

# Community pharmacists' attitudes towards mental illness and providing pharmaceutical care for mentally ill patients

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## ABSTRACT

**الأهداف:** استقصاء رؤية الصيادلة لخدمة فئة المرضى النفسيين وتقديم الرعاية الصيدلانية لهم، وتحديد العوائق التي تحول دون تقديم هذه الخدمة بالشكل الصحيح.

**الطريقة:** أجريت هذه الدراسة خلال الفترة ما بين مايو 2006م وحتى سبتمبر 2006م، الرياض - المملكة العربية السعودية. تتكون استبيانات الصيادلة من أخذ معلومات ديموغرافية لهؤلاء، وكذلك نظرتهم للمرضى النفسيين، ورؤيتهم في كيفية تقديم الرعاية الصيدلانية لهؤلاء المرضى، بالإضافة إلى مقارنة هؤلاء المرضى بالمصابين بأمراض قلبية. كما تم استقصاء مدى الصراحة والثقة في تقديم الرعاية لهؤلاء المرضى.

**النتائج:** شارك في هذه الدراسة 43 صيدلانياً، (88%) من الصيادلة يرون أن المرض النفسي مثل الأمراض الأخرى، (66%) من الصيادلة كانوا يرون بأنه من السهل تمييز المرضى النفسيين، (33%) يرون أن المرضى النفسيين لا يستطيعون التمييز بين الخطأ والصواب، (43.3-87.7%) كانت لديهم الثقة والقدرة على تقديم الرعاية الصيدلانية لهؤلاء المرضى، (30-67%) من الصيادلة لديهم الثقة والقدرة على حل المشاكل الخاصة بالتاريخ العلاجي والمشاكل المتعلقة بالأدوية المقدمة لهؤلاء المرضى. كما أن هناك معوقات لتقديم الرعاية الصيدلانية للمرضى النفسيين منها: قلة التدريب (88.4%)، قلة المعلومات الدوائية (83.7%)، عدم وجود مهارة التوثيق (79%)، قلة التواصل (76.8%)، عدم وجود المساحة الكافية لتقديم الاستشارات (76.7%)، قلة الوقت (74.5%)، وقلة العاملين (72.1%).

**خاتمة:** على الرغم من وجود نظرة إيجابية من الصيادلة للتعامل مع المرضى النفسيين إلا أنهم شعروا بعدم الارتياح للاستشارات، أو متابعة تطورات الآثار الجانبية لأدوية هؤلاء المرضى.

**Objectives:** To examine the attitudes of community pharmacist to both mental illness and provision of pharmaceutical care.

**Methods:** The study was conducted from May 2006 to September 2006 in College of Pharmacy, King Saud University, Riyadh, Saudi Arabia. The survey composed of the demographic characteristics of the respondents,

who were asked 6 Likert type questions on the attitudes of the pharmacists toward mental illness, providing pharmaceutical care to mentally ill patients, the barriers of the provision of the service and differentiation between different types of mental illness.

**Results:** Forty-three pharmacists participated in the study. Eighty-eight percent of the pharmacists felt that mental illness was the same as other illnesses. Sixty-six percent of the respondents "strongly agree," or "agree" that mentally ill patients were easily recognizable. Thirty-three percent of the respondents "disagree," or "strongly disagree" that mentally ill patients have no ability to tell right from wrong. In general, 43.3-87.7% of respondents are being "much more" or "more" interested, comfortable, and confident to perform pharmaceutical care to mentally ill patients. An average range of 30-67% of respondents felt neutral, or "much more" or "more" comfortable, confident for screening and solving drug-related problems, and compliance with drug therapy. Barriers that limit the provision of pharmaceutical care to the mentally ill patients include the lack of training in pharmaceutical care practice (88.4%), lack of therapeutic knowledge (83.7%), lack of documentation skill (79%), lack of communication (76.8%), lack of space for counseling (76.7%), insufficient time (74.5%) and lack of staff (72.1%).

**Conclusion:** Although pharmacists have positive attitudes to both mental illness and providing pharmaceutical care to mentally ill patients, they felt uncomfortable counseling or carrying out follow-up monitoring of patients for adverse drug-related problems.

