

Knowledge of and adherence to antipsychotic medications among individuals diagnosed with schizophrenia

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Abstract

Background Aims: the purpose of this study is to identify the level and correlation of knowledge of and adherence to antipsychotic medications among individuals diagnosed with schizophrenia.

Materials and Methods: A cross-sectional, correlational design was used to collect data from a convenience sample of 365 patients referred to psychiatric outpatient units. Data collected using Understanding of Medication Questionnaire and Morisky Medication Adherence Scale.

Results: Lack of knowledge about antipsychotic medications was found among patients diagnosed with schizophrenia. Most patients reported low levels of adherence to their medications. A significant positive correlation was found between individuals' knowledge and their adherence level. Being younger, single, had higher education, and had a full-time job were significantly associated with a higher level of knowledge and adherence to antipsychotic medications.

Conclusions: Poor adherence to medications is associated with lack of knowledge about medications inferring the need for strategies and interventions to increase patients' knowledge and awareness about their medications. Psycho-educational interventions related to antipsychotic medications are priority to mental health nurses. There should be also emphasis on patients' awareness, insight, and attitudes toward their medications.

Keywords: Adherence, Antipsychotic Medications, Jordan, Knowledge, Schizophrenia

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Introduction

Schizophrenia is a long term and life devastating chronic mental illness. According to World Health Organization¹, the life-time global prevalence of schizophrenia is up to 0.07%. In Jordan, 305 individuals per 100,000 of the population are diagnosed with mental illnesses; 50% of them are diagnosed with schizophrenia.¹ High prevalence of schizophrenia and its significant negative

consequences on individuals' psychosocial and occupational health make it a priority to mental health professionals and policy-makers.

Previous reports found that individuals diagnosed with mental illnesses lack knowledge about their prescribed medications.² In particular, most discharged patients from psychiatric hospitals have no knowledge about their prescribed medications.³ Furthermore, patients with schizophrenia lack of knowledge about the disease process, and pharmacological

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treatments.⁴

Antipsychotic medications are considered the cornerstone in the pharmaceutical treatment of individuals diagnosed with schizophrenia, and its therapeutic efficacy in acute and long-term treatment plans have been proved.⁵ Their specific therapeutic effect begins at the first week of treatment; however, its efficacy is cumulative over the following weeks.⁶ Therefore, the effectiveness of antipsychotic medications requires that patients adhere to prescribed therapies. This process will not be effective unless patients had an adequate understanding of therapeutic effect of their medications, and nurses sustain medication adherence through frequent checking that patients have accurate and appropriate knowledge about their antipsychotic medications' effects and side effects.

Adherence to medications is defined as "the extent to which patients take medications as prescribed by their healthcare providers".⁷ Non-adherence can be divided into two overlapping categories: Unintentional type that occurs due to passive medication taking behaviors such as lack of appropriate self-management skills needed to take the medications correctly (e.g. forgetfulness), and intentional type that occurs due to patients' decision not to take their medications believing that the medications are not necessary.⁸ The American Psychiatric Association recommended to maintaining antipsychotic medications at least for 1-2 years for individuals diagnosed with schizophrenia after the first episode.⁹ It has been reported that non-adherence to antipsychotic medications among patients with schizophrenia is associated with a high incidence of re-hospitalization, relapses, and suicidal attempts.¹⁰ Furthermore, non-adherence has also been associated with burden among mental health nurses.¹⁰ Individuals diagnosed with schizophrenia are

considered at high risk for medication non-adherence. A number of factors have been reported to explain medication non-adherence, such as the stigma of mental health treatment, and negative attitudes toward treatment of mental illness.^{11,12} The rates of non-adherence to antipsychotic medications vary in the literature dependent upon methodology, measurement issues, demographic variations, and clinical variables.^{12,13} This proved that non-adherence influenced by the disease process, cultural issues, and treatment approaches.

The literature has also discussed the positive association between patients' knowledge about their medications and adherence behaviors.^{13,14} In addition, other studies found that positive treatment attitudes and having an adequate insight toward the need for medications increase the rate of adherence.¹⁵ Other study indicated that factors related to the disease process such as forgetfulness, being busy, and lack of necessary information about medications were also associated with medication adherence.¹⁵ However, reports are inconclusive about the effectiveness of psychoeducation interventions for individuals diagnosed with schizophrenia and their families on medication adherence. This infers that medication adherence is rather a cognitive and behavioral efforts and requires that both patients and mental health nurses and other mental health professionals be involved and accounted for implementation of treatment plans, including medication therapy.

