Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies ***NLM ID:*** *101716117*

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Index Copernicus value = 85.10

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

A prospective study of factors effecting non-compliance and non-adherence to prescribed treatment in psychiatric inpatients post discharge

Dr. Chandra Sekhar Tripathy[1], Dr. Rajnikant Shukla[2], Dr. Birendra Narayan Naik[3], Dr. Amrit Pattojoshi[4]

[1]Associate Professor, Dept of Psychiatry MKCG Medical College & Hospital, Berhampur, Odisha.
[2]Associate Professor, Dept of Psychiatry, VSS IMSAR, Burla, Sambalpur, Odisha,
[3]Assistant Professor, Dept of Psychiatry, VSS IMSAR, Burla, Sambalpur, Odisha,
[4]Professor, Dept of Psychiatry, Hi-Tech Medical College and Hospital, Bhubaneswar, Odisha

ABSTRACT:
Aim The objectives of the study were to quantify the rates of treatment non-compliance in psychiatric patients post discharge and to evaluate the reasons for the same with a view to suggest corrective actions. **Methods** The study was carried out in a tertiary teaching hospital over a period of 6 months. The patients were followed up every month for a period of 3 months at the department of Psychiatry or were contacted over phone. **Results** 26 patients were untraceable and 136 patients were followed up during the course of the study. Only 50% of the subjects remained compliant and were attending the OPD at 3 months while just 4.4% were continuing the prescription without attending the department. The main reasons for non-compliance and non-adherence to the prescribed regimen were feeling well and therefore no need for further treatment, financial issues, under treatment elsewhere or medication side effects. Diagnoses included schizophrenia (52%), bipolar affective disorder (22%), major depression (2.5%), substance use disorders (16%), acute and transient psychotic disorders (5%) and dementia (2%). **Conclusion** A 50% non-compliance rate though worrying is not alarming. The community mental health programme, NMHP (National Mental Health Programme) which includes the DMHP (District Mental Health Programme) seems to be working. It needs to be strengthened and fine tuned to achieve the goal of mental health for all.
Key words: non-compliance, discharge, inpatients.

Received: 23/08/2020 **Modified:** 18/9/2020 **Accepted:** 20/9/2020

Corresponding author: Dr. Rajnikant Shukla, Associate Professor, Dept of Psychiatry, VSS IMSAR, Burla, Sambalpur, Odisha, India

This article may be cited as: Tripathy CS, Shukla R, Naik BN, Pattojoshi A. A prospective study of factors effecting non-compliance and non-adherence to prescribed treatment in psychiatric inpatients post discharge. J Adv Med Dent Scie Res 2020;8(10):214-218.

INTRODUCTION

The majority of the psychiatric illnesses have a chronic waxing and waning course with multiple relapses and remissions. Despite the best mental health care, the outcomes are sub optimal as per expectations of the mental health care providers and also of the patients and their families. The transition from sheltered in-patient care to out-patient care with consequent increased autonomy and control over one's affairs is also often associated with a heightened risk of medication non-compliance. **[1,2]**

Non- adherence to prescribed medication has been shown to be associated with increased risk of illness exacerbation, re-hospitalization, increased resource use, chronicity of symptoms, poorer outcome and an increased likelihood of non-response to a previously successful treatment regimen. **[1,2,3,4]**

Therefore, there is a need for continued treatment extending over weeks, months or years. This requirement is a major reason for treatment non-compliance, non-adherence and ultimately the failure to return to optimal level of functioning. However, this

phenomenon is not limited to psychiatric practice only and patients across all medical disciplines are found to be poor compliers with long term treatment. The transition from one mode of treatment to another, as for example, when the patient is discharged from the hospital is likely to result in non-compliance even when medication regimen is well accepted and well tolerated while in the inpatient setting. Financial constraints, changes in life style, lack of supervision, medications side effects, misconceptions about medications, and absence of positive reinforcements are all possible causes of the abrupt abandonment of medication upon discharge. It therefore becomes imperative to review current discharge planning and follow-up arrangements which are as important as the acute treatment delivered while hospitalized. Information regarding ways to maximize compliance after discharge is critical in the process of tailoring a follow up plan which is suited to the unique needs and circumstances of each patient. **[4,5,6,7,8]**

The present study was therefore designed to prospectively follow up patients after discharge from in-patient care for a period of 3 months. The objectives of the study were

i. To evaluate the prevalence and pattern of missed follow-ups and medication non-compliance up to 3 months after discharge.
ii. To identify the reasons for missing follow-up visits and poor medication compliance.

