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Research Article

Prescribing pattern of prescription writing in psychiatric opd. a hospital based study

Khan A.W[1]., Abdul Majid[2]., Ajaz Ahmad Suhaff*[3] and Nizam-ud-din[4]

[1]Department of Psychiatry Government Medical College Annantnag, J and K
[2,3,4]Department of Psychiatry SKIMS Medical College Bemina

A R T I C L E I N F O

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A B S T R A C T

Objective: to analyze the patterns of psychotropic drug utilization in the Psychiatric Outpatient Department. **Methodology:** This is a hospital-based cross-sectional, observational study. The study was carried out over a period of six months. The said study was conducted in two centers Department of psychiatry SKIMS Medical College Bemina and the Department of Psychiatry Medical College & Hospital, Anantnag, J & K India. A total of 500 prescriptions were analyzed as per the WHO recommendations on conducting drug utilization study from OPD. The prescriptions were analyzed for the following age, sex, diagnosis, drugs, dosage form, routes of administration was recorded accordingly. **Results:** In our study females were 298, most common psychiatric disorder was major depressive disorder, most common class of drug prescribed was antidepressants followed by benzodiazepines. **Conclusion:** Our study suggests a strong need for creating awareness among psychiatrists for continuous monitoring of the prescriptions periodically which will give an insight for prescribing patterns of psychotropic drugs in hospital settings.

INTRODUCTION

The word 'prescription', derives from 'pre' (before) and 'script' (writing, written), denoting that it is an order that must be written down before or for the preparation and administration of a drug and is one of the most important therapeutic transactions between physician and patient. [1-3]

The aim of the drug utilization is to encourage the rational use of medications to make medical care rational and more cost-effective.[4] Drug utilization is considered as the study of the prescriptions, marketing and distribution of various drugs. In addition to these it is the evaluation of medical, social and economical consequences of drugs. [5] Multiple factors affect the prescription writing such as patient characteristics, type of disease prevalent, cultural and environmental factors as well as the socioeconomic status, availability of newer drugs and physicians prescribing habit influences most. Inappropriate and unnecessary use of drugs/medications should be checked / reviewed as this can be a potential hazard to patients.[6]

Mental illnesses form an important public health priority and is associated with high level of health service utilization and associated costs mostly paid by the patient.[7] Psychopharmacology is constantly seeking new and improved drugs that are claimed to be safe and more efficacious. Many studies from the western countries have reported the prescription patterns of various psychotropic medications such as antipsychotic prescription, anti-depressants, mood stabilizers, benzodiazepines, anti-cholinergic agents etc in psychiatric patients. [8,9]

The present study was carried out to analyze the patterns of psychotropic drug utilization in the Psychiatric Outpatient Department as there is no sufficient data available from Kashmir.

Corresponding author:* **Ajaz Ahmad Suhaff
Department of Psychiatry Government Medical College Annantnag, J and K

METHODOLOGY

Study design

This is a hospital-based cross-sectional observational study.

Study period

The study was carried out over a period of six months. The said study was conducted in two centers Department of psychiatry SKIMS Medical College Bemina and the Department of Psychiatry Government Medical College & Hospital, Anantnag, J & K India.

Sampling

A total of 500 prescriptions were analyzed as per the WHO recommendations on conducting drug utilization study from OPD.[10]

Inclusion criteria

- Subjects who were seeking treatment at Psychiatry OPD for various psychiatric disorders and willing to participate.
- Patients from all age groups and both sexes were included.
- Those who gave consent for the participation.

Exclusion criteria

- Not willing to participate;
- Not giving consent

Procedure

Permission of the Institutional Ethical Committee was obtained for conducting the study. Informed consent was taken from all participants prior to their inclusion into the study. Sociodemographic profile of the patient was recorded on a specially prepared proforma. The data of the patients attending the Psychiatry OPD from department of psychiatry SKIMS Medical College Bemina and the department of psychiatry Government Medical College Anantnag, during the study period 1st April 2021 to 30th September 2021, were included. In case of OPD holidays, the prescriptions of that day were assigned to the next working day. A total of 500 cases were analyzed. The prescriptions were analyzed for the following age, sex, diagnosis, drugs, dosage form, routes of administration was recorded accordingly.

