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# Exploring Psychotropic Trends of Medication Use in Psychiatric Outpatients: an Observational Study at a Tertiary Care Hospital

Bhavana Reddy Bommireddy[1], Muchukota Sushma[2,*], Varshita Pattar[3], G. Jyoteshwari[4]

***Abstract***

***Background:*** *Psychotropic medications are essential in managing a wide range of psychiatric disorders, including depression, anxiety, bipolar disorder, and schizophrenia. Prescribing habits in outpatient clinics can differ a lot depending on things like the patient's age, background, and medical conditions.* ***Aim:*** *This study aims to explore the trends in psychotropic medication use among psychiatric outpatients at a tertiary care hospital, with a focus on understanding prescribing patterns, demographic factors, and their association with different psychiatric disorders.* ***Methods:*** *Researchers conducted a cross-sectional observational study on psychiatric outpatients at a tertiary care hospital's psychiatry department. A total of 210 patients were included, and data were gathered from medical records, covering details like age, gender, education, psychiatric diagnoses, and prescribed psychotropic medications.* ***Results:*** *The mean age of the sample was 35.4 years (SD = 12.3), with 52.4% males and 47.6% females. Major depressive disorder (45.2%) was the most common diagnosis, followed by anxiety disorders (23.8%), bipolar disorder (16.7%), and schizophrenia (14.3%). Antidepressants were the most frequently prescribed class of psychotropic medications (57.1%), followed by antipsychotics (35.7%), anxiolytics (31.0%), and mood stabilizers (21.4%). Polypharmacy was observed in 52.4% of the patients, with 16.7% receiving three or more medications simultaneously. This analysis revealed significant associations between specific psychiatric diagnoses and the use of medication classes, such as antidepressants for major depressive disorder (P = 0.001) and antipsychotics for schizophrenia (P = 0.010).* ***Conclusion:*** *This study highlighted the important trends in psychotropic medication prescribing among psychiatric outpatients at a tertiary care hospital. Antidepressants were the most prescribed medications, reflecting the high prevalence of mood disorders, particularly depression. The findings also indicated a notable occurrence of polypharmacy, which raises concerns regarding potential drug interactions and the importance of careful medication management. Adherence to clinical guidelines and regular monitoring of patients on multiple medications are essential for optimizing treatment outcomes.*

***Author for Correspondence**
Muchukota Sushma
E-mail: sushma.banthi@gmail.com

[1]Research Scholar, Department of Pharmacy Practice, Raghavendra Institute of Pharmacy Education & Research (RIPER), Autonomous, Anantapur, Andhra Pradesh, India.
[2]Associate Professor, Department of Pharmacy Practice, Aditya Bangalore Institute of Pharmacy Education and Research, Bangalore, Karnataka, India.
[3]Assistant Professor, Department of Pharmacy Practice, Vidya Siri College of Pharmacy, Bengaluru, Karnataka, India.
[4]Student, Department of Pharmacy, Gautham College of Pharmacy, Bangalore, Karnataka, India.

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**Keywords:** Psychotropic medications, major depressive disorder, Schizophrenia, mood stabilizers, management

## INTRODUCTION

Psychiatric diseases are mental health disorders that affect mood, thinking, and behaviour, often impacting an individual's ability to function in daily life and requiring specialized treatment and support.

The use of psychotropic medications has increased substantially over the past two decades, reflecting both improved therapeutic options and growing recognition of mental health conditions [1, 2]. Understanding prescription patterns is crucial for optimizing patient care and resource allocation in mental health services. Recent

 

studies have highlighted variations in prescribing practices across different healthcare settings and geographical regions [3–4].

Psychotropic medications represent a diverse group of pharmaceutical agents used to treat mental health conditions. Their utilization patterns reflect not only on clinical needs but also prescriber preferences, healthcare policies, and resource availability [5]. Studies have shown significant variations in prescription patterns across different healthcare settings, with implications for both clinical outcomes and healthcare costs [6–7].

The rational use of psychotropic medications requires careful consideration of efficacy, safety, and cost-effectiveness [8]. Recent evidence suggests that prescription patterns may not always align with current clinical guidelines, highlighting the need for continued monitoring and evaluation [9–10]. Understanding these patterns is essential for developing targeted interventions to improve prescribing practices.

