

Attitude of a sample of Egyptian community pharmacists and their assistants toward psychiatric patients

Amr S. Shalaby

Department of Neuropsychiatry, Menoufia University, Shibin El-Kom, Egypt

Correspondence to Amr S. Shalaby, MD, Department of Neuropsychiatry, Menoufia University, Shibin El-Kom, Egypt
Tel: +20 114 324 4467;
e-mail: amrsaidshalaby@yahoo.com

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Aim

The aim of this study was to explore the attitude of a sample of Egyptian community pharmacists and their assistants toward mentally ill patients.

Participants and methods

One hundred and fifty-seven community pharmacists and 104 of their assistants recruited from eight administrative centers of Menoufia Governorate, in addition to 127 lay persons, completed demographic sheet, the Community Attitude towards the Mentally Ill (CAMI) scale, and the Beliefs about Mental Illness scale.

Results

The response of the whole population sample to the four CAMI subscales revealed a generally positive view of the mentally ill patients. In comparison with lay persons, pharmacists' responses to CAMI subscales were similar except for less authoritarianism. Moreover, pharmacists showed slightly more positive attitude in response to the Beliefs about Mental Illness scale. Pharmacists' assistants' responses to both the CAMI scale and the Beliefs about Mental Illness scale showed the most stigmatizing attitude among the three groups of the study population. Both pharmacists and their assistants did not believe much in the efficacy of psychotropic drugs in the treatment of mentally ill patients.

Conclusion

Pharmacists showed shortage of knowledge about the nature of mental illness and the efficacy of psychotropic medications. The same was evident for pharmacists' assistants who held inadequate and erroneous information about mental illness and the mentally ill patients.

Keywords:

assistants, community pharmacists, Egypt, mental

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Introduction

People who experience mental illness suffer greater psychological distress and disability as they have to cope with the stereotypical beliefs and prejudice of the society, which are based on misconceptions about the mental illness [1,2]. In recent years, reducing stigmatizing attitudes and discriminations of mental illness has become a major challenge in the field of mental health [2]. Stigma influences access to care, because people may be reluctant to seek help as this might be seen as an acknowledgment of weakness or failure [3]. Consumers of psychiatric medications or services may also be stigmatized by healthcare providers [4]. For example, mental health consumers have identified that managing their medication is a major issue and, in particular, have expressed dissatisfaction with the lack of education about the medication that they receive [1]. As one of the primary healthcare providers in the community and among the most accessible health professionals, pharmacists have the opportunity to influence patients' perception of their mental illness [4]. Pharmacists are frequently consulted for advice on psychotropic medications, and their counseling can improve patients' adherence to medications used for mental illnesses.

However, mental health stigma and lack of knowledge on mental illness can interfere with their professional practice [5,6]. Studies in different countries – for example, Canada and Finland – have demonstrated that pharmacists feel less confident and may be less likely to provide medication information to people with mental health disorders than to those with other medical conditions [4,5,7]. Consequently, negative attitudes that manifest during patient interactions may lead to ineffective counseling or the lack of essential medical services [4].

This cross-sectional questionnaire-based study aimed to explore the attitude of a sample of community pharmacists and their assistants toward psychiatric patients in Menoufia, Egypt, which reflects their dealings with patients while providing them with their medications.

Participants and methods

Measures

(1) Demographic sheet: It includes, in addition to demographic data, questions about the duration of working as a pharmacist or a pharmacist assistant and

any past or family history of having a psychiatric illness.

- (2) Community Attitude toward the Mentally Ill (CAMI) scale [8]: The scale includes 40 items to be rated on a five-point Likert scale from strongly agree to strongly disagree and is organized into four subscales of ten items each: authoritarianism (AU), benevolence (BE), social restrictiveness (SR), and community mental health ideology (CMHI). AU refers to a view of the mentally ill person as someone who is inferior and requires supervision and coercion. BE corresponds to a humanistic and sympathetic view of mentally ill individuals. SR covers the belief that mentally ill patients are a threat to society and should be avoided. CMHI concerns the acceptance of mental health services and the integration of mentally ill patients in the community. Each dimension has 10 questions: five positive and five negative. According to Sévigny *et al.* [9], previous studies showed that the scale had acceptable reliability ($\alpha = 0.68\text{--}0.88$) and concurrent validity. An Arabic version of the scale was used in this study [10]. The term 'mental illness' was changed to 'psychiatric illness' for better understanding, and to discriminate psychiatric from neurological diseases.
- (3) Beliefs about Mental Illness scale in the Arab Environment (Egypt and Saudi Arabia) [11]: The scale includes 40 items rated on a five-point Likert scale from strongly agree to strongly disagree. The scale is organized into five dimensions, which are the nature of the mental illness, its causes, lines of treatment, possibilities of cure, and its impact on the patient's family. Validity was assessed by means of internal consistency estimation by calculating the correlation coefficients between the psychological beliefs total and each one of the subscales and between the subscales themselves, which all showed significance level less than 0.01. Scale reliability was assessed on 100 students from secondary schools and universities. Cronbach's α and interclass correlation coefficient for the total score and the five subscales all showed significance level less than 0.01. In the present study, the author selected the responses to certain items to process, and did not comply with the five dimensions of the scale. The author added another item to this scale, which was 'do you think that psychiatric medications cause addiction?'

