Treatment Non-Compliance of Psychiatric Patients and Associated Factors: Are Patients Satisfied from Their Psychiatrist?

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Original Research Article

ABSTRACT

Aims: The aim of the study was to determine the extent of compliance and non-compliance with treatment of psychiatric patients and examine the factors affecting compliance and non-compliance with treatment.
Study Design: Hospital based prospective descriptive study.
Place and Duration of Study: The study was carried out from September 2010 to May 2011 in Qatari population aged above 16 years at the Psychiatry Department of the Hamad Medical Corporation, Qatar.
Methodology: The study included 628 patients aged 16-77 years who were hospitalized with psychiatric disorders and treated in the outpatient clinics of the Psychiatry department. The diagnostic classification of definite psychotic disorders was according to

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the International Classification of Disease, Tenth revision (ICD-10).

Results: Of the 628 patients studied, 62.4% of them were compliant with treatment and 37.6% were non-compliant. High compliance was significantly more in patients in the age group (16 - 20) years old (84.4%), retired (70.2%) and housewives (70%) (P<0.001). Social support (40.3%) was poor in non-compliant patients, whereas 50.3% of compliant patients had good social support (P<0.001). The major reasons for non-compliance were irregular attendance to clinic (55.5%; P<0.001), ignorance about side effects of medication (61.0%; P=0.001), and lack of education about medication (47.9%; P<0.001).

Conclusion: Non-compliance is quite common in Qatari population like any other society. All efforts should be exerted to improve the compliance of psychiatric patients by eliminating the factors leading to non-compliance. High complaint patients were more satisfied with psychiatrist than non compliant patients. The main reasons found for compliance were lack of family support, irregular attendance to clinic, ignorance about side effects of medication, free medicine and lack of education about medication.

1. INTRODUCTION

Treatment of non-compliant psychiatric patient is one of the main obstacles in controlling treatment and many studies reported that treatment compliance in patients with psychiatric medical conditions is a multi-factorial issue that includes parameters such as the type of problem presented by the patient, the family's functioning and the therapeutic team's organization and functioning [1-4]. Non-compliance significantly increases the rate of relapse as well as the rate of re-hospitalization and length of readmission. Determining the magnitude of each factor that influence the compliance is not very straight forward and easy job. Compliers and non-compliers differed in their expectancy and experience of beneficial effects of the medication, in their fear of undesirable side-effects and the problem of addiction.

Compliance with appropriate and prescribed mental health treatments means that a person is following a doctor's orders. Many factors can affect compliance with treatment [4-6]. They can be related to patients' themselves, type of illness, chronicity, medication, or the approach of physician. Stigma and patients' attitude towards mental illness and treatment affect compliance strongly and secondly the relapse rate and the cost of mental illness. Attribution of mental illness to sorcery or to possession by Jinn and seeking help from traditional healers by certain relatives, poor social support and lack of support to attend Out patient clinic can affect compliance. Also the type of illness can be related to compliance because patients lacking insight will not accept to take medication or to have a follow up in OPC [7-11]. Having an illness for years and years will also affect compliance [9-10}. Compliance with medication can be checked in different ways such as blood level, pill counting, file records and attendance to OPC and patients' report [1-3].

Poor medication adherence in subjects with psychosis has a high prevalence and a negative impact on clinical outcome. Several studies have reported [1-10] that a poor level of insight was a strong predictor of poor medication adherence. However, few studies have investigated whether insight was associated with medication adherence, independently from other clinical and treatment characteristics. The objective of this study was to assess compliance and non-compliance rates with treatment among psychiatric patients and examine the factors affecting compliance and non-compliance with psychiatric treatment.