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Studies have shown a high prevalence of mental illness or mental disturbance (MD) among patients visiting primary health care (PHC) worldwide.<sup>1-3</sup> These illnesses are of public concern due to its association with increased disability.<sup>3</sup> In Saudi Arabia, the prevalence of MD among patients attending their PHC physician was estimated at 30-40%.<sup>4,6</sup> In the Arabian Gulf countries, the pharmaco-epidemiological data especially on prescribing psychotropic drugs against non-psychotropic prescriptions are meager, and vary considerably across the array of studies performed.<sup>7,8</sup> Although diagnosis, treatment, and knowledge of mental illness have changed dramatically in the last century, however, mental illness is still perceived as a sign of personal weakness, and its stigma remains as an influential negative feature in society and health care providers' attitudes.<sup>9,10</sup> Remarkably, the cost of psychotropic medications is very high worldwide. Therefore, each drug prescription should be written correctly, in order to reduce the high cost associated with inappropriate prescribing. Furthermore, the high occurrence of noncompliance with psychotropic drug therapy requires<sup>11</sup> that each patient must be counseled at each visit to adhere to the prescribed drug therapy to get the maximum therapeutic benefits. Generally, mental health professionals need medical education programs at all levels that must target prescribing psychotropic medications.<sup>12,13</sup> Pharmacists as health care providers can influence patients' awareness of their mental illness, and provide pharmaceutical care activities that achieve definite outcomes that improve patient's quality of life.<sup>14</sup> Activities such as medication counseling and monitoring of therapy, have been documented to improve both self-esteem, and adherence to drug therapy in patients with mental illness.<sup>15</sup> Pharmaceutical care practice is intended to meet a need in the health care system that has occurred due to increase in complexity of drug therapy, and the significant level of morbidity and mortality associated with the use of medicinal products.<sup>16</sup> Therefore, the introduction of pharmaceutical care would be necessary in developing countries to aid in the reduction of drug-related problems. Several studies have been conducted, to examine the extent to which pharmacists identify, and assist patients with drug-related problems.<sup>17</sup>

While the attitudes of the public and certain health care professionals to mental illness and provision of pharmaceutical care to mentally ill patients have been fairly well acknowledged in developed countries,<sup>9,18-23</sup> there has been a lack of information in relation to the attitudes of the pharmacists in developing countries. Therefore, there is a need to build on professional literature by incorporating evidence from developing countries. Saudi Arabia is one such country where pharmaceutical care is gradually dominating the picture of professional

philosophy. Saudi Arabia has its own unique system for controlling and dispensing psychotropic drugs. Except for governmental mental hospitals and health care centers, only a few community and private hospital pharmacies are authorized to dispense psychotropic medications. There are only 9 community pharmacies, and 15 private hospital pharmacies authorized to dispense controlled psychotropic medications in Riyadh city.

So the objectives of this study were to examine the attitudes of the community pharmacists to both mental illnesses and provision of pharmaceutical care. In addition, to explore the barriers that may limit its implementation and facilitators that make the provision of pharmaceutical care easier.

**Methods.** A survey of community pharmacists was conducted in College of Pharmacy, King Saud University, Riyadh, Saudi Arabia. Nine community pharmacies authorized by the law to dispense psychotropic drugs were included in the study. A 69-items self-administrative questionnaire was used for the survey based on the literature available and related studies.<sup>21-23</sup> It contained closed-ended and open-ended questions. The questionnaire was pre-tested for content, and designed on 10 community pharmacists that were not included in the study sample. Minor modifications were carried out on the questionnaire. The final version of the developed questionnaire was composed of 4 sections. Section 1: compiled demographic data including gender, age, work setting, year in practice, highest degree earned, personnel history of mental illness, history of mental illness in a family member or close friend, experiences with mentally ill patients and any previous undergraduate training in the area of counseling mentally ill patients. In addition, participants were asked whether their opinions about mental illness affect their ability to provide pharmaceutical care for mentally ill patients. Section 2: asked on 6 Likert-type questions concerning participants' attitudes toward mental illness these questions were adapted from previous studies. Section 3: asked on attitudinal questions on providing pharmaceutical care to mentally ill patients in general as well as those suffering from different types of mental illness such as schizophrenia, depression, mania, paranoia, panic, obsessive compulsive disorder (OCD) and anxiety. Participants were asked how interested, comfortable and confident they were to provide various services for such patients receiving psychotropic drug therapy. Survey items for cardiovascular medications corresponded to the aforementioned mental health items; except for the word mental illness that was replaced by the word cardiovascular. Respondents were also asked to indicate the degree of interest, comfort, and