Several studies have been conducted around the globe prove the significant association between the knowledge about medication and adherence; however, in Jordan studies are lacking. The only study investigated non-adherence found that two-thirds of the individuals diagnosed with mental illnesses were non adherent to their prescribed

medications.¹⁶ Taking into consideration that adherence behaviors are influenced by social, cultural, and socioeconomic background.¹⁷ Investigating such issues in a low-income country like Jordan with diverse culture and social backgrounds can broaden the vision and unveil important similarities and differences and sustaining the caregiver roles.¹⁸

Studies and information regarding medication adherence among Jordanian individuals diagnosed with schizophrenia are lacking. The current study investigated the relationship between the knowledge of and adherence to antipsychotic medications among individuals diagnosed with schizophrenia at national and regional levels. More specifically, this study has the following specific aims: (1) to identify the level of knowledge about antipsychotic medications among individuals diagnosed with schizophrenia; (2) to describe adherence levels to antipsychotic medications among individuals diagnosed with schizophrenia; and (3) to examine the relationship between knowledge of and adherence to antipsychotic medications in relation to selected demographic characteristics among individuals diagnosed with schizophrenia. According to the Ministry of Health, the average rate of readmission for patients with psychiatric illness is 2.5 times/year (MOH, 2014) while reasons of readmission are not indicated and need to be explored. Therefore, examining the association between knowledge of and adherence to antipsychotic medications may play a significant role in determining appropriate interventions that contribute to the decreasing rate of relapses (unexplained readmission) as well as re-hospitalizations. Lack of studies and information regarding adherence to antipsychotic medications among individuals diagnosed with schizophrenia in Jordan is a

critical point in sustaining the quality of mental health nursing care.¹⁹

Materials and Methods

Design: A cross-sectional, descriptive-correlational study was employed to examine the relationship between knowledge of and adherence to antipsychotic medications among individuals diagnosed with schizophrenia in Jordan.

Measures: Data were collected using a questionnaire that consists of three parts: Understanding of Medication Questionnaire²⁰, Morisky Medication Adherence Scale²¹, and participants' demographic characteristics sheet.

1. Understanding of Medication Questionnaire (UMQ) was used to assess individuals' knowledge about their antipsychotic medications.²⁰ The data was collected using the translated Arabic version of UMQ. This tool was translated into the Arabic Language following the World Health Organization guidelines for translation. UMQ consists of 8 subscales related to the following areas: factual information, information about treatment practice, treatment rationale, effect of stopping medication, side effects, and knowledge of precautions required when taking antipsychotic medication, knowledge and management of tardive dyskinesia, and risk/benefit evaluation. All questions (except 5 and 6) scored as follows: 0=no understanding, 1=partial understanding, 2=full understanding. Question 5 scored as follow: 0=no knowledge, 1=aware of side effects but unable to describe; 2=knows one side-effect; 3=know two or more side effects; and, 4=knows three or more side effects, good account. Question 6 scored as follow: 0= no knowledge, 1=aware of 'problems' unable to describe; 2=aware of one specific precaution, minimal details; 3=good account of two or more precautions. For the

purpose of this study to determine the frequency of "no understanding", "partial understanding", and "full understanding" ; question (5) scored as follows: those who had no knowledge about side effects considered as "0=no understanding", those who aware of side effects, but unable to describe, or know one side effect considered as "1=partial understanding", and those who know two, three, or more side effects considered as "2=full understanding". In regard to question (6); participants those who had no knowledge about precautions considered as "0= no understanding", those aware of 'problems' unable to describe or aware of one specific precaution, minimal details considered as "1=partial understanding", and those who aware of two or more precautions considered as "2=full understanding".

The total score of knowledge scale was ranging from (0 to 35). Knowledge scoring of (0) indicates no understanding and (35) indicates full understanding, with higher scores indicating greater understanding. UMQ has a Cronbach alpha of 0.7.²⁰ Previous research with a schizophrenic population has yielded significant findings using this measure with good reliability and validity.²⁰ In this study, the scale has good reliability with Cronbach's alpha of 0.82.

