Drug non-compliance among different types of psychiatric patients

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Abstract: Non-compliance in medication denotes the failure or refusal of an individual to take the prescribed medications as recommended by the medical practitioner. Compliance is adhering to the prescription of oral or other forms of medication as stipulated by the medical practitioner. Medication compliance affects intervention outcomes. Therefore, this study seeks to examine medication compliance among psychiatric patients. The majority of the participants have anxiety disorders, followed by depression, and obsessive compulsive disorder(OCD). Anxiety and depression disorders were the most common disorders between non-compliance patients. Most patients with non compliance medication were in the anxiety disorders and depression disorders groups. most of patient were unemployed or housewife that we include both groups as an un-employed group.

Keywords: Non-Compliance Medication, Anxiety disorder, Depression, Psychiatric patients.

1.Introduction

Non-compliance medication between different groups of psychiatric patients is a uprising problem that may lead to failure of medications and cause severe problems for patients. There are different types of psychiatric problems and disorders including depression, anxiety disorders, schizophrenia, bipolar disorders and etc, which lack of medication, lead them to serious mental and behavioral problems. Compliance is a major problem in the treatment of depression. Although drugs are commonly considered a critical tool in the treatment of depression, evidence from descriptive epidemiological studies confirms that about one in three patients could not complete treatment(1). Adherence may be defined as the extent to which a person's behavior conforms to medical or health advice (2). Mental illness such as depression, schizophrenia, Obsessive Compulsive Disorder, migraine, Epilepsy, anxiety and bipolar disorders presents a serious health care problem in worldwide. The economic, social, clinical, and personal burdens associated with different types of psychiatric illnesses that make it a leading public health problem. Antipsychotic drugs, the most effective treatment for acute episodes or exacerbations of psychiatric illnesses (3), allow many patients to leave institutions and live in the community (4). Non-compliance increases the frequency of acute psychotic episodes and psychiatric hospitalization (5). Although antipsychotic drugs can have serious adverse effects (6), many clinicians prescribe them at moderate doses for as long as possible to prevent relapse. Mental health research and pharmaceutical innovation have developed a class of drugs referred to as "atypical antipsychotics", which are employed for the treatment of different types of psychiatric illnesses who are considered treatment-resistant to traditional or conventional antipsychotic medications, or who experience side-effects severe enough to require that the patient discontinue use of conventional antipsychotics(7). These atypical antipsychotics are tremendously effective in combating the symptoms of schizophrenia while avoiding the severe side-effects often experienced through treatment with conventional antipsychotics(8). Anxiety disorders are commonly accompanied with other mental health problems. This fact implies multiple definitional and conceptual difficulties. The wide-spread discussion about actual relations between co-occurring psychiatric disorders is still under way (9). It is particularly difficult to consider anxiety and depressive disorders separately, mainly because of the fact that although anxiety has not been included in descriptions of depression formulated in the widely recognized psychiatric classifications, anxiety indeed is one of the most frequent elements of clinical outlook of depressive disorders. According to Malhi et al. and Schoevers et al. the symptom of anxiety is along with the syndromes of substance abuse and personality disorders one of the most common

