized, entered into an Excel sheet, and transferred into the Statistical Package for Social Science (SPSS) Version 26 software to conduct a statistical analysis. The results were presented in numbers and percentages in appropriate tables designed to demonstrate the results. The overall correct response to knowledge questions was calculated by considering those who replied to correct answers equal to and above half of the knowledge questions as accepted knowledge level.

In contrast, correct answers below this level are unaccepted. The overall proportion of individuals with accepted knowledge scores was analyzed to find any association with sociodemographic features. Also, the association between overall positive attitude and sociodemographic features of respondents was identified. A z-test for one proportion and chi-square were used to test the significance of the difference, and a p-value of 0.05 or less was considered significant.

RESULTS

Table 1.1 reveals that 33.8% of participants were in the age group of (18- ≤ 29) years old, and 55.1% were females. The majority (83.4%) of them are from urban regions. Nearly two-thirds (63.9%) were unemployed. Beyond half (53.3%) were married, and about one-third (37%) had a university education.

Table (1): The Sociodemographic Features of the studied population (n = 800).

Variable	Frequency	Percentage(%)
Age in years		
18- ≤29	270	33.8
30- ≤39	237	29.6
40- ≤49	166	20.8
50+	127	15.9
Gender		
Male	359	44.9
Female	441	55.1
Residence		
Urban	667	83.4
Rural	133	16.6
Occupation		
Employmed	289	36.1
Unemploymed	511	63.9
Marital status		
Single	197	24.62
Married	429	53.63
Divorced	101	12.63
Widowed	73	9.12
Education		
Illiterate	128	16.0
Primary school	156	19.5
Secondary school	220	27.5
University	296	37.0

In Table 2 there were 58.8% of participants were against the thought that mental illness can't cured, and 70.0% reflected mental illness is preventable. Most (82.3%) contributors considered that positive attitudes and a healthy lifestyle can help maintain cognitive health. Also, 79.3% of deliberate psychological problems can occur at any age. On the other hand, 76.6% reported that psychological or psychiatric services are the treatment of psychological or mental disorders.

Table (2): Knowledge of the study population about mental illnesses (number=800).

No.	Statement	Knowledge answer				P-value*
		Yes		No		
		No.	%	No.	%	
1.	**Mental illnesses can't be cured**	330	41.2	470	**58.8**	0.000
2.	**Psychological problems can occur at any age**	634	**79.3**	166	20.7	0.000
3.	**Positive attitudes and a healthy lifestyle can help maintain mental health**	658	**82.3**	142	17.7	0.000
4.	**Individuals with a family history of mental disorders are at high risk for psychological problems**	532	66.5	268	33.5	0.000
5.	**Mental disorder can't be prevented**	240	30.0	560	**70.0**	0.000
6.	**Mental problems occur when individuals are under psychological stress**	621	**77.6**	179	22.4	0.000
7.	**The parents are usually to blame for a child's mental illness**	441	55.1	359	44.9	0.004
8.	**Psychological or psychiatric services should be sought if one suspects the presence of psychological problems or a mental disorder.**	613	**76.6**	187	23.4	0.000
9.	**Psychological problems cause impairment in education**	361	45.1	439	54.9	0.006
10.	**Individuals with inappropriate behavior are more likely to have mental problems**	388	48.5	412	51.5	0.416

* Z-test of one proportion.

Table 3 reveals that most of the study population (86.2%) is agreeable to helping mentally ill persons to become better. However, 23.3% of participants thought a mentally ill person living in a neighborhood is frightening.

Table (3) Study population attitude toward mental illnesses (n = 800).

Statement	Attitude answer						P-value*
	strongly agree & agree		Borderline		trongly disagree & disagree		
	No.	%	No.	%	No.	%	
Mental disorder is like any other disease	625	**78.1**	89	11.1	86	10.8	0.000
Anyone with a mental disorder should be advised to visit a psychiatrist	691	**86.4**	84	10.5	25	3.1	0.000
A mentally ill person living in a neighborhood is frightening.	186	**23.3**	169	21.1	445	55.6	0.000
Despite full recovery, it is foolish to get married to them.	373	46.6	200	25.0	227	28.4	0.000
Virtually anyone can develop a mental illness.	610	76.3	98	12.3	92	11.4	0.000
Marriage can treat mental illness.	229	28.6	179	22.4	392	49.0	0.000
Every person should have information about the availability of mental health services	668	**83.5**	95	11.9	37	4.6	0.000
We must help people with mental illness to become better	690	**86.2**	78	9.8	32	4.0	0.000

* Chi-square test for goodness of fit.

