

Mental Health Literacy and Stigma Towards Patients with Mental Health Disorders Among Pharmacists in the MENA Region

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Abstract

Background –Mental Health Literacy is necessary for pharmacists to provide proper care for mental health patients, however research which assesses mental health literacy among pharmacists in the Middle East and North Africa region is limited.

Objective -Evaluate mental health literacy of pharmacists in the Middle East and North Africa region.

Methods –An online survey was delivered via social media platforms to a sample of pharmacists

Setting - Middle East and North Africa region community, hospital, clinical, and other pharmacy sectors.

Main outcome measure -The survey assessed mental health literacy in terms of knowledge, attitude, and stigma in providing care to mental health patients.

Results –A total of 372 pharmacists filled in the questionnaire, majority were female (71%) and under 29 years of age (78.7%). Half were community pharmacists. Majority of respondents recognized depression (93.3%), anxiety (63.7%), and obsessive-compulsive disorder (68%). Almost 35% of pharmacists were unable to classify psychiatric medications. Analysis of pharmacists' attitudes towards different interventions showed the following order of help seeking preference; psychiatrists (83.3%), spiritual activity (59.9%), family support (55.6%), friends support (53%), pharmacists support (40.6%), and social workers (39%).

Conclusion –Although baseline knowledge of responding pharmacists regarding mental disorders was adequate, their advanced knowledge of multiple use of intervention was shallow. Stigma was noted in perceived dangerousness and recovery of mental health patients, social responsibility, and social distance.

Impact Statement

This study to our knowledge is the first of its kind to establish a baseline understanding of mental health literacy among pharmacists in the Middle East and North Africa region. Pharmacists are among the frontline health care providers who have a great impact on delivering health care to patients, moreover, this study can help pharmacists become more self-aware on mental health literacy thus impacting patients' care and medication adherence. This study will provide the background for further studies that can improve mental health care by reducing the stigma, increasing awareness of mental disease and lead to better educational programs.

Introduction

Mental illness accounts for 30% of the non-fatal disease burden and 10% of the overall disease burden worldwide, including death and disability [1], with a global prevalence of 12–48%, the Eastern-Mediterranean Region (EMR) countries have a growing concern as well. This contributed to 5.6% of the

total disease burden in the EMR. Moreover, depression was ranked third and anxiety ninth among causes of nonfatal disease burden in the EMR [2]. These numbers emphasize the importance of having an active role in providing the needed services to these patients [3].

Pharmacists are in a suitable position to provide Mental Health Disease (MHD) pharmaceutical care. Moreover, pharmacists are one of the most available and accessible healthcare providers [4, 5]. This impact has been shown to possibly enhance life expectancy of MHD patients [6]. Knowledge, non-stigmatizing attitudes, and professional pharmacy practice were reported to build a strong base to deliver the best care for patients with MHD [7–9].

Mental health literacy (MHL) reflects the amount of knowledge, frame of mind, and impressions about MHD. Therefore, MHL is essential in establishing pharmaceutical care for MHD patients [10]. O'Reilly et al. provided multiple studies which emphasized the essential role of MHL on the healthcare system [11, 12]. In these studies, 92% of Australian pharmacists correctly recognized depression and 79% recognized schizophrenia. On the other hand, other less optimistic reports showed a lack in the knowledge of MHD pharmacotherapy which presents a major barrier in pharmaceutical care for this population of patients [13, 14]. Healthcare providers' misinformation, lack of skills and knowledge could be factors leading to the healthcare providers' stigma towards MHD patients. This would then result in patients avoiding treatment due to prejudice against MHD population, and discrimination in care [15, 16].

This lack of knowledge might present a potential barrier in communication with those patients which will directly affect their adherence to medications, resilience, and ultimately leading to poor patient outcomes. Interestingly, two surveys among pharmacists showed a higher level of comfort and initiative to provide care to cardiovascular patients compared to MHD patients [17, 11].

