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A descriptive study to assess the drug adherence among bipolar affective disorder patients in a selected mental health care setting, Karnataka

[1] Shreedevi IB, [2] Shivanand HB, [3] Dr. Sreevani Rentala and [4] Dr. Raghavendra B Nayak

[1, 2] M.Sc. (N) Student, Dharwad Institute of mental Health and Neurosciences, Dharwad, Karnataka, India

[3] Professor and Head, Nursing Dept. Dharwad Institute of mental Health and Neurosciences, Dharwad, Karnataka, India

[4] Associate Professor, Dept. of Psychiatry, Dharwad Institute of mental Health and Neurosciences, Dharwad, Karnataka, India

Abstract

A descriptive study was conducted among bipolar affective disorder patients in a selected mental health care setting, Karnataka. The main objective of the study was to assess the drug compliance among BPAD patients. The population included 50 BPAD patients aged between 20-59 years. Study was approved by institutional Ethics committee. Data was collected from October 2018 to November 2018 by employing convenient sampling method. Structured interview method was employed using socio demographic data sheet and Morisky 8 item medication adherence questionnaire. The result showed that Among 50 patients assessed 38 (76%) was found to be low adherent and 12 (24%) patients were found to be medium adherent. There was a statistically significant association between low adherence and low income ($x2=6.15$, $P=0.01$) results showed that the low income (<5000) patients were had low adherence with medication. The findings of the present revealed drug compliance among BPAD patients of the selected mental health care setting.

Introduction

To write prescriptions is easy, but to come to an understanding with people is hard. Bipolar disorder (BPAD) is a commonly prevalent and enduring condition characterized by recurrent episodes and often followed by residual symptoms. The high rates of co morbidity, suicide and functional impairment in BPAD also ensure that it is a common cause of disability as well as economic and social burden [1]. Pharmacological treatments are efficacious in both acute and long-term treatment of BPAD in clinical trials of these medications [1]. Nevertheless, the effectiveness of medication treatments, particularly long-term treatment with medications is less impressive in day to-day practice. Inadequate treatment-adherence is the single most important hurdle in translating efficacy in research settings into effectiveness in clinical practice. In common with other chronic medical conditions with intermittent symptoms and delayed effects of discontinuing treatment, non-adherence is widespread in BPAD and is associated with several adverse consequences [1]. Apart from undermining the usefulness of treatment and leading to poor outcomes, non-adherence also increases the risk of relapse, re-hospitalization and suicide several folds [1]. Non-adherence in individuals with BPAD leads to greater utilization of health-care services and increased mental health expenditures finally, the poorer quality of life, stigmatization and functional impairment which accompany non-adherence lead to added burden on the family and society as a whole [1].

Noncompliance contributes to relapse and rehospitalization [2]. The cost of poor compliance to sufferers and also to society is considerable and effective ways of improving compliance are a crucial part of good management [2]. Therefore, improving medication compliance in persons with mentally ill holds the potential for reducing morbidity and suffering of patients and their families, in addition to decreasing the cost of rehospitalization [2]. One of the ways to improve drug compliance is to know crucial factors responsible for poor drug compliance so that proper management strategies may be planned to improve patients drug compliance.

Background of the study

Non -adherence is a serious problem in psychiatric treatment and compromises treatment effectiveness. In bipolar disorder, non -adherence ranges from 20 to 60%, and is associated with poorer outcomes, elevated rates of relapse, hospitalization, suicidal behavior, and greater costs of care [3]. Thirty percent of patients stop taking antidepressants after one month and 45-60% after 3 months [4]. Inadequate adherence to antidepressants may lead to increased recurrence, severity, and disability, poorer responsivity to future treatment, and greater healthcare cost [5]. With this background it was important to assess the drug compliance of BPAD patients to know the current status of drug compliance at this particular setting.

The purpose of the study was to assess the drug adherence among bipolar affective disorder patient and to find out the association between drug Adherence with selected demographic variables.

Methods and Materials

The main objective of the study was to assess the drug compliance and to find out the association between drug compliance with selected socio demographic variables.

Setting

A descriptive study was conducted in selected mental health care setting in Karnataka among BPAD patients. 50 patients who were admitted in various wards of the mental health care setting were participated in this study.

Sample and sampling technique

The study sample included male and female patients who diagnosed with bipolar affective disorder by psychiatrist based on ICD10 criteria, with history of minimum previous two admissions and age between 20-60 years and were admitted at acute wards of the mental health care setting. Patients with co-morbid medical illness were excluded. During one month period 60 patients were admitted in in-patients wards of mental health care setting, 10 patients were excluded due to co-morbid medical illness like diabetes, hypertension, and epilepsy with complexity of the treatment regimen. The remaining 50 patients were conveniently selected and their data was collected by structured Interview method using Morisky 8 item medication adherence questionnaire.

Tools

This study included structured socio demographic data sheet and Morisky 8 item medication adherence questionnaire. The questionnaires were reviewed by experts for accuracy.

Description of tools

Socio demographic and clinical information comprised of basic information such as age in years, sex, Religion, education, occupation, income, marital status, distance from home to hospital, residence, duration of illness, number of previous hospitalization, duration of treatment no of medication per day, type of medication, support system to give medication, who is administering drug at home, family history of mental illness.

Morisky 8 item medication adherence questionnaire is a self report questionnaire developed by Morisky DE, Green LW, Levine DM in 1986 it is consisting of 8 items having the total score of 8 (Yes=1 No=0). The score of 0 is high adherence, 1-2 medium adherence 3-8 is low adherence.