2. METHODOLOGY

The study was approved by the International Review Board (IRB) Medical Research Committee, at the Hamad Medical Corporation. All human studies have been approved by the Research Ethics Committee and have been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki. The study was carried out from September 2010 to May 2011 among Qatari and other Arab nationals above 16 years of age at the Psychiatry Department of the Rumeilah Hospital, Hamad Medical Corporation, Qatar. Patients were recruited from the psychiatry outpatient clinics in six months duration. Two doctors were available according to their work schedule and explained the aim of the study to them, 752 patients were approached for interview and then an informed consent was obtained from 628 patients with a response rate of 83.5%.

The Research Assistants collected the data prospectively from the patients who visited their outpatient clinics for follow up during the study period. The data were collected through a validated questionnaire with the help of qualified nurses. All recorded diagnoses of psychiatric disorders and socio-demographic features were collected for each patient through this questionnaire. The diagnosis of the psychiatric patients was classified according to the International Classification of Diseases-10, WHO [12] and Diagnostic and Statistical Manual of Mental Disorders (4th edition) (DSM-IV)] code of mental illness, American Psychiatric Association [13]. The questionnaire included: the file number, socio-demographic data such as age, gender, nationality, level of education, occupation, marital status and number of children; the degree of social support which was rated subjectively by the patient as poor, good or very good. Attendance to the clinic was divided into regular or not regular according to the file. Illness factors such as type of illness, onset, and insight towards the illness and the need for treatment which were judged by the investigators. Furthermore, doctor related factors like communication skills, empathy, availability, and satisfaction with his-her competence, involvement of the patient in decision making, and psycho-education were collected from their doctors. Furthermore, we have collected the information on the current medication if they were taken regularly or not, the presence of side effects, cost (which can be for free, cheep or expensive) and improvement on medication. The improvement on medication was rated by the patient as poor, moderate or good. The regularity of receiving medication was assessed according to the patients' reports and to the records in their files. The sample was divided into two groups: compliant and non-compliant according to the patient's report and the information recorded in patient files. According to the definition of Razali and Yahya [14], patients who do not follow the treatment schedule and drug regimens prescribed to them by physician can be described as non-compliant and this definition was followed in this study for identifying the non-compliant patients.

Recruited nurses are Arab nationals who speak and write the English and Arabic languages well. The nurses are aware of the Arabic culture and thus were able to engage and gain the trust of the study participants if they are not open to discuss their problems and answer the questions. The questionnaire had three parts. The first part included the socio-demographic details of the patients, the second part was the English/Arabic version of the 13-item Patient Doctor Relationship Questionnaire PDRQ [7] and third part contained the questions related to issues patients regularly have regarding their treatment plan [11]. The questionnaire was available in two main languages (English and Arabic). The original English version of the questionnaire was translated to Arabic by a professional translator and back translated to English to check for inconsistency. The questionnaire was designed to be self administered with assistance from qualified interviewers. Patients were asked to answer the 13 questions by grading them from 1 to 5; with 1 for "not at all appropriate", 2 for "somewhat appropriate",

3 for "appropriate", 4 for "mostly appropriate" and 5 for "totally appropriate". We have received IRB approval from the Hamad Medical Corporation to conduct this research in the Psychiatry hospital.

Student's t-test was used to ascertain the significance of differences between mean values of two continuous variables and confirmed by non-parametric Mann-Whitney test. Chi-square and Fisher exact tests were performed to test for differences in proportions of categorical variables between two or more groups. Spearman's correlation coefficient was used to evaluate the strength of concordance between variables. The level $P < 0.05$ was considered as the cutoff value for significance.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Socio-demographic characteristics

Table 1 presents the socio-demographic characteristics of the studied psychiatric patients according to compliance and non compliance with treatment. Of the total 628 patients studied, 392 (62.4%) were complaint to treatment and 236 (37.6%) were non-compliant. The group between 16 and 20 years of age had the highest frequency for high compliance with treatment (84.4%), followed by 21-30 years of age (75.7%). The proportion of low compliance was significantly more common in patients above 60 years of age (63.4%). Retired psychiatric patients (70.2%) and housewives (70%) had significantly high compliance with treatment compared to their counterparts. There was a significant difference found between both the groups in terms of age group and occupation of the patients (p<0.001).

