Abstract

Background: Mood disorders are among the most common mental disorders, with depression occupying the highest percentage (2.6%) followed by anxiety (2.3%). With the advancement of new drug research and better research outcome, psychotropic drug prescribing patterns have changed globally over the last few years. This study was done to assess the current prescribing pattern for patients suffering from depression and anxiety.

Methods: This was an observational study based on data collected from patients attending OPD of the psychiatry department. Prior approval of Institutional Ethics Committee was taken for the study. Patients were informed of the purpose of the study and data collection was done with their informed consent. A total of 62 patients diagnosed with depression, anxiety or both were included in the study. Prescribing pattern for the diagnosed patients of both the disorders was analyzed.

Results: Benzodiazepines were the most common group of drugs prescribed in all types of patients in this study, followed by SSRIs and SNRIs. Among the benzodiazepines, clonazepam was the most frequently used drug irrespective of the diagnosis. Sertraline among SSRIs and desvenlafaxine among SNRIs were the most commonly prescribed drugs. None of the drugs were prescribed by generic names. Only eight percent of the drugs were prescribed from essential drugs list.

Conclusions: Periodic monitoring of prescribing pattern of drugs for treating mood disorders is needed to understand the current trend and to bridge the gap if any between the prescribed and the recommended norms.

Keywords: Anxiety, depression, prescribing pattern
INTRODUCTION

Depressive and anxiety disorders are among the most common mental disorders, with depression occupying the highest percentage (2.6%) followed by anxiety (2.3%). Depression can be defined as a mental state that is characterized by feelings of sadness, loneliness, despair, low self-esteem, and self-reproach. Anxiety and related disorders are generally characterized by the features of excessive worry, fear, and avoidance.

Drug prescribing pattern varies among different geographical areas and is influenced by patient characteristics, type of disease prevalent, cultural and environmental influences, socioeconomic status, availability of newer drugs and prescribing habit of physicians.

WHO has made the guidelines to assess medication use indicators, including prescription indicators with an aim to evaluate the services provided to the population in regards to medications. Prescription indicators allow the therapeutic actions taken in similar institutions to be ascertained, enabling subsequent comparison of parameters between them and to evaluate the population’s medication needs and determine the most frequently used medications in a given place. In addition, these indicators enable the investigators to identify the prescription profile and quality of services offered to the population. The prescription indicators are as follows:

1. Average number of drugs per medical prescription
2. Percentage of drugs prescribed by generic name
3. Percentage of drugs prescribed from essential drug list or formulary
4. Percentage of encounters with an antibiotic prescribed
5. Percentage of prescribed injectable drugs

With the advancement of new drug research and better research outcome, psychotropic drug prescribing patterns have changed globally over the last few years. Hence this study was planned to assess the current prescription pattern of our institution for patients suffering from depression and anxiety.

MATERIALS AND METHODS

A total of 62 patients diagnosed with depression, anxiety or both were included in the study. A detailed history was obtained from the patients by the consultant psychiatrists. Severity of anxiety and depression was assessed by Hamilton-Anxiety (HAM-A) scale and Beck’s Depression Inventory (BDI) respectively. The details of drugs prescribed were collected under the applying various WHO prescribing indicators.

Patients willing to be part of the study with informed consent, of either sex aged 18-60 years, and diagnosed with anxiety, depression or both, were included. Patients with other co-morbid psychiatric illnesses and female patients who were pregnant or lactating were not included in the study. The data were entered and analyzed using Microsoft Excel 2007 and the results were expressed in numbers and percentage.
RESULTS

A total of 62 patients with age ranging from 18-60 years were included in the study. Thirty were females (48.4%) and 32 were males (51.6%). Twenty nine (46.8%) patients were in the range of age between 18-30 years, 23 (37.1%) were in the age range of 31-50 years, 10 (16.1%) were aged above 51 years.

Out of 62 patients, nine (14.5%) were businessmen, nine (11.3%) were servicemen, nine (14.5%) were laborers/farmers, 24 (38.7%) were homemakers, and 10 (16.1%) were either students or unemployed. Ten patients (16.1%) were uneducated, seven (11.3%) were primary school educated, seven (11.3%) were middle school educated and seven (11.3%) were post graduates. Out of all 62, 38.7% were diagnosed as case of mixed anxio-depressive disorder, 40.3% suffered from depression only, 8.1% suffered from anxiety only, 3.2% suffered from depression with psychosis, 1.6% suffered from anxiety with psychosis and remaining patients did not show any significant score on either BDI or HAM-A scales but came with mild anxio-depressive complaints, so were given psychotherapy only (Table 1).