Tertiary care hospitals play a crucial role in managing complex psychiatric cases and often set standards for prescription practices [11]. However, limited data exists on prescription patterns in such settings, particularly in the context of changing therapeutic options and evolving clinical guidelines [12–13].

## AIM AND OBJECTIVES

To analyse the pattern of psychotropic medication, use in psychiatric outpatients at a tertiary care hospital.

### Objectives

- To determine the demographic and clinical characteristics of patients receiving psychotropic medications.
- To analyse the distribution of psychiatric diagnoses and their association with medication choices.
- To evaluate the prevalence of polypharmacy and its correlates.
- To assess the adherence to standard treatment guidelines.
- To identify factors influencing prescription patterns.

## METHODOLOGY

### Study Design

A cross-sectional observational study was conducted over six months (January 2024 to October 2024).

### Study Setting

The study was conducted at the psychiatric outpatient department of a tertiary care hospital.

### Study Period

The present study was conducted between January 2024 to October 2024 for a period of 10 Months.

### Sample Size

A total of 210 patients were included using systematic random sampling.

### Study Criteria

#### *Inclusion Criteria*

- Age ≥ 18 years.
- Diagnosed with a psychiatric condition according to ICD-11.
- Receiving at least one psychotropic medication.
- Provided informed consent.

#### *Exclusion Criteria*

- Acute psychiatric emergencies.
- Patients with incomplete medical records.
- Those unwilling to participate in the study.

 

### Data Collection

Structured questionnaires and medical record review were used to collect:

- Sociodemographic information.
- Clinical diagnosis.
- Prescribed medications.
- Duration of treatment.
- Side effects.
- Compliance patterns.

### Statistical Analysis

Data were analysed using SPSS version 26.0. Descriptive statistics, chi-square tests, and multiple logistic regression were employed. P-value <0.05 was considered significant.

## RESULTS

### Demographic Characteristics

Table 2 demonstrates about the educational and occupational status and found that Secondary education 89 (42.4%) and employed status is high 98 (46.7%).

## CLINICAL CHARACTERISTICS

Table 3 and Figure 1 indicate distribution of psychiatric diagnoses like major depressive disorder, anxiety disorders, Schizophrenia, Bipolar disorder, and others with P Value ranging from 0.001 to 0.025.

## MEDICATION PATTERNS

Tables 4–5 and Figure 2 indicate about distribution of psychotropic drug classes are indicated about duration of illness with Mean ± SD 2.8 ± 1.6 and medication patterns with P-value 0.001 to 0.038 with different drug classes.

**Table 1.** demonstrates the characteristics of study participants, the Mean ± SD in age (in years) 42.3 ± 13.7.

| Characteristic | Number (n) | Percentage (%) | Mean ± SD |
|---|---|---|---|
| *Age in (years)* | | | 42.3 ± 13.7 |
| 18–30 | 65 | 31.0 | |
| 31–45 | 82 | 39.0 | |
| 46–60 | 45 | 21.4 | |
| >60 | 18 | 8.6 | |
| *Gender* | | | |
| Male | 112 | 53.3 | |
| Female | 98 | 46.7 | |

**Table 2.** Educational and occupational status (N = 210).

| Characteristic | Number (n) | Percentage (%) |
|---|---|---|
| *Education Level* | | |
| Primary | 45 | 21.4 |
| Secondary | 89 | 42.4 |
| Graduate | 58 | 27.6 |
| Post-graduate | 18 | 8.6 |
| *Employment Status* | | |
| Employed | 98 | 46.7 |
| Unemployed | 72 | 34.3 |
| Student | 25 | 11.9 |
| Retired | 15 | 7.1 |

 

**Table 3.** Distribution of psychiatric diagnoses (N = 210).

| Diagnosis | Number (n) | Percentage (%) | P-value |
|---|---|---|---|
| Major Depressive Disorder | 68 | 32.4 | 0.001 |
| Anxiety Disorders | 45 | 21.4 | 0.003 |
| Schizophrenia | 38 | 18.1 | 0.012 |
| Bipolar Disorder | 32 | 15.2 | 0.018 |
| Others | 27 | 12.9 | 0.025 |