3.1.2 Clinical details of the studied psychiatry patients

Table 2 gives the clinical details of the studied psychiatry patients according to compliance and non-compliance. Depressed patients had high compliance with treatment (67.6%), followed by patients with Phobia (66.7%) (P<0.001). When comparing schizophrenia with depression (32.4%), the percentage of non compliance was significantly higher for schizophrenia (53.3%) (P<0.001). Also, comparing Schizophrenia (53.3%) with BPAD, low compliance was higher for BPAD (55.3%) (P<0.001). Psychiatry patients who were under medication had high compliance (67.7%) (P=0.001). Longer duration of illness was found in non-compliant patients (9.7 ± 6.9 years) compared to compliant patients (8.5 ± 7.1 years).

Table 1. Compliance according to socio-demographic characteristics (N=628)

Variables		Total N=628	Compliance		P-value
			High n =392 (62.4%)	Non/Low n =236 (37.6%)	
Age	Mean ± SD	41.1±12.7	40.3±12.7	42.6±12.7	0.026
Age group					
	16-20	32	27(84.4)	5(15.6)	<0.001
	21-30	148	112(75.7)	36(24.3)	
	31-40	180	107(59.4)	73(40.6)	
	41-50	137	76(55.5)	61(44.5)	
	51-60	90	55(61.1)	35(38.9)	
	60+	41	15(36.6)	26(63.4)	
Gender					
	Male	352	216(61.4)	136(38.6)	0.537
	Female	276	176(63.8)	100(36.2)	
Nationality					
	Qatari	365	240(65.8)	125(34.2)	0.124
	Other Arabs	202	116(57.4)	86(42.6)	
	Non-Arabs	61	36(59.0)	25(41.0)	
Education level					
	Illiterate	30	17(56.7)	13(43.3)	0.492
	Primary	76	41(53.9)	35(46.1)	
	Intermediate	168	106(63.1)	62(36.9)	
	High school	224	145(64.7)	79(35.3)	
	University	130	83(63.8)	47(36.2)	
Occupation level					
	Retired/Not working	47	33(70.2)	14(29.8)	<0.001
	Professional	110	68(61.8)	42(38.2)	
	Business	27	8(29.6)	19(70.4)	
	Housewife	140	98(70.0)	42(30.0)	
	Clerical	249	160(64.3)	89(35.7)	
	Manual	55	25(45.5)	30(54.5)	
Marital status					
	Single	272	165(60.7)	107(39.3)	0.426
	Married	356	227(63.8)	129(36.2)	
Number of children					
	Mean ± SD	3.3±2.6	3.3±2.9	3.2±2.1	0.774

Table 2. Clinical details of the studied psychiatry patients according to compliance & non compliance (N=628)

Variables	Compliance			P-value
	Total N=628	High n =392 (62.4%)	Non/Low n =236 (37.6%)	
Primary illness				
Schizophrenia	169	79(46.7)	90(53.3)	<0.001
BPAD*	76	34(44.7)	42(55.3)	0.001
Depression	136	92(67.6)	44(32.4)	0.155
Panic	28	16(57.1)	12(42.9)	0.555
Phobia	24	16(66.7)	8(33.3)	0.661
OCD**	25	13(52.0)	12(48.0)	0.272
GAD***	34	22(64.7)	12(35.3)	0.777
Other	136	120(88.2)	16(11.8)	<0.001
Co morbid medical illness	187	114(61.0)	73(39.0)	0.623
Non-psychotropic medication	159	97(61.0)	62(39.0)	0.670
Empathy				
Good	596	375(62.9)	221(37.1)	0.265
Poor	32	17(53.1)	15(46.9)	
Medication	381	258(67.7)	123(32.3)	0.001
Psychotherapy	92	58(63.0)	34(37.0)	0.976
Duration of the illness				
Mean ± SD	9.0±7.1	8.5±7.1	9.7±6.9	0.080