Although MHD research from the Middle East and North Africa (MENA) region has increased recently, it is only 1% of the global contribution and more research is needed to fill the gaps in comparison with the international status [18, 19] This sheds light on the inadequate knowledge in this field which affects MHD patient care in the region. For instance, patients suffering from depression in Saudi Arabia developed issues in medication adherence due to their concerns regarding depression pharmacological therapy [20]. Disproving such beliefs and providing patient support and comfort is a major role for health care professionals.

There are several barriers preventing the public from seeking mental health services in the MENA region. In refugee camps in Jordan, the main contributing barriers were financial resources, stigma, religion, and culture [21]. Additionally, in Qatar, public recognition of MHD was poor, they presented social distancing behaviors; through refusal to befriend or even engage in a conversation with MHD patients [22]. Moreover, parents of children with MHD in the United Arab Emirates (UAE) did not seek health professional's services mainly due to; denial of MHD amongst the family, stigma attached to receiving mental health services, and disbelief in the usefulness of mental health services [23].

These barriers have raised questions regarding the important role health care professionals take towards MHD patients in the MENA region. [24–27]

Aim of the study and ethical approval:

The majority of studies in the MENA region did not focus primarily on pharmacists. However, pharmacists are considered front liners in dealing with MHD patients. Therefore, in this study, we aim to assess knowledge, attitude, stigma and personal beliefs of pharmacists in the MENA region towards MHD patients. This study was approved by the Institutional Review Board (IRB) of The University of Jordan, approval number: 318202119

Methods

Study design:

An online cross-sectional survey study was conducted using a pre-piloted, validated questionnaire. The survey instrument was sent via social media platforms to pharmacists from the MENA region. The study was carried out between February and June 2018.

Questionnaire:

A 74-item questionnaire was adopted from Morral et al [28] and adjusted to be applicable to pharmacy practice in the MENA region. The questionnaire collected data about pharmacist's literacy and stigma regarding MHD. The questionnaire was both in Arabic and English to accommodate native and second languages of the MENA region, respectively. It involved Likert-type, checkboxes, and multiple-choice questions, in addition to one open-ended question. Face validity was assessed by a psychiatrist and two PhD holders (Pharmacy Practice, and Clinical Pharmacy) and adjustments were made upon their recommendations. Content validity was assured by extensive review of the literature. The survey instrument was piloted on 8% (n = 44) of the target sample (n = 500) and revised for length, flow and clarity.

The survey instrument consisted of the following parts:

A) MHL (Knowledge, attitude, and practice):

Knowledge was assessed in terms of symptom recognition (cases of depression, anxiety, and obsessive-compulsive disorder (OCD)), medication classification, and the helpfulness of a range of interventions. Cases for generalized anxiety disorder (GAD) clinical presentation (physical, psychological, and cognitive symptoms) [29], and the diagnostic criteria of OCD [30] were developed based on the Diagnostic and Statistical Manual of Mental Disorders – fifth edition (DSM-V). Attitude and practice were assessed through rating the benefits of seeking help, and perceived opinion about medications' safety and effectiveness.

B) Mental health stigma (MHS):

MHS was measured with reference to the Opening Minds Scale for Health Care Providers (OMS-HC) [31] that included different examined dimensions of stigma, social distance, social responsibility, dangerousness, and recovery. These dimensions have been established among health care providers [32, 33]; “Social distance” refers to the desire to maintain distant from people with MHD [34], and “social responsibility” represents one’s emotional reactions towards MHD patients [35].

C) Comfort providing pharmaceutical care to patients with MHD:

Willingness and comfort of pharmacists to provide services to patients with MHD (depression and schizophrenia) compared to those suffering from cardiovascular diseases were assessed by rating their comfort on a scale of 1 to 5.

D) Demographic and practice details

Age, gender, pharmacy setting (community, hospital), and pharmacy practice experience were documented.