A total of 62 patients were interviewed and 214 drugs were analyzed. Patients with significant score on BDI scale were prescribed benzodiazepines, followed by Selective Serotonin Reuptake Inhibitors (SSRIs), Serotonin Norepinephrine Reuptake Inhibitors (SNRIs), Tricyclic Antidepressants (TCAs) and atypical anti depressants. The patients who showed significant scores on HAM-A scale, were also prescribed benzodiazepines, SSRIs, SNRIs, beta blockers and atypical group of drugs alone or as combination therapy. (Figure 1, 2)

Among benzodiazepines, clonazepam was the most commonly prescribed drug for all the cases. Among SSRIs, paroxetine and escitalopram were commonly prescribed for depression and mixed cases whereas for anxiety; sertraline, fluoxetine and escitalopram were equally prescribed. Among SNRIs, desvenlafaxine was most frequently prescribed drug for depression and mixed cases. TCAs were prescribed to patients diagnosed as depression and mixed anxio-depressive, with opipramol being the most commonly prescribed drug.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>25</td>
<td>40.3</td>
</tr>
<tr>
<td>Mixed Anxio depressive</td>
<td>24</td>
<td>38.7</td>
</tr>
<tr>
<td>Anxiety</td>
<td>05</td>
<td>8.1</td>
</tr>
<tr>
<td>Mixed + Psychosis</td>
<td>03</td>
<td>4.8</td>
</tr>
<tr>
<td>Depression + Psychosis</td>
<td>02</td>
<td>3.2</td>
</tr>
<tr>
<td>Anxiety + Psychosis</td>
<td>01</td>
<td>1.6</td>
</tr>
<tr>
<td>Insignificant score</td>
<td>02</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Psychotic patients who came to psychiatry OPD with anxio-depressive complaints were categorized into depression with psychosis, anxiety with psychosis and mixed anxio-depressive symptoms with psychosis. In these patients along with anti-psychotics, clonazepam was used for anxiety; clonazepam, sertraline and opipramol for depressive psychosis and opipramol with or without beta blockers for psychotic patients having mixed anxio-depressive complaints. Among newer antidepressants, agomelatine was used in one patient of depressive psychosis and vilazodone in two patients suffering from depression and one from mixed anxio-depressive disorder. Among atypical antidepressants, bupropion was used in one patient of anxiety and mitrazapine in four cases of depression and three cases of mixed anxio-depressive disorder.
DISCUSSION

A total of 62 patients were included in the study. It was observed that higher number of cases suffered from depression and mixed anxio-depressive disorder as compared to anxiety disorders (Table 1). The reason behind the low percentage of cases diagnosed with pure anxiety in comparison to depression or mixed anxio-depressive disorder could be that patients were unable to recognize their own symptoms of anxiety or they thought that such symptoms were too mild to consult a doctor.

Male patients were more among those diagnosed with depression and anxiety. Our findings are similar to a study done at a tertiary care psychiatric centre of Eastern India\(^4\) where psychiatric help seeking tendency was higher in males as compared to females. The reason for less females being diagnosed with depression or anxiety in our study could be social inhibitions and gender disparity prevalent in our society. Females also have tendency to treat their problems as minor or even fail to recognize the symptoms of depression/anxiety, attributing the symptoms to hormonal changes or over-burdened life and seek help only when both conditions start manifesting together as is evident from 58.3% females being diagnosed as mixed anxio-depressive cases in contrast to 41.6% males.

Depression (36%) and anxio-depressive symptoms (45.8%) were more common amongst housewives in our study. There could be many reasons behind this such as: social isolation (lack of time for self, burden of household work, stress of looking after children and family); comparison with other working women, lack of appreciation from family and low self esteem.

High school educated and graduates suffered more from anxiety and /or depression in our study which could be due to early recognition of symptoms because of their education, living in a stressful highly competitive world, high expectations from parents and family, desperation to get fame and money in short time and lack of contentment.

