

Perspectives of psychiatric patients in rural areas of Jordan: Barriers to compliance and pharmacist role

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Abstract

Background: Successful management of psychiatric disorders is affected by patient perspectives and several barriers, that is, conceptual, psychological, social, or logistic reasons that can decrease patient adherence to therapy. In this perspective, pharmacists have a vital role in identifying patients in need of help and in dealing with barriers.

Objective: The aim of this study was to investigate perspectives of patients diagnosed with psychiatric disorders, living in rural areas in Jerash, Jordan, regarding their awareness about their conditions, including religious and cultural factors, adherence to their treatment and related barriers, with special focus on pharmacist's role.

Methods: This cross-sectional survey study was conducted in Jordan from August to November 2019. A validated questionnaire was administered by two pharmacy students via a structured interview with patients waiting for their appointment in the psychiatric clinic. Data were analysed using the Statistical Package for the Social Sciences.

Results: One hundred twenty patients (age 39.4 ± 9.5 , 66.7% males) completed the questionnaire. Most of them (71.0%) reported adherence to their medications, and 47.5% reported complete control of their symptoms with treatment. Most patients (59.2%) reported that they perceive their psychiatric problem in terms of religious faith as being counted for their favour in the Hereafter, and 52.5% of them always/usually looked at themselves positively and unaffected by their psychiatric problem; with both factors correlating significantly with better treatment adherence ($P < .045$ and $P < .001$; respectively). Barriers affecting adherence included mainly suffering from adverse effects (31.9%) and being unconvinced that they needed a medication (23.3%). Only 14.2% of patients reported that they refer to the pharmacist to get information about their medications.

Conclusion: This study shows suboptimal symptom control of psychiatric patients in Jerash. Nonadherence is an issue, with barriers identified. Positive religious and self-image perspectives correlated with better adherence. Patient referral to pharmacists is minimal and needs to be optimised.

1 | INTRODUCTION

The rate of psychiatric disorders continues to grow globally, affecting hundreds of millions of people worldwide.¹ Similarly, The Eastern Mediterranean Region is witnessing an increase in psychiatric disorders.²

With this growing burden of psychiatric disorders, creating a partnership relationship between patients and their healthcare professionals is vital for proper management.^{3,4} This can be done by taking into consideration patients' preferences, needs and values.^{3,4}

Medicines are a major treatment modality for many psychiatric disorders, making the pharmacists ideally positioned to play a greater role in supporting psychiatric patients.⁵ Over the past years, the pharmacists' role has developed to include numerous patient-oriented clinical services.^{6,7} Being at the front line, pharmacists have a unique position due to their direct contact with patients. In addition to their accessibility, the important role of the pharmacists in the psychiatric healthcare sector was found to be acknowledged by both healthcare professionals and patients around the world.⁸ Pharmacists were also found to enjoy a high level of patient trust in Arab countries, including Jordan.⁶

Pharmacists are suited to address, manage and counsel on several factors that can adversely affect adherence of psychiatric patients to their therapy, including delayed onset of clinical results, polypharmacy, and multiple adverse drug reactions and interactions of psychotropic medications.⁹ They were found to significantly improve medication adherence, disease control, and avoidance of hospitalisation in a wide variety of healthcare settings including psychiatric disorders.¹⁰

In addition, pharmacists can play a vital role in early detection and follow up of people with psychiatric disorders. They were found to be able to use depression screening tools to identify undiagnosed adults having symptoms of depression.¹¹

Culturally, perceived public mental illness stigma and self-stigma causes a delay in active help-seeking behaviour.¹² Pharmacists can contribute to psychiatric disorder literacy and reducing stigma.

In addition, several studies on patients with psychiatric disorders have revealed overall high rates of perceived benefits of psychotherapeutic interventions, including a study in Amman, the capital of Jordan.¹² Pharmacists can play a vital role in increasing the awareness of psychiatric patients about psychotherapy.

However, gaps of knowledge exist, especially about perspectives of psychiatric patients living in rural areas. Up to our knowledge, no previous study has investigated the perspectives of these patients when it comes to the management and awareness of their conditions, barriers to adherence, and the role of the pharmacist as a provider of information and follow up.

In addition, the size of stigma among patients who do seek help in the relatively "closed" rural cultures and its effect on adherence has not been evaluated. Similarly, no previous study, has evaluated the awareness and preference of psychotherapy among patients with psychiatric disorders in rural areas.