Data Analysis

Data was coded, entered and analyzed using SPSS for Windows Version 22.0. Descriptive statistics were used to calculate the frequencies and percentages. One sample t-test, Pearson’s (R value) and Spearman bivariate correlation tests were used.

Results

In total, 421 questionnaires were filled. Response rate could not be calculated since several social media platforms were used. Also, 49 questionnaires were excluded because they were not of the target population as they included university students and non-pharmacists. Therefore, 372 completed questionnaires were included in the analysis.

Demographics

Majority of respondents were female (n = 264, %71), below 29 years (n = 158, 78.7%, median age = 25 years) and holding a bachelor’s degree in pharmacy (n = 273, 73%). Half of them were community pharmacists (n = 186, %50). In addition, data was collected from 15 different MENA region countries, majority of which were from Jordan (40.6%) and Egypt (25.3%). Demographic and practice statistics of the 372 completed surveys are illustrated in Table 1.

Assessment of Pharmacists’ Knowledge of MHD

In terms of correct symptom recognition, 93.3% of pharmacists were able to recognize those of depression, 68% of OCD and 63.7% of anxiety.

Furthermore, majority (~ 65%) of pharmacists were able to classify psychiatric medications correctly as shown in Table 2.

Majority of pharmacists recognized the helpfulness of a range of medications/activities for the correct disorder, as shown in Table 3. More than three-quarters of respondents (75.3%) correctly recognized antipsychotics use for schizophrenia, yet 28.5% wrongly suggested their use for OCD. However, majority did not recognize the multiple use of a particular class of drugs for different disorders, such as: 1- antidepressants; although 91% were able to recognize antidepressants for depression, only 9.9% were able to recognize their use for both depression and bipolar disorder (BPD), and only 2.7% recognized their use in both depression and OCD, and none were able to recognize their use for all three. 2- Herbal medicine; 32.8% and 32.6% recognized herbal medicine's use for depression and anxiety respectively, yet 9.7% recognized it for both. 3- Mood Stabilizers; although 40.8% and 59.7% recognized mood stabilizers for the treatment of schizophrenia and bipolar disorder respectively, only 9.4% recognized them for both, and many (38.9%) wrongly suggested their use for depression. 4- Analgesics; a high percentage of 41.7% wrongly suggested their helpfulness for different psychiatric disorders, 23.1% of which is anxiety. 5- Vitamins and minerals; 22.1% answered that they are not useful in any disorder, nonetheless, 44.7% wrongly suggested them for depression.

Assessment of the pharmacists' knowledge of non-pharmacological activities showed that doing pleasurable activities (21%) was the most commonly recognized activity for its helpfulness in both depression and anxiety. As shown in Table 3, for depression, pharmacists believed that counseling and doing pleasurable activities were more helpful than taking medications. Taking appropriate medication was most selected in case of bipolar disorder and schizophrenia with 31.1% being recognized for all disorders. Although being confined in a hospital was selected mostly for schizophrenia (59.4%), more than half (56%) wrongly suggested the helpfulness of hospitalization for depression. Many pharmacists were able to correctly recognize Cognitive Behavioral Therapy (CBT) for OCD (being the highest with 53.6%), followed by schizophrenia, depression, bipolar disorder or anxiety. Almost one third (29.1%) of respondents did not know which MHD can be helped by hypnosis (Table 3).

Notably, the majority did not recognize the multiple use of non-pharmacological activities for different disorders. Counselling and CBT were correctly recognized by 4.6% and 4%, respectively, for depression, bipolar disorder, anxiety and OCD, together. In addition, 5.4% were able to recognize electroconvulsive therapy (ECT) for depression, bipolar disorder and schizophrenia together.

Assessment of Pharmacists' Attitude towards the helpfulness of different Interventions for MHD

When asked to rate the helpfulness of different therapies for MHD patients, psychiatrists were thought to be the most helpful. In addition, seeking the help of a pharmacist was ranked fifth among the different interventions as shown in Fig. 1.