confidence to provide various services of pharmaceutical care for cardiovascular problems. Pharmaceutical care activities including the following: obtaining a medical history, screening for solving drug related problems, monitoring for efficacy, adverse effects and compliance with the prescribed therapy, and providing medication counseling. Section 4: asked about what barriers make it more difficult to provide pharmaceutical care for mentally ill patients. The statements in the section attempted to examine the obstacles that may influence the respondents' decisions whether or not to provide pharmaceutical care to mentally ill patients. Respondents were given different statements to identify the degree to which these statements may influence their decision whether or not to provide pharmaceutical care. In an open-ended question, the pharmacists were asked to list the facilitators that make the provision of pharmaceutical care to mentally ill patients easier.

All pharmacists working in 9 private community pharmacies who were authorized to dispense controlled psychotropic medications were surveyed. This study was conducted from May 2006 to September 2006. Data were collected via face-to-face encounter questionnaire. Ethical approval was obtained from the Administrative Affairs of College of Pharmacy, King Saud University, Riyadh, Saudi Arabia. The participants were informed that the pharmacists must complete the questionnaire, and their participation in the study was anonymous and was entirely voluntary. The questionnaire should be completed in 10 weeks. If the questionnaire were not returned within 10 weeks, the respondents were telephoned or visited. All returned usable questionnaires were completed anonymously. Participants with <6 months experience were excluded from the study. Participants who completed the questionnaires and have enough experience in dealing with mentally ill patients were included in the study.

The data were subjected to frequency analysis using the Statistical Package for Social Sciences (SPSS version 13). The data analysis employed a Likert-type summation of scores and the average score of items in each section was calculated on a scale range from 1-5. Following determination of communities, any item with low factor loading (<0.4) was not included in the summation. Previous reports have indicated that such items contribute little to the summary score in that group.<sup>24</sup> Scores above the midpoint of 3 were considered positive responses, and these were indicated as 4 or 5 on Likert scale. The percentage frequency distributions of positive responses were also calculated. Cronbach's alpha was calculated to estimate the internal consistency of responses to questionnaire items. For statistical purposes when comparing items in section 2, it was necessary to combine "strongly agree" and "agree"

into one category and "disagree" and "strongly disagree" answers into another. Similarly, when comparing items in section 3, it was required to combine "much more" and "more" answers in one category, and "less" and "much less" answers in another. Possible associations between socio-demographic variables and attitudes of pharmacists were examined using student's t-test and one way analysis of variance, and  $p < 0.05$  was considered significant.

**Results.** There were 70 questionnaires distributed to community pharmacists. A total of 43 questionnaires were returned (61.4% response rate). Two pharmacists did not complete the questionnaire, so they were excluded from the analysis. The instrument reliability as delivered using Cronbach's alpha was 0.805 for all items in the questionnaire. The demographic characteristics indicate that most of respondents (44.2%) were aged 30-39 years. All participants were males, and >70% had <10 years practice experience. The vast majority of those respondents (93%) had completed a Bachelor of Science in Pharmacy. Of the 43, 58.1% were from multiple chains and 41.9% from smaller independent pharmacies. Approximately 23% of the respondents reported having a family member, or close friend with a mental illness. Nearly two thirds (62.5%) had experienced dealing with mentally ill patients. Approximately 18.6% of the respondent indicated that they had received training on mental health care. More than half of the respondents strongly agree/agree, or were neutral with the statement that their opinions about mental illness affected their ability to provide care to their mentally ill patients. Only few respondents agreed that patients who used psychiatric medications receive all necessary drug informations from the physician and psychiatrist. All respondents provided an estimated number of prescriptions dispensed daily. Twenty-two dispensed  $\leq 75$  prescriptions, 13 dispensed between 76-150 prescriptions, 6 dispensed 151-300 prescription, and 2 dispensed more than 300 prescriptions. With regard to the availability of pharmacists and technical support, there were 21 community pharmacy respondents (49%) who stated that they had full-time dispensing technicians. Among these, 14 (66.7%) had one technician, 2 (9.4%) had 2 technicians, another 2 (9.4%) had 3 technicians, and 3 had 4 technicians. On the other had, 28 pharmacists (65.2%) had one assistant as a full-time pharmacist, 5 (11.6%) had 2 pharmacists, 4 (9.3%) had 3 pharmacists, and the other 6 (13.9%) had 4 pharmacists. Attitudes of pharmacists to mental illness are shown in Table 1. The attitudes of pharmacists toward mental illness patients using psychotropic medications and cardiovascular medications are shown in Table 2, and Table 3-4 shows the attitudes of pharmacists toward