In Table 4, it was found that the overall accepted knowledge of participants was 52%. Participants≥ 40 had higher scores than those < 40, with a significant difference (p-value of 0.002). Also, Employment had higher knowledge scores than unemployed, with a significant difference (p-value 0.009). It was seen that the knowledge level increases with a higher level of education, and the highest level among those with university education showed a very significant difference (p = 0.000). A significant association existed between marital state and knowledge level (p = 0.04).

Table 4. Association between knowledge and sociodemographic characteristics of the study population.

Variable	n	Acceptable (n=416)		Unacceptable (n=384)		P-value*
		No.	%	No.	%	
Age in years						
< 40	507	243	47.9	264	52.1	0.002
≥ 40	293	173	59.0	120	41.0	
Sex						
Male	359	176	49.0	183	51.0	0.129
Female	441	240	54.4	201	45.6	
Residence						
Urban	667	352	52.8	315	47.2	0.327
Rural	133	64	48.1	69	51.9	
In Occupational status						
Employment	289	168	58.1	121	41.9	0.009
Unemployment	511	248	48.5	263	51.5	
Educational status						
Illiterate	128	50	39.1	78	60.9	0.000
Primary school	156	74	47.4	82	52.6	
Secondary school	220	114	51.8	106	48.2	
University	296	178	60.1	118	39.9	
Marital status						
Single	197	87	44.2	110	55.8	0.044
Married	429	240	55.9	189	44.1	
Divorced	101	54	53.5	47	46.5	
Widowed	73	35	47.9	38	52.1	

* Chi-square test.

In Table 5, the overall positive attitude toward mental illness was 76.5%, and there were no significant differences in positive attitudes between different sociodemographic strata.

Table (5). Association between average positive attitude toward mental illnesses and sociodemographic characteristics of the study population.

Variable	No.	Positive attitude 612 (76.5%)		P-value*
		No.	%	
Age in years				
< 40	507	386	76.1	0.784
≥ 40	293	226	77.1	
Sex				
Male	359	266	74.1	0.148
Female	441	346	78.5	
Residence				
Urban	667	517	77.5	0.131
Rural	133	95	71.4	
Occupational status				
Employment	289	228	78.9	0.230
Unemployment	511	384	75.1	
Educational status				
Illiterate	128	95	74.4	0.377
Primary school	156	119	76.5	
Secondary school	220	162	73.6	
University	296	236	79.7	
Marital status				
Single	197	148	75.1	0.276
Married	429	339	79.0	
Divorced	101	72	71.3	
Widowed	73	53	72.6	

*Chi-square test.

DISSCUSION

This study assessed the public knowledge and attitude toward mental illnesses and found its association with participants' sociodemographic characters.

In the present study, 58.8% of participants disagreed that MI could not be cured, consistent with Abolfotouh et al. [5,] who found that (54.8%) of participants disagreed with a similar statement. Also, Li et al. [15] show that 68.3% of participants respond to such statements as false. While Siddique et al. [16] display that 67.14% of participants considered that most mental disorders cannot be cured. On other hand, only 29% of participants in Ruth Sneha et al. study [17] disagreed with such thought. While 20.9%, 78.5% of respondents in Tesfaye et al [18], and Mahla & Gandhi studies [9] agreed that people with MI can be fully recover. As well, 68.5% of participant in Jayan & Vishwas's study [19] consider mental health disorders can be managed. In general, it was found that the public has diminished and conflicting information about the prognosis of mental illnesses, as displayed in the above different studies.

In the present study, a good proportion (79.3%) of participants considered psychological problems can occur at any age. A higher proportion (96.5%) of the agreement with this point was reported by Li et al.'s study [15] in China. Meanwhile, in our study, 82.3% of participants revealed that positive attitudes and a healthy lifestyle could help maintain mental health, consistent with the Li et al. study [15] in which 96.2% of participants agreed with the same point. It was found in the present study that 70.0% of participants reflected that mental disorders could be prevented, which is similar to the result obtained by Li et al. [15]. with 75.9% of participants. In the existing study, 77.6% decided that psychological stress can lead to mental problems, corresponding to the study conducted in Saudi Arabia by Alamri [20] and in China by Li et al. [15,] with 95% and 94.8%, respectively. In the current study, 76.6% of contributors reported that psychological or psychiatric services are the treatment of mental disorders. Likewise, Sindhu et al. [1] 60%, Aljedaani [21] in Jeddah City 85.8%, and Li et al. [15] 89.1%, in Birkie & Anbesaw study [22] 95.6%, and all participants (100%) in Jha & Mandal study [11] chose this treatment option.