Ethical considerations

Study was approved by institutional ethics committee. The ethical considerations were addressed by explaining to the participants and their caregivers. The ethical rights were explained both orally and writing. Subsequent to explanation of the purpose and benefits of the study the subjects and their care givers gave their written consent.

Data collection

After obtaining formal permission from the appropriate institutional authority, suitable time was fixed by keeping in view of ward routines and visitors time. Structured interview method is used for data collection and patient responses were recorded by the investigator. Each patient took 15-20 minutes to complete the assessment.

Data analysis

Data was analyzed using statistical package for the social sciences software package (Version 18). The outcome variable was level of drug compliance. Data was analyzed by using chi square test.

Results

Distribution subjects based on social-demographic characteristics

The majority of the patients belong to age group of 20-39 (84%), male patients were 66%, 82% were married, 32% come from distance of 31 to 60 kms, 56% earns less than 5000 RS, 36% were having duration of illness from 1-5 years, 36% of having duration of treatment from 1-5 years, 42% were having primary education (Table 1).

Table 1: Distribution of subjects based on socio demographic characteristics.

Sl No	Sociodemographic Variable	Frequency
1	Age 1. 20-39 Years 2. 40-59 Years	42 08
2.	Sex 1. Male 2. Female	33 17
3.	Marital Status 1.Unmarried 2.Married 3.Divorced /Separated	04 41 05
4.	Distance 1.1-30kms 2.31-60kms 3.60 Kms And Above	05 16 29
5.	Income 1.Less Than 5000 2.5000-10000 3.10000 And Above	28 15 07
6.	Duration Of Illness 1. Less Than One Year 2. 1-5 Years 3. 5 Years And Above	10 18 22
7	Duration Of Treatment 1. Less Than One Year 2. 1-5 Years 3. 5 Years And Above	10 18 22
8.	Education 1.No Formal Education 2.Primary Education 3.Degree	25 21 04

Level of drug adherence

Among 50 patients assessed 38 (76%) were found to be low adherent and 12 (24%) patients were found to be medium adherent.

Association of level of drug adherence with the socio-demographic variables

Among selected social-demographic variables of patients with BPAD, only income status of patients with BPAD were found significance association (X^2 =6.15, P=0.01) with the level of drug adherence at the level of p >0.01.(Table-2)

Table 2: Association between selected socio demographic characteristics with levels of adherence among persons with BPAD

Sl. No	Socio Demographic Variable	Low Adherence	Medium Adherence	X^2	P Value
1	Age 1.20-40 Years 2.40 And Above	32 06	10 02	0.005	0.94
2.	Sex 1.Male 2.Female	26 12	07 05	0.41	0.52
3.	Marital Status 1.Unmarried 2.Married	06 32	03 09	0.52	0.46
4.	Distance 1.<60kms 2.61 And Above	14 24	07 05	1.72	0.18
5.	Income 1.Less Than 5000 2. Rs. 5000 And Above	25 13	03 09	6.15	0.01**
6.	Duration Of Illness 1. <5 Years 2. <5 Years	21 17	07 05	0.03	0.85
7	Duration Of Treatment 1.Less Than 5 Years 2. More Than 5 Years	21 17	07 05	0.03	0.85
8.	Education 1.No Formal Education 2.Formal Education	20 18	05 07	0.43	0.50

Discussion

The findings of the study had been discussed with reference to the aim of the study and with findings of other related literature / studies. Among 50 patients assessed 38 (76%) were found to be low adherent and 12 (24%) patients were found to be medium adherent. Among selected social-demographic variables of patients with BPAD, only income status of patients with BPAD were found significance association (X^2 =6.15, P=0.01) with the level of drug adherence at the level of p >0.01.

A descriptive, co-relational study carried out to identify the factors affecting non-compliance to psychotropic drugs as perceived by patient's relatives visiting outpatient department of Father Muller Mental Hospital Mangalore. The results shows that various factors perceived as contributing to non compliance, were disease characteristics related (62%), transportation problems (56%), poor community mental health services (55%), drug side effects (52%), cultural myth (49%), social factors (48%), psychological& motivational factors (47%), economic factors (43%), knowledge & insight (31%), illiteracy (36%), & other factors such as misconception about treatment & difficulty in swallowing the tablets contribute to noncompliance (17%) [6] The study results supports the presents study results.

A cross sectional study was conducted at Euthopia on Prevalence of Drug Non Adherence and Associated Factors among Patients with Bipolar Disorder at Outpatient Unit of Amanuel Hospital, Ethiopia, the results shows that Morisky medication adherence scale indicated non adherence amongst 51.20% of participants. Significant predictors of non adherence were no social support 95%, perception of being stigmatized, 95%, negative attitude towards treatment 95%, taking medication twice per day 95%, being unemployed, 95% [7]. This study results also supports the present study results.

The study results emphasized that drug non-adherence is a significant problem in psychiatric patients; it may leads high

relapse and re-hospitalization. One of the important aspects of current psychiatric practice includes improving drug adherence among patients with psychiatric illnesses, required education and motivation regarding drug adherence by sharing, discussing, guiding and giving clear information to patients and their care givers through individual education, counseling, supplying information booklets, group therapy, etc. The important need of achieving this is by nursing personnel must concentrate on drug adherence motivation therapies while caring patients, to enhances the drug adherence among the patients with long term psychiatric illnesses.

Conclusion

The study established the current status of drug adherence among the BPAD patients. The study revealed that there is a significant low adherence among bipolar affective disorder patients and there is a need for reinforcement and strategies to improve drug adherence.

Limitation

This study is single center study. Study is limited by a small sample size, which decreases statistical power.

Conflict of interest

Authors declared there is no conflict of interest.

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