* Bipolar Affective Disorders (BPAD), **Obsessive Compulsive Disorders (OCD), ***Generalized Anxiety Disorders (GAD)

3.1.3 Reasons for compliance and non-compliance with treatment

Table 3 compares the reasons for compliance and non-compliance with psychiatric treatment. The current study findings showed that the major reasons for non-compliance were ignorance about side effects of medication (61.0%), lack of education about medication (47.9%), irregular attendance to clinic (55.5%), and free medicine availability (64.0%). A significant difference was noted between compliant and non-compliant patients in terms of attendance to clinic (P<0.001), social support (P<0.001), insight towards need for treatment (P=0.023) and education about medication (P<0.001).

Table 3. Reasons for compliance and non-compliance with treatment in psychiatric outpatients (N= 628)

Variables		Compliance		P-*value*
		High **n =392 (62.4%)**	**Non/Low** **n =236 (37.6%)**	
Social support				
	Poor	80(20.4)	95(40.3)	<0.001
	Good	115(29.3)	67(28.4)	
	Very good	197(50.3)	74(31.4)	
Attendance to clinic				
	Regular	341(87.0)	105(44.5)	<0.001
	Not regular	51(13.0)	131(55.5)	
Insight towards illness				
	Good	321(81.9)	183(77.5)	0.185
	Poor	71(18.1)	53(22.5)	
Insight towards need for treatment				
	Yes	335(85.5)	185(78.4)	0.023
	No	57(14.5)	51(21.6)	
Communication skills				
	Poor	19(4.8)	12(5.1)	0.894
	Good	373(95.2)	224(94.9)	
Availability				
	Sometimes	75(19.1)	47(19.9)	0.810
	Always	317(80.9)	189(80.1)	
Satisfied with the competence of doctor				
	Yes	366(93.4)	210(89.0)	0.053
	No	26(6.6)	26(11.0)	
Education about medication side effect				
	Yes	193(49.2)	92(39.0)	0.012
	No	199(50.8)	144(61.0)	
Cost				
	Free	231(58.9)	151(64.0)	0.148
	Cheap	105(26.8)	47(19.9)	
	Expensive	56(14.3)	38(16.1)	
Improvement on Treatment				
	Good	248(63.3)	162(68.6)	0.006
	Moderate	116(29.6)	46(19.5)	
	Poor	28(7.1)	28(11.9)	
Education about medication				
	Yes	258(65.8)	123(52.1)	<0.001
	No	134(34.2)	113(47.9)	

3.1.4 Satisfaction score of the studied psychiatry patients

Table 4 reveals the satisfaction score of the studied patients with psychiatrists. More than non-compliant patients, compliant patients were more satisfied with the mental health care. The satisfaction score of compliant patients was significantly higher than non-compliant patients in most of the satisfaction areas (P≤0.001). The compliant psychiatry patients were extremely satisfied with the availability of psychiatrists for consultation (4.1±1.0), benefit from

the treatment (4.16±0.9), agreement with physicians on medical symptoms (3.97±1.1), and accessibility of the psychiatrists (4.10±1.0), while for non-compliant patients, they were satisfied with dedication of the psychiatrists (3.9±0.9), availability of psychiatrists (4.27±1.1), agreement with physician on medical symptoms (3.6±1.1) and gratitude to psychiatrists for the improvement (4.1±1.0).