**Table 1** - Attitudes of pharmacists toward mental illness (N=43).

Statements	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Mentally ill patients do not have the ability to tell right from wrong	0	3 (7.0)	8 (18.6)	18 (41.9)	14 (32.6)
Mentally ill patients are dangerous	1 (2.3)	14 (32.6)	10 (23.3)	16 (37.2)	2 (4.7)
Mentally ill patients are in a situation that makes them unable to cope with daily living problems	2 (4.7)	19 (44.2)	9 (20.9)	11 (25.6)	2 (4.7)
It is easy to recognize a mentally ill patient	2 (4.7)	25 (58.1)	8 (18.6)	7 (16.3)	1 (2.3)
Mental illness is the same as any other diseases	12 (27.9)	26 (60.5)	2 (4.7)	2 (4.7)	1 (2.3)
I feel uncomfortable to be in one place with a mentally ill patient	4 (9.3)	16 (37.2)	7 (16.3)	15 (34.9)	2 (4.7)

**Table 2** - Attitudes of pharmacists toward providing pharmaceutical care to mental illness patients using psychotropic medications and cardiovascular medications (N=43).

Statements	Attitudes of pharmacists toward mental illness patients using psychotropic medications, n (%)					Attitudes of pharmacists toward patients using cardiovascular medications, n (%)				
	Much more	More	Neutral	less	Much less	Much more	More	Neutral	less	Much less
Degree of interest to obtain medical history of mentally ill patient	12 (27.9)	19 (44.2)	7 (16.3)	5 (11.6)	0	21 (48.8)	16 (37.2)	0	6 (14.0)	0
Degree of comfort to obtain medical history of mentally ill patient	11 (25.6)	16 (37.2)	11 (25.6)	4 (9.3)	1 (2.3)	21 (48.8)	16 (37.2)	0	6 (14.0)	0
Degree of confidence to obtain medical history of mentally ill patient	3 (7.0)	7 (16.3)	15 (34.9)	15 (34.9)	3 (7.0)	21 (48.8)	16 (37.2)	0	6 (14.0)	0
Degree of interested to provide medication counseling for mentally ill patient	16 (37.2)	18 (41.9)	7 (16.3)	2 (4.7)	0	27 (62.8)	8 (18.6)	8 (18.6)	0	0
Degree of comfort to provide medication counseling for mentally ill patient	18 (41.9)	8 (18.6)	4 (9.3)	1 (2.3)	0	27 (62.8)	8 (18.6)	8 (18.6)	0	0
Degree of confidence to provide medication counseling for mentally ill patient	11 (25.6)	18 (41.9)	9 (20.9)	5 (11.6)	0	24 (55.8)	11 (25.6)	9 (20.9)	5 (11.6)	0
Degree of interested to solve drug related problems for mentally ill patient	20 (46.5)	16 (37.2)	7 (16.3)	0	0	24 (55.8)	11 (25.6)	0	8 (18.6)	0
Degree of comfort to solve drug-related problems for mentally ill patient	11 (25.6)	19 (44.2)	7 (16.3)	5 (11.6)	1 (2.3)	19 (44.2)	18 (41.9)	0	6 (14.0)	0
Degree of confidence to solve drug-related problems for mentally ill patient	7 (16.3)	16 (37.2)	11 (25.6)	9 (20.9)	0	19 (44.2)	10 (23.3)	14 (32.6)	0	0
Degree of interested to monitor for efficacy, adverse effect and patient compliance	15 (34.9)	17 (39.3)	6 (14.0)	5 (11.6)	0	17 (39.5)	20 (46.5)	6 (14.0)	0	0
Degree of comfort to monitor for efficacy, adverse effect and patient compliance	9 (20.9)	14 (32.6)	8 (18.6)	10 (23.3)	2 (4.7)	17 (39.5)	18 (41.9)	2 (4.7)	6 (14.0)	0
Degree of confidence to monitor for efficacy, adverse effect and patient compliance	9 (20.9)	11 (25.6)	9 (20.9)	11 (25.6)	3 (7.0)	14 (32.6)	19 (44.2)	5 (11.6)	5 (11.6)	0