psychopathological components of depressive disorders (8). Medication persistence in the treatment of chronic-episodic disorders such as epilepsy, OCD and migraine is not well understood. While efficacy, cost, drug tolerability, and side effects impact whether a patient takes psychiatric medication, low perceived disease importance and factors related to the patient's internal decision-making process play a strong role in the sustained use of acute medication for migraine attack. Migraine and epilepsy share characteristics of both chronic and episodic diseases, and are conceptualized as a chronic disorder with episodic attacks (10). Adherence to drug regimen is a very important factor for improvement. Adherence may be defined as the extent to which a person's behavior confirms to medical or health advice(11). Patient who do not follow the treatment schedule and drug regimens prescribed to them by physician can be described as noncompliant or not adherent (12). A review indicated that non-compliance ranges between 28% - 52% for major depressive disorder, 20%-50% for bipolar disorder, and 20% - 72% for schizophrenia, while one study estimated it at 57% for anxiety disorders (9). Substance abuse is usually associated with poorer medication adherence among psychiatric patients (3,10). Medication compliance among bipolar disorder patients is related to the constructs of the health belief model (HBM) such as benefits and barriers, susceptibility and perceived seriousness (13). The HBM does not cover some determinants of medication compliance such as social influence and treatment alliance (14). Patients with bipolar disorder who are medication compliant perceive the quality of their life to be higher, have greater resources to cope with stress and have a stronger belief that their behavior controls their health status, unlike non-compliant patients (15). Recognizing predictors of medication adherence among patients with dual psychiatric and substance use disorders is important because poor medication adherence is associated with relapse to substance abuse, re-hospitalization, homelessness and lower quality of life. Although there have been many studies of psychiatric medication adherence, there are few such studies focusing specifically on patients with co-occurring psychiatric and substance abuse disorders. The patients' perception of the medication is important because cognitive dissonance suggests that the perceptual properties of the medication have particular meanings for the patients. These meanings can support or distract the patients from medication compliance (16). Patients with a major depressive disorder who have a superior medication compliance index are more likely to show improved scores on the Hamilton Depression Scale (17). The medication events monitoring system used in a study with schizophrenic disorder patients reveals a 63% mean compliance rate for the first month and a decline from 56% to 45% over the next five months. The medication compliance of these patients can be monitored with electronic monitoring devices, but data recovery and compliance require methodological improvements (18). Among patients with psychotic disorders there was a significant relationship between medication adherence and involuntary admission, substance abuse, not graduating from school, un-employment and a history of abusive behavior. However, patients who were changed from a typical to an atypical antipsychotic medication were more compliant than patients who remained on the typical antipsychotic medication. The patients who had higher drug compliance experienced much greater improvement of their psychiatric symptoms (19). Medication self-management among patients with affective disorder is important for drug compliance. However, patients who are self-managing their medication, guided by the principles of motivational interviewing, have better attitudes towards medications and insights about their illness compared to controls, but the group difference is not significant (20). Patients with anxiety disorder, schizophrenia, bipolar disorder and depression, who were trained about the nature of their disorder and its pharmacological management, were more compliant in outpatient follow-ups, and displayed less fear of being addicted to the medication and dealing with the side effects of the drug(21). The problem of poor adherence to therapeutic regimen has been a matter of concern to the professionals for years. The rareness of data on cost-related drug adherence problems has important implications not only for estimating their clinical significance, but also for understanding the extent to which adherence problems vary across socioeconomic groups. Considering this enormous and complex problem of drug non-adherence, this program was designed to study non-compliance medication among different types of psychiatric in patients suffering from anxiety disorder, depression, Obsessive Compulsive Disorder, schizophrenia, bipolar disorders, epilepsy, migraine and other disorders.

2.Method
Samples
Present study was conducted during December 2010 to April 2012. Total numbers of visited people were 832 subjects. All patients attending psychiatry clinic were screened. The current study used cross-sectional survey to gather the data from participants. A team of trained data collectors were retrained in keeping with the peculiarities of the task. The researcher was a part of the process, and regular checks were done to ensure consistency among interviewers. The inclusion/exclusion criterion

was based on mental illness and medication use. Mentally ill patients who were visiting the clinics for the first time were excluded from the study because they would not have developed a pattern of non-compliance medication. Previous studies indicated those patients who do not follow the treatment schedule and drug regimens prescribed to them by physician can be described as non compliant or non adherent (12). Only those patients were included who were between age range of 10 and 70 years, and came with reliable informants. Majority of subjects (30%) were between the age ranges of 30-40 years, most of them (64%) were female, 65% were educated up to high school, (35%). Sixty percent of patients were housewife. Most of the patients (66%) were married. SPSS version 16 was used for statistical analysis.

Tools

The survey was submitted and approved by the Ethics Committee. Participants and/or caregivers gave voluntary consent to their participation in the study. In order to ensure confidentiality, the personal information (i.e. name, address) of the participants was taken from the questionnaires and discarded, after which the other information was entered and stored for data-analysis. Socio-demographic and clinical information about the patient and their family were entered on a questionnaire specifically designed for this study. Drug non-compliance among different types of psychiatric patients was assessed using a questionnaire that was prepared. Main areas covered under the questionnaire were seven different types of psychiatric illness and its relation with drug non-compliance according to socio-demographic of patients. Different types of psychiatric patients that included in the quaternaries were anxiety disorder, schizophrenia, bipolar disorder, OCD, epilepsy and migraine.