Table 4. Satisfaction score of the studied patients with psychiatrist (N= 628)

Variables	Compliance		P-*value*
	High **n= 392**	**Non/Low** **n= 236**	
My doctor understands me	4.25±1.0	3.99±1.1	0.003
I trust my doctor	4.28±0.9	3.99±0.9	<0.001
My doctor is dedicated to help me	4.17±0.9	3.93±0.9	0.002
I can talk to my doctor	4.07±1.0	3.77±1.1	0.001
I feel content with my doctor's treatment	4.16±0.9	3.82±0.9	<0.001
My doctor helps me	4.10±1.0	3.86±1.0	0.004
My doctor has enough time for me	4.14±1.0	3.74±1.0	<0.001
I benefit from the treatment of my doctor	4.11±1.0	3.94±0.9	0.036
My doctor and I agree on the nature of my medical symptoms	3.97±1.1	3.58±1.1	<0.001
I find my doctor easily accessible	4.10±1.0	3.75±1.0	<0.001
Thanks to my doctor, I feel better	4.37±0.9	4.09±1.0	0.001
Thanks to my doctor, I gained new insight	4.31±0.9	3.92±1.0	0.001
I can handle my medical symptoms now (even if my doctor and I have no further meeting)	3.94±1.0	3.56±1.0	0.001

3.2 Discussion

Research in psychiatric diseases has shown that poor compliance is independent of factors such as age, sex, education or socioeconomic group [2,5,7-8,11]. The experience of symptoms does not improve the likelihood of good compliance and treatment side-effects do not decrease it [2,9,11]. Simple measures, such as simplifying the drug regimen and giving clear written instructions, are the first step in improving compliance but are not enough for a large number of patients. In fact, poor compliance with treatment may lead not only to negative outcome for the patient but also to wasting of economic resources. Compliance as it relates to health care is the extent to which a person's behavior coincides with medical or health advice. Non compliance to mental health treatment is related to poor outcomes in any treatment setting. It was reported that poor compliance is a problem in all areas of medicine and psychiatry is no exception [14-15]. This is evident in our study that 36% of the studied psychiatry patients were non compliant with treatment. Our figure supports the report of Feuertein et al. [16] that estimates of non-compliance ranges between 4% and 92% with average from 30 to 35%. A study conducted by Razali et al. [17] among Malay patients found an overall non-compliance rate of 73.3% which is well above the rate reported in the present study. Only 26.7% of the Malay patients met the criteria of good compliance, while in Qatar 62.4% of the studied patients were compliant with treatment.

In the present study, high compliance was significantly higher among young psychiatry patients; 84.4% in the age group 16 – 20 years and 75.7% in the age group 21 – 30 years and non-compliance was higher in elderly psychiatry patients in the age group above 60

years old (63.4%). On the contrary, another study reported that patients are more non-compliant if they are young adults, men and unmarried [18]. In this study, no significant difference was observed between high and non complaint groups in gender and marital status. But, high compliance was more likely to be among retired patients (70.2%) and housewives (70%).

Among our psychiatry patients, non-compliance was more common in patients with BPAD (55.3%) followed by Schizophrenia (53.3%). Evidence suggests that more than 50% of people diagnosed with schizophrenia do not comply with treatment. In a review of Fenton et al. [19] it was commented that non-compliance among patients with schizophrenia was consistently associated with severe psychopathology, greater medication side effect, less family and social support, less insight and a less positive doctor-patient relationship. Longer duration of illness was found in non compliant patients (9.7 years) compared to compliant patients (8.5 years) without any significant difference. The present study is inconsistent with a study conducted in Albany County outpatient clinics that longer duration of illness was correlated with improved compliance [20]. In our studied patients, non-compliant patients had very poor social support (40.3%), but compliant patients had good support (50.3%). Sweeny and his colleagues [21] found that 80% of a sample of chronic mental patients who were accompanied to clinics by family members adhered to the treatment regimen, while only 55% of a sample of unaccompanied patients was compliant with treatment. This shows that families have a great impact on both the course of the patient's disorder and on the patient's cooperation with treatment.