Identifying barriers and facilitators of adherence to therapy and their relationships with patient awareness, beliefs, and values can help the pharmacist in optimising the management of culturally and

What's known

- Several studies show suboptimal control of psychiatric disorders in urban areas and various barriers to medication adherence. Pharmacists are perceived as an important source of medicine information. Psychotherapy is a widely implemented treatment modality.

What's new

- Psychiatric patients in the rural area of Jerash, Jordan report suboptimal control of their symptoms by medications, and side effects as the main barrier to adherence. Pharmacists in these areas have minimal role in identifying people in need of psychiatric help and counselling patients diagnosed with psychiatric disorders. Patient stigma about psychiatric disorders is high and awareness about psychotherapy is very low. Positive religious and cultural viewpoints correlated with better adherence.

religiously oriented groups of patients^{13,14} including those living in rural areas.

This brings us to the aim of this study, which is to investigate perspectives of patients diagnosed with psychiatric disorders, living in rural areas in Jerash, Jordan, regarding their awareness about their psychiatric conditions and their treatment, adherence to their treatment, and related barriers, with special focus on the pharmacist's role.

2 | METHODS

2.1 | Study setting

The study objectives were addressed via a descriptive cross-sectional face-to-face survey, conducted in Jerash, Jordan, from August to November 2019. Jerash is located in Northern Jordan, and although it has a population of about 50 745, it is surrounded by a large number of remote and rural areas that lack specialised hospitals, making Jerash Hospital (located in the city of Jerash Governorate) the center of care and medication provision for many patients.

Data were collected from patients diagnosed with psychiatric disorders visiting the outpatient psychiatric clinic at Jerash Hospital. The psychiatrist who was following the patients confirmed the diagnosis for each participating patient and provided an informed consent. The researchers who interviewed the patients were pharmacy students ($n = 2$) in their graduation year. After obtaining permission from the psychiatrist, the medical files of the interviewed patients were checked for accuracy of information given by the patients. Ethics approval was obtained from the Faculty of Pharmacy, Applied Science Private University. Participation in the study did not pose any risk to patients and was voluntary. Patients who accepted to participate in the study and met all of the inclusion criteria were informed about

the nature of the study and signed an informed consent before participation. The inclusion criteria were patients above 18 years of age, diagnosed by a specialist with a psychiatric disorder, and is currently taking a medication for a psychiatric disorder with no change in treatment and/or dose for the past one month. Exclusion criteria included the presence of a cognitive problem or a sensory impairment which could prevent communication with the patient, those who rely on their parents/caregivers to visit the psychiatric clinic in order to obtain their medication/s (hence physically were not present), and patients not able to write and/or read Arabic. As this was the first study of this type to be conducted in a rural area (Jerash) in Jordan, a convenience sample of patients was recruited into the study during the study period.

2.2 | Study tool

The questionnaire (see Appendix S1 for translation) contained 43 questions and was administered in Arabic since Arabic is the official language of patients in Jordan. Several sources were used to generate a pool of questions considered to be relevant to the study objectives. The questions were tabled and reviewed by the research team in order to combine concepts and to remove duplicates if any.

To ensure face validity, the first draft of the questionnaire was evaluated by independent academics ($n = 5$) who have previous experience in pharmacy practice and education. The items in the questionnaire that were not clear or difficult to comprehend were removed. Feedback and comments provided were considered by the research team and then incorporated where appropriate. Finally, the research team revised the items as necessary to make them concise and to be completed within 10–15 minutes by the researcher during patient's interview. The questionnaire was then piloted by a group of volunteer patients ($n = 5$) to test the clarity of questions over a 2-weeks period. Refinements and comments were incorporated into the final version of the survey.

The survey incorporated Likert scale questions and consisted of three parts. The *first part* was designed to collect data on patients' demographic characteristics including age, gender, weight, exercising, caffeine intake and insurance coverage. The *second part* was designed to assess patients' awareness of the management of their condition, adherence, barriers to adherence, faith perspective of the psychiatric disorders, and its impact on their adherence. The *third part* was designed to assess for whom the patient refers to get information about his/her psychiatric disorder and its medications. Faith perspective of the psychiatric disorders was assessed through two questions found in Appendix S1: "Do you think that psychiatric disorders should always result from weakness of faith?" and "What is your faith perspective of your psychiatric disorder?"