Statistical Analysis

The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 20.0. Data were categorized and analyzed using both descriptive and inferential analysis.

RESULTS

As far as our study is concerned, the prescription we analysed females (59.6%) were more than males (40.4%). In our study most common disorder found was Major depressive disorder (24.8%), followed by Generalized Anxiety Disorder (16.2%), Panic Disorder (13.6%), Bipolar Affective Disorder (including Mania/Hypomania) (11.2%), Obsessive & Compulsive Disorder (10.2%), Somatoform Disorder (8.8%), Post-Traumatic Stress Disorder (2.2%), Phobia (3.6%), Conversion (Dissociative) Disorder (3.2%), Schizophrenia (1.8%), Dementia (1.4%), Sexual dysfunctions (1.6%), Attention deficit hyperactivity disorder (0.6%), Mental Retardation (0.6%), & Autism (0.2%).

Table 1 Sex wise distribution

Gender -	No.	percentage
Males	202	40.4
Females	298	59.6

Table 2

Psychiatric Disorder	Number	Percentage
Major Depressive disorder	124	24.8
Generalized Anxiety Disorder	81	16.2
Panic Disorder	68	13.6
Bipolar Affective Disorder (including Mania/Hypomania)	56	11.2
Obsessive & Compulsive Disorder	51	10.2
Somatoform Disorder	44	8.8
Post-Traumatic Stress Disorder	11	2.2
Phobia	18	3.6
Conversion (Dissociative) Disorder	16	3.2
Schizophrenia	9	1.8
Dementia	7	1.4
Sexual dysfunctions	8	1.6
Attention deficit hyperactivity disorder	3	0.6
Mental Retardation	3	0.6
Autism	1	0.2

Table 3 Distribution of psychotropic and other drugs in studied sample. (n=500)

Class of drug	Number	Percentage
Antidepressants	306	61.2
Anxiolytics	203	40.6
Antipsychotics	139	27.8
Mood stabilizers	66	13.2
Beta-blockers	59	11.2
Proton pump inhibitors	119	23.8
Anti Dementia Medications	7	1.4
Nutritional Supplements	148	29.6

Table 4 Prescription Wise Distribution of Antidepressants among studies sample

Class of Antidepressant	Name of the drug	Number	Overall Percentage in studied population
Selective Serotonin reuptake inhibitors (SSRIs)	Escitalopram	73	14.6
	Fluoxetine	34	6.8
	Sertra line	30	6.0
	Paroxetine	26	5.2
	Fluoxamine	19	3.8
	Depoxetine	04	0.8
Serotonin-noradrenaline reuptake inhibitors(SNRIs)	Venlafexine	25	5.0
	Desvenlafexine	18	3.6
	Duloxetine	16	3.2
Tricyclic antidepressants	Clomipramine	14	2.8
	Amitriptyline	12	2.4
	Nortriptyline	09	1.8
Other groups	Mirtazapine	21	4.2
	Trazadone	05	1.0

