Original Article

Depression Literacy in Urban and Suburban Residents of Tehran, the Capital of Iran; Recognition, Help Seeking and Stigmatizing Attitude and the Predicting Factors

Abstract

Background: Recognizing the mental health literacy condition among the people is an important step towards promotion of mental health of a society. This study has been conducted to evaluate the depression literacy among Tehran city and its suburban residents. **Methods:** This is a cross-sectional study of 18- to 68-year-old residents in Tehran city and suburb in 2017. Sampling in Tehran city was conducted using Random Digit Dialing (RDD) and 1340 people were recruited. In suburb Shamsabad and Salehabad from south of Tehran were considered as clusters and data gathering conducted by face to face interview. Depression literacy was assessed by a structured questionnaire. After introducing a vignette with a psychiatric disorder, participants were questioned in the domains of recognition of the disorder, intention to seek help and attitudes toward social stigma. **Results:** Correct recognition was 52.2% and 30% and intention to seek help was 54% and 33.3% in Tehran city and suburb, respectively. Female gender ($P < 0.001$), age increasing ($P = 0.002$) and higher education ($P < 0.001$) significantly scaled up the chance of correct recognition of depression, when female gender ($P = 0.001$), increasing age ($P < 0.001$), and being married ($P = 0.01$) could significantly improve the probability of seeking help. Results also showed that being married ($P = 0.005$) and higher education ($P < 0.001$) predicted lower stigma. **Conclusions:** Overall depression literacy in Tehran city and suburb was low, so intervention among target population in order to increase the depression literacy seems to be necessary.

Keywords: *Depression, health literacy, help-seeking, recognition, social stigma*

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Introduction

Mental health is one of the main criteria for evaluating a community health which has a significant role in its promotion. The burden of mental, neurological, and substance abuse (MNS) disorders, during 1990 until 2010 has increased by 41%, so it accounts for one in every 10 lost years of health globally now.[1]

Depressive disorders are the single greatest factor to non-fatal health loss globally [7.5% of all Years Lost due to Disability (YLD)]. Disability rate induced by these disorders varies between WHO Regions, for Eastern Mediterranean Region, it accounts for 685 YLD per 100 000 population (6.9% of all YLD) in 2017.[2]

Also, several studies have conducted to estimate depression prevalence among Iranian people which show it as 11.3% in Tehran only.[3]

The definition of mental health literacy is "Knowledge and beliefs about mental disorders which aid their recognition, management and prevention".[4] So mental health literacy of people shows their knowledge of psychiatric disorders and understanding about the need to refer a patient to a specialist to receive the necessary treatment. Accordingly, an important step towards promotion of mental health of a society is to recognize the mental health literacy condition among the people and, if necessary, concentrate on its improvement.[5]

Results emerged from studies in various countries reveal that people's mental health literacy is inadequate in all or some areas[6-9] that are similar to the only conducted study in Iran on students of Tehran University of Medical Sciences. This study shows that

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How to cite this article: Ghadirian L, Sayarifard A. Depression literacy in urban and suburban residents of Tehran, the capital of Iran; Recognition, help seeking and stigmatizing attitude and the predicting factors. Int J Prev Med 2019;10:134.

only 35.6% of students are able to recognize depression correctly.[10]

Considering this issue that no study has been made to evaluate the mental health literacy among people of Tehran city, the capital of Iran, until now, this study has been conducted to evaluate the mental health literacy among Tehran and its suburban residents. It could be used as a base for next programs in order to promoting the community mental health literacy if necessary.

Methods

This is a cross-sectional study of 18- to 68-year-old residents of Tehran city and suburb in 2017.

Sample size was estimated about 1400 based on our previous study.[10]

From 1400, 1340 samples were recruited from Tehran city when 60 was estimated for suburb considering 316868 residents based on 2014 national census.

Sampling in Tehran city

Because of a number of reasons including lack of time, tendency to fill out questionnaire or face to face interview have declined in contrary with telephone interview. So, in this study sampling in Tehran city was conducted using Random Digit Dialing (RDD).

The number of telephone calls which should be done to complete intended number of questionnaires was estimated by below equition:

$$\text{sample size of thelephon numbers} = \frac{\text{completed interviews}}{(\text{working phones rate}) * (\text{population incidence}) * (\text{contact / cooperation rate})}$$

Working Phone Rate (WPR): the percentage of contacted phone numbers from random number list that were related to families (residential homes).

Population Incidence (PI): the percentage of phone numbers related to families (residential homes) that were eligible for doing interview (having the intended sample).