Regarding the public attitude toward mental illness, most present study respondents (86.2%) are agreeable to helping mentally ill persons to become better. This corresponded to the finding in the Aljedaani study [21,] with a proportion of 88.7% and 96.25% of study participants done in Indonesian by Puspitasari et al. [23] agreeing with this declaration. In the present study, a large proportion (78.1%) displayed that mental disorder is like any other disease. This finding was in line with a study conducted by Jayan & Vishwas [19] with (73%). A higher proportion (96.2%) agreed with this point reported by Tesfaye et al. [18]. Dissimilarly, a lower proportion (56%) of a study participant conducted by Basu et al. [24] agreed with this statement. However, in the present study, 23.3% of participants were afraid of a mentally ill person living in a neighborhood. This is consistent with the findings of a study conducted by Bagchi et al. [25] and Basu et al. [24,] in which only 12% and 13.8%, respectively, agreed to have a neighbor with a mental health problem. Also, 52.8% of participants in the Yongsi study [26] did not want to be neighbors with someone who has a mental illness. Additionally, 35.8%, 42.8%, and 50.2% of participants in Aljedaani [21], Mahla & Gandhi [9,] and Abolfotouh et al. [5] studies in sequence believed that patients with MI were dangerous. In contrast, in the Kermode et al. study [27,] participants were generally ready to be neighbors of people with mental disorders. Unfortunately, this reflects the negative attitude towards mentally ill persons is widespread, which is probably related to poor knowledge about various aspects of mental illnesses.

In the present study, the overall accepted knowledge of participants was 52%, which is in line with the Puspitasari et al. study [23], Siddique et al. study [16], Jayan & Vishwas [19] and Birkie & Anbesaw [22] studies. In contrast, 82% of participants in the Yongsi study [26] had good knowledge of mental illness. And 97.8% of participants in the Jha & Mandal study [11] had adequate knowledge of mental illness. The variation in knowledge level may be attributed to the studied populations or differences in the quality of health educational programs adopted in different countries.

Regarding the association between sociodemographic features and knowledge level, the present study shows a highly significant association between the knowledge and age of participants who were≥ 40 years old and had higher knowledge scores. In contrast, Hosny et al. study [28,] the participants aged between 40–59 years had lower knowledge about mental health. Also, in our research, there was a highly significant association between knowledge and occupation of participants, as employed had higher knowledge scores than unemployed. Meanwhile, in Jayan & Vishwas's study [19,] participants with a skilled occupational status had 1.87 times the chance of having insufficient knowledge as those with a professional level. On the other hand, Yongsi's study [26] revealed no association between knowledge and occupational status of participants. Our study showed that the knowledge level

increases with higher education and is the highest among those with a university education. Likewise, the findings of studies conducted by Alamri [20] and Li et al [15]. However, Yongsi's study [26] shows no association between education and knowledge level.

The present study's overall positive attitude toward mental illness was 76.5%. A higher proportion was reported in Yongsi's study [26,] 94%. However, only 52.46% of participants had positive attitudes towards mental health disorders in Puspitasari et al. study [23]. On the other hand, in Jha & Mandal [11], Abolfotouh et al. [5], and Hosny et al. [28], studies reported 54.3%, 66.5%, and 78 % of participants respectively had negative attitudes toward MI. Our study showed no significant differences in positive attitudes between different sociodemographic strata. In comparison, some associations were found between attitude and some sociodemographic features in other studies [1,8,15,20]. The cultural effect was probably dominant in the public attitude in our locality.

In conclusion, the participants in the present study had inadequate knowledge and relatively unfavorable attitudes toward MI; this may be due to poor understanding and lack of information regarding MI by the public. So, improving public knowledge and attitude by adopting efficient health education programs is required to eliminate discrimination, stigma, and prejudices associated with MI.

Conflict of Interest

There is no conflict of interest present.

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