Participants

This study was conducted during the period from January 2014 and to August 2014 in Menoufia Governorate, which is located in the Nile Delta, in the northern part of the country and to the north of Cairo. It consists of nine administrative centers that include 10 cities.

First, the plan was to recruit participants (pharmacists only) for the survey from those attending regular meetings of Menoufia syndicate of pharmacists. In addition to the low response rate (<30%) some of the pharmacists attending the meetings were not working at community pharmacies and not in direct contact with psychiatric patients. The author decided to distribute the questionnaires at the

pharmacies of some of Menoufia cities and villages, and at that step it turned out how important it is to include pharmacists' assistants in the study because of their contact with the mentally ill patients when they get their medications. This was carried out by the author, volunteer pharmacists, and social workers who were given training about the nature of the study and the questionnaires used. They visited the pharmacies, explained to pharmacists and assistants the aim of the study and how to answer the scales, responded to questions like what is meant by mental illness, and collected the papers few days later. Participants were recruited from eight of the 10 cities of the governorate and a number of their related villages.

A sample of lay persons representing the general population's attitude was recruited from the personnel working at the Faculty of Medicine, Menoufia University and its hospitals, and the Faculty of Nursing. They were recruited from departments not in direct contact with patients, such as security, secretary, accountants, and so on.

Ethics approval

The authors obtained permission to conduct this study from the Research Ethics Committee of the Faculty of Medicine, Menoufia University. Informed consent was obtained from all patients studied. All procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

Statistical analysis

The χ^2 -test was used to compare the responses to items of the Beliefs about Mental Illness scale. The *t*-test and one-way analysis of variance, followed by a post-hoc *t*-test, were used to compare the means of the four subscales of the CAMI scale. Pearson correlation was used to detect correlations between different numerical variables. All analyses were performed using the software SPSS, version 20 (IBM Corp., Armonk, New York, USA). Statistically significant findings were determined using a two-tailed *P*-value less than 0.05.

Results

Demographics

The study population sample included 157 community pharmacists (59.2% female and 40.8% male), 104 of their assistants (53.8% male and 46.2% female), and 127 lay persons (58.3% male and 41.7% female), with a total number of 388 participants. There were 194 male and 194 female participants; 70.6% of the participants had completed higher education and 29.4% had completed middle education. Only 24 (6.2%) participants were treated for psychiatric disorder, whereas 71 (18.3%) participants had relatives treated for psychiatric disorder.

Community Attitude towards the Mentally Ill scale

The response of the whole population sample to the four CAMI subscales revealed a generally positive view of the

mentally ill patients, with less AU (1.52 ± 0.54), less SR (1.42 ± 0.55), and more BE (2.99 ± 0.52). As regards CMHI, a mean score of 2.44 ± 0.56 revealed a more or less indecisive attitude (Table 1).

The post-hoc *t*-test revealed statistical differences between pharmacists and their assistants as regards the four CAMI subscales, with assistants showing more AU and SR, and less BE and CAMHI ($P < 0.0001$). In comparison with lay persons, pharmacists showed less AU ($P < 0.0001$), but no differences as regards the other subscales, whereas assistants showed more AU and SR, and less BE and CAMHI ($P < 0.0001$).

Female participants showed less AU (*t*-test = -3.52 , $P < 0.0001$), less SR (*t*-test = -2.99 , $P < 0.003$), and more BE (*t*-test = 4.03 , $P < 0.0001$), but no difference as regards CAMHI in comparison with male participants.

Participants who had completed their higher education showed less AU (*t*-test = 8.36 , $P < 0.0001$), less SR (*t*-test = 5.27 , $P < 0.0001$), more BE (*t*-test = -5.56 , $P < 0.0001$), and more CAMHI (*t*-test = -2.819 , $P < 0.005$) in comparison with those who had completed middle education.