2. Morisky Medication Adherence Scale (MMAS-8) was used to assess medication adherence.²¹ This scale contains eight questions that recognize intentional and unintentional nonadherence. For example, "Do you sometimes forget to take your medication?" (unintentional), "In the past two weeks, were there any days you did not take your medication for any reason other than forgetting?" (intentional). Yes, responses scored as "1", while "no" responses scored as "0". Total scores on MMAS-8 score range from 0 to 8 and are categorized into three levels of adherence; "8"

reflecting high adherence," 7 "or "6" reflecting medium adherence, and less than "6" reflecting low adherence.²¹ The (MMAS-8) proved to be reliable (Cronbach alpha of 0.83) with adequate predictive and concurrent validity among hypertensive patients.²¹ This scale is simple and practical to use in different mental healthcare settings with good psychometric properties.²² The translated Arabic scale was used in this study and demonstrated good validity and reliability in a variety of medication adherence studies.^{23,24} In this study, the scale has good reliability with Cronbach's alpha of 0.80.

3. Demographic characteristics of the participants were assessed using a separate sheet from an investigator-developed subject profile included: gender, age, marital status, income level, duration of diagnosis, education level, and work status.

Sampling and Data Collection

A convenience sample of 365 patients diagnosed with schizophrenia referring to outpatients' psychiatric units represented the sample of the study. Five hundred individuals diagnosed with schizophrenia were approached, 50 participants refused to participate, and 85 participants were excluded because of their low Mini-Mental Status Examination scores (less than 24). Participants were recruited from the National Center for Mental Health outpatient departments that represents the main governmental mental healthcare sector in Jordan. All patients with schizophrenia who visited the outpatient departments during the period of data collection were invited to participate in the study. Patients who met the inclusion criteria were asked to complete an interview with the researcher. Those who were not eligible were informed that they cannot continue with the interview because they did not meet the required inclusion criteria

of the study. The Inclusion criteria for the participants were: 1) at the age of 18 years or above, 2) diagnosed with schizophrenia according to the medical records, 3) capable to give informed consent (assessment of a participant's capacity to make rational decisions and cognitive functioning evaluation was assessed using Mini Mental State Examination (MMSE), participants who scored 24 or above were included in the study), and 4) receiving at least one prescribed antipsychotic medication (medical chart of each participant was reviewed). Data were collected from participants by the primary researcher in a private room in the outpatient departments using a structured format of interview. The interview average time was 20 minutes.

Ethical Consideration:

The Research Ethics Committee of the Ministry of Health approved the study (MB 1409). Competent participants who agreed to participate in the study signed an informed consent with the presence of witnesses from healthcare providers, or a member from their families after receiving a comprehensive explanation about the nature and purpose of the study, the data collection method, and the anticipated time required for participation. Also, patients were informed that information will be used for the purpose of the study, and that their participation is voluntary, and they have the right to withdraw at any time during the study and that their decision will not influence the quality of care they receive. Anonymity of the respondents ensured during and after study completion; and data secured and saved to provide anonymity. The whole package presented in Arabic language.

Statistical analysis:

The Statistical Package for the Social Sciences (IBM, SPSS 21) was used to analyze the data. Descriptive statistics were used; categorical variable analyzed for frequencies and percentages, while continuous variables described using the central tendency measures, dispersion measures, and inter percentile measures. Pearson moment product correlation Coefficient (Pearson r) was used to test the correlation between knowledge and adherence to antipsychotic medications. The t-test for two independent samples and one-way ANOVA and Post-hoc analysis (Tukey test) was used to test differences in adherence and knowledge scores related to certain demographic and personal characteristics. The assumptions of homogeneity of variance were met. Significance level was set at $p < 0.05$.

Results

Descriptive Characteristics:

In total, 365 participants consented to participate (response rate was 73%), of whom 198 (54.2%) were males. Age of the participants ranged from 21 to 67 years (mean=42.9, SD=9.3). Regarding participants' marital status, two-thirds of them ($n=243$, 66.6%) were married, one-third ($n=137$, 37.5%) had secondary school education. Furthermore, 190 (52%) of the participants were worked in full-time or in a part-time job. Participants' duration of diagnosis ranged from 2 to 35 years (mean=12.4, SD=5.6). In terms of monthly income, 155 (42.5%) of the participants reported that their monthly income between (367-less than 400 JD, Jordanian Dinars=\$1.4). The mean duration of the patients' diagnosis is 12.4 (SD=5.6) years. Others socio-demographic characteristics of the sample are shown in table-1.