Assessment of the Pharmacists' Stigma towards MHD

As stated previously in the Methods, stigma was assessed based on the perceived dangerousness and recovery of MHD patients in addition to the pharmaceutical care and social distance dimensions.

Assessment of the dangerousness and recovery dimension:

In the assessment of the dangerousness and recovery of MHD patients, pharmacists considered them more likely to attempt suicide (73%), be violent (69%) and take illegal drugs (66%) than the general population. Also, they were considered less likely to develop social relationships (70%), have a healthy marriage (75%) and be a productive worker (70%), as shown in Table 4.a.

Assessment of the social responsibility dimension:

Pharmacists were less comfortable to provide medication counseling, discuss disease symptoms and recognize drug related problems of psychiatric medications compared to cardiovascular medications ($R = + 0.524$), as shown in Fig. 2.

Assessment of the social distance dimension:

As shown in Table 4.b, majority of pharmacists (56%) were more likely to socialize with a depressed person, however they would not have their child marry him/her (59%). Only a minority of pharmacists were likely to allow a schizophrenic patient to marry their child (7%) or recommend such a patient for a job (13%). Pharmacists who showed a social distance stigma toward depressed patients also had the same stigma toward schizophrenic patients ($R = + 0.514$), in terms of their probability to socialize ($R = + 0.311$), work at the same place ($R = + 0.433$), be their neighbor ($R = + 0.369$), be their friend ($R = + 0.393$), allow patient to marry their child ($R = + 0.506$), or recommend for a job ($R = + 0.381$).

Discussion

This work analyzed, for the first time, the knowledge, attitude, practice and stigma of pharmacists to MHD and its medications in the MENA region. Demographic analysis showed that more than 65% of participants were from Jordan and Egypt. Scarcity of research in this area can be due to the stigma; national and international conflicts; low institutional and funding resources; inadequate publishing opportunities; insufficient training in MHD research; and shortage of reliable and valid assessment tools [19].

Knowledge of MHD was assessed on different levels. Starting with the classification of major antidepressants, anxiolytics, and antipsychotics; pharmacists were able to recognize them correctly in approximately two thirds of the cases in the three different categories. This indicates a baseline understanding of the use of these medications, a result consistent with those of O'Reilly et al [11] where the majority of pharmacists had a high degree of MHL as indicated by the recognition of evidence-based interventions for MHD [11]. Furthermore, characterizing the depth of knowledge in MHD pharmacotherapy, pharmacists were asked not only to classify medications into their correct indication categories, but also to determine the possibility of multiple indications for each medication. This

assessment showed a knowledge deficiency in understanding the complexity and multiple uses of psychiatric medications in different MHD related scenarios. This possible misconception has been recognized globally as shown in another study by Morral et al [28] on British community pharmacists. Furthermore, this highlights the need for continuous professional development structure programs which are not a current obligation for the pharmacy profession in this area.

Moreover, to broaden the spectrum of investigation, the study assessed pharmacists' knowledge in recognizing medications, activities, and interventions in the treatment and care of different MHD. Interestingly, almost half of participating pharmacists suggested that vitamins and minerals may have a confounding effect on depression status in patients. Also, more than one-fifth of pharmacists suggested the involvement of analgesics in the treatment of anxiety disorders, indicating their possible awareness of the role of pain as a complicating factor in anxiety [36]. For example, pregabalin, an anticonvulsant licensed for neuropathic pain, showed clinical evidence for treating GAD. In addition, benzodiazepines, which are core medicines for the treatment of anxiety and depression, are growing in their use for chronic pain [37]