2.3 | Survey implementation

Following recruitment, patients were asked by the practiced researchers ($n = 2$) to answer the survey items found in the survey as the items were read out by the researchers via a structured

interview. A female pharmacist approached female patients, and a male pharmacist approached male patients. Both researchers practiced together well to unify the way they approached and interviewed the patients. Patients were given the time needed to complete the survey (10–15 minutes). Patients who completed the survey observed the researcher as she/he inserted it in a sealed envelope. Every envelope was given a number for participant privacy.

Data were coded and all completed surveys were kept in a locked cabinet that was only accessed by the researcher. Following data entry, data were kept in a computer with a password protection known only by the researcher.

Accuracy of information given by the patients was checked by comparing their answers with the information reported in their computerised medical files, including age, medical condition/s, date of treatment commencement, name of medication(s), dosage, therapeutic regimen, and reason for medication use after permission from the psychiatrist in charge. This verification was to make sure that the patients were aware of their diagnoses and because they cannot be adherent to their medications if they were not aware of the medications and their doses in the first place.

2.4 | Data analysis

Data were analysed using the Statistical Package for the Social Science (SPSS) version 22 (SPSS Inc). The quantitative variables were described using mean and standard deviation (SD), and the qualitative variables were described using frequency and percentages. Pearson's χ^2 test was used to determine the relationship between adherence level to treatment and selected variables. Correlation testing exploring associations between the different variables was identified using Pearson's correlation and Pearson's χ^2 test for significance. A probability value of $<.05$ was considered to be statistically significant for all analysis tests.

3 | RESULTS

3.1 | Demographics, diagnosis, and treatment

A convenience sample of 150 patients attending the outpatient psychiatric clinic located in Jerash Hospital was approached. Eligible patients ($n = 120$, response rate of 80%) who accepted to complete the survey and gave consent were recruited into the study. The mean age of patients was 39.4 ± 9.5 and the mean weight was 78.7 ± 18.2 . More than half of the patients were males (66.7%), most of them (68.3%) reported not to perform any exercise, and 75% of the patients had health insurance (Table 1). Only 32.6% of the patients were employed before their diagnosis, and more than half of these patients (56.5%) reported loss of their job due to their psychological illness.

With regard to the type of diagnosed psychological illness, more than half of the patients (53.3%) reported being diagnosed

TABLE 1 Patients' demographic characteristics (n = 120)

	n (%)
Gender	
Male	80 (66.7)
Female	40 (33.3)
Age group	
21-30	26 (21.7)
31-40	38 (31.7)
41-50	41 (34.2)
51-60	14 (11.7)
61-70	1 (0.8)
Exercise	
None	82 (68.3)
Moderate	16 (13.3)
Regularly	22 (18.3)
Caffeine intake	
None	7 (5.8)
Mild	52 (43.3)
Moderate	17 (14.2)
Sever	44 (36.7)
Insurance	
Yes	90 (75.0)
No	30 (25.0)

with depression, followed by schizophrenia (30%), obsessive compulsive disorder (9.2%) and bipolar disorder (7.5%). No family history of a psychological illness was reported by 70.8% of the patients.

Most of the participants (87.5%) agreed that they have a psychological illness, 2.5% were not sure, and 10.0% were not convinced. The patients experienced the appearance of their first psychological symptom at the age of 27.2 ± 8.8 . When compared with their current age (39.4 ± 9.5), this shows that many patients experienced their first psychological symptoms several years before they were met by the researcher and took part in this study.

Almost all of the patients (98.4%) reported that they started taking a medication to treat their psychiatric disorder. It was the specialist who advised the patients to start taking their medication in most cases (97.5%). The medications used by the patients included antidepressants and antipsychotics (Table 2), comprising mostly Citapram® (citalopram, 21%), Kemadrin® (procyclidine hydrochloride, 14%), and Haldol® (haloperidol Injection, 13.5%).

3.2 | Patient perspectives about their psychiatric disorders and their medications

Following medication use, less than half of the patients (47.5%) reported complete control over their illness. Others reported partial control (43.3%), while few reported poor control (9.2%).