Table 1. Demographic characteristics of the sample (N=365)

Variable	N	%
Gender		
Male	198	54.2
Female	167	45.8
Marital Status		
Single	66	18.1
Married	243	66.6
Divorced	28	7.7
Widowed	28	7.7
Level of Education		
Illiterate	61	16.7
Primary	97	26.6
Secondary	137	37.5
Under graduate	70	19.2
Working Status		
Unemployed	109	29.9
Full time job	130	35.6
Part-time job	60	16.4
Retired	66	18.1
Monthly Income		
less than 366 JD*	121	33.2
367-less than 400JD	155	42.5
400-less than 500JD	83	22.7
500-less than 750JD	6	1.6

* JD = Jordanian Dinar

Knowledge about antipsychotic medications:

The participants' knowledge about antipsychotic medication scores ranged from 0 to 34 (Mean=15.7, SD=7.7). None of the participants was able to answer correctly all the questions related to their medication knowledge. Most participants 342 (93.7%)

were either partially or fully aware of their medications name, 324 (88.8%) of participants were either partially or fully aware of their medication dose. On the other hand, lack of knowledge was observed in questions related to the understanding of tardive dyskinesia, as shown in Table-2.

Table 2. Descriptive statistics of Understanding of Medication Questionnaire (N=365)

No	Item	No		Partial		Full	
		Understanding		Understanding		Understanding	
		n	%	n	%	N	%
1.	What is the name of your medication	23	6.3	134	36.7	208	57.0
	What is the dose of your medication	41	11.2	151	41.4	173	47.4
	How long does antipsychotic treatment usually need to continue?	83	22.7	136	37.3	146	40
2.	How frequently do patients taking antipsychotics need to be reviewed by their doctors?	87	23.8	137	37.5	141	38.6
3.	How does medication help patients						
a.	General problem area:(feel better/helps sleep/nerves)	83	22.7	218	59.7	64	17.5
b.	Symptom relief: (hallucinations, delusions)	106	29.0	212	58.1	47	12.9
c.	Diagnostic: what condition does it treat?	104	28.5	218	59.7	43	11.8
4.	Do you know the effects of stopping to take antipsychotic medication	108	29.6	220	60.3	37	10.1
5.	Do you know of any side effects of antipsychotic medication?	56	15.3	253	69.3	56	15.3
6.	Do you know of any special precautions patients are supposed to follow when taking this medication?	65	17.8	282	77.3	18	4.9
7.	Understanding of tardive dyskinesia						
a.	Can you describe tardive dyskinesia?	115	31.5	215	58.9	35	9.6
b.	When does tardive dyskinesia occur?	107	29.3	220	60.3	38	10.4
c.	What problems does tardive dyskinesia cause to patient with it?	132	36.2	197	54	36	9.9
d.	How is tardive dyskinesia treated?	128	35.1	206	56.4	31	8.5
e.	How can tardive dyskinesia be prevented?	131	35.9	203	55.6	31	8.5
8.	Do you understand why antipsychotic medication is used despite the risk of side effects?	127	34.8	204	55.9	34	9.3

Adherence to antipsychotic medications:

Most participants 316 (86.6%) reported low level of adherence to their antipsychotic medications (scores of less than 6), 49 (13.4%) reported moderate level of adherence to

antipsychotic medications (scores of 6 or 7), and no one reported high level of adherence to antipsychotic medications (score of 8). Two-thirds of the participants (n=245, 67.1%) sometimes forgot to take their antipsychotic

medications. Also, 206 (56.4%) participants reported that they forgot to bring their medication when they travel or leave home. In addition, 228 (62.5%) of the participants reported that they

sometimes had difficulty in remembering to take all their medications. Others analysis of the (MMAS -8) including means and standard deviations for each question are shown in Table 3.