**Table 3** - Attitudes of pharmacists toward different types of mental illness.

Statements	Schizophrenia	Depression	Mania	Paranoia	Panic	OCD	Anxiety
	Much more/ more	Much more/ more	Much more/ more	Much more/ more	Much more/ more	Much more/ more	Much more/ more
Degree of interested to obtain medical history of mentally ill patients	65.2	69.8	58.2	53.5	53.5	55.8	69.8
Degree of comfort to obtain medical history of mentally ill patients	55.2	62.8	44.2	39.5	46.6	52.5	59.9
Degree of confidence to obtain medical history of mentally ill patients	37.2	37.2	25.6	20.9	23.3	25.6	37.2
Degree of interested to provide medication counseling for mentally ill patients	65.1	76.8	52.8	58.2	69.7	62.8	76.7
Degree of comfort to provide medication counseling for mentally ill patients	60.5	60.3	53.5	48.9	55.8	53.5	65.1
Degree of confidence to provide medication counseling for mentally ill patients	44.2	58.2	41.9	39.5	44.2	39.5	58.2
Degree of interested to solve drug related problems for mentally ill patients	74.5	79.1	69.8	67.5	72.1	69.7	76.8
Degree of comfort to solve drug-related problems for mentally ill patients	55.8	67.5	53.5	53.5	58.2	51.1	62.8
Degree of confidence to solve drug-related problems for mentally ill patients	41.8	44.2%	37.2	34.9	37.3	39.5	44.2
Degree of interested to monitor for efficacy, adverse effect, and patients compliance	51.2	60.5	48.8	48.9	60.4	51.2	60.5
Degree of comfort to monitor efficacy, adverse effect, and patients compliance	48.9	48.9	41.9	41.8	44.2	44.2	52.4
Degree of confidence to monitor for efficacy, adverse effect, and patients compliance	34.9	39.5	32.6	32.6	34.9	30.2	44.2

Data are expressed as percentage, OCD - obsessive-compulsive disorder

different types of mental illness, and the comparison of scores and pharmacists rates toward different types of mental illness with cardiovascular medications. Table 5 shows the attitudes of pharmacists toward providing pharmaceutical care for mentally ill patients. There were numerous significant findings when comparing demographic characteristics with attitudes toward providing pharmaceutical care to mentally ill patients: age of the participants was significantly associated with one item in Section 3. Those age >40 years has higher percentage of "much more" or "more" response, and lower percentage of "less" responses compared with other groups, and for the group aged ≤30 years they have a lower percentage of "much more" or "more" responses compared with other age groups. The number of years in practice was significantly associated with 7 items in Section 3. Those in practice for 10-19 years tend to be "much more," or "more" confident to obtain a history of mentally ill patients, "much more" or "more" comfortable to obtain medical history of patients with anxiety, and "much more," or "more" confident to monitor patients with mania compared with other groups, whereas, those with 20-30 years in practice were

