



ADHERENCE TO PSYCHOTROPIC MEDICATION IN PATIENTS ATTENDING PSYCHIATRY OPD

Psychiatry

Dr. Lakshmi Sowjanya Velagana Postgraduate, Department of Psychiatry, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh 534005, India.

Dr. Pavan Kumar Kadiyala Associate Professor, Department of Psychiatry, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh 534005, India.

Rupa Lakshmi Harshavardan* Postgraduate, Department of Psychiatry, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, West Godavari District, Andhra Pradesh 534005, India. *Corresponding Author

ABSTRACT

Background: Adherence to psychiatric medications is a complex, dynamic behaviour requiring patients to initiate treatment and continue to take their medications at the correct time, in the correct dose, for prolonged periods of time. **Aim:** The purpose of the study was to assess the adherence to psychotropic medication among patients with mental illness. **Methods:** The present study was a cross-sectional research design. A total of 317 patients with mental illness were selected using a consecutive sampling technique. The data was obtained included patient's socio-demographic details and diagnosis and those who were satisfying the criteria were included. Adherence to medication was assessed by using Medication Adherence Rating Scale (MARS). **Results:** The study findings revealed that out of 317 patients, 131 (41.32%) patients had medication adherence whereas, 186 (58.67%) patients had non-adherence to medications. There were significant associations between MARS score with gender ($p = 0.028^*$), age ($p = 0.023^*$), marital status ($p = 0.013^*$), religion ($p = 0.000^*$) and diagnosis ($p = 0.000^*$). **Conclusion:** Non-adherence to medication caused sustained burden to patients as well as society, therefore improving medication adherence among patients is of great value to all concerned.

KEYWORDS

Medication adherence, mental illness, MARS (Medication Adherence Rating Scale)

INTRODUCTION

Mental and behavioral disorders are common and affect more than 25% of all people at some times during their lives. Medications can play a vital role in treating several mental disorders and conditions. The best medications are of little value unless they are taken. Adherence to psychiatric medications is a complex, dynamic behavior requiring patients to initiate treatment and continue to take their medications at the correct time, in the correct dose, for prolonged periods of time. Medication non-adherence is a multi-faceted problem, especially for people with chronic diseases. There are numerous factors which affect medication adherence among patients.

Adherence is an interplay between 5 types of factors namely, socioeconomic factors, therapy-related factors, provider-patient/healthcare system factors, condition related factors and patient related factors. Every factor stated here affects medication adherence of patients either directly or indirectly. Non-adherence to treatment remains one of the greatest challenges in mental health care services. Thus, this study was taken up to understand medication adherence among patients with various mental illnesses thereby helping them to overcome the barriers to treatment.

METHODS AND MATERIALS

Research design and setting

A Cross-sectional research design was adopted for this study. The study was conducted in psychiatry Outpatient Department (OPD) of a tertiary care hospital over a period of one year from December 2020 to December 2021, after obtaining approval from the institutional ethics committee. Patients with existing diagnosis of mental illness, attending psychiatric outpatient department for regular follow up visits were included for this study.

Sample size and technique

A total of 317 patients with mental illness were selected using a consecutive sampling technique. The data was obtained from patients living in the community after a diagnosis of mental illness and attending the OPD for follow up consultations. The data thus obtained included socio-demographic information of patient such as age, gender, residence, education, occupation, marital status, religion, comorbidities, family history and diagnosis.

Criteria for sample selection

Inclusion criteria:

1. Patients aged between 20-65 years.

2. Patients with at least one episode of mental illness in the past but currently in remission
3. Patients who are on psychotropic medications.

Exclusion criteria:

1. Patients with Intellectual Disabilities and cognitive impairment were excluded
2. Patients who were not accompanied by a reliable caregiver to give medication adherence history are excluded.

Study tool: Medication adherence rating scale (MARS)

Description of the tool:

The MARS scale was developed by Thomson and colleagues which incorporated features from the Medication Adherence Questionnaire (MAQ) and another scale called the Drug Attitude Inventory (DAI). It was proposed to have a better validity and clinical utility. It consists of a simple 10 item questionnaire. The MAQ was originally developed by Morisky and colleagues for assessment of medication adherence. This was done in a population of hypertensives and shown to have good predictive validity. It has been used by several researchers as well. However, psychometric analyses have shown only mixed results. Interpretation of MARS Scores: Scores ≥ 7 considered as adherence; MARS score < 7 considered as non-adherence.

RESULTS:

Table 1. Frequency and percentage distribution among patient with mental illness (N=317) by using MARS scale.

MARS	n	%
Adherence	131	41.32
Non -adherence	186	58.67

As per MARS score, 131 (41.32%) patients had medication adherence, 186 (58.67%) patients had non-adherence.

Table 2. Mean score and Standard Deviation of among Patients with Mental Illness (N=317) by using MARS scale.

Variable	Mean	Standard deviation
MARS	5.76	1.887

The mean score obtained for patients with medication adherence was 5.76 with standard deviation of 1.887.

