

DRUG UTILIZATION STUDY OF PSYCHOTROPIC DRUGS PRESCRIBED IN PSYCHIATRY OPD OF L. N. MEDICAL COLLEGE ASSOCIATED J. K. HOSPITAL, BHOPAL DISTRICT, MADHYA PRADESH

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ABSTRACT

BACKGROUND

Utilization pattern of drugs varies from place to place and is influenced by differing patient characteristics, type of disease prevalent, cultural and environmental influences, socioeconomic states, availability of newer drugs and prescribing habit of physicians. Psychiatric disorders are one of the major causes of morbidity. Development of newer drugs like SSRIs and atypical antipsychotics has altered the treatment paradigms. Various factors like cost of drugs, local paradigms, etc. play a role in the selection of drug therapy and hence affect the outcome. Keeping this in mind, we conducted a study to delineate the various drugs used in psychiatric disorders. Psychotropic drugs have had a remarkable impact in psychiatric practice. However, their utilization in actual clinical practice, effectiveness and safety in real life situation needs continuous studies. So our aim to study the prevalence of psychiatric morbidity and analyse drug prescribing pattern in various psychiatric illnesses.

METHODOLOGY

A prospective cross sectional study was carried out for 6 months (Dec. 2014 - May. 2015) in psychiatry OPD of L. N. Medical College, Bhopal. Patients of all ages and both sexes were included in the study and 600 prescriptions were randomly selected.

RESULT

Antipsychotic drugs (75.33%) were most frequently prescribed psychotropic drugs in various psychiatric disorders followed by Anti-Depressants (48.33%) and Anxiolytics (26%).

CONCLUSION

This study shows that antipsychotics are the most common antipsychotic drugs prescribed in patients with psychotic illness. Depression is the most common disease. Prescription rate was higher in men between 21-40 yrs. age.

KEYWORDS

Psychotropic Drugs, Effectiveness, Safety and Study.

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INTRODUCTION

As per the World Health Organization (WHO), Drug utilisation study is defined as a study of marketing, distribution, prescription and uses of drugs in a society highlighting on the resulting medical, social and economic consequences. Drug utilisation studies afford a baseline reference point about the effect of diverse interventions in prescribing the concerned drugs.^[1] The main idea behind this is to make medical care rational and more cost-effective. Studies are necessary as these studies monitor, evaluate and suggest modifications to improve the prescribing habits.^[2] Drug utilisation studies facilitate the appropriate use of drugs; thereby, it can reduce the potential hazards to the patients and unnecessary expenses. So the periodic review of pattern of drug utilization helps to ensure safe and effective treatment.^[3]

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Psychotropic medication is used when symptoms of mental or emotional illness are severe and interferes with normal functioning. Sometimes, these drugs are used for medical and neurological disorders. All drugs also require careful monitoring and evaluation regarding cost.^[4] The clinical indication and monitoring are needed to avoid the inappropriate use, potential serious side and life-threatening effect.^[5]

MATERIALS AND METHOD

Study Design

It was a prospective, non-comparative, observational, follow-up study, was carried out in Outpatient Department of Psychiatry, J. K. Hospital, L. N. Medical College, Bhopal.

Duration of Study

18 months (December 2014 to May 2015).

Site of Study

Department of Pharmacology and Department of Psychiatry, Tertiary Care Hospital, Bhopal district, Madhya Pradesh.

Sample Size

600 patients of all ages and both sexes were included in the study. Approval from the Ethical Committee to be taken from IEC, L. N. Medical College, Bhopal.

Methods of Collection of Data

The participants' diagnostic and clinical data including age, sex, type of psychiatric disorder and type of drug was noted down after taking written consent.