"much more" or "more" confident to counsel patients with OCD. Also, those in practice for 20-30 years were "much more" or "more" confident to counsel patients with anxiety than other groups. Also, those with 20-30 years in practice were "much more," or "more" confident to screen and solve drug-related problems for both patients with depression, and OCD compared with other groups. Pharmacists with a family history of mental illness were significantly "much more" or "more" interested in counselling patients with schizophrenia than pharmacists without previous experience. Whereas, pharmacists who had no family history of mental illness were significantly "much more," or "more" interested, or comfortable to counsel patients with schizophrenia, paranoia, and mania. Pharmacists who had previous experience with mentally ill patients were found to be "much more," or "more" confident to counsel mentally patients than those who had no experience, whereas, those who had no experience were "much more," or "more" confident to obtain a medical history. Moreover, those who had training in the mental health care were "much more," or "more" comfortable to counsel patients with OCD and mania. In contrast, those who

**Table 4** - Comparison of pharmacists scores towards different types of mental illness with cardiovascular medications.

Statement	Schizophrenia		Depression		Mania		Paranoia		Panic		OCD		Anxiety		Cardiovascular	
	Score	Factor*	Score	Factor	Score	Factor	Score	Factor	Score	Factor	Score	Factor	Score	Factor	Score	Factor
Degree of interested to obtain medical history of mentally ill patients	4.03	0.886	4.10	0.866	3.61	0.917	3.61	0.887	3.63	0.92	3.81	0.936	3.98	0.927	4.21	0.981
Degree of comfort to obtain medical history of mentally ill patients	3.7	0.955	3.88	0.856	3.51	0.914	3.44	0.954	3.57	0.908	3.63	0.950	3.89	0.906	4.21	0.981
Degree of confidence to obtain medical history of mentally ill patients	3.19	0.934	3.19	0.877	3.00	0.911	3.02	0.970	3.02	0.928	3.10	0.949	3.30	0.904	4.21	0.981
<b>Sub-total score</b>	<b>3.62</b>		<b>3.72</b>		<b>3.37</b>		<b>3.36</b>		<b>3.41</b>		<b>3.51</b>		<b>3.72</b>		<b>4.21</b>	
Degree of interested to provide medication counseling for mentally ill patients	3.88	0.947	4.14	0.902	3.75	0.873	3.66	0.926	3.95	0.915	3.79	0.874	4.11	0.878	4.44	0.941
Degree of comfort to provide medication counseling for mentally ill patients	3.70	0.888	3.90	0.939	3.56	0.946	3.49	0.915	3.79	0.907	3.58	0.934	4.02	0.942	4.4	0.941
Degree of confidence to provide medication counseling for mentally ill patients	3.35	0.950	3.62	0.919	3.23	0.966	3.21	0.914	3.37	0.947	3.26	0.948	3.68	0.954	4.19	0.946
<b>Sub-total score</b>	<b>3.64</b>		<b>3.89</b>		<b>3.51</b>		<b>3.45</b>		<b>3.70</b>		<b>3.54</b>		<b>3.94</b>		<b>4.30</b>	
Degree of interested to solve drug related problems for mentally ill patients	4.05	0.954	4.19	0.852	4.02	0.954	4.03	0.917	4.09	0.974	4.04	0.946	4.24	0.954	4.24	0.941
Degree of comfort to solve drug-related problems for mentally ill patients	3.70	0.913	3.96	0.958	3.68	0.969	3.72	0.972	3.82	0.960	3.60	0.948	3.86	0.922	4.11	0.941
Degree of confidence to solve drug-related problems for mentally ill patients?	3.23	0.90	3.37	0.925	3.14	0.957	3.14	0.931	3.19	0.944	3.28	0.942	3.37	0.977	4.12	0.946
<b>Sub-total score</b>	<b>3.66</b>		<b>3.85</b>		<b>3.61</b>		<b>3.63</b>		<b>3.70</b>		<b>3.64</b>		<b>3.82</b>		<b>4.17</b>	
Degree of interested to monitor efficacy, adverse effect, and patients compliance	3.58	0.925	3.70	0.972	3.49	0.955	3.47	0.972	3.70	0.979	3.54	0.944	3.82	0.949	4.26	0.965
Degree of comfort to monitor efficacy, adverse effect, and patients compliance.	3.47	0.939	3.56	0.975	3.33	0.968	3.37	0.967	3.37	0.938	3.42	0.937	3.60	0.965	4.10	0.923
Degree of confidence to monitor for efficacy, adverse effect, and patient compliance	3.07	0.956	3.23	0.972	3.05	0.939	3.10	0.965	3.10	0.938	2.98	0.918	3.28	0.969	3.98	0.777
<b>Sub-total score</b>	<b>3.37</b>		<b>3.50</b>		<b>3.29</b>		<b>3.31</b>		<b>3.39</b>		<b>3.31</b>		<b>3.57</b>		<b>4.11</b>	