MATERIAL & METHODS

The study was conducted in the Department of Psychiatry, Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha. The duration of the study was from May, 2019 to October, 2019. The patients were under follow-up until 3 months after discharge. The study was cleared by the Institutional Ethics Committee and necessary permissions for the study were obtained from concerned authorities. The participants were recruited through simple random sampling of patients on discharge from the IPD of the Department of Psychiatry.

Informed consent was obtained from all recruited patients and their relatives before discharge. Information was collected from the medical records of the patients and through interviews with the attendants and key relatives or family members of the patients. All the diagnoses as per institutional norms were made in accordance with ICD-10 criteria **(WHO, 1992)**. Medication compliance was assessed through direct questioning of respondents, with supplementary information from relatives where available. If a patient had stopped taking medication all together for a week or longer s/he was considered completely non-compliant, while usage in less than prescribed doses or regimen, was taken as partial compliance.

A questionnaire specially prepared for the purpose was used by the interviewers to collect information about their compliance with the medications prescribed and attendance of follow-up appointments as mentioned in the prescription. Reasons for non-compliance were also recorded.

Data analysis was carried out with **IBM SPSS Statistics for Windows, Version 23 (2015)**. Frequency tables were generated and differences between groups were tested using the Chi-squared test. Means were compared using student T-tests, with *P*-value set at less than 0.05.

RESULTS

Table 1 Socio-demographic profile

	n (%)
Age group in years	
20-30	24(14.9)
31-40	64(39.6)
41-50	46(28.3)
≥51	28(17.2)
Gender	
Male	88(54.0)
Female	74(46.0)
Marital status	
Single	86(53.0)
Married	50(31.0)
Divorced	16(10.0)
Widow	10(6.0)

Table 2 Socio-demograhic profile (cont)

Occupational Status (National Classification of Occupations – 2015)	
	n (%)
Division 1	04(2.5)
Division 2	06(3.7)
Division 3	14(8.6)
Division 4	10(6.1)
Division 5	08(5.0)
Division 6	10(6.1)
Division 7 &8	34(21.0)
Division 9	76(47.0)
Educational level (National Classification of Occupations – 2015)	
	n (%)
None	32(19.8)
Up to 10 years of formal education and/or informal skills	26(16.1)
11-13 years of formal education	56(35.0)
14-15 years of formal education & above	48(29.6)

As per tables 1 and 2, the majority (67.9%) of patients recruited into the study were aged between 31-50 years of age, with a nearly equal sex ratio and 69% were single, divorced or widowed. 68% of the study sample stated their occupation which was classified as belonging to the skill levels 7, 8 and 9 i.e farmers, farm labour, housewifes, workers in transport, industry etc. Around 20% had no formal education and further 16% had less than 10 years education.

Table 3 Clinical Data

Duration of Illness (yrs)	**n(%)**
<1	50(30.9)
1–4	52(32.1)
5–9	28(17.3)
≥10	32(19.8)
Previous treatment	
None	46(28.4)
Faith healers etc	24(14.8)
Ayush	74(45.7)
Both	18(11.1)

As per table 3, nearly 63% had duration of illness of less than 4 years and around 44% had received no treatment at all or had been taken to a faith healer.

Table 4 Pattern of Missed Follow-ups and Medication Non-compliance in 3 months after discharge

	Continuing Follow-ups / Continuing Medication *n* (%)	Missed Follow-ups /Continuing Medication *n* (%)	Missed Follow-ups / Not Continuing Medication *n* (%)	P-value
1st month	108(79.4)	24(17.6)	04(2.9)	<0.05
2nd month	89(65.4)	16(11.8)	31(22.8)	
3rd month	68(50.0)	06(4.4)	62(45.6)	