Participants who had ill relatives showed less AU (*t*-test = -3.351 , $P < 0.001$), less SR (*t*-test = -3.484 , $P < 0.001$), more BE (*t*-test = 3.530 , $P < 0.0001$), and more CAMHI (*t*-test = 3.679 , $P < 0.0001$) in comparison with those who did not have ill relatives.

There was a negative correlation between years of experience, both for pharmacists and assistants, and AU ($r = -0.123$, $P = 0.048$), whereas there was a positive correlation with CAMHI ($r = 0.126$, $P = 0.042$). Moreover, a positive correlation between age of all participants and CAMHI ($r = 0.104$, $P = 0.041$) was found.

Beliefs about Mental Illness scale

Table 2 demonstrates the responses of the three groups of the study population to selected items of the Beliefs about Mental Illness scale. In most cases, assistants showed the least positive attitude toward the mentally ill.

Discussion

Community pharmacists are often not viewed as a core part of the primary healthcare team. Their role has been traditionally characterized by dispensing prescription medicines and providing patients with information about medications [12]. According to the WHO, pharmacists should be considered as active members of the healthcare team in an attempt to improve psychotropic medication use [13]. People experiencing psychiatric symptoms may seek help from community pharmacists without consulting other healthcare professionals [5]. Stigmatizing attitudes or behaviors by pharmacists are likely to increase a mentally ill person's feelings of rejection and isolation [14].

Study population sample showed a generally positive attitude toward the mentally ill patients as shown from their responses to the CAMI scale, with less AU

Table 1 Response of study groups to Community Attitude towards the Mentally Ill subscales

	Pharmacists	Assistants	Lay persons	F	Significance
AU	1.31	1.76	1.6	27.12	0.000
SR	1.29	1.67	1.39	16.23	0.000
BE	3.02	2.66	2.92	16.65	0.000
CMHI	2.55	2.24	2.46	10.1	0.000

AU, authoritarianism; BE, benevolence; CMHI, community mental health ideology; SR, social restrictiveness.

(1.52 ± 0.54), less SR (1.42 ± 0.55), and more BE (2.99 ± 0.52). Their response to CMHI subscale, with a mean score of 2.44 ± 0.56 , showed some sort of discrepancy with the responses to the other three subscales, bringing to mind and to some extent the concept of 'Not in my backyard'.

Participants who had ill relatives and those who completed their higher education showed less AU and SR and more BE and CMHI than those with no ill relatives or who had only completed middle education. This indicates that true information about mental illness, either through direct contact with mentally ill patients or through general medical knowledge, decreases the stigmatization of the mentally ill, especially the false fears of having nearby mental health services 'more CMHI'. Moreover, the negative correlation found between the age of all participants and CAMHI subscale score may reflect cumulative knowledge and experiences that have decreased these fears.

Researchers have found that individuals who have family or friends with mental illness perceive people with mental illnesses in general as less dangerous and desire less social distance from them. Moreover, perceived dangerousness and other negative attitudes toward people with mental illnesses were found lower in people who work or volunteer at mental health facilities [15]. According to Savrun *et al.* [16], people who have completed more years of education and people whose parents completed a higher level of education are likely to have more knowledge about and/or experience with psychiatric disorders, which in turn leads to a less stigmatizing attitude toward people with mental illness.

Female participants showed less AU (*t*-test = -3.52 , $P < 0.0001$), less SR (*t*-test = -2.99 , $P < 0.003$), and more BE (*t*-test = 4.03 , $P < 0.0001$), but there was no difference as regards CAMHI in comparison with male participants. Female participants showed statistically more positive attitude as regards the responses to items 1 and 4 of the Beliefs about Mental Illness scale, in comparison with male participants.

Few studies have investigated differences in attitudes of both sexes toward people with mental illness. Although some studies have found women to be less prejudiced compared with men, other studies have found no sex differences. A Turkish study showed that female university students were less likely than male students to endorse prejudice against people with psychiatric disorders [16].