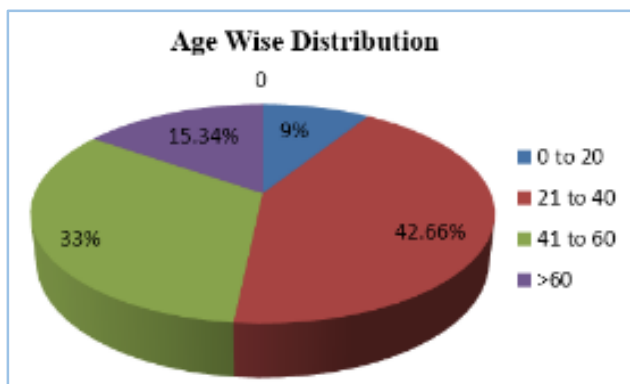
RESULT

A total of 600 patients with a diagnosis of psychiatric disorders and who were receiving at least one antipsychotic drugs were included in the study.

Age (Years)	No. of Patients	Percentage
0 to 20	54	9
21 to 40	256	42.66
41 to 60	198	33
>60	92	15.34

Table 1: Age Wise Distribution

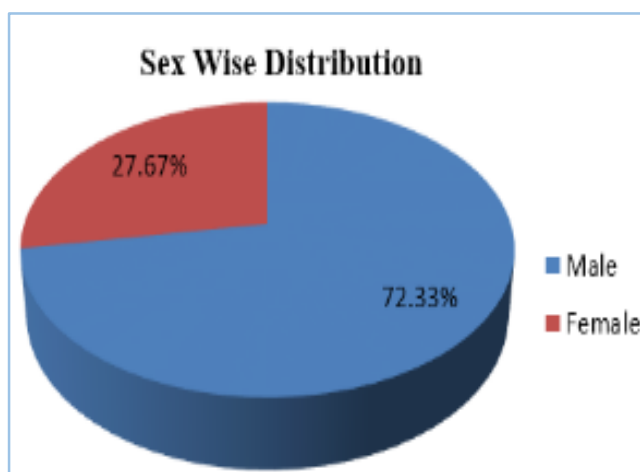
In this study, patients between 21 to 40 years of life formed majority of the patients accounting to 42.66% of the total patients.



Sex	No. of Patients	Percentage
Male	434	72.33
Female	166	27.67

Table 2: Sex Wise Distribution

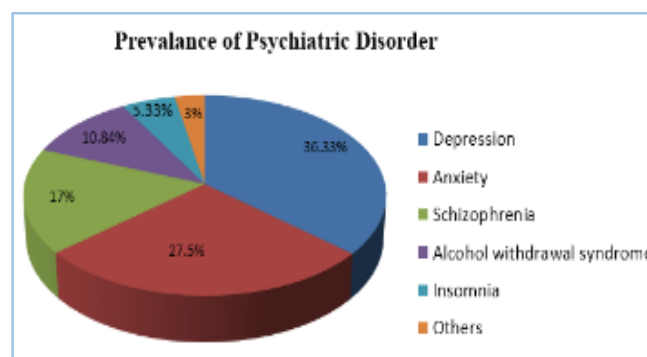
This table shows the sex distribution. Majority of the patients in our study were male 72.33% as compared to female 27.67%, which reflects the population at risk. This male preponderance is seen in all age groups.



Psychiatric Disorder	No. of Patients	Percentage
Depression	218	36.33
Anxiety	165	27.5
Schizophrenia	102	17
Alcohol withdrawal syndrome	65	10.84
Insomnia	32	5.33
Others	18	3

Table 3: Prevalence of Psychiatric Disorder

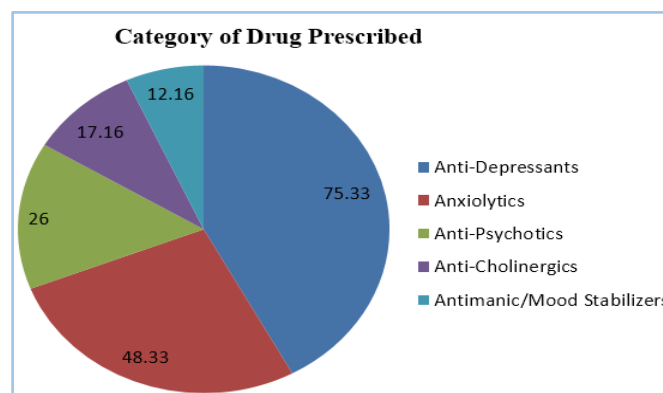
This table shows the prevalence of psychiatric disorder. Most common disorders among the patients attending psychiatry OPD were Depression 36.33%, Anxiety 27.5%, Schizophrenia 17%. The other common disorders were Alcohol withdrawal syndrome 10.84%, Insomnia 5.33% and others 3%.