Patients with monthly income ranging between Rs 5000-10,000 contributed to highest percentage (37.1%). Data from the NMHS reveals that mental disorders are significantly higher in households with lesser income and limited employment.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Prescribing Indicators</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Average number of drugs per encounter</td>
<td>3.4</td>
</tr>
<tr>
<td>2.</td>
<td>Percentage of drugs prescribed by generic name</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>Percentage of encounters with an antibiotics prescribed</td>
<td>0%</td>
</tr>
<tr>
<td>4.</td>
<td>Percentage of encounters with an injection prescribed</td>
<td>0%</td>
</tr>
<tr>
<td>5.</td>
<td>Percentage of drugs prescribed from essential drug lists or formulary</td>
<td>8%</td>
</tr>
</tbody>
</table>
Benzodiazepines were the most common group of drugs prescribed in all types of patients in this study, followed by SSRIs and SNRIs (Figure 1, 2). Benzodiazepines were the most commonly prescribed drugs irrespective of diagnosis because of their proven efficacy for anxiolytic effects. In a study by Rode et al, benzodiazepines were found to be the most commonly used drugs in psychiatry outpatients, similar to the results shown in this study.

Historically, benzodiazepines have been widely used in the management of anxiety disorders. In our study also benzodiazepines (98.71%) were most commonly prescribed drugs for anxiety cases (Figure 1, 2) with clonazepam being the most frequently prescribed drug (80%). The findings of this study are similar to a study of Eastern India where clonazepam was the most commonly prescribed anxiolytic (83.12%), followed by lorazepam 14.53% and diazepam 1.3%.

Next commonly prescribed drugs in depression patients in the current study were SSRIs with paroxetine and escitalopram being the most commonly prescribed drugs. Lahon K et al, in their study, reported that most common antidepressant prescribed was the SNRI, duloxetine (50%). The newer antidepressants like duloxetine, escitalopram, sertraline and mirtazapine accounted for the bulk of prescriptions (96.36%), which followed the global trend towards antidepressant prescribing.

They also reported that amongst SSRIs, escitalopram, sertraline and fluoxetine were prescribed on 57 out of 192 occasions (29.69%). In this study also sertaline was most commonly prescribed SSRI (24%) followed by paroxetine and escitalopram (in 8% cases). In many other studies also SSRIs accounted for the bulk of the prescribed antidepressants, with high prescribing rates.

Only six cases were given β-blockers like propranolol. Bupropion was prescribed in 20% cases of anxiety disorders in the current study. Though it is primarily an antidepressant drug, some studies have reported comparable anxiolytic efficacy of bupropion with escitalopram in patients with Generalized Anxiety Disorder (GAD). One patient of mixed anxio-depressive disorder was prescribed pregabalin, a newer generation anxiolytic drug. Many researches have demonstrated efficacy of pregabalin in Generalized Anxiety disorder. It is approved in Europe for treatment of the same. TCAs have become less popular drugs due to their adverse effect profile.

Among newer antidepressants one patient of depressive psychosis was given agomelatine (melatonergic agonist) while one patient of mixed anxio-depressive symptoms and two patients of depression were given vilazodone. This is in agreement to Royal Australian and New Zealand college of psychiatrists’ clinical practice guidelines for mood disorders which recommend these drugs for mood disorders.

One patient of resistant depression in present study was given repeated Electro Convulsive Therapy (ECT) sessions along with drugs. Many guidelines state that ECT is a safe and effective treatment for the more severe forms of depression where its antidepressant effect is found to be superior to medications.
None of the drugs were prescribed by generic names although WHO recommends 100% generic prescribing.\textsuperscript{18} Generic prescribing reduces the chances of dispensing errors which may be due to misinterpretation of similar sounding names of drugs and also decreases the economic burden on the patients. Only eight percent of the drugs were prescribed from essential drugs list in this study which is far from the WHO recommendations of 100\%.\textsuperscript{19} None of the prescriptions had injectable or antibiotics (Table 2). None of the fixed dose combinations (FDCs) prescribed was found in the list of WHO or CDSCO drug list, indicating that they were irrational.\textsuperscript{20}

CONCLUSIONS

Periodic monitoring of prescribing pattern of drugs for treating mood disorders is needed to understand the current trend. The results from such studies help bridge the gap if any between the prescribed and the recommended norms. The current study also suggests that, in routine hospital practice in India, prescribing the drugs in generic names and from the essential drug list is still far from satisfactory and needs focused remedial measures.

Acknowledgement
None

Conflict of Interest
The authors declare no conflict of interest.

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REFERENCES