Table 2 Response of study groups to the Beliefs about Mental Illness scale

Items	Agree/strongly agree (%)	Neutral (%)	Do not agree/strongly do not agree (%)	χ^2	P
I think that mental illness means failure in life					
Pharmacist	12.1	16.6	71.3	18.9	0.001
Assistant	28.8	22.1	49		
Lay person	26.8	12.6	60.6		
I think that psychiatric patients are always aggressive					
Pharmacist	3.8	15.3	80.9	22.5	0.0001
Assistant	15.4	29.8	54.8		
Lay person	4.7	22	73.2		
I think that psychiatric patients cannot return to normal again					
Pharmacist	12.1	16.6	71.3	6.88	0.142
Assistant	28.8	22.1	49		
Lay person	26.8	12.6	60.6		
I think that the psychiatric patient harms the reputation of the family					
Pharmacist	3.8	15.3	80.9	19.96	0.01
Assistant	15.4	29.8	54.8		
Lay person	4.7	22	73.2		
I think that when psychiatric patients want to marry, they must marry from each others					
Pharmacist	14.6	20.4	65	7.23	0.124
Assistant	20.2	25	54.8		
Lay person	11	18.1	70.9		
I think that the family of a psychiatric patient should isolate him or her from the society					
Pharmacist	15.9	22.3	61.8	25.69	0.0001
Assistant	38.5	15.4	46.2		
Lay person	19.7	17.3	63		
I think that mental illness occurs as a result of the crises experienced by the individual					
Pharmacist	8.3	12.7	79	14.64	0.005
Assistant	14.4	14.4	71.2		
Lay person	4.7	13.4	81.9		
I think that mental illness is infectious					
Pharmacist	5.7	8.3	86	14.5	0.006
Assistant	19.2	20.2	60.6		
Lay person	7.1	11.8	81.1		
I think that the weakness of religious and moral aspects is one of the causes of mental illness					
Pharmacist	89.2	5.7	5.1	2.73	0.6
assistant	74	17.3	8.7		
Lay person	81.1	7.9	11		
I think that mental illness is inherited					
Pharmacist	6.4	5.7	87.9	2.43	0.65
Assistant	5.8	19.2	75		
Lay person	7.1	7.1	85.8		
I think that natural herbs could be used in the treatment of mental illness					
Pharmacist	68.2	15.3	16.6	7.84	0.097
Assistant	65.4	16.3	16.5		
Lay person	59.8	16.5	23.6		
I think that electroconvulsive therapy is an effective method of treating psychiatric patients					
Pharmacist	29.9	31.8	38.2	23.1	0.0001
Assistant	25	37.5	37.5		
Lay person	23.6	33.1	43.3		
I think that psychotherapy is useful in the treatment of psychiatric patients					
Pharmacist	24.8	35.7	39.5	20.2	0.0001
Assistant	37.5	36.5	26		
Lay person	35.4	32.3	32.3		
I think that the medications given to psychiatric patients just make them calm but does not cure them					
Pharmacist	26.8	43.9	29.3	10.14	0.38
Assistant	38.5	36.5	25		
Lay person	13.5	41.3	45.2		
I think that psychiatric hospitals are merely prisons					
Pharmacist	87.9	9.6	2.5	5.93	0.204
Assistant	70.2	20.2	9.6		
Lay person	67.7	20.5	11.8		
I think that psychiatric drugs are addictive					
Pharmacist	18.5	28.7	52.9	14.14	0.007
Assistant	30.8	33.7	35.6		
Lay person	24.4	24.4	51.2		
I think that visiting the sheiks and friends of Allah is a successful method of treatment					
Pharmacist	49	22.9	28.1	26.5	0.0001
Assistant	40.4	29.8	29.8		
Lay person	44.1	18.9	37		

I think that conjuring is a beneficial method of treating psychiatric patients					
Pharmacist	24.2	24.8	51	35.7	0.0001
Assistant	34.6	35.6	29.8		
Lay person	23.6	37	39.4		
I think that psychiatric patients are possessed					
Pharmacist	8.9	17.8	73.2	27.95	0.0001
Assistant	25	30.8	44.2		
Lay person	22	26	52		

The response of study population to items 17–19 of the Beliefs about Mental Illness scale demonstrated some of the cultural beliefs about mental illness in the Egyptian society. It was obvious that pharmacists did not believe much in paranormal phenomena in comparison with the other two groups. This was the same for relatives of mentally ill patients, which reflects more awareness about the nature of mental illness due to the contact with mental health service providers and their eagerness to know more information about the nature of their relatives' illness.

Biological basis of the mental illness was still not recognized, even for pharmacists. Stressors and poor commitment to religion and morals were thought to be the main causes of mental illness, and hence psychotherapy was the best treatment for mental illness. This was obvious from the responses to items 7, 9, and 13 of the Beliefs about Mental Illness scale.

Pharmacists' responses to CAMI subscales did not differ from those of lay persons except for less AU. As regards the Beliefs about Mental Illness scale, pharmacists showed slightly more positive attitude in most cases. It was obvious that the responses of pharmacists' assistants to both the CAMI scale and the Beliefs about Mental Illness scale, showed the most stigmatizing attitude among the three groups of the study population.