Category of Drugs	No. of Patients	Percentage
Anti-Depressants	452	75.33
Anxiolytics	290	48.33
Anti-Psychotics	156	26
Anticholinergics	103	17.16
Anti-manic/Mood Stabilizers	73	12.16

Table 4: Category of Drugs Prescribed

Most common drugs prescribed among the patients were Anti-Depressants 75.33%, Anxiolytics 48.33%, Anti-Psychotics 26%, Anticholinergics 17.16% and Anti-manic/Mood Stabilizers 12.16%.



Category	Drug	Percentage
Antidepressants	Fluoxetine	42
	Imipramine	22.2
	Sertraline	11.4
	Amitriptyline	10.2
	Mirtazapine	9.2
	Paroxetine	3.3
	Escitalopram	1.7
Anxiolytics	Lorazepam	31
	Clonazepam	27.9
	Chlordiazepoxide	17.4
	Alprazolam	17.1
	Clobazam	6.6
Antipsychotics	Trifluoperazine	42.5
	Chlorpromazine	27.5
	Levosulpiride	11.2
	Clozapine	7.4
	Olanzapine	5
	Risperidone	2.2
	Aripiprazole	1.9
	Fluphenazine	1.4
	Haloperidol	0.9

Table 5: Category Wise Drugs Distribution

Most common drugs prescribed among the patients were Anti-Depressants 75.33% (Fluoxetine, Imipramine and Sertraline), Anxiolytics 48.33% (Lorazepam, Clonazepam and Chlordiazepoxide), Anti-Psychotics 26% (Trifluoperazine, Chlorpromazine and Levosulpiride), Anticholinergics 17.16% and Antimanic/Mood Stabilizers 12.16%.

DISCUSSION

The burden of illness resulting from psychiatric and behavioural disorders is enormous, although it remains grossly underrepresented by conventional public health statistics. Some psychotropics are among the most commonly used ones, since polypharmacy leads to increased risk of drug interactions, increased hospital cost.^[6] and errors of prescribing.^[7]

In our study, depression is the most common psychotic illness. Same finding was observed in other studies.^{[8][9]}

Men received more psychotropic prescriptions than women.^{[10][11]} It is observed that female patients with psychotic disorder present with more severe mental deterioration in an advanced stage of the illness. This may be due to the lack of awareness by their family members and relatives or it may be due to higher depressive episodes in females due to increased hormonal influences.

Most commonly affected age group is between 21 to 40 years by any psychotic disorder. Increasing use of psychotropic drugs in this age group may be due to increased incidence of mental ill health, improved mental health literacy in general population, reduction in stigma associated with mental illness, increase in drug treatment option.^[12]

The use of atypical antipsychotic drugs is favoured by most of the published guidelines.^[13] In our study the majority of the patients 75.33% were receiving the antidepressant medications. This is due to the clinical efficacy and safety of new generation antidepressant medications.^[14,15] Antidepressants and antipsychotic co-prescription may be prescribed to tackle the negative side effects of psychosis. The efficacy and safety of such co-prescription has been insufficiently investigated.

CONCLUSION

This study shows that antipsychotics are the most common antipsychotic drugs prescribed in patients with psychotic

illness. Depression is the most common disease. Prescription rate was higher in men between 21-40 yrs. age.

To see the efficacy, adverse reactions, usage of various other psychotropic medications and their rational use, it is necessary to do more detailed study in large number of populations.

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