Table 3.
Descriptive statistics of the Morisky Medication Adherence Scale (MMAS-8) (N=365)

Item	M	SD	Yes response	
			n	%
1 Do you sometimes forget to take your medication? (Unintentional)	0.33	0.47	245	67.1
2 People sometimes miss taking their medications for reasons other than forgetting. Over the past 2 weeks, were there any days when you did not take your medication? (Intentional)	0.42	0.49	211	57.8
3 Have you ever cut back to stopped taking your medication without telling your doctor because you felt worse when you took it? (Intentional)	0.55	0.5	164	44.9
4 When you travel or leave home, do you sometimes forget to bring your medication? (Unintentional)	0.44	0.5	206	56.4
5 Did you take all your medication yesterday? (Unintentional)	0.60	0.5	219	60.0
6 When you feel like your symptoms are under control, do you sometimes stop taking your medication? (Intentional)	0.58	0.5	190	52.1
7 Taking medication every day is a real inconvenience for some people. Do you feel hassled about sticking to your treatment plan? (Intentional)	0.54	0.5	169	46.3
8 How often do you have difficulty remembering to take all your medication? (Unintentional)				
Never	--	--	12	3.3
Rarely	--	--	56	15.3
Sometimes	--	--	228	62.5
Usually	--	--	63	17.3
Always	--	--	6	1.6

The relationship between knowledge of and adherence to antipsychotic medications

A significant medium positive relationship was found between the total medication knowledge score and medication adherence score ($r=0.37$, $p<0.001$). Age, gender,

educational level, income level, and marital status were evaluated with respect to knowledge and adherence scores. There was no significant difference between males and females in knowledge scores ($t=0.32$, $p=0.75$) and adherence scores ($t=-1.08$, $p=0.28$). Results

of post-hoc (Tukey test) indicated that single, younger participants, higher education (undergraduate degree), and those with full-time job were found to have higher knowledge and adherence scores than other groups. Also,

participants with higher income levels were found to have higher knowledge scores. No significant association found between medication adherence and participants' monthly income (See Table 4).

Table 4.
Differences in knowledge and adherence regarding demographic characteristics (N=365).

Variable	Knowledge scores				Adherence scores			
	M	SD	F	<i>p</i>	M	SD	F	<i>p</i>
Marital status			14.9	<0.001			8.85	<0.001
Single	16.9*	8.16			4.44*	1.50		
Married	16.3	6.99			3.75	1.60		
Divorced	16.4	7.91			4.41	1.84		
Widowed	6.89	6.78			2.74	1.66		
Level of Education			119	<0.001			13.1	<0.001
Illiterate	7.21	6.25			3.10	1.83		
Primary	11.7	6.47			3.56	1.58		
Secondary	18.6	4.47			3.93	1.50		
Undergraduate	22.9*	5.00			4.74*	1.50		
Working Status			28.9	<0.001			8.50	<0.001
Unemployed	12.9	7.92			3.60	1.73		
Full time job	20.2*	5.60			4.28*	1.47		
Part-time job	12.9	6.23			4.11	1.75		
Retired	13.9	8.02			3.18	1.53		
Monthly Income			18.3	<0.001			1.45	0.230
Less than 366 JD	12.0	7.66			3.69	1.86		
367- 400JD	16.8	7.27			3.80	1.59		
401- 500JD	19.1	6.11			4.17	1.43		
501-750JD	13.3*	8.59			3.96	1.68		

* Indicated where the differences come from in post-hoc (Tukey test).

Discussion

Knowledge of antipsychotic medications

The findings of this study indicated that individuals diagnosed with schizophrenia were moderately knowledgeable about their medications. They lack knowledge about side effects, especially in aspects related to tardive dyskinesia; one explanation is that mental health facilities in Jordan do not integrate psycho-education interventions or programs in their treatment plans and protocols.⁴

Jordanian literature lacks studies that address issues related to patients' knowledge of antipsychotic medications. Few recent studies addressed medication adherence among patients with chronic illnesses. Comparing rates of adherence, regardless the type of disease, the result of this study was consistent with a national study which reported that 86% of patients diagnosed with chronic illnesses did not know the side-effects of their medications.¹⁴ However, the findings of this study do not agree

with previous international ones. For example, Cardoso and his colleagues³ reported that 25% of patients discharged from psychiatric departments did not know the name of their medications, while in this study less than 10% not knowing their medications.

Adherence to antipsychotic medications

Findings of this study indicated that most Jordanian individuals diagnosed with schizophrenia (87%) had a low level of adherence to their antipsychotic medications. Their nonadherence behaviors were characterized as mixed of intentional and unintentional, with unintentional outweigh the intentional behaviors. One possible explanation could be related to the lack of involvement of patients and caregivers in psychological or psychoeducation interventions in which they probably can learn and increase their awareness about medications⁴.

