Non Adherence with Pharmacotherapy Among Patients Attending Psychiatry OPD : A Study From Kashmir

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ABSTRACT

Introduction: Psychiatric disorders usually require treatment for prolonged periods of time.One of the greatest challenges in treatment of these disorders is treatment non adherence as prescribed by psychiatrists. Effective strategies need to be planned out so as to understand the factors contributing to treatment non adherence and manage them properly. Aim of the research was to understand major factors responsible for treatment non adherence among psychiatric patients attending OPD at a tertiary care hospital in Kashmir

Material and Methods: 120 consecutive non adherent patients attending psychiatry OPD at our department were evaluated. Non adherence was defined by Rosack's criteria while as the reasons for non adherence were assessed using a checklist prepared by consultant psychiatrist.

Results: Non compliants were more likely to be females,less educated, unmarried, unemployed, belonging to low socioeconomic status and from rural background.Side effects (19.17%) and mistrust or lack of knowledge regarding illness (18.33%) were the major contributors to non adherence.

Conclusion: Our findings suggest that there is a need to provide adequate information regarding illness and drugs to patients and/or caregivers.

Keywords: Compliance, Non adherence, Kashmir

INTRODUCTION

Adherence as defined by WHO is the extent to which a person's behavior – taking medication, following a diet and/or executing life style changes-corresponds with agreed recommendations from a health care provider.[1]

Rosack explained the phenomenon of adherence to medication in terms of refill rate. Refill rate is the proportion of days of proper adherence to prescribed medication by the patient calculated in relation to the total days of advice. Patients who had only 50 percent of their expected refill rate were termed "non adherent." Those who filled prescriptions between 50 percent and 80 percent of the expected refill rate were termed "partially adherent". Those who filled prescription between 80 percent and 110 percent were termed as "adherents" and those who filled their prescriptions at more than 110 percent of the expected rate were termed "excess fillers".[2]

The term adherence comes from the Latin word '*adhaerere'*, which means to cling to, keep close, or remain constant. Even though terms adherence and compliance are used interchangibly, adherence is preferred term as it is an active process and presumes patient's agreement with recommendation rather than compliance which implies patient passively. The issue of non adherence is not restricted to psychiatry but to whole medicine.[3] Estimates of noncompliance ranges between 4% and 92% with average from 30 to 35 percent.[4] Non-compliance is closely linked to relapse, rehospitalisation and poor outcome among patients with a major mental illness.[5] Studies have found an association between non-compliance and frequency of appointments, substance abuse, sociodemographic, disease related and therapy related factors.[6] Aim of the study was to study the reasons for non-compliance with pharmacotherapy in patients

MATERIALS AND METHODS

The study was conducted in the outpatient department (OPD) of Department of Psychiatry, Instiute of Mental Health and Neurosciences, Srinagar (IMHANS) Kashmir which is the lone tertiary psychiatric hospital in Kashmir Valley .120 consecutive non adherent patients who attended the OPD were taken up in the study. Study was approved by Ethical Committee of the institute.

Inclusion criteria: 1. Patients aged 18 years and above, 2. Diagnosis of psychiatric disorder as per International Classification of Diseases (ICD)-10, 3. Those receiving at least one psychotropic medication for at least 1 month.

Exclusion criteria: Absence of reliable informant.

A written informed consent was taken from the patient or the attendant accompanying the patient.

Instruments used in study

Semi structured proforma: Sciodemographic and other clinical data were noted in this proforma.

Measurement of Non adherence: Non adherence was defined as per Rosack's criteria (explained above).[2]

Reasons for non adherence: These were assessed using a checklist prepared by consultant psychiatrist. The areas included in the checklist were sociodemographic, disease and medication and psychiatrist and health care system variables. Patients were free to choose more than one reason, if applicable.

STATISTICAL ANALYSIS

Data was entered in Microsoft Excel. Appropriate statistical tests applied (like Chi square test) using SPSS, version 21 were used.

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RESULTS

As depicted in tabe 1; there were 65 females (54.2%) and 55 males (45.8) with *P* value 0.3 (non significant statistically). Age group equal to or less than 30 years was predominant group (39.2%), followed by 34.2% in the age group of 31-40 years. Age group 41-50 years had 18.3% and least common with age equal or greater than 51 years with only 8.3% patients. The mean age in the study group was 33.26 ± 11 years. 61.7% were living in joint families while as 38.3% in nuclear families (p =0.05 and hence statistically significant). Most of the patients were unmarried (55.8%) followed by married (34.2%) and divorcee/widowed/separated (10%). Rural patients formed 55.8% and patients from urban background formed 44.2% of the study population. 75% patients were unemployed. Most of the patients had minimal educational qualification (44.2% were illiterates and 29.2% had primary education). Majority of patients were from lower socioeconomic classes with 12.5% from lower and 36.5% from Upper lower Kuppuswamy socioecomic class.