\*factor loading, OCD - obsessive-compulsive disorder

had no training were “much more,” or “more” interested in solving drug related problems for patients with depression and anxiety. Also, they were “much more,” or “more” interested to monitor patients with anxiety. The study participants indicated that the anticipated barriers that may cause the delay of the implementation of pharmaceutical care in their practice were: lack of training (88.4%), lack of therapeutic knowledge

(83.7%), lack of documentation skills (79%), negative attitudes of the physicians towards implementation of pharmaceutical care (79.0%), lack of communication skills (76.8%), lack of space for counseling patients (76.7%), current situation in pharmacies is not suitable for providing pharmaceutical care (76.7%), lack of time (74.5%), lack of staff (72.1%), negative attitudes of the pharmacists towards implementation of pharmaceutical

**Table 5** - Attitudes of pharmacists toward barriers to providing pharmaceutical care for mentally ill patients.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lack of therapeutic knowledge	46.5	37.2	9.3	2.3	4.7
Lack of documentation skill	39.5	39.5	14.0	4.7	2.3
Lack of communication skill	41.9	34.9	11.6	9.3	2.3
Lack of private area	46.5	30.2	16.3	7.0	0
Difficulty in interacting with mentally ill patients	30.2	34.9	25.6	9.3	0
Lack of mentally ill patients demand	37.2	30.2	20.9	11.6	0
Patients not understand pharmaceutical care	51.2	30.2	11.6	7.0	0
Lack of time	41.9	32.6	16.3	4.7	4.7
Insufficient staff	34.9	37.2	14.0	9.3	4.7
Lack of drug information sources	39.5	32.6	20.9	4.7	2.3
Lack of support from owner	41.9	23.3	16.3	16.3	2.3
Lack of training in pharmaceutical care	60.5	27.9	9.3	0	2.3
Negative attitude of pharmacists toward pharmaceutical care	44.2	27.9	14.0	11.6	2.3
Negative attitude of physicians toward pharmaceutical care	58.1	20.9	14.0	4.7	2.3
Pharmacy layout is not suitable for provision of pharmaceutical care	46.5	30.2	16.3	7.0	0

care (72.1%), and lack of drug information resources (72.1%). Other barriers were lack of patient's demand (67.4%), and lack of support from owners (65.2%). A total of 28 (65.1%) pharmacists reported that providing pharmaceutical care could be easier through participation in effective training and continuing education programs (46.4%), effective communication and collaboration with other health care providers (42.9%), availability of adequate drug information resources (39.3%), education of the patients on the importance of pharmaceutical care (28.6%), increasing number of pharmacy staff (32.1%), increasing clinical knowledge skills (21.4%), and availability of space for counseling (17.9%).

**Discussion.** One of the objectives of the study was to explore the attitudes of community pharmacists toward mental illness. In this respect, the study showed that community pharmacists generally had endorsed positive attitudes toward mental illness. This finding is consistent with the results of the studies of Bryant et al,<sup>21</sup> and Charupatanapong et al.<sup>28</sup> These studies reported favorable attitudes from hospital pharmacists toward mental health in patients, and community pharmacists toward mentally challenged patients. Another aspect of our study, was to examine pharmacists' attitudes toward provision of pharmaceutical care to mentally ill patients, and those with a specific type of mental illness. Overall, pharmacists expressed positive attitudes in this area. However, pharmacists reported feeling more uncomfortable counseling, and solving drug-related problems for patients with mental illness. They also