At the Jordanian context, the high rate of a low level of adherence reported in this study has been emphasized previously by Awwad¹⁴ who utilized information from Ministry of Health System, using the same assessment measures of adherence (Morisky Medication Adherence Scale). Their findings indicated that 73.4% of Jordanian patients diagnosed with chronic illnesses reported a low level of adherence to their chronic medications. Among the studies conducted in the Arab region and neighboring countries, only two studies addressed this issue; measuring adherence to psychiatric medications using (MMAS-8). The first study indicated that 74% of individuals diagnosed with schizophrenia had a low or moderate level of adherence.²⁵ While the other study²⁴ reported that 33.6% of patients diagnosed with schizophrenia had a low or moderate level of adherence. The figures in this study and the neighboring countries vary, indicating the impact of the health care system and mental health services' capacities, given that these countries

share culture and socioeconomic backgrounds.

Relationship between knowledge of and adherence to antipsychotic medications

The results of this study provided evidence that there was a significant medium positive relationship between participants' knowledge and adherence to their antipsychotic medications. It is expected that patients who possess good knowledge and understanding about their prescribed pharmacological treatment in terms of their name, dose, importance of maintenance treatment, use and time of medication, precautions, and their side-effects, to demonstrate better medication adherence behaviors despite of the undesirable side-effects believing that benefits outweigh the unfavorable side-effects.

Few Jordanian studies addressed patients' knowledge as a predictor of medication adherence behaviors among patients diagnosed with chronic illnesses. These studies had an agreement that medication adherence and knowledge about medication is significantly associated.^{14, 26-28} No previous Jordanian studies addressed such an issue among individuals diagnosed with mental illnesses. Along, a recent international study examined the adherence level among outpatients diagnosed with mental illnesses and its association with knowledge about medication. Results showed that there was a significant positive relationship between the two variables.³ In regard to demographic characteristics and its association with medication adherence, similar to current study findings, the study of Mamo¹⁵ which indicated that there was no significant association between adherence to antipsychotic medications and participants' gender.

In addition, the results of this study showed that older patients are less adherent to their antipsychotic medications than younger. The results agree with the previous report that older patients have higher rates of non-adherence than

younger patients.²⁹ One explanation is related to the age of participants in this study in which more than 50% of them were 50 years or above, and to the chronicity of disease in which 50% of the patients were diagnosed for more than 20 years.

Although Jordan is considered among low-income countries, the study results indicated that medication adherence behaviors were not related to economic reasons. Educated patients, especially those who had an undergraduate degree and employed, were found to be more adherent to their medications supporting findings of other previous studies.³⁰ One explanation of this result is that educated patients are expected to have a better understanding of their illnesses and their medications that can attribute to better medication adherence behaviors.

What this study adds to the international evidence

The current study findings are significant to mental health nurses, globally and locally. In particular, and among the Jordanian people, societal perspective, stigma, and demographic factors play a significant role in medication adherence. Jordanian people, in general, do stigmatize mental illnesses and patients with mental illness.³¹ On the other hand, mental health nurses also have negative attitudes toward mental illnesses and patients with mental illnesses³². The general public negative attitudes and stigma against mental illnesses and patient with mental illnesses would interfere with the sustainability of mental health services post-discharge and at the outpatient settings. In other word, patients, caregivers, and mental health professionals may be apt to limit their interventions in medications administration neglecting the appropriate information giving about side effects of these medications. In addition, lack of follow up care, shortage of mental health workforce and limited mental health facilities are also contributed to lack

of adherence as patients and caregivers lack appropriate support and consultation to explain and overcome unpleasant experience related to side effects of antipsychotic medications.

In regard to international studies, most studies reported higher rates of medications adherence than rates in this study. For example, Eticha²⁹ assessed adherence among individuals with schizophrenia using a modified version of Medication Adherence Rating Scale (MARS), results revealed that only 26.5% of individuals diagnosed with schizophrenia were non adherent to their antipsychotic treatment. In addition, Odo³³ indicated that 55.5% of individuals diagnosed with schizophrenia had low adherence level to their antipsychotic medications. Odo's finding could be explained by the cut-off point to distinguish low adherence level (e.g. less than or equal of 4) measured by (MMAS-8), while in the current study the cut-off point was six.