Not traceable n=26 (16.05%); Total study sample recruited n=162

Table 5 Reasons given for missing Follow-ups and Medication Non-compliance

Reason	%
Felt well/no need for further treatment	63
Financial constraints	45
Consulted another Physician	32
Medication side effects	31
Taken to faith healers	25
Stigma associated with illness	15
Distance to hospital	09

(Multiple responses were allowed)

As mentioned in tables 4 and 5, 26 patients were untraceable and 136 patients were followed up during the course of the study. Only 50% of the subjects remained compliant and were attending the OPD at 3 months while just 4.4% were continuing the prescription without attending the department. The main reasons for non-compliance and non-adherence to the prescribed regimen were feeling well and therefore no need for further treatment, financial issues , under treatment elsewhere or medication side effects. Diagnoses included schizophrenia (52%), bipolar affective disorder (22%), major depression (2.5%), substance use disorders (16%), acute and transient psychotic disorders (5%) and dementia (2%).

DISCUSSION

During the present study 26 patients (16.05%, n=162) were untraceable and could not be contacted. Out of the remaining 136 patients who formed the study sample around 45% of the patients had stopped coming for follow up visits and had also stopped taking their medication without medical advice at 3 months after discharge. This is in agreement with previously reported figures from India. **[10,11,12]** Similar figures have been reported by recent studies from other countries of South Asia, Africa and from North America and Europe. The finding of the study that nearly 50% of the patients continued coming to the hospital for follow up visits and were medication compliant is heartening. This is perhaps a pointer to the fact that the community mental health programme is turning the corner and has started showing results.

Medication non-compliance and non-adherence rate of about 50% found in our study is similar to that reported in some recent studies from Europe and America but there are very few Indian studies with which to compare this data. In a study of recently discharged schizophrenia patients carried out in Austria, it was reported that at 6 weeks post-discharge, out of 61 patients, 24 (39.3%) were partially compliant and 5 (8.2%) were noncompliant. In a study among patients with bipolar disorders in the USA, it was also reported that over 50% of respondents were either fully or partially non-adherent with medications. **[13]** It was found that in the first year post discharge, about 25 to 50% of psychiatric outpatients are medication non-compliant**.**

However, investigators agree that the actual figures might be higher, as the estimated 25%–50% does not often include patients who either refuse treatment or drop out of follow-up treatment. The present study has some differences and some similarities with the study conducted in Nigeria. **[1]** In this study, the major reason given by subjects for non-compliance was 'felt no need for further treatment', seen in nearly 63% of non-compliant patients, followed by financial constraints in 45%, consulted another physician 32%, medication side effects in 31% and faith healing in 25%. Psycho-education for patients and attendants/key relatives may help to improve the level of awareness of patients of the need to comply with their medication and their follow-up visits. The role of financial constraints reported by 45% of the subjects in this study may be related to the site of this study which is a premier private teaching hospital of the state. The out of pocket expenditure (OOP) of the patients attending state run hospitals have been taken care of by the free medication and investigation provisioning programmes.**[1,14,15]**

An interesting finding of the present study was 32% of the subjects reporting consultation with another physician as the reason for missing follow-up visits at the study site. This finding may be indicative of growth of human resources as well as infrastructure in mental health services sector.

The promise of one time healing that religious and faith healers tout is made even more attractive in a setting of poverty, stigma and ignorance of mental health issues. In a study from Pakistan, the authors point out that even when patients may be willing to comply with their medication, poor finances often remains a major hindrance. **[6,16]** That medication side effects was given as fourth leading reason, may be partly due to the fact that despite the emergence and use of newer medications the side effects burden still remains high in psychiatric patients.

CONCLUSION

The study found high medication non-compliance and missed follow-up rates at 3 months following discharge

from the inpatient department of a tertiary hospital. The findings of this study buttress calls for further strengthening of community psychiatric services to improve patients' access to services. Efforts to decentralize psychiatric services and its integration into primary care need to be revitalized, as this will allow for a better referral and follow-up system, and improved treatment adherence. There is also a need to train more PHC workers who could follow-up patients in the community. Mental health professionals also need to consider using psycho-education and other psychosocial interventions to improve medication adherence in their treatment programs. **[17,18,19]** The findings of this study also suggest some directions for future research. In particular, research will be needed on developing suitable models of community psychiatric services that can work in low income countries, given the peculiarities in the organization of the health care services in these countries. Such research would also need to unravel the socio-economic, logistic and cultural factors, at the individual, family and institutional levels, that pose a challenge to instituting suitable, effective community psychiatric services in these countries.