3.Results

The mean age of study group was 38.7. 64% of the participants were women. Majority of the participants were married, house-wives (un-employed). The socio-demographic characteristics of study samples are summarized in table-1. There were 832 participants in the sample, of which most patients with non-compliance of medication were diagnosed with anxiety disorder (27.1% n= 230) with more females than males and this problem between the women were significantly more than men,(65.2% female). Other main problems were depression (22.5% n= 187), OCD(5.6% n=47), schizophrenia(5.3% n= 44), bipolar disorder (4.9% n = 41), epilepsy(2.6% n=22) and migraine(2.2% n=18). Problems at 7.6% of participants were not diagnosed. 21.6% of participants had other problem that we did not include in our study.73.5% (n=612) participants were married, 26.5% were unmarried. Many people in this study were un-employed people 56.6% (n=471) that housewives were included in this group.

Table 1. Diagnosed different types of Non-Compliance psychiatric patients by demographic characteristic

Characteristic	Anxiety disorder	Schizophrenia	Bipolar Disorder	Depression	OCD*	Epilepsy	Migraine	Other	Un-diagnosed
Frequency	N=832								
Non-compliance	230 (27.1%)	44 (5.3%)	41 (4.9%)	187 (22.5%)	47 (5.6%)	22 (2.6%)	18 (2.2%)	180 (21.6%)	63 (7.6%)
Gender Male Female	80 150	21 23	20 21	91 96	12 35	10 12	0 18	100 80	32 31
Age group ≤ 20 years 21 – 39 years 40 – 59 years 60+ years	35 155 31 9	10 19 9 2	10 20 7 3	30 87 50 20	2 30 10 5	14 6 1 1	1 14 2 1	40 60 50 30	10 20 18 15
Marital status Married Unmarried	190 40	21 23	37 4	160 27	38 9	7 15	17 1	100 80	42 21
Employment Status Employed Unemployed	77 152	37 7	12 29	71 116	11 36	15 7	1 17	100 80	36 27
Education Primary or below Secondary Tertiary Graduated or more	123 56 21 4	12 4 0 0	28 9 2 2	138 33 12 4	21 8 8 0	20 1 1 0	9 4 0 0	70 70 30 10	46 14 2 4

*OCD: Obsessive Compulsive Disorder

4.Discussion and Conclusion

In this study, the majority of the participants were diagnosed with anxiety disorders, followed by depression, OCD, schizophrenia, bipolar disorder, epilepsy and migraine, which is consistent with other findings in the medical literature(9,10). Drug non-compliance among the anxiety disorders participants in our study was highest rate(27.1%) between different patients groups. According to Feuertein et al.(22) estimates of noncompliance ranges between 4% and 92%, with average from 30 to 35 percent. The reason for non-compliance among the participants in this study could be due to a number of factors such as: side effects of medication, expense of treatment, also consumption forgetting was another main problem for them. Recommendations of people especially friends and relatives were another reason of non-compliance to medication. Also a thinking that drug has not effect on improvement of diseases and so is not helping causes non-adherence to medicines. Complexity of medications also creates many problems for patients that lead to discontinuation of medication (23). Psychiatric problems especially anxiety and depression mostly occur between un-employed patients. Other study (24), found that among 1031-patients with depression treated in primary care over a 6-months period only 54.6% of all scheduled appointments were kept. The non-adherence habits of those prescribed antidepressants are recently highlighted in literature. Roughly 10% of patients prescribed antidepressants fail to pick up their first prescription and about a third collect only the initial(typically 4-weeks) prescription(25). Depression is often cited as one of the factors for non-compliance to treatment. This study also shows high rate of non compliance between anxiety disorders and depression groups. On the other hand, severity of depression has a significant association with poor compliance. This is consistent with some overseas studies (26,27). Botelho and Dudrak (28) in their studies to examine the effect of depression and anxiety on compliance also found that more severe depression was associated with lower