TABLE 2 Medications used by the study participants (n = 120)

Drug name	Frequency	Percent (%)
Citapram (citalopram)	33	27.5
Kemadrin (procyclidine hydrochloride)	22	18.3
Haldol (haloperidol) Injection	21	17.5
Prexal (olanzapine)	16	13.3
Camcolots (lithium)	8	6.7
Depakin (sodium valproate)	7	5.8
Lexopan (bromazepam)	7	5.8
Rispal (rispidone)	6	5
Tegretol (carbamazepine)	5	4.2
Esperal (quetiapine)	4	3.3
Prozac (fluoxetine)	4	3.3
Saroten (amitriptyline)	4	3.3
Ecipham (escitalopram)	3	2.5
Deanxit (flupenthixol)	3	2.5
Gabatrex (gabapentin)	3	2.5
Rivoram (clonazepam)	3	2.5
Lamictal (lamotrigane)	2	1.7
Stilnox (zolpedim)	1	0.8
Olexa (olanzapine)	1	0.8
Cilanem (imipenem)	1	0.8
Paroxetine (paroxat)	1	0.8

A deeper insight into patient's perspectives of the causes that led to their physiological illnesses (Figure 1) included family problems (41.0%), death of a beloved person (20%), work problems (15%) and financial problems (10%), and other factors including loneliness and physical health problems were reported. Most patients reported that they visited the specialist merely due to the advice of a family member (74.2%), others followed the general practitioner's advice (10.8%), and 8.3% visited the specialist based on their own decision.

In response to the question 'Do you think that psychiatric disorders should always result from weakness of faith?' most patients (72.5%) believed that this is never/slightly the case.

When asked: 'What is your faith perspective of your psychiatric disorder?' A high proportion of patients (59.2%) reported that they regard their psychiatric disorder as counting for their benefit in the Hereafter and these patients reported a significant better adherence to treatment (Pearson correlation, $P = .046$); others (10%) believed their disorder is a sort of divine punishment, while the rest thought their disorder has nothing to do with the pre-mentioned perspectives (30.8%).

In response to questions related to perceived public psychiatric disorder stigma and self-stigma, 52.5% of patients always/usually looked at themselves positively and unaffected by the existence of their psychiatric problem, which correlated significantly ($r = 0.394$, $P < .001$) with better treatment adherence. On the other hand, 41.7% said that they felt embarrassed that their family, friends, or people in their surrounding know that they are taking a medication for a psychological problem.

Around half of the patients (51.7%) believed that their medications lead to addiction and yet reported that this did not prevent them from taking it. Some patients (46.7%) believed that their medications do not cause addiction. Two patients said that they do not take their medication because they believed it might cause addiction.

The sources of information about psychiatric disorders for psychiatric patients are reported in Figure 2. It was the specialist who gave the patients such information in most cases (92.5%), followed by the use of the internet (3.3%), or via a pharmacist consultation (1.7%). When patients were specifically asked about the source of