It is interesting to note that pharmacists of the MENA region in this study ranked their profession fifth among the six different interventions recommended for MHD care. This is unlike other observations of literature where health professionals consider their profession as most helpful [12]. Nonetheless, this is consistent with studies on pharmacists from England [28] and Australia [12] in which pharmacists had a higher preference to other interventions and health professions over providing appropriate psychotropic pharmaceutical care. The perceived lack of knowledge and skills among pharmacists are considered major barriers with this regard, one reason is that pharmacy education focused on the pharmacological properties of medications instead of people's needs and experiences with psychotropic medications [13, 38]. Another barrier can be the lack of time and privacy in the current community pharmacy setting, thus perceiving the doctor as the medication expert [13]. Moreover, this attitude may be due to personal discomfort as reported by Canadian community pharmacists [17], however, it is also reported that pharmacists feel less confident when counseling people with MHD than other health conditions [17].

Evidence has shown that such an attitude can change through making more patient centric curriculum designs on subjects related to MHD, for instance through including MHD patients experiences in pharmacy curriculum design [39]. Also, through providing adequate training to pharmacists [41–45].

Majority of pharmacists felt that MHD patients were more dangerous and less likely to recover than the general population, consistent with those reported in other studies [28, 46–48]. Although this is consistent with the public perception of MHD patients as shown by other studies [49, 50], its negative impact is more profound when the stigma is among health care professionals [51].

Limitations of the Study

Majority of respondents were younger than 30 years of age which is most probably due to the online survey instrument used and their higher access to social media. Although the sample size was high (n =

372), majority of respondents were from Jordan and Egypt. Therefore, a larger sample size would be needed to draw a more comprehensive conclusion about the entire MENA region. Another limitation to the study was that MHD severity was not stated in the questionnaire. Therefore, the correct answer to questions regarding confinement in a hospital and suicidal tendencies might have been overestimated. Moreover, direct comparisons to previous studies were difficult due to differences in the methodologies of the studies and pharmacists' level of training in different countries, even within the MENA region. Results showed that 35% of pharmacists were unable to classify psychiatric medications correctly, however, our questionnaire design did not take into consideration years of experience in order to properly correlate it with knowledge gaps. The data dates back to 2018, therefore, it would be an important reference for recent comparison studies with larger sample size.

Conclusion

This study evaluated MHL and stigma among pharmacists in the MENA region. Baseline knowledge of the majority of pharmacists was adequate, based on participants' knowledge of MHD diagnosing and treatment. However, their advanced knowledge in MHD and perceived helpfulness of multiple use of drugs for different MHD was found to be shallow. Efforts to increase pharmacists' confidence in their helpfulness with MHD is recommended as pharmacists ranked themselves in a lower position in the healthcare team in this regard. Additionally, stigma against MHD patients among our pharmacists requires immediate attention due to issues in the perceived dangerousness and recovery of MHD patients, social responsibility, and social distance. Finally, larger sample size studies of a qualitative nature are needed for a more in-depth evaluation of the full picture of MHL among pharmacists in the MENA region.

Declarations

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Availability of data and material:

All data generated or analyzed during this study are included in this published article.

Code availability:

not applicable

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Tables

Table 1 Demographic and Practice Information for Responding Pharmacists (n=372)

Characteristic	Sub-groups	Percentage (%)
<i>Age</i>	<25	42.4
	25-29	36.3
	>30	21.3
<i>Pharmacy Major</i>	BSc.	76.1
	Pharm.D.	23.9
<i>Country</i>	Jordan	40.6
	Egypt	25.3
	United Arabs Emirates	7.3
	Palestine	7.0
	Algeria	4.8
	Other MENA region countries*	15.0
<i>Gender</i>	Male	29.0
	Female	71.0
<i>Highest Academic Degree</i>	BSc	73.1
	MSc	17.7
	PhD	9.1
<i>Occupation</i>	Community pharmacist	50.0
	Hospital Pharmacist	9.7
	Clinical Pharmacist	20.4
	Others**	19.9
* Iran, Iraq, Kuwait, Lebanon, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, and Yemen.		
**Medical representatives or in the academic field.		