LIMITATIONS

The study was limited by the small sample size. Studies are needed which include treatment outcomes and quality of life of patients to better understand the complex phenomenon of treatment non-compliance and non-adherence.

REFERENCES

1. Adeponle AB, Baduku AS, Adelekan ML, Suleiman GT, Adeyemi SO. Prospective study of psychiatric follow-up default and medication compliance after discharge at a psychiatric hospital in Nigeria. Community Ment Health J. 2009 Feb;45(1):19-25.
2. Olfson, M., Mechanic, D., Stephen, H., Boyer, C. A., Walkup, J., & Weiden, J. P. (2000). Predicting medication non-compliance after hospital discharge among patients with schizophrenia. Psychiatric Services, 51, 216–222.
3. Perkins DO. Adherence to antipsychotic medications. J Clin Psychiatry. 1999;60(Suppl 21):25–30.
4. Raphael JL, Kuldip J, Yogesh DB. Nonadherence with psychopharmacologic treatment among psychiatric patients. Primary Psychiatry. 2005;12:33–4.
5. Kruse, G. R., & Rohland, M. B. (2002). Factors associated with attendance at a first appointment after discharge from a psychiatric hospital. Psychiatric Services, 53, 473–476.
6. Nusrat, H. R., & Muhammad, A. (2002). Non-compliance to medication in psychiatric patients. Pakistan Journal of Medical Science, 189(1), 52–54.
7. Julius RJ, Novitsky MA, Jr, Dubin WR. Medication adherence: A review of the literature and implications for clinical practice. J Psychiatr Pract. 2009;15:34–44.
8. Teferra S, Hanlon C, Beyero T, Jacobsson L, Shibre T. Perspectives on reasons for non-adherence to medication in persons with schizophrenia in Ethiopia: A qualitative study of patients, caregivers and health workers. BMC Psychiatry. 2013;13:168.
9. Sabate E. WHO Adherence Meeting Report. Geneva: World Health Organization; 2001.
10. Mahajan PB, Rajendran PK, Sunderamurthy B, Keshavan S, Bazroy J. Analyzing Indian mental health systems: Reflecting, learning, and working towards a better future. J Curr Res Sci Med 2019;5:4-12
11. Wig NN, Murthy SR. The birth of national mental health program for India. Indian J Psychiatry 2015;57:315-9
12. Patel V, Copeland J. The great push for mental health: Why it matters for India. Indian J Med Res 2011;134:407-9.
13. Fleck, D. E., Keck, P. E., Corey, K. B., Jr., & Strakowski, S. M. (2005). Factors associated with medication adherence in African American and white patients with bipolar disorder. Journal of Clinical Psychiatry, 66(5), 646–652.
14. Roy R, Jahan M, Kumari S, Chakraborty PK. Reasons for drug non-compliance of psychiatric patients: A centre based study. JIAAP. 2005;31:24–8.
15. Taj F, Tanwir M, Aly Z, Khowajah AA, Tariq A, Syed FK, et al. Factors associated with non-adherence among psychiatric patients at a tertiary care hospital, Karachi, Pakistan: A questionnaire based cross-sectional study. J Pak Med Assoc. 2008;58:432–6.
16. Farooq S, Nazar Z, Irfan M, Akhter J, Gul E, Irfan U, et al. Schizophrenia medication adherence in a resource-poor setting: Randomised controlled trial of supervised treatment in out-patients for schizophrenia (STOPS) Br J Psychiatry. 2011;199:467–72.
17. National Mental Health Programme. National Health Portal of India. Available from: https://www.nhp.gov.in/national-mental-health-programme_pg.
18. Report of Evaluation of District Mental Health Programs Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra. Bengaluru; 2011. https://mhpolicy.files.wordpress.com/2011/05/dmhp-evaluation-final-report-2011.pdf.
19. Ved RR, Gupta G, Singh S. India's health and wellness centres: Realizing universal health coverage through comprehensive primary health care. WHO South East Asia J Public Health 2019;8:18-20.