indicated in the questionnaire the follow-up monitoring for drug related problems and adherence to prescribed drug therapy among patients compared with patients using cardiovascular medications. Most likely this finding was due to the perceived needs of medically ill patients compared with those of mentally ill patients. On the other hand, another explanation is that the opinion of some respondents on mental illness may remain as influential negative attitudes toward mental illness. This was reflected in the attitude of more than half of the respondents who felt "strongly agree"/"agree" or neutral, that their opinion on mental illness may affect their attitudes toward mentally ill patients. More health care providers have been known to stigmatize patients who used psychiatric medications or services, by offering discouraging advice, and rejected behaviors.<sup>26</sup> This form of prejudice may have a negative impact on the patients' self-confidence, and the way they seek help or adherence to the prescribed medications.<sup>27-29</sup> As a higher number of respondents also perceived a lack undergraduate training in counseling mental patients, these differences may indicate an increased level of discomfort in the therapeutic area in which they were under-trained. These findings reinforced the findings of similar studies<sup>22,25</sup> that found similar attitudes reported from community pharmacists. In contrast, another study found that pharmacists expressed skewed results toward being more confident, comfortable, and interested to provide various types of pharmaceutical functions for mentally ill patients than for medically ill patients.<sup>23</sup> Furthermore, the study revealed that there

was an association between the family history of mental illness and attitude toward providing pharmaceutical care. This was consistent to the findings in the study of Crismon et al.<sup>30</sup> Also, there were a high number of respondents who never had any type of educational training related to mentally ill patients when they were pharmacy students. In our study, the pharmacists indicated that patients with mental illness, do not receive all the necessary informations on their medication from their physicians or psychiatrists. These patients received less attention from the pharmacists compared to other patients, and it raises the concern that their drug-related needs were not met.

Based on the findings from our study, we believe that pharmacists were more exposed to, or have had social contact with mentally ill patients through an educational program such as psychiatric rotation, or in a follow up program at some mental institutions. Their experiences may influence them to have more positive attitudes toward provision of pharmaceutical care to such patients. The lack of training in pharmaceutical care practice, lack of space for counseling, negative attitudes of physician toward implementation of pharmaceutical care, lack of communication skill, and lack of therapeutic knowledge was cited as an important barriers that limit their interaction with patients. Other barriers identified in the study were negative attitudes of the pharmacist, insufficient time, and lack of staff. The barriers identified in our study were similar to another previous study involving community pharmacists.<sup>31</sup> More extensive pharmacist-physician, and pharmacist-patient interactions may help improve these negative attitudes.

This study has several inherited limitations. First, the survey responses were self-reported. The study participants represented a small size of the pharmacies in the country, and they were the persons authorized by the law to dispense psychotropic drugs in Riyadh city. Thus, our results should not be considered representative of all community pharmacists in the city. Although the study was conducted in limited pharmacies, the results however, may be an indication of attitudes in other similar pharmacies in other parts of the country as well. Another potential limitation was that respondents might have offered favorable bias answers. Females' attitudes were not assessed in this study, since females are not allowed to work in community pharmacies. This is a reflection of unique Saudi social and cultural characteristics. Utilization of cardiovascular medication users as the comparison group was subjective, and these patients may not represent populations using other medications.

In conclusion, although pharmacists have generally positive attitudes toward both mental illnesses, and

providing pharmaceutical care to mentally ill patients, they felt uncomfortable counseling, or provide follow-up monitoring of the patients for adverse drug-related problems. The results of the study support the development of continuing education and training programs, which provides the pharmacists with enlightening information regarding mental illness. Continuing education and training programs should also consider highlighting the awareness of potential stigmatizing behavior in pharmacy practice, to improve pharmacist ability to meet the drug related needs of such population. Also, practicing pharmacists in mental health settings and pharmacy educators, should examine ways to enhance and improve the mental health curriculum to be oriented toward psychiatric patients.

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## ETHICAL CONSENT

All manuscripts reporting the results of experimental investigations involving human subjects should include a statement confirming that informed consent was obtained from each subject or subject's guardian, after receiving approval of the experimental protocol by a local human ethics committee, or institutional review board. When reporting experiments on animals, authors should indicate whether the institutional and national guide for the care and use of laboratory animals was followed. Research papers not involving human or animal studies should also include a statement that approval/no objection for the study protocol was obtained from the institutional review board, or research ethics committee.