Table 2 Knowledge of participating pharmacist's regarding classification of psychiatric medications (n=372)

Medication	Antidepressant (%)	Anxiolytic (%)	Antipsychotic (%)	Don't know (%)
<i>Alprazolam</i>	14.8	70.2	9.1	5.9
<i>Amitriptyline</i>	65.3	11.6	14.0	9.1
<i>Escitalopram</i>	62.9	15.1	11.8	10.2
<i>Haloperidol</i>	14.2	12.4	61.0	12.4
<i>Risperidone</i>	15.3	10.5	63.7	10.5
Correct	Amitriptyline, Escitalopram	Alprazolam	Haloperidol, Risperidone	None

Table 3 Pharmacist's ability to recognize pharmacologic and non-pharmacologic interventions regarding mental health. (n=372)

Pharmacological Intervention	Anxiety (%)	Bipolar (%)	Depression (%)	OCD (%)	Schizophrenia (%)	None (%)	Don't know (%)
<i>Analgesics</i>	23.1	6.0	8.9	5.6	8.4	45.7	12.6
<i>Antibiotics</i>	1.4	1.4	3.5	2.5	6.0	78.9	9.4
<i>Antidepressants</i>	32.8	33.0	91.4	20.7	24.0	1.8	2.5
<i>Antipsychotic agents</i>	23.6	60.2	22.2	28.5	75.3	2.0	3.2
<i>Herbal medicines</i>	32.6	7.1	32.8	11.3	15.1	29.1	18.8
<i>Mood stabilizers /antimanic agents</i>	25.2	59.7	38.9	20.5	40.8	0.8	4.9
<i>Sedatives/ hypnotics</i>	72.7	33.5	29.7	21.9	38.6	1.9	3.3
<i>Vitamins and minerals</i>	29.7	14.0	44.7	9.2	14.4	22.1	17.8
Non-pharmacologic Intervention	Anxiety (%)	Bipolar (%)	Depression (%)	OCD (%)	Schizophrenia (%)	None (%)	Don't know (%)
<i>CBT*</i>	44.0	47.4	45.5	53.6	52.5	0.3	9.6
<i>Counseling</i>	63.9	42.8	86.5	52.3	40.8	0.8	3.6
<i>Doing pleasurable activities</i>	50.2	25.3	80.3	23.1	20.0	3.0	5.2
<i>ECT**</i>	5.4	33.4	22.2	9.4	41.0	8.3	22.9
<i>Have to be confined in a psychiatric ward of a hospital</i>	3.4	39.5	56.0	10.2	59.4	9.4	12.8
<i>Hypnosis</i>	22.5	27.3	15.1	19.5	33.4	7.5	29.1
<i>Physical activity</i>	58.3	32.0	79.3	32.5	30.8	1.1	7.4
<i>Relaxation, stress management or yoga</i>	72.3	20.5	48.3	39.0	14.9	0.0	14.8
<i>Taking appropriate psychotropic medication</i>	40.7	60.0	54.5	39.8	72.6	1.6	8.5
*Cognitive Behavioral Therapy							
**Electroconvulsive Therapy							

Table 4.a Assessment of danger and recovery dimensions among patients with mental disorders reported by participating pharmacists. (n=372)

Action	More likely (%)	No difference (%)	Less likely (%)
<i>Attempt suicide</i>	72.8	8.6	18.5
<i>Be a productive worker</i>	9.9	20.4	69.6
<i>Be violent</i>	68.8	20.7	10.5
<i>Develop social relationships</i>	14.0	15.9	70.2
<i>Have a healthy marriage</i>	9.9	14.8	75.3
<i>Take illegal drugs</i>	66.1	22.6	11.3

Table 4.b Assessment of pharmacists' perception of social distance with patients suffering from depression and schizophrenia (n=372)