Table 3. Frequency and Percentage of distribution and demographic variables among patient with mental illness.

Demographic variables		n	%
Gender	male	151	47.6%
	female	166	52.4%
Age	20-30 years	89	28.1%
	31-40 years	86	27.1%
	41-50 years	79	24.9%
	51-60 years	53	16.7%
	61-70 years	10	3.2%
Marital Status	married	188	59.3%
	unmarried	77	24.3%
	divorced	52	16.4%
Religion	Hindu	199	62.8%
	Christian	96	30.3%
	Muslim	22	6.9%
Education	literate	294	92.7%
	Illiterate	23	7.3%
Comorbidities	present	130	41.0%
	absent	187	59.0%
Diagnosis	Anxiety	81	25.6%
	ADS	44	13.9%
	BPAD	40	12.6%
	Depression	70	22.1%
	Schizophrenia	82	25.9%
MARS	Non adherence	186	58.7%
	Adherence	131	41.3%

Table 4. Association between the MARS scale and demographic variables among patient with mental illness.

Demographic variables		MARS		Adherence		Chi-square statistics		
		n	%	n	%	X ²	df	P- value
Gender	male	102	67.5%	49	32.5%	9.366	1	0.002*
	female	84	50.6%	82	49.4%			
Age	20-30 years	52	58.4%	37	41.6%	11.38	4	0.023*
	31-40 years	42	48.8%	44	51.2%	5		
	41-50 years	55	69.6%	24	30.4%			
	51-60 years	34	64.2%	19	35.8%			
	61-70 years	3	30.0%	7	70.0%			
Marital Status	married	116	61.7%	72	38.3%	8.667	2	0.000*
	unmarried	49	63.6%	28	36.4%			
	divorced	21	40.4%	31	59.6%			
Religion	Hindu	114	57.3%	85	42.7%	17.37	2	0.000*
	Christian	50	52.1%	46	47.9%	3		
	Muslim	22	100.0%	0	0.0%			
Education	literate	171	58.2%	123	41.8%	0.438	1	0.508
	Illiterate	15	65.2%	8	34.8%			
Comorbidities	present	79	60.8%	51	39.2%	0.399	1	0.528
	Absent	107	57.2%	80	42.8%			
Diagnosis	Anxiety	44	54.3%	37	45.7%	54.06	4	0.000*
	ADS	44	100.0%	0	0.0%	5		
	BPAD	14	35.0%	26	65.0%			
	DEPRESSION	28	40.0%	42	60.0%			
	SCHIZOPHRENIA	56	68.3%	26	31.7%			

There was a significant association among gender ($p = 0.028^*$), age ($p = 0.023^*$), marital status ($p = 0.013^*$), religion ($p = 0.000^*$) and diagnosis ($p = 0.000^*$).

There was no significant association between comorbidities ($p = 0.528$) and education (0.508)

DISCUSSION

The findings from this study reveal that 131(41.32%) patients had medication adherence and 186(58.67%) patients had non adherence (Table -1); The average mean score for medication

adherence among the total population was found to be 5.76 with standard deviation of 1.887 (Table-2); In this study, among the total subjects ($n = 317$ patients) 32.5% ($n = 151$) were of male gender and belonged to the medication adherent group. Among the females ($n = 166$) 49.4% belonged to medication adherent group. Among the 89 subjects belonging to age group of between 20-30 years, 41.6% were in adherent group. The percentage of individuals who were adherent to medications among 31-40 years age group ($n = 86$) was 51.2%. Whereas adherence among 41-50 years age group ($n = 79$) 51-60 years ($n = 53$) and 61-70 years ($n = 10$) was 30.4%, 35.8% and 70.0% respectively. As for married participants ($n = 188$) 38.3% had adherence, unmarried individuals (77) 36.4% had adherence and divorced ($n = 52$) that is 59.6%. The group with adherent had individuals belonging to Hindu religion ($n = 199$) made up 42.7%, 47.9% Christians ($n = 96$) and Muslims ($n = 22$) 0.0%. Analysis by educational status showed a majority of literate individuals ($n = 294$) of which 41.8% had adherence and out of illiterate individuals ($n = 23$) 34.8% had adherence. Out of patients with comorbidities ($n = 130$) 39.2% had showed adherence and patients without comorbidities ($n = 187$) 42.8% had adherence; among 317 patients with various diagnosis, patients with anxiety are ($n = 81$) out of which 45.7% showed adherence, among BPAD ($n = 40$) out of which 65.0% had adherence, depression patients are ($n = 70$) 60.0% had adherence, schizophrenia ($n = 82$) out of which 31.7% had adherence. Alcohol dependant patients are 44 out of which none of the individuals showed adherence (Table 3,4). The association between demographic variables and MARS scores showed a significant correlation among gender ($p = 0.028^*$), age ($p = 0.023^*$), marital status ($p = 0.013^*$), religion ($p = 0.000^*$) and diagnosis ($p = 0.000^*$) (Table -5) at the level of $p < 0.05$.

