Prevalence of Non-Adherence within Psychiatric Patients in Prince Zaid Hospital at RMS in Jordan, A Cross Sectional Study

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Abstract—

Background: It has been predictable that up to 60% of any patient population is at least partially non-adherent to their prescribed treatment. Identifying barriers to commitment is essential to build up cooperative interventions for psychiatric patients. **Objective**: To discover the prevalence and reasons of non-adherence among psychiatric patients present at psychiatric clinics. **Method**: A cross-sectional questionnaire-based study. A sample of 100 psychiatric patients attended outpatient psychiatric clinic enrolled between March and May 2016. **Results** A total of 79 psychiatric patients took part in this study with the majority of patients (61.3%) being prescribed more than one psychiatric disorder. The majority (51.89%) of the patients was classified as non-adherent according to the Morisky adherence questionnaire and forgetfulness was the most prevalent reason for that. **Conclusions**: Non-adherence is a common and important issue among psychiatric patients. Forgetfulness to take medication and carelessness were reported as the main reasons of medication non-adherence.

Keywords— Medication non-adherence, Psychiatric disorders, Psychiatric patient.

I. INTRODUCTION

Adherence (level to which a person's behavior corresponds with therapeutic or health advice offered by a health care provider) [1,2] to therapy is budding as a main public health challenge worldwide—both for infectious (tuberculosis, HIV/AIDS) and non-infectious (depression, diabetes) diseases.

It negatively affects treatment effectiveness therefore resulting in poor medical outcomes. Non-adherence in some cases could result in serious complications necessitating the patient to be hospitalized. This not only includes considerable physical strain and mental suffering to the patient and the family but results in economic load as well. It also includes pressure on the health system. Furthermore, research indicates medication non-adherence may have a damaging effect on the person's health associated quality of life [3].

A study conducted in India showed that the most familiar reasons for poor medication adherence were economic problems (41%), long distance to facilities (35%), improvement in symptoms (28%) and further causes like side-effect, lack of caregiver, lack of approaching about the illness, and environment of job [4]. an additional study conducted at a Hospital in Pakistan discovered that the prevalence of non-adherence was around (39%) and the main reasons for non-adherence included sedation (30%), medication cost (22%), failure to remember to take medication (36%), failure of the physicians to explain timing and dose (92%) or advantage of medication (76%). Females were more adherent to medication than males were in the Pakistan study [5]. A Nigerian study examined psychiatric unit three months post-discharge treatment and reported that 50.6% patients were adherent with activities while 57.4% were non-adherent to medication. Adherers to activities were significantly less expected to have a substance misuse disorder and their families were more involved in treatment. In addition, adherers to medication were significantly less likely to have a matter abuse disorder [6].

Gaining facts about factors associated to medication non-adherence helps physicians, nurses, and health care providers proposing programs for better care, suitable and sustainable treatment, as well as reduced recurrence of disease and need for hospitalization [7]. A study conducted in Jordan has meant to assess factors involving non-adherence to prescribed treatment among those diagnosed with psychiatric diseases and concluded that non-adherence is a common among psychiatric patients [8]. Furthermore, this study assessed factors associated with non-adherence and proposed others to find resources that could help in implementing the non-adherence intervention program.

II. METHODS

Study Subjects

Patients' interviews were conducted in psychiatric clinic in prince zaid hospital. The study took place over a period of 12 weeks (between March and May 2016). People included in this study were adult psychiatric follow-up patients whose age was >18 years and who have visited the psychiatry clinic for more than 6 visits before and on prescribed medications.

The researchers explained the nature and purpose of the survey, and obtained consent and/or assent from those who were willing to participate or their legal guardian.

A total of 100 patients were approached to be included in the study.

Instruments

Data were gathered using a pre-tested questionnaire. The questionnaire consisted of 28 questions and included four parts that assess patient demographic variables, disease characteristics and medication use in the study population. The questionnaire was administered using a structured face to face

interview technique in which the respondents were asked questions by a trained clinical pharmacist researcher.

Medication adherence was measured using, 4-item Morisky scale, a commonly used. The Morisky scale calculates patients' forgetfulness regarding taking medications, carelessness about taking medications, stopping medication once feeling better, and stopping medication once feeling worse. Questions were answered as ''yes'' and ''no'' and scored one point for ''yes'' and zero point for ''no'' responses. Scores were collected and summed to provide total scores, ranging from 0 to 4. Adherent patients have to score one or below and non-adherence is should have a score of two or greater. The analysis was completed using SPSS version 20 software.

III. RESULTS

The demographic characteristics of the study's participants are shown in Table 1. Of 100 patients approached and 79 (79%) agreed to take part in the study; 33 male (41.7%) and 46 female (58.3%). The most common reported psychiatric disorder was depression (37.97%). Of the 79 participants, 51.89% (n =41) were classified as non-adherent according to the Morisky scale. Among the non-adherent group, the most common reported reason for being non-adherent was forgetfulness (48%), followed by carelessness (41.1%), stopping to take the medications when feeling worse (31.8%) and stopping to take the medication when feeling better (28.1%).

TABLE 1. Characteristics of the study population

Characteristics	Frequency	Valid percent
Gender		
Male	33	41.7
Female	46	58.3
Age (years)		
<20	11	13.9
21-60	60	75.9
<60	8	10.1
Marital status		
Married	47	59.5
Single/divorced/widowed	32	40.5
Educational level		
Low (less that university)	45	56.9
High (university degree)	34	43.1
Current employment status		
Employed	27	34.1
Unemployed	52	65.9
Living arrangement		
Living alone independently	4	5
Living with others	75	95
Diagnosis		
Schizophrenia	21	26.5
Depression	30	37.9
Anxiety disorder	24	31.6
Personality disorder	4	5

Table 2 shows that out of the total 100 patients initially considered for the study 21 were refused to participate. The final study sample was 79(100%) of which 38 (48.1%) were compliant and 41(51.89%) were non-compliant to the medication.