Shown in table 2, schizophrenia and other psychotic disorders were the commonest disorders with 27.5% of patients in this group.

Table 3 shows that 70% patients had duration of illness more than 1 year, 59.2% were on more than one drugs and about 80% were not on regular follow up.

As shown in Table 4, among Patient related factors, Mistrust /belief/ lack of knowledge regarding diseases was the major reason for non compliance with 18.33% patients leaving medication due to this. Inaccessibility to psychiatric services and failure by psychiatrist to explain treatment benefits were the main reasons among psychiatrist and health care system related factors with each contributing 9.17%. Side effects were the most common reasons for non compliance in 19.17% patients.

DISCUSSION

Noncompliance contributes to relapse and rehospitalization.[5] Improving compliance in psychiatric patients will reduce morbidity, lessen suffering of patients and their families, decrease the financial burden of rehospitalization.[3]

Our study reports non compliants mostly in the age group less than 30 years (39.2%). This is in accordance with many studies reporting non compliance relatively higher among younger age group.[7] Younger patients may have a more negative perception of medications.[8] With increasing age, patients learn that there is a relationship between relapse of

Variable	Sub variable	Females (65)	Males (55)	Total	%	P (Chi Square test)
Age in years	≤ 30	25	22	47	39.2	< 0.05
	31-40	21	20	41	34.2	
	41-50	13	9	22	18.3	
	≥ 51	6	4	10	8.3	
Dwelling	Rural	36	31	67	55.8	0.2
	Urban	29	24	53	44.2	Statistically Non Significant
Family	Nuclear	24	22	46	38.3	< 0.05
	Joint	41	33	74	61.7	
Marital status	Unmarried	39	28	67	55.8	< 0.05
	Married	21	20	41	34.2	
	Widow/divorcee/Separated	5	7	12	10.0	
Education	Illiterate	32	21	53	44.2	< 0.05
	Primary	18	17	35	29.2	
	High School	12	15	27	22.5	
	Graduation and above	3	2	5	4.1	
Occupation	Unemployed	50	40	90	75.0	< 0.05
	Employed	15	15	30	25.0	
Socioeconomic status	Lower	7	8	15	12.5	< 0.05
	Upper lower	27	17	44	36.7	
	Lower middle	22	19	41	34.2	
	Upper lower	7	9	16	13.3	
	Upper	2	2	4	3.3	

Table-1: Sociodemographic variables of patients

Major psychiatric Disorder	Females	Males	Total Number of patients	Percentage
Schizophrenia and other psychotic disorders	20	13	33	27.5
Major Depressive Disorder	15	12	27	22.5
Bipolar Disorder	11	9	20	16.7
Anxiety disorders	9	8	17	14.2
Epilepsy	3	2	5	4.1
Others	7	11	18	15.0
Total	65	55	120	100

Table-2: Psychiatric disorders among patients

Variable	Sub variable	Females	Males	Total	Percentage
Duration of illness	<1 year	17	19	36	30.0
	≥ 1 year	48	36	84	70.0
Number of drugs prescribed	1	22	27	49	40.8
	≥2	43	28	71	59.2
Regular follow up	Yes	18	6	24	20
	No	47	49	96	80

Table-3: drugs and illness among patients

Factors for non-adherence	Sub factors	Females	Males	Total	%
Patient related	Mistrust /belief/ lack of knowledge regarding diseases	15	7	22	18.33
	Lack of family education	8	4	12	10.00
	Personal and job obligations	6	6	12	10.00
	Faith healer influence	6	3	9	7.5
	Poor social support	4	5	9	7.50
	Substance use (other than nicotine and caffeine)	0	5	5	4.16
	Others	4	2	6	5.00
Psychiatrist and health care system related	Inaccessibility to psychiatric services	6	5	11	9.17
	Failure by psychiatrist to explain treatment benefits	7	4	11	9.17
	Prescription of Complex drug regimen	3	2	5	4.16
Disease and Medication related	Side effect	14	9	23	19.17
	Lack of insight	7	6	13	10.83
	High costs	5	4	9	7.50
	Paranoid regarding medications	2	2	4	3.33
	Hopelessness	2	1	3	2.50

(*More than one reason could be present.)

Table-4: Reasons for non Compliance*

symptoms and psychotropic medications. Non compliant were likely to be females than males though the difference was statistically non significant (*P*=0.3). This goes with the study by Garcia JI et al.[9] Probably, males receive better social support and hence remain more compliant. Non compliant patients were more likely to be illiterate (low educational level), unmarried and unemployed which has been reported in many studies.[10,11] Nose et al also reports non compliant patients to be from low Socio Economic Status and illiterates.[12] Married people are more likely to get good social support from their spouses. Our study finding majority of patients from rural background could be because of the fact that Kashmir is a rural dominated region. Also; accessibility, low socioeconomic status and lower levels of education and awareness could contribute to this factor.