With a depressed person			
Willingness to:	Probably (%)	Neutral (%)	Probably not (%)
<i>Befriend</i>	44.9	32.0	23.1
<i>Have your child marry</i>	11.0	29.6	59.4
<i>Live next door</i>	41.7	43.8	14.5
<i>Recommend for a job</i>	31.2	43.3	25.5
<i>Socialize</i>	55.9	27.4	16.7
<i>Work</i>	42.2	38.4	19.4
With a schizophrenic person			
Willingness to:	Probably (%)	Neutral (%)	Probably not (%)
<i>Befriend</i>	18.8	33.9	47.3
<i>Have your child marry</i>	7.3	17.2	75.5
<i>Live next door</i>	20.2	43.5	36.3
<i>Recommend for a job</i>	12.9	28.2	58.9
<i>Socialize</i>	26.9	30.4	42.7
<i>Work</i>	17.5	37.4	45.2

Figures

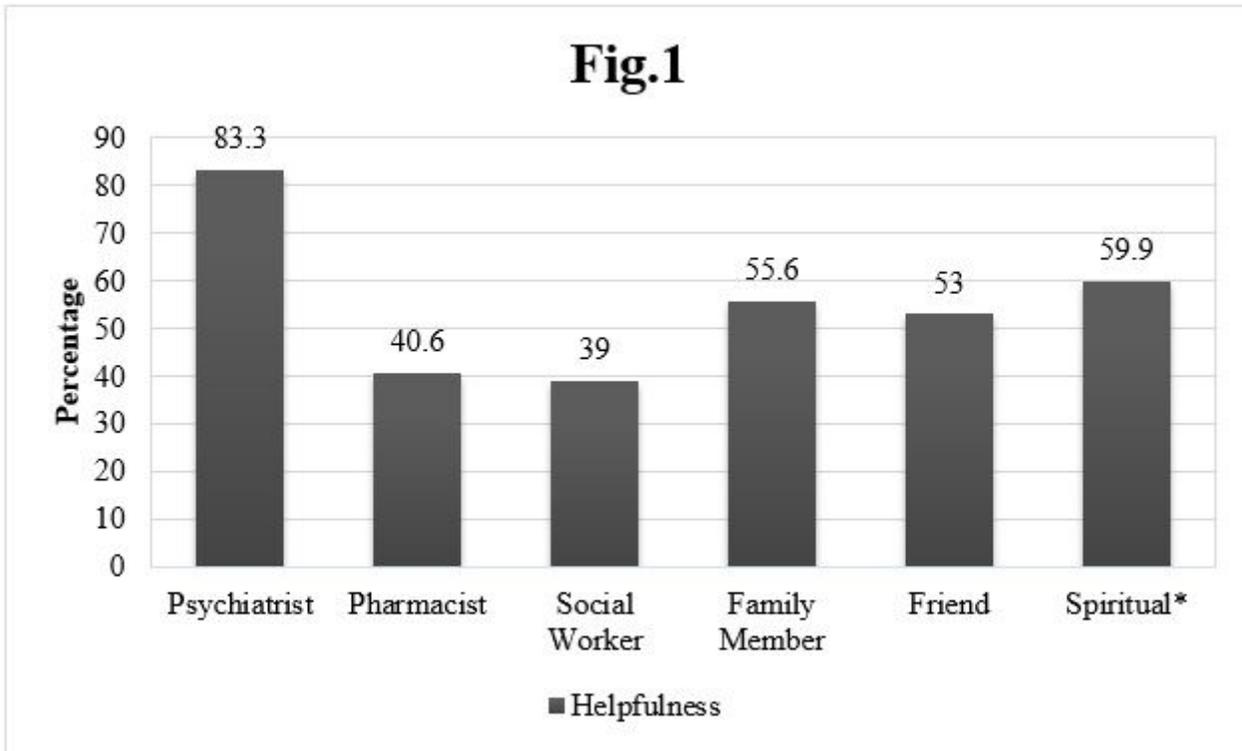


Figure 1

Pharmacists' attitude towards the helpfulness of different Interventions for MHD (n=327).