Contact/Cooperation Rate (CR): the percentage of contacted phone numbers which were without response, response by answering machine, busy line (for all after three times repeated dialing on different days and times) in addition to cases in which rejected interview immediately.

To estimate these three in Tehran, 100 random phone calls were made as a pilot study and findings were as follow:

WPR = 0.04

PI = 0.75

CR = 0.43

Hence, the number of needed calls was about 170,000.

Considering the importance of observing the correct principles of random sampling to avoid bias, 170,000 eight-digit numbers were selected using Excel software among the range of Tehran phone numbers.

Because of difference between populations of 22 districts in Tehran, for each district the number of samples was calculated based on the proportion of each district population on overall population of Tehran. Then random digits were chosen within the desired district codes.

Various techniques were used to decrease the non-response rate, include multiple call attempts (in different days and times) and leaving messages on answering machines for reducing non-response bias.[11]

Sampling in suburban area

Suburban residents are the people who live in a big city economic coverage area but do not get involved in its socio-economic system and are not accepted as a legitimate citizen.

Suburban residents are mostly rural migrants and nomad, rarely urban, who do not often own urban facilities like telephone. So, data gathering conducted by face to face interview.

Tehran suburban areas were identified and then Shamsabad and Salehabad were randomly selected respectively. These two areas are closed to industrial brick furnaces in south of Tehran and their residents are immigrants from Mashhad and Kurdistan provinces. These two areas were considered as clusters and in each one a house was randomly selected as cluster head. Questioning was started from the first residential home and continued by moving to the right direction to complete the number of samples (30 people aged 18–64).

Inclusion criteria: all 18- to 64-year-old people who were at home at the time of interviewer attendance; no physical, mental or verbal problem; consent to participate in survey.

Interviewers received essential trainings and telephone questioning guidance before starting the study.

Measurements

To provide data gathering tool, firstly worldwide valid questionnaires were searched and then assessed. Finally, Australian questionnaire was selected as the most comprehensive because it covered all aspects of mental health literacy.[12,13] Validity and reliability of Persian version of questionnaire was done in our previous study.[10]

In this questionnaire, after introducing a vignette with a psychiatric disorder, participants were questioned in the domains of recognition of the disorder, intention to seek help, and attitudes toward social stigma.

Vignette's psychiatric disorder was flexible to select by researcher; for example, vignette suffering from depression,

the most common psychiatric disorder used in this study, was as below:

"Maryam/Ali is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. Maryam/Ali doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making decisions. Even day-to-day tasks seem too much for him. This has come to the attention of his boss, who is concerned about Maryam/Ali's lowered productivity". Age and sex of vignette character were matched with each participant.

Statistical analysis

Data was analyzed using SPSS 18 software. Descriptive findings were reported and t- tests or chi square test were used based on case. *P* value less than 0.05 was considered as significant.

In order to determine the prediction value of demographic variables to participants' depression literacy in different domains, logistic regression analysis was performed. Recognition, help seeking and stigma were considered as independent variables and demographic variables were used as dependent variables. Age was divided in to groups (<40 and >=40 year).

In the domain of stigma, each of 5 questions received a 0 point for answers showing worse stigma and 1 point for answers showing less stigma, so the total score was from 0 to 5. The mean score of the stigma among participants was 3, so scores less than 3 was considered as worse stigma.

Results

Finally, 1400 completed questionnaires were analyzed. Participants mean age was 37.2 ± 10.9 years. From them 559 (40%) were male and 844 (60%) were female.

The participants' demographic characteristics in Tehran and suburb are presented in Table 1.

The results of urban and suburban residents' depression literacy in the domains of recognition, help seeking and stigma are listed in Table 2. Stigma score in Tehran city and suburb was 3.1 ± 0.9 and 2.8 ± 1.1, respectively.

Logistic regression results revealed that female gender, age increasing, and higher education significantly scaled up the chance of correct recognition of depression [Table 3] when female gender, increasing age and being married could significantly improve the probability of seeking help if they had a problem [Table 3].

Logistic regression results also showed that being married and higher education predicted lower stigma [Table 3].

The analysis of correlation between recognition, help seeking, and stigma domains are presented in Table 4.