The way that pharmacists and their assistants considered the effectiveness of psychotropic medications was questionable. They believed that psychotherapy was a much effective treatment for psychiatric patients compared with medications. Only 51% of the surveyed pharmacists and 30% of their assistants did not believe that psychotropic drugs were addictive. Moreover, not more than 52% of pharmacists and 36% of assistants believed that the effect of the medications was not just a symptomatic effect.

The question is about the lack of appropriate psychiatric knowledge for pharmacists, and whether it is due to deficient medical teaching for pharmacy students, or the relatively modern nature of biological psychiatry and psychiatric medicines in comparison with other branches of medicine.

In a study conducted in Australia, Belgium, Estonia, Finland, India, and Latvia, misconceptions related to mental health disorders were common among pharmacy students [5]. According to O'Reilly *et al.* [6], the lack of mental health pharmacy education has been described as the main barrier to successful provision of pharmaceutical services for consumers with a mental illness [6]. Traditional

methods of delivering mental health lectures and tutorials cannot improve social distance of pharmacy students or pharmacy graduates toward individuals with mental illness, as the stigmatizing views toward those patients may not be addressed adequately in pharmacy school curriculums [17,18]. Graduating students must be trained to recognize these barriers to patient care, and be equipped to provide necessary care and support for these patients [18]. A course designed to reduce stigma toward the mentally ill can reduce pharmacy students' social distance. It should work on the myths related to mental illness, and how to improve empathy through classroom exercises and direct patient interactions [17]. Clinical practice experience in the pharmacy workplace has become a core component of pharmacy education in many countries. Graduates undertaking supervised clinical practice in a community pharmacy interact with people with mental illnesses on a daily basis, and this contact may be a useful strategy to decrease stigma and improve attitudes [7].

In Egypt, there's no clear demarcation between job descriptions of pharmacy assistant and pharmacy technician. A job of a pharmacy assistant does not require a formal training program, licensing, or even a certain level of education. Assistants only receive 'on the job' or 'in house' training from pharmacists themselves. Their roles sometimes overlap with pharmacists' role. They may be involved in the dispensing of prescription medicines, and even provide some information to patients about the medicines they receive or their medical conditions. This usually happens in small pharmacies, where a pharmacy team usually involves only one pharmacist and one or two assistants, especially in villages and small towns.

Because pharmacists are the only source of information for their assistants, it is not unusual that assistants will have similar beliefs about mental illness, but may be in a more distorted way because of the differences in education; only 51% had completed higher education and were deficient in both medical and general knowledge. The lack of medical information in addition to the sense of responsibility when they replace pharmacists may be the cause of the more radical attitude of assistants when they deal with prescriptions of psychiatric medications, especially if containing control drugs.

A negative correlation found between years of experience, for both pharmacists and assistants, and AU ($r = -0.123$, $P = 0.048$) and a positive correlation with CAMHI ($r = 0.126$, $P = 0.042$) indicate that repeated experiences with mentally ill patients and their relatives and doctors changed the misconceptions about those patients and

their illnesses and decreased the false fears about their dangerousness and their integration in the community. But how many patients did not receive adequate pharmaceutical services during the period of time needed to change these misconceptions? It is a question that highlights the importance of future planning of how to change the attitude and misconceptions of pharmacists toward the mentally ill, and do not depend on the factor of time for that purpose.

The present study has some limitations. For example, the study sample was small. Two cities were not included in the study, and some cities were covered to a greater extent by the survey compared with others. Moreover, the nature of the institutes from which the sample of lay persons were selected may constitute some sort of bias.

Conclusion

In the present study, community pharmacists have shown a positive attitude toward mentally ill patients, but their attitude was not much superior to that of lay persons as expected considering their education and career. Their knowledge about the etiology of mental illness, its prognosis, and the different lines of treatment including the efficacy of psychotropic drugs was defective and not up to date. This may constitute a barrier against improving the medical services delivered to mentally ill patients, and also could make pharmacists feel uncomfortable when counseling patients.

Pharmacists' assistants have shown a poorer attitude toward mentally ill patients than that of lay persons. They had inadequate and erroneous information about the nature of the mental illness and how to treat it. As they may be involved in dispensing of prescription medicines and sometimes may provide some information to patients about their medications, they may give misleading information that decrease the adherence of patients to their medications and may even share in the increase in mental illness stigma.

Conflicts of interest

There are no conflicts of interest.

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