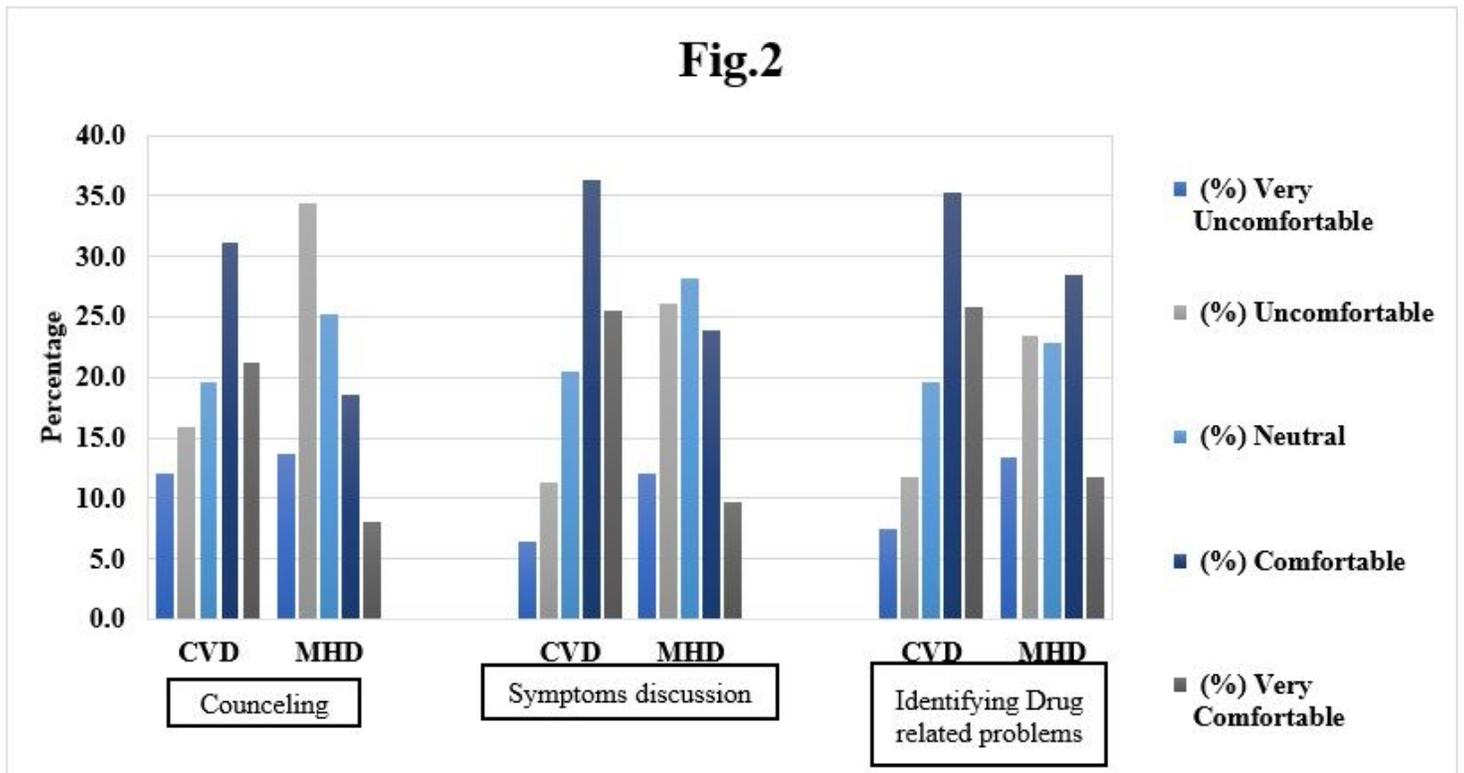


Figure 2

Pharmacists' social responsibility towards cardiovascular disease patients (CVD) versus MHD patients (n=327).