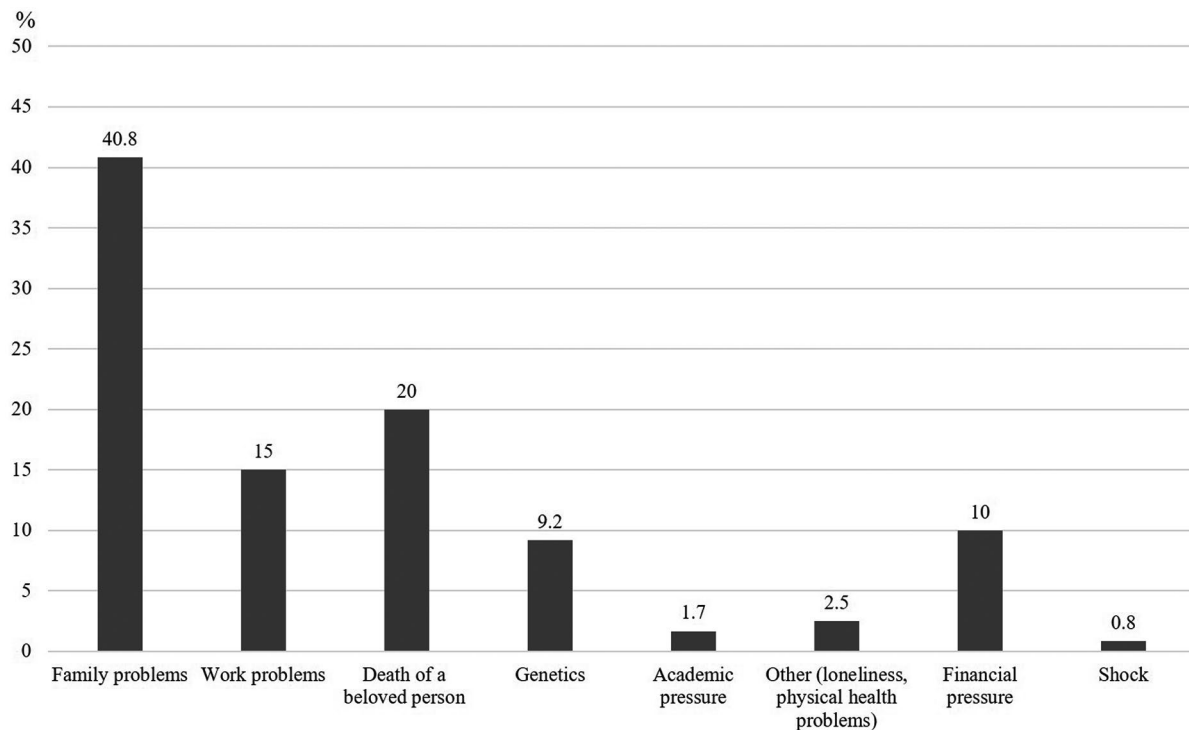


FIGURE 1 Patients' perspectives (n = 120) on the cause that led to their psychiatric disorder

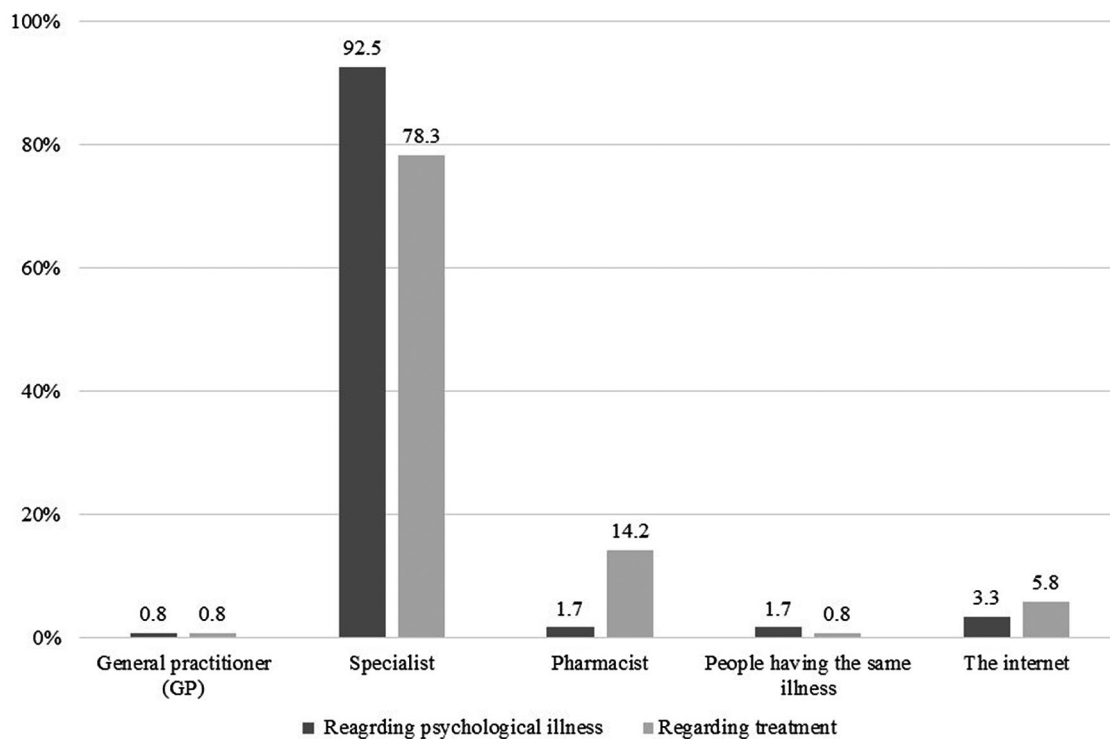


FIGURE 2 Source of information about the psychiatric disorder and its treatments reported by the patients (n = 120)

information regarding their medications (Figure 2), the majority reported that it was the specialist (78.3%), followed by the pharmacist (14.2%) then the internet (5.8%).