Conclusions

Knowledge about antipsychotic medications among individuals diagnosed with schizophrenia in Jordan was found to be significantly associated with adherence to antipsychotic medications. As indicated in this study, individuals diagnosed with schizophrenia lack knowledge about their medications, therefore, early and ongoing education in primary mental healthcare settings may improve their awareness about their disease as well as their medications. Based on that, knowledge about antipsychotic medications, patients' insight for treatment, and attitudes towards treatment should be assessed for patients diagnosed with schizophrenia. Unintentional nonadherence behaviors appear to be predominated; as a result, educate patients about the need for the creation of routine strategies for taking their medications in their daily life is a priority.

Limitations

Although the study sample was heterogeneous (capture a wide range of perspectives related to key variables of the study) and recruited from the largest governmental mental health agency in Jordan, there were few limitations. First, data were collected only from patients. However, supportive sources of data related to medication adherence among individuals diagnosed with schizophrenia could be a caregiver or family who is sharing the responsibility of medication adherence behaviors. Second, no objective measures were included in this study for measuring adherence behaviors, only subjective

measures were used. Third, this study measured only two major variables (knowledge of and adherence) in addition to demographics. There are many other important confounding variables that might strongly influence adherence level such as patients' symptoms, medications' side-effects, beliefs and attitudes about treatment, type of prescribed antipsychotics (typical or atypical, and long or short-acting). Finally, including the lived experiences in a qualitative method would have explained further on why they were non-adherent and what interventions could have help in increasing the adherence behaviors. Future studies should address those variables.

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المعرفة عن الأدوية المضادة للذهان والتقييد بأخذ الدواء لدى المرضى المصابين بالفصام في الأردن

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الملخص

المقدمة: المعرفة الجيدة وفهم العلاجات يساهم في سلوكيات جيدة لأخذ الأدوية المضادة للذهان بالرغم من وجود بعض الآثار الجانبية المزعجة المتعلقة بهذه الأدوية. عدم التقييد بأخذ الأدوية المضادة للذهان لدى المرضى المصابين بالفصام تعتبر من أهم القضايا التي يمكن أن تسبب زيادة نسبة الانتكاسات وبالتالي دخول المستشفى.

أهداف البحث: الغرض من هذه الدراسة هو دراسة العلاقة بين المعرفة عن الأدوية المضادة للذهان والتقييد بأخذ الدواء لدى المرضى المصابين بالفصام بالأردن.

منهجية الدراسة: هذه الدراسة استخدمت منهجية البحث الارتباطي من خلال أخذ عينة تشمل 365 مريضاً مصاباً بالفصام من العيادات التابعة للمركز الوطني للصحة النفسية. كما تم استخدام المقاييس التالية لجمع البيانات: مقياس المعرفة عن العلاجات، ومقياس موريسكي للإلتزام الدوائي. كما أنه تم جمع البيانات النوعية وتحليلها عن طريق المقابلات.

نتائج الدراسة: أظهرت النتائج وجود علاقة إيجابية ذات دلالة إحصائية بين المعرفة عن الأدوية المضادة للذهان والتقييد بأخذ الدواء لدى المرضى المصابين بالفصام في الأردن. كما أوضحت النتائج أن غالبية المشاركين بهذه الدراسة لم يلتزموا بأخذ الدواء. كما وجد أن المشاركين الأصغر عمراً، والمتزوجين، والأعلى تعليماً، والذين يعملون بدوام كامل، يلتزمون بأخذ الدواء أكثر من غيرهم.

التوصيات: لخصت الدراسة أن عدم المعرفة الجيدة عن العلاجات من أكثر الأسباب التي كانت سبباً لعدم أخذ الأدوية المضادة للذهان عن قصد أو بدون قصد لدى المرضى المصابين بالفصام بالأردن. لذلك نوصي الكوادر الطبية وصناع القرارات بإجراء استراتيجيات جديدة لزيادة الوعي عند المرضى عن المرض النفسي وكذلك عن العلاجات عن طريق التثقيف الصحي.

الكلمات الدالة: الأدوية المضادة للذهان، الفصام، الإلتزام الدوائي، المعرفة.