In our study most common class of drugs used was antidepressants (61.2%). Among antidepressants, SSRIs were commonly used Escitalopram (14.6%), Fluoxetine (6.8%), Sertraline (6.0%), Paroxetine (5.2%), Fluoxamine (3.8%), Depoxetine (0.8%). Second class of antidepressants used were Serotonin-noradrenaline reuptake inhibitors (SNRIs) Venlafexine (5.0%), Desvenlafexine (3.6%), Duloxetine (3.2%). After SNRIs Tricyclic antidepressants were used Clomipramine (2.8%), Amitriptyline (2.4%), Nortriptyline (1.8%). Other antidepressants prescribed were Mirtazapine (4.2%), Trazadone (1.0%). Anxiolytics followed antidepressants (40.6%) in our study Clonezepam (14.8%), Other drugs similar to benzodiazepine (including Etizolam, zolpidem) (10.8%), Lorezepam (9.2%) and Chlordiazepoxide (5.8%). After anxiolytics other class of psychotropics used commonly were Antipsychotics (27.8%) and most common antipsychotic used were Olanzapine (7.4%) followed by Amisulpride (5.0%), Aripiprazole (4.6%), Quitiapine (4.6%), Resperidone (3.6%) Haloperidol (l1.8%) and Clozapine (0.8%).

Table 5 Prescription Wise Distribution of Benzodiazepines among studies sample

Name	Number	Percentage
Clonezepam	74	14.8
Lorezepam	46	9.2
Chlordiazepoxide	29	5.8
Other drugs similar to benzodiazepine (including Etizolam, zolpidem)	54	10.8

Table 6 Prescription Wise Distribution of Antipsychotics among studies sample

Name	Number	Percentage
Olanzapine	37	7.4
Amisulpride	25	5.0
Aripirazole	23	4.6
Quitipine	23	4.6
Resperidone	18	3.6
Haloperidol	9	1.8
Clozapine	4	0.8

DISCUSSION

The study provides a brief idea of prescription pattern of psychotropic drugs in a psychiatric OPD in a general hospital care setting.

In our study most common psychiatric disorders among studied population was Major depressive disorder n=124 (24.8%) followed by Generalized Anxiety Disorder (16.2%), Panic Disorder (13.6%), Bipolar Affective Disorder (including Mania/Hypomania) (11.2%), Obsessive & Compulsive Disorder (10.2%). Many studies found depression as most common disorders consistent with our findings. [11-13]

In our study the most common psychotropics prescribed were antidepressants. SSRIs were the most commonly antidepressants prescribed followed by SNRI's and then tricyclic antidepressants. SSRIs are generally recommended as first line pharmacological treatment for depression. Escitalopram was the most common among SSRI's followed by Fluoxetine, Sertraline. Similar results were found in other studies. [14-21]

In our study benzodiazepines were second common drugs prescribed after antidepressants. Among benzodiazepines Clonezepam (14.8%) followed by Other drugs similar to benzodiazepine (including Etizolam, zolpidem) (10.8%), Lorezepam (9.2%), and Chlordiazepoxide (5.8%). Mostly benzodiazepine were prescribed in combination with other medicine such as antidepressants, mood stabilizers and rarely as monotherapy. The addition of a benzodiazepine to an SSRI can provide more rapid improvement in depression and other anxiety disorders than the SSRI alone.[22,23]

In our study among antipsychotics Olanzapine (7.4 %), followed by Amisulpride (5.0%), Aripirazole (4.6%), Quitiapine (4.6%), Resperidone (3.6%), Haloperidol (1.8%), Clozapine (0.8%). These findings are in contrast with other study by siddhartha et. al in which most common antipsychotic prescribed was resperidone followed by olanzapine.[24] while as some other studies had similar results as olanzapine as the most common antipsychotic prescribed.[25,26].

CONCLUSION

The results indicate a considerable scope for improving the prescribing pattern of drugs in the psychiatry OPD department. Our study suggests a strong need for creating awareness among psychiatrists for continuous monitoring of the prescriptions periodically which will give an insight for prescribing patterns of psychotropic drugs in hospital settings. The periodic monitoring will influence the overall improvement of patients on psychotropic drugs in different mental health care settings. Regular CMEs/ workshops/ Lectures on Rational drug prescription should be held by psycho-pharmacologists for psychiatrists for the best interest of the patient's interest.

Limitation: Short period of time for conducting study (6 months)

Conflict of Interest: There is no any conflict of interest as such.

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