Among psychiatric illnesses, patients were more likely to be suffering from psychotic disorders (27.5%) esp. Schizophrenia. This is in accordance with study by Nose et al but against study by Sultan S et al and Maan CG et al.[11-13] Patients with schizophrenia are more likely to become non adherent. Non compliance among schizophrenia has been associated with poor social support, substance use, lack of insight and decreased doctor-patient interaction.[14] The other non adherent patients had diagnosis of substance use, somatoform disorders, other neurotic and stress related disorders, Dysthymia etc. and formed about 15% of the study group.

Majority of the patients were on multiple drugs (59%), had irregular follow up (80%0 and having illness duration more than 1 year (70%). Rekha et al also reported that non compliance was adversely related to duration of illness.[15]

Adverse Side effects were the major reason for non compliance with 19.17% patients discontinuing drugs for the same. Avasthi et al found that 93 % of those not fully adhering to the treatment attributed their failure to the ill effects of medicines and hence side effects form the major factor for non adherence among patients.[16] Sedation, Extra pyramidal side effects, weight gain, menstrual irreguarities, gastro intestinal upset and sexual side effects were the major side effect in this group of patients. Expressions such as 'sleepy', 'powerless', 'woody tongue' were used by patients to describe these side effects. Some patients also complained of *'naar* ' (hot sensation) over multiple portions of the body with the medications. The '*gharaem/saraed'* dichotomy is still prevalent in our culture where by the people believe that foods (including medications) are either *gharaem* (hot) or *saraed'* (cold) for the body thereby leading to varying side effects. Selen et al and Fenton et al also found physical side effects to be the commonest reason for medicine discontinuation.[14,17]

Lack of knowledge regarding disease is another factor leading to non compliance (18.33%). The feeling of subjective well being, not knowing that treatment needs to be continued for prolonged periods of time also contributes to non compliance among these patients. Also, patients left medication if they didn't find the expected improvement with prescribed medications.

Lack of family education and personal (like farming) or job obligations contributed to non compliance in 10% of patients. Patients' family members would very often consult faith healer *(Peer sahib or faqeer)* who mostly disapprove psychiatric medications. Various techniques used by faith healers to cure illnesses included breathing air on to the patients, dispensing of *Tawiz* (amulets) or Holy water.

7.5% patients were non-compliant in view of the high cost of medications. Even though most of the medications are provided free to patients at IMHANS, there are still patients who are taking newer drugs like Desvenlafaxine, Oxcarabazapine, Escitalopram, Paroxetine etc which are not available. Also, the stocks of these free medications get emptied occasionaly and patients have to avail these medications from market, thus increasing the vulnerability to non-compliance. Psychaitric medications are not available in remote areas of Kashmir valley and patients have to travel long distance to avail these medications. During winters, some of the areas remain cut off owing to bad climate (like excessive snowfall). Kashmir has been engulfed by turmoil from last two and a half decades. *Hartaal* (strikes) and curfews are the order of the day which further push these patients towards non compliance.

Paranoia to medications and lack of insight found their relevance in patients with psychotic disorders. This goes in accordance with studies by Mc Evoy JP et al and Swett C Jr who reported high levels of non compliance due to these two issues.[18,19]

Psychiatrist may contribute to non compliance by prescribing complex regimens, not explaining the probable side effects, adventages and disadventages of therapy and not taking individual patient profile including socioeconomic status into consideration while prescribing medications.

Medication adherence is primarily the domain of patient. Multiple sessions of patient education need to be done in order to enhance the medication adherence. This may include active involvement of patient in his treatment plan. Also, patient and relatives could be counselled so as to remove the guilt and shame that is usually associated with visiting psychiatrist in traditional societies like ours. Caregivers need to be counselled regarding the nature of illness, probable side effects, duration of treatment and adverse effects of non compliance.

Psychiatrists need to spend more time with patients with particular emphasis on side effect detection. Prescribing dosing regimens convenient to patient's profile needs to be encouraged.

Developing community mental health care services in remote areas needs to be promoted. This could be supplemented by availability of psychotropic medications in these regions.

Limitations

The study sample size was small. Checklist used was not validated or prestested. There was a high probability of recall bias from patients or the informants.

CONCLUSION

There are multiple reasons for non adherence and blaming patient always for the same needs to be avoided. A better Psychiatrist-patient relationship could definitely help in combating this issue. Patient education about drug timings and side effect need to be encouraged. Factors responsible for non adherence should be recognized and addressed appropriately.

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