drug compliance. Assessment of compliance to treatment is often difficult. Direct questioning of patients in interviews is a simple and rapid method but inadequate for evaluating medication compliance (29). According to Demyttenwere, the withdraw rate of psychiatric patients is pointed to various factors, such as illness and patient's characteristics, time taken to improve or poor doctor patient relationship (30). Mann indicated that the variance between what the doctors prescribe and what the patients take can be reduced by the doctor listening more carefully to the patients and addressing their concerns about the side effects of the medication (31). In addition, educating the patients about their disorder, pharmacological management and addressing their concerns and fears of being addicted to the drug increases their compliance (32). These patients can be instructed about life skill techniques, cueing, about the medication data displayed on the cap, and about audiovisual feedback as this kind of instruction increases drug compliance among psychiatric patients (33). Many chronically ill patients take less of their medication than has been prescribed, owing to cost concerns, especially those patients with low incomes, multiple chronic health problems, or no prescription drug coverage (34). The consequences of cost-related medication under use include increased emergency department visits, psychiatric admissions, nursing home admissions, as well as decreased health status (35). Caregivers considered a lack of money and the need to pay for prescriptions as prevention for attending the clinic. There is a significant relationship between gender and psychiatric disorder especially in our study anxiety disorders which is an unexpected finding. A majority of males and females were diagnosed with anxiety disorders, with a higher incidence among females, but in other psychiatric groups there was no significant relationship between two genders based on drug non-compliance. Further research is required to understand the degrees of the relationship between gender and mental disorder which is an under-researched area. In addition, there is a related significant relationship between gender and drug compliance, in which males were more likely to comply with their medication. Hummer and Fleischacker (36) explained that non-compliance with medication is owing to the patients' perception that the illness is not serious to enough to warrant treatment compliance. Conversely, a study by Cramer and Rosenheck found that 58% of those diagnosed with psychosis and 65% of those with depression complied with the treatment prescription (37). One researcher admitted that the side effects of neuroleptics are real, but can be managed (38), which clearly is accepted by those diagnosed with drug psychosis and bipolar disorder. Anxiety disorders range from panic disorder (PD; which possibly does not exert much effect on compliance) to obsessive-compulsive disorder (OCD) or GAD which might improve compliance activities (39). The vast majority of individuals with migraine treat their attacks. Only 2.1% of migraine sufferers in the US do not use any form of acute medication for migraine pain (40). Population-based samples find that nearly half use mainly over-the-counter (OTC) medication. Twenty percent use prescription medications including triptans, and those remaining use a combination of OTC and prescription products (40). Furthermore, the majority of migraineurs may switch between OTC and prescription medication during and between attacks in

the overall management of migraine. Despite advances in effective migraine-specific treatment, the use of non-migraine specific medication has not changed substantially (41). Medication compliance among males is about average, but is extremely low among females. The majority of the participants with an average age of 38.7 years outpatient clinics do not comply with their medication regimen for anxiety disorders, depression and OCD among other disorders. This non-compliance can be explained by three significant factors. Boyed and Weisman (42) found depression, to be more frequent in divorced and separated, while up to 58% of our sample were married. Similar results are reported by Chaudhri et al in local study (43). Drug non-adherence is a serious clinical problem and it has direct effects on illness management and prognosis. Early non-adherence increases the risk of further non–attendance. Socio-economic factors and degree of social supervision may also influence a patient's drug adherence. The range of factors that influence medication compliance, the belief system of mentally ill patients, an examination of alternative approaches to the treatment of mental illness. Evident from the study is the fact that drug compliance can be explained; the perception of the severity of the illness and the usefulness of the relevant medication, and the perceived side-effects of prescribed medications. Drug non-compliance places mentally ill patients at great risk of aggravation of their symptoms, homelessness and disruptions in their daily lives, so much so that this has become a public health concern which must be addressed with urgency and care. In this study different types of psychiatric patients were investigated, and most of patients were un-employment and under educated people and most of them were at the age of 20-40 years. More study should be undertaken to clear the main socio-demographic reasons of psychiatric illnesses.

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