The current study findings showed that the major reasons for non-compliance were ignorance about side effects of medication (61.0%), lack of education about medication (47.9%) and irregular attendance to clinic (55.5%). This is consistent with a study reported in Pakistan by Taj and Khan [2] showed that the most common reasons for non-compliance were unawareness of the benefits of treatment (43%), non-affordability of drugs (33.5%), physical side effects (28.5%), no awareness given by the doctor (3%) and unfriendly attitude of doctors (2%). Similarly British Survey of National Psychiatric Morbidity in UK [15] confirmed our results which 217 (34.2%) reported incomplete adherence to their psychiatric medication. Reasons given included forgetting, losing, running out (37.4%); thinking medication unnecessary (24.6%); reluctance to take drugs (18.9%) and side-effects (14.2%). In the current study, the most common illnesses leading to non-compliance were major bipolar affective disorder (55.3%), schizophrenia (53.3%), OCD (48%) and depressive disorder (32.4%). Although, the present study is in agreement with study reported by Fenton et al. [19] that the main reasons for non-compliance were financial difficulty, side effects, lack of insight to mental illness and lack of awareness. In our study, compliant patients were regular to outpatient clinics (87.0%). Meanwhile several studies showed that patients who did not have an outpatient appointment after discharge were two times more likely to be re-hospitalized in the same year than patients who kept at least one outpatient appointment [21-24]. There was a significant difference between compliant and non-compliant patients in respect of attendance to clinic, social support and insight towards need for treatment. Adams and Scott [23] found that patients who were non-compliant differed from compliant patients in their understanding of the severity of their illness as well as their ability to control the outcome of their disorder. Overall, patient education is clearly the favored way to promote compliance among mentally ill patients [24-28].

Although the studied patients are quite satisfied with the psychiatry care, patients' expectation from psychiatrists was high. It was reported in South Africa [29] that many patients with severe psychiatric disorders are unaware that effective treatment is available

for psychiatric disorders. Perhaps the most important lesson for physicians is to take the time and effort to elicit patients' expectations. When physicians recognize and address patient expectations, satisfaction is higher not only for the patient, but also for the physician. In our study, the old and uneducated patients were more likely to experience unmet needs at their visit to psychiatrists and they demonstrated less symptom improvement and evaluated their visit less positively. Nevertheless, the study shed some light on how particular demographic factors affect patient satisfaction. More innovative methods for improvement in the areas of dissatisfaction need to be developed [25-27].

Further, this study demonstrated that medication adherence is associated with the level of insight, independently from other patient's demographic and clinical characteristics. The association between low level of insight and poor medication adherence should be confirmed using prospective studies carried out in ambulatory patients. These findings suggest that psycho-educational programs aimed at improving insight should be developed in order to improve medication adherence. Furthermore, perhaps very good communication skills, listening to the patient's needs and tailoring treatments to each individual is good clinical practice. After those basic requirements are met, there will still be some psychiatric patients whose treatment is not effectively controlled. The model derived from the data was able to classify 62.4% of them were compliant with treatment and 37.6% were non-compliant. This is not sufficient to be useful in a clinical setting but may indicate that psychosocial and inter and intrapersonal factors are of importance in compliance behavior. Efforts focusing only on behaviors' and ignoring fundamental psychological processes may fail to provide stable results. The authors suggest that psychological factors are more important in the management of psychiatrics patients and their treatment and those psychological interventions may be very helpful for some patients who are noncompliant.

4. CONCLUSION

Non-compliance is quite common in Qatari population like in any other society. Medical practitioners need to be aware of it and address this problem because compliance is directly related to the prognosis of the illness. It is recommended that all efforts should be made and exerted to improve the compliance of psychiatric patients by eliminating the factors leading to non-compliance. This study explored the frequency of noncompliance in psychiatry outpatient and the main reasons found for compliance were lack of family support, irregular attendance to clinic, ignorance about side effects of medication, free medicine and lack of education about medication. The data revealed that more than the non-compliant patients, high complaint patients were significantly satisfied with the mental health care. Non-compliance was more common among patients with schizophrenia, depression and bipolar affective disorder.

CONSENT

Not applicable.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

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COMPETING INTERESTS

Authors have no financial interest to declare.

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