Table 1: Demographic characteristics

	Tehran City (*n*=1340)	Tehran Suburb (*n*=60)
Age (year)	37±10.8	39.9±13
Gender		
Female	805 (60%)	39 (65%)
Male	535 (40%)	21 (35%)
Marital status		
Married	626 (46.9%)	27 (45%)
Not married (Single, divorced or widowed)	709 (53.1%)	33 (55%)
Education		
=<diploma	390 (29%)	49 (81.7%)
>diploma	950 (71%)	11 (18.3%)
Occupation		
Employed	548 (40%)	15 (25%)
Non employed	792 (60%)	45 (75%)
Socioeconomic level (monthly)		
=<500 $	708 (52.8%)	55 (92%)
>500 $	632 (47.2%)	5 (8.3%)

Discussion

Many people do not have a proper understanding of psychiatric disorders, which prevents them from seeking health care in this regard. Therefore, they do not receive adequate support for these disorders.[14] According to studies derived from different countries, people's knowledge about how to prevent mental disorders, recognition of progressing disease, help seeking, and awareness about existing treatments is inadequate.[15,16]

This study examined the depression literacy of Tehran and suburban residents in relation to their ability to recognize the problem, help seeking and stigma.

The present study showed that the ability to recognize the disorder in Tehran city (53%) and the suburb (30%) was both low, which was consistent with the findings of the Sayarifard's study among Tehran University of Medical Sciences students, where less than 40% of students were able to correctly diagnose depression.[10] This finding was very low in comparison with the 70% achieved in a number of countries, including the Reavley's study[12] in Australian students and the Marie's study[14] in the New Zealand community, but more similar to the results of the Jorm,[17] Olsson,[18] and Amarasuriya[19] studies in Japan, America, and Sri Lanka.

Another study by Wong revealed that depression literacy among Chinese who lived in Australian were higher than those in China, Hong Kong, and Taiwan.[9]

Since diagnosis of a psychiatric disorder is the first step in seeking help and treatment, it seems that community education is so important in order to recognize the symptoms of this type of disorder and improving mental health literacy.

Table 2: Depression literacy in the domains of recognition, help seeking and stigma among Tehran and suburb residents

			Tehran City (*n*=1340)	Tehran Suburb (*n*=60)
Knowledge about recognition	Correct recognition of depression		703 (52.5%)	18 (30%)
Intended actions to seek help and perceived barriers	Serious intended actions to seek help, if having similar experiences to vignette		720 (54%)	20 (33.3%)
	Preferably from whom or where you would seek help	Family	545 (41%)	18 (30%)
		Friend	623 (46.5%)	36 (60%)
		Services	168 (12.5%)	6 (10%)
	What might stop from seeking help (the most prevalent cause)	Related cost	467 (35%)	30 (50%)
		Concern about developing negative attitude towards person	498 (37%)	9 (15%)
		Access to services	114 (8.5%)	11 (18%)
		Concern about medication side effects	173 (13%)	5 (8%)
		Nothing is helpful	88 (6.5%)	5 (8%)
Attitudes about stigmatizing (agree answers)	Vignette's problem is treatable		1177 (87.8%)	38 (63.3%)
	Vignette's problem is not a real medical illness		987 (74%)	55 (92%)
	Vignette is not dangerous to others		969 (72%)	52 (87%)
	It is best to avoid vignette so that you don't develop this problem yourself.		178 (13.3%)	7 (11.7%)
	You would not tell anyone if you had a problem like vignette		771 (57.5%)	33 (55%)

Table 3: Logistic regression for recognition, seeking help, and stigma

	Recognition		Seeking help		Stigma	
	Odds ratio	*P* (95% C.I)	Odds ratio	*P* (95% C.I)	Odds ratio	*P* (95% C.I)
Gender (**male**)	<0.001	1.6 (1.3-1.9)	1.5	0.001 (1.2-1.8)	1.2	0.11 (0.9-1.6)
Age (**<40 years**)	0.002	1.5 (1.2-1.8)	2	<0.001 (1.6-2.6)	0.9	0.99 (0.7-1.3)
Socioeconomic level (=< **500 & per month**)	0.46	1.1 (0.8-1.3)	1.2	0.16 (0.9-1.4)	1.2	0.12 (0.9-1.6)
Marital status (**single**)	0.10	1.2 (0.9-1.5)	1.3	0.01 (1.1-1.7)	1.5	0.005 (1.1-1.9)
Education (=< **diploma**)	<0.001	1.7 (1.3-2.1)	1.4	1.4 (1.1-1.8)	2	<0.001 (1.5-2.6)

Bold texts indicate predictor variables in the demographic subgroups that considered as reference groups for the dummy-coded variables

Table 4: Correlation between recognition, help seeking, and stigma domains

	Stigma	Seek-help
Recognition		
Correlation coefficient	0.14	0.6
P	<0.001	<0.001
Seek-help		
Correlation coefficient	0.1	-
P	0.001	-