When asked if they had questions about their psychiatric disorders which were not answered, most patients responded that this never (46.7%) or only slightly (19.2%) happened. When asked if they had questions about their psychiatric medications that were not answered, most patients responded that this never (58.3%) or only slightly (15.0%) happened. Others reported that they sometimes (14.2%), usually (10.8%) or always (1.7%) had unanswered questions.

Reasons for not getting answers about medications included neither visiting nor calling the specialist in the first place (29.2% of all patients), the specialist did not give enough time (6.7%) and neither visiting nor calling the pharmacist (5.8%).

3.3 | Patient awareness and preference of psychotherapy

Most of the patients (89.2%) did not hear about psychotherapy before, and all of them were never exposed to it prior to study entry. After psychotherapy was explained to the patients, the majority (65.9%) of them strongly agreed/agreed that they would have chosen psychotherapy prior to starting treatment if they had known about it before (9.2% were neutral and 25% strongly disagreed/disagreed).

3.4 | Adherence to treatment and barriers

Most of the patients (71.0%) responded that they always/usually adhere to their medications. The most frequent barrier to adherence reported by the patients was suffering from adverse effects (31.9%). Others reported different barriers, such as being unconvinced that they needed a medication (23.3%), believing that their illness symptoms would get resolved without the use of a medication (11.2%), and not being able to afford their medication when it was not provided by the hospital (11.2%).

As for adherence to the advice provided by the specialist, the majority (89.2%) reported that they would not stop taking their medication on their own even if their symptoms faded away. Others (10.8%) reported that they would stop taking their medication gradually once their symptoms disappeared.

3.5 | Willingness to attend educational meetings

When asked 'In case sessions are held to educate you on the medical treatments for your psychiatric problem and for answering questions related to them, at the Pharmacists Syndicate building in Jerash, will you attend these sessions?', 70.5% of the patients agreed/strongly agreed.

4 | DISCUSSION

This study is the first to evaluate psychiatric patients living in rural areas in Jordan with regards to their perspectives of their illness and its management, adherence to treatment, barriers to adherence, and the role of the pharmacist. Religious and cultural perspectives were also unveiled.

In this study, the pharmacists in the rural area of Jerash had no role in the referral of patients in need of help to psychiatrists. Previous research has concluded that trained pharmacists may be equipped with the skills and knowledge to assist in the identification and support of consumers with a psychiatric disorders such as depression, and to refer to appropriate healthcare professional if necessary.¹¹ Therefore, training pharmacy students and pharmacists on identification and approaching people in need of psychiatric help is highly recommended.

The reliance of patients on the pharmacist as a source of psychiatric medicine information is shockingly low in this study. This is in contrast with a previous study in Amman, the capital of Jordan, where about half of the patients visiting community pharmacies chose the pharmacist as the source of advice on medication use.¹⁵ Unlike pharmacists at community pharmacies, who are highly accessible, pharmacists in public hospitals of rural areas like Jerash have weaker chances for counselling the patient, since medications get dispensed through a window to patients or the patients' relatives who would usually be standing in line before receiving their medication, presenting physical and time barrier prohibiting optimal pharmacist care.

Although pharmacists are the experts in medication use; lack of psychiatric disorder counselling skills might be one cause behind the overall hindered role in education on psychiatric medicines. A lack of training in mental health issues was the most important barrier reported by pharmacists in Belgium.¹⁶ Similarly, Australian rural pharmacists expressed concern over their lack of training, time and resources in mental health first aid.¹⁷ Therefore, improving these skills is highly required.^{18,19}

One recommendation from our research is for the academic institutes in Jordan to introduce the subspecialty of "psychiatric pharmacy," in which the pharmacist is provided with specialised knowledge, skills, and training for working with patients with psychiatric or neurologic disorders.²⁰ Incorporation of psychiatric pharmacist input was found to significant improvement in patient-level outcomes.¹⁰

In addition to the lack of skills, stigma towards psychiatric disorders exists among pharmacists themselves and represents a major barrier to patient support in community-based psychiatry.²¹ Low levels of mental health stigma and high levels of schizophrenia literacy were associated with pharmacists being more willing to provide medication counselling and identify drug-related problems for consumers with schizophrenia.²²