A study was conducted on factors affecting non-compliance among psychiatric patients at regional institute of Medical Sciences, Imphal, India. Using a non-probability sampling technique 50 patients were selected, findings revealed that non-compliance to drug treatment was most common between 21-30 years of age groups, more in females (72%) than males (28%), high among married (60%) than single (40%), and with low education (28%) and low socioeconomic status (54%). There was a significant association between the level of medication adherence and the age, education among psychiatric patient. Another study done to examine the level of medication adherence on patients among a group of 95 outpatients, results indicated high adherence levels amongst 12.6%, moderate adherence levels amongst 50.8% and low adherence levels amongst 37% of participants; concluded that moderate to high levels of adherence to medication treatment exist & it is influenced by age and race. Other study done at Chennai with 70 patients, finding revealed that 20 (28.5%) patients had low medication adherence, 27 (38.5%) patients had medium medication adherence and 23 (33%) patients had high medication adherence level. There was a significant association between the level of medication adherence and the residence (urban at the level of $p = 0.01$)

CONCLUSION

Patient nonadherence to prescribed psychotropic medications remains a critical issue in psychiatry, given the correlation between nonadherence and morbidity, as well as other significant economic, social, and psychological costs. In psychiatric disorders, prevention and treatment of non-compliance is of major importance for preventing relapses. Educating patients and their relatives about nature of illness and medication adherence plays a vital role in preventing drug non-compliance. Hence, it is a crucial part of treatment that the health care providers make the psychiatric patients and their caretakers aware of the benefits and importance of medications.

Conflict of Interest: No conflict of interest.

Ethical clearance: Taken from institutional ethical committee faculty members

Source of Funding: Self-funding

REFERENCES

- S.Nalini, Lisy Joseph, V.Santhi Medication Adherence among Patients with Mental Illness Attending Psychiatric OPD & Ward in a Tertiary Hospital at South India Indian Journal of Public Health Research & Development, November 2020, Vol. 11, No. 11.
- Ram Dushad (aug29, 2019): impact of illness has an inverse relationship with the level of drug attitude and medication adherence. Improving drug attitude and adherence may buffer the impact of illness.
- Tesfay K, Girma E, Negash A, Tesfaye M, Dehning S. Medication non-adherence among

- adult psychiatric out-patients in Jimma University specialized hospital, Southwest Ethiopia. *Ethiopian Journal of health sciences*. 2013;23(3):227-36.
4. Nirojini PS, Bollu MO, Nadendla RR. Prevalence of medication non-adherence among the psychiatric patients-results from a survey conducted in a tertiary care hospital. *International Journal of Pharmaceutical Science*. 2014;6(4):461-3.
 5. Vinodkumar M, Bharathkumar A, Manoj G.H.R.R. Effect of insight and medication benefits, internal and external barriers towards medication adherence among rural and urban psychiatric outpatients. **world journal of pharmacy and pharmaceutical science* 2016;5(5):744-752.
 6. Osterberg L, Blaschke T. Adherence to medication. *N Engl J Med*. 2005; 353(5): 487-497.
 7. Elowe J, Romain J, Solida A, Conus P, Golay P (2022). Dynamics between insight and medication adherence in first episode psychosis: Study of 3-year trajectories. *European Psychiatry*, 65(1), e49, 1–9 <https://doi.org/10.1192/j.eurpsy.2022.2305>
 8. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med*. 2012;157(11):785-95
 9. McDonald HP, Garg AX, Haynes RB. Interventions to enhance patient adherence to medication prescriptions: scientific review. *JAMA*. 2002; 288(22):2868-2879
 10. De las Cuevas C. Towards a clarification of terminology in medicine taking behavior: compliance, adherence and concordance are related although different terms with different uses. *Curr Clin Pharmacol*. 2011 May 1;6(2):74-7
 11. Royal College of General Practitioners (UK). *Medicines Adherence: Involving Patients in Decisions About Prescribed Medicines and Supporting Adherence* [Internet]. UK: NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE; 2009. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK55435/>
 12. Ascher-Svanum H, Zhu B, Faries D, Lacro JP, Dolder CR. A prospective study of risk factors for nonadherence with antipsychotic medication in the treatment of schizophrenia. *J Clin Psychiatry*. 2006;67(7):1114-23.
 13. Olfson M, Marcus SC, Wilk J, West JC. Awareness of illness and nonadherence to antipsychotic medications among persons with schizophrenia. *Psychiatr Serv*. 2006;57(2):205-11.
 14. Banerjee S, Varma RP. Factors Affecting Non-Adherence among Patients Diagnosed with Unipolar Depression in a Psychiatric Department of a Tertiary Hospital in Kolkata, India. *Depress Res Treat*. 2013;2013:809542. doi: 10.1155/2013/809542. Epub 2013 Dec 4. PMID: 24381752; PMCID: PMC3868196.