A national study in Australia demonstrated that in order to early diagnosis of psychiatric disorders in community and taking effective and proportionate interventions, mental health literacy should be improved which would also significantly promote the public's understanding of psychiatric disorders.[16]

Logistic regression in this study expressed that female gender, age increasing, and higher education significantly increased the likelihood of a correct depression diagnosis, which was similar to that found by Amarasuriya in Sri Lanka,[19] Reavley[12] in Australia and Furnham[20] in the United Kingdom. However, the finding on gender contradicted with results of Sayarifard[10] and Yeap[21] studies in Iran and Malaysia, respectively.

Considering this finding, special attention should be paid for educating men about the depression disorder.

Health literacy is considered as a set of personal abilities that enable people to acquire new information and use it to improve their health status.[22]

In this study, seeking help in Tehran and suburb residents was low in comparison with people in Reavley study (more than 80%),[12] Olsson study[18] in the United States (69%) and Tehran Medical University students (68%).[10]

Results of Logistic regression in this study demonstrated that female gender, age increasing, and being married could significantly raise the probability of seeking help in presence of similar problem.

In Amarasuriya[19] and Reavley[12] studies, seeking help among women was higher than men too.

While these findings might be reflecting actual mental health literacy deficits in men, meanwhile it could be also due to their masculine characteristics and their reluctance to acknowledge mental illness and seeking help.[23,24]

In contrast, Sayarifard's study,[10] showed no significant difference between men and women considering seeking help.

Similar to present study, in Amarasuriya and Reavley studies[12,19] depression literacy also increased with age and

education. This issue could be justified considering that higher exposure with health information is more likely during the years.[20]

When participants were asked "what might stop from seeking help" the most and second prevalent causes in Tehran were "Concern about developing negative attitude towards person" and "Related cost" respectively, but in suburb, "Related cost" was the main cause.

Given that the related costs are one of the main barriers to seeking help both in Tehran and suburb, insurance coverage of such services may increase receiving assistance for those in need.

In this study the most requested helps in case of similar problem were from friends and family respectively, when use of services was in the final rank.

In Japan study[17] also community preferences about asking for help were friends and family, but in Australia, both students[12] and community[17] expressed the most requested help from the services.

For Australian students, the highest request for help after services was from friends,[12] which was similar to the current study.

Gulliver in a systematic review reported poor mental health literacy is a barrier to mental health help-seeking among adolescents and young adults.[25]

Family has a particular role in Iranian community and it could be considered as an important reason of high family request for help and should be noted in designing interventions.

This finding that help seeking from friends and family was higher than related services might be due to lack of knowledge about such services and the way these services were delivered in related centers, so it seems that promoting awareness about these services may improve help seeking from related centers.

However, further exploration is suggested to find out the barriers against using mental health services like counseling and going to a psychologist or psychiatrist.

In the present study, the majority of participants declared that psychiatric disorder was not a real medical illness, and this finding was similar to other studies in Australia,[12,17] England,[26] and Iran university students.[10] Also, more than half agreed that they would not tell anyone if they had a problem like vignette.

Since correlation analysis revealed a significant relation between recognition, help seeking and stigma in consistency with findings by Reavley,[12] Clement,[27] Fernando,[28] Sharp,[29] and Yap[30] it seems that interventions in order to increase correct recognition and decrease stigma could be effective for promote seeking help among people in need.

However, there was not always consistency in the predictors of these two aspects of depression literacy, as seen in the case of year of study, indicating that depression literacy is a complex construct.

Hence, these depression literacy initiatives cannot be only limited to educating individuals about depression and seeking help for it, but need to also address the unique constellation of factors that might affect their knowledge and perceptions about depression and interfere with their help-seeking.

Considering the fact that participation was based on self-selection, it was possible that individuals without depression in addition to a greater knowledge and interest in mental health issues be more tended to participate in the study. Meanwhile the cross-sectional nature of the data might be another limitation of this study.

Conclusions

The majority of people in Tehran and suburb were not able to recognize depression in a vignette. Among them, greater likelihood of correct recognition was associated with female gender, older age, and a higher level of education.

Help seeking in the case of having depression symptoms was low in Tehran and suburb residents when male gender and younger age decreased the likelihood of help seeking. Stigma had a significant relation with recognition of depression and help seeking.

Overall depression literacy in Tehran city and suburb was low, so intervention among target population in order to increase the depression literacy seems to be necessary.

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