Despite the overall limited referral to pharmacists for psychiatric medication education in this study, there are opportunities for improvement, as reflected in the high percentage of patients willing to attend medication educational sessions. In one study conducted in Canada, patients using antidepressant drugs expressed a high degree of satisfaction with the services provided by community

pharmacists but recommended that pharmacists offer more consistent support throughout the treatment period, when encounters with health professionals may be infrequent.²³

The high rate of medication adherence in this study is in contrast with a previous study on psychiatric patients attending outpatient psychiatric clinics in four different hospitals at Urban areas in Jordan (n = 243), where the majority (64.2%) of patients was classified as non-adherent according to the Morisky adherence questionnaire.²⁴ Forgetfulness was the most prevalent reason for nonadherence in this previous study. In another study on hospitalised psychiatric patients in Turkey (n = 203), the leading factors for medication nonadherence were: "not willing to use medication," "not accepting the disease," "being disturbed by side effects," "not accepting the disease," and "feeling well."²⁵ In our study, the main reason for reported nonadherence was suffering from adverse effects, which signifies the early involvement of the pharmacist in the management plan to recognise and resolve these adverse effects in collaboration with the psychiatrist. Notably, the high percentage of patients in this study who believe that psychiatric medicines cause addiction calls on the role of pharmacist to correct this misconception.

Mental health stigma and low mental health literacy among psychiatric patients were previously found to be the most powerful barriers to seeking help.²⁶ This study unveiled high rates of psychiatric disorder stigma in patients who do seek medical help in the rural area of Jerash. This is just a part of the general picture since anecdotal comments provided by patients and their families present at the study clinic indicate that many mental health patients in the rural areas in Jordan do not come to the hospital to pick up their medications. A previous study on two out-patient mental health clinics located in a city in Northern Jordan also showed that psychiatric patients suffered moderate to high stigma.²⁷ This highlights the importance of socially destigmatising these disorders in rural areas, in which local pharmacists can play a crucial role. Mental health education programs have been shown to positively impact mental health literacy and stigmatising attitudes and may be an effective tool to use in rural areas.²⁸

Psychotherapy based interventions have been shown to be effective for patients with psychiatric disorders.^{29–32} Most of the patients in this study did not know about psychotherapy and reported that they would have chosen it before medications if they had known about it in the first place. Including psychotherapy as an adjunct therapy can improve patient's adherence to treatment.³⁰ In fact, pharmacist's referral of the patients to psychotherapists can be of a special value in a conservative culture, where receiving counselling about your condition from a psychologist may sound less stigmatising than taking antidepressants or antipsychotics.

Previous studies in Jordan and other Muslim countries reported a positive effect of religious beliefs of Muslims on coping with mental disorders.^{33–37} This is in line with the observation in this study that most patients perceive their psychiatric problem in terms of religious faith as being counted for their favour in the Hereafter, and the correlation of this perception with better treatment adherence.

Drug therapy alone does not achieve complete control in many psychiatric patients, and since drug therapy is the only treatment

modality in Jerash hospital, suboptimal symptom control of psychiatric disorders is not unusual.

Limitations of the study include the fact that it was conducted in one public hospital. This can limit the generalisability of the study. In addition, a convenience sample was recruited into the study, which may not be representative of the study population. A larger and more representative sample should be incorporated in follow-up related studies. Although the questionnaire was validated (face validity), future studies can benefit from assessing the Cronbach alpha for the questionnaire as an assessment of reliability.

5 | CONCLUSION

Pharmacists have minimal role in identifying and counselling psychiatric patients in the rural area of Jerash, Jordan. Most of the patients have suboptimal control of their disorders, and barriers to adherence and misconceptions about medicines exist. Positive religious and cultural viewpoints correlated with better adherence. There is a high level of stigma and a very low level of awareness about psychotherapy among the participating psychiatric patients. Relevant strategies should be developed to improve pharmacist participation and to better deal with barriers that prevent reaching optimal evidence-based therapy.

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DISCLOSURES

The authors declare no conflict of interest.

AUTHORS CONTRIBUTIONS

All authors were involved in all parts of study and manuscript preparation including literature search, study design, analysis of data, manuscript preparation, and review of manuscript.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional Supporting Information may be found online in the Supporting Information section.

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