TABLE 2. The study sample

Cause	Number	Percentage
Total Patients Initially Considered	100	
Patients refused	21	(21.0%)
Final Study Sample	79	(79.0%)
Compliant	38	(48.1%)
Non-Compliant	41	(51.89%)

Table 3 shows the relationship between non-compliance and socio-demographic variables. It was found that poor compliance is seen in age group between 21-60 years (75.9%), females (56.52%), unmarried (59.3%), low educational qualification (57.7%) and unemployed population (65.3%).

TABLE 3. Sociodemographic variables in relation to noncompliance

Variable	Compliant	Non-compliant	Total	P value
Gender				
Male	22	11	33	0.861 N
Female	20	26	46	
Age(years)				
<20	6	5	11	0.0410 S
21-60	12	44	60	
<60	5	3	8	
Marital status				
Married	29	18	47	0.199 N
Un-married	13	19	32	
Educational level				
Low	19	26	45	0.0476 S
High	22	12	34	
employment status				
Employed	17	10	27	0.0161 S
Unemployed	18	34	52	
Living arrangement				
Living alone	3	1	4	0.5364 N
Living with others	43	32	75	

Diagnosis wise consideration as seen in Table 4 reveals that the rate of non-compliance was highest among patients with depression (40%) followed by schizoaffective (32%), Anxiety disorder (25%), Personality disorder (4%).

TABLE 4. Non-compliance in relation to diagnostic distribution

Variable	Compliant (n=29)	Non-compliant (n=50)	Total	P value
Schizophrenia	10	16	26	
Depression	10	20	30	
Anxiety disorder	5	14	19	
Personality disorder	2	2	4	
total	29	50		0.5489

Table 5 illustrates various reasons for poor adherence to medication in non-compliant patients. More than one cause was found to be responsible for the poor compliance. The most common reason found was forgetfulness to take medication (n=38) followed by carelessness (n=32), stopping to take the medications when feeling worse (n=24), stopping to take the medication when feeling better (n=22).

TABLE 5. Causes of discontinuation of medication in study sample (N=79)

Cause	Number	Percentage
forgetfulness	38	48.1
carelessness	32	40.5
stopping to take the medications when feeling worse	24	30.3
stopping to take the medication when feeling better	22	27.8

IV. DISCUSSION

Existing literature provides a non-compliance rate of 12-60% [9, 10] in our study non-compliance rate was 51.89%. Poor compliance was found more in the age group of (21-60 years). The association between age and non-compliance was statistically significant (p=0.04).This may be because people with age between 21-60 years with psychiatric morbidity are dependent and the neglected population in our society. In contrast, earlier studies by Klinkenberg et al., [11] Carpenter et al., [12] and Nose et al., [13] have observed a relatively higher non-adherence in young population. Compliance in females (43.47%) was found to be less than males (66.66%).This difference was statistically non-significant in this study. This was concurrent with the previous findings. [14] This might be because males receive more family and social support than females, which makes them more compliant to medication. In the study it was found that compliance was better in married population (61.76%) than unmarried population (40.60%).Though this difference was not statistically significant, our finding was similar to the previous studies that, marital status was significantly related with the compliance and married patients are more likely to be compliant. [15] This may be due to the necessary care provided by the spouse in the married population.

Non-compliance in people with low educational qualification was high. The difference was statistically significant (p=0.047). This was similar to the early observation of Nose et al., [13] who found that education was positively associated with the compliance.

Well compliance in the employed people can be because higher education obviously promotes insight to the illness and a better appreciation for the need of the treatment. This difference was statistically significant (p=0.016). This was similar to the finding of Nose et al. [21] who in a collecting analysis of 86 studies involving 23,796 patients of psychoses had originated a positive relationship between unemployment and non-adherence, which indicates a financially poor reasonable capacity in this population.

The prevalence of non-adherence among patients living alone and those living with their family was almost different but not significant. A study conducted in Pakistan showed a similar result from an outcome in where patients taking their medication on their own were further less adherent than patients who were taking their medication by the family follow-up. This may due to that the family still a main source for the support and care of psychiatric patients in most countries [16]. Furthermore, Medication non-adherence were significantly related with poor family cares. A study conducted in Nigeria also showed that poor family care was significantly related with poor adherence rate (17).

The most common psychiatric diagnosis in non-compliant patients was depression (37.9%) and non-compliance was least in personality disorder (5%).

On the whole, the present study revealed noncompliance rate of (51.89%), being positively associated with age group more between 21-60 years, female gender, low educational level. low income status. This finding of our study was also in agreement with the observations of previous studies by Cruz et al., [18] Kar et al., [19] and Gilmer et al.[20] The patients with depression had a relatively higher rate of noncompliance. Lack of knowledge and financial incapacity were stated to be other important factors hindering compliance.

V. CONCLUSIONS

Non-adherence is a common and important issue among psychiatric patients. Forgetfulness to take medication and carelessness were reported as the main reasons of medication non-adherence. Patients with low community support, patients on complex drug regimen were more expected to be non-adherent for prescribed medications. Creating medication regimen as simple as possible by physician may decrease the non-adherence rate for psychiatric medications. Further studies required on the reasons of forgetting and carelessness by patients.

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