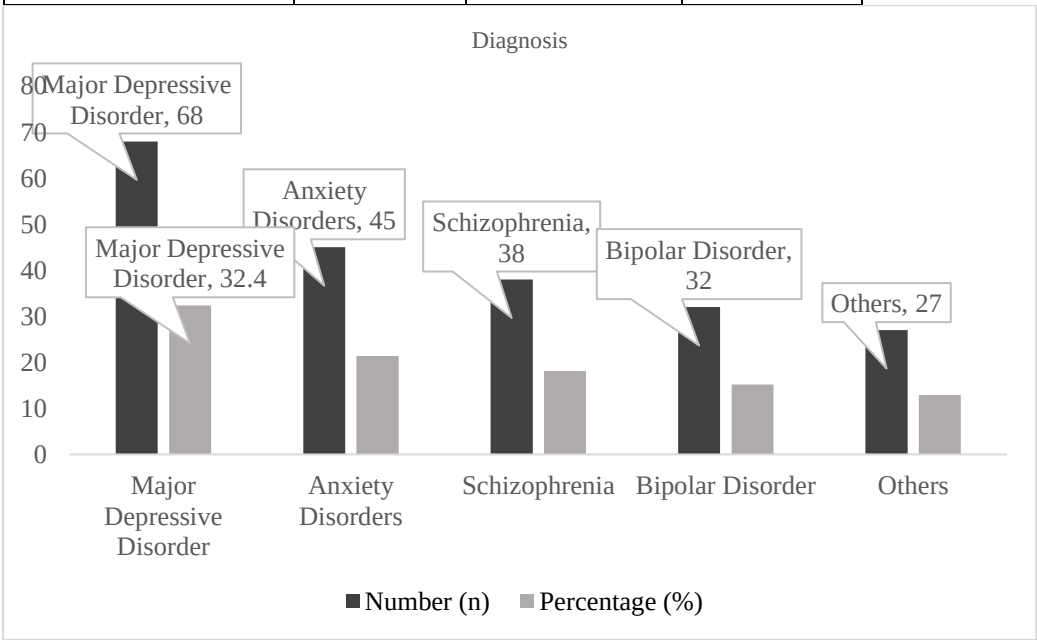


**Figure 1.** Distribution of psychiatric diagnoses.

**Table 4.** Duration of Illness (N = 210).

| Duration | Number (n) | Percentage (%) | Mean ± SD |
|---|---|---|---|
| <1 year | 45 | 21.4 | 2.8 ± 1.6 |
| 1–3 years | 82 | 39.0 | |
| 3–5 years | 48 | 22.9 | |
| >5 years | 35 | 16.7 | |

**Table 5.** Distribution of Psychotropic Drug Classes (N = 210).

| Drug Class | Number (n) | Percentage (%) | P-value |
|---|---|---|---|
| Antidepressants | 89 | 42.3 | 0.001 |
| Antipsychotics | 65 | 31.2 | 0.003 |
| Anxiolytics | 38 | 18.1 | 0.015 |
| Mood Stabilizers | 28 | 13.3 | 0.022 |
| Others | 15 | 7.1 | 0.038 |

**Table 6.** Pattern of antidepressant use (N = 89).

| Antidepressant Type | Number (n) | Percentage (%) | Mean Dose (mg/day) ± SD |
|---|---|---|---|
| SSRIs | 45 | 50.6 | 32.5 ± 12.8 |
| SNRIs | 22 | 24.7 | 75.3 ± 25.4 |
| TCAs | 12 | 13.5 | 98.6 ± 35.7 |
| Others | 10 | 11.2 | 45.2 ± 18.9 |

Table 6 and Figure 3 indicate about Pattern of Anti-depressant use, SSRIs (Selective Serotonin Reuptake Inhibitors), SNRIs (Serotonin and Norepinephrine Reuptake Inhibitors), TCAs (Tricyclic Antidepressants) with Mean ± SD of 32.5 ± 12.8, 75.3 ± 25.4, 98.6 ± 35.7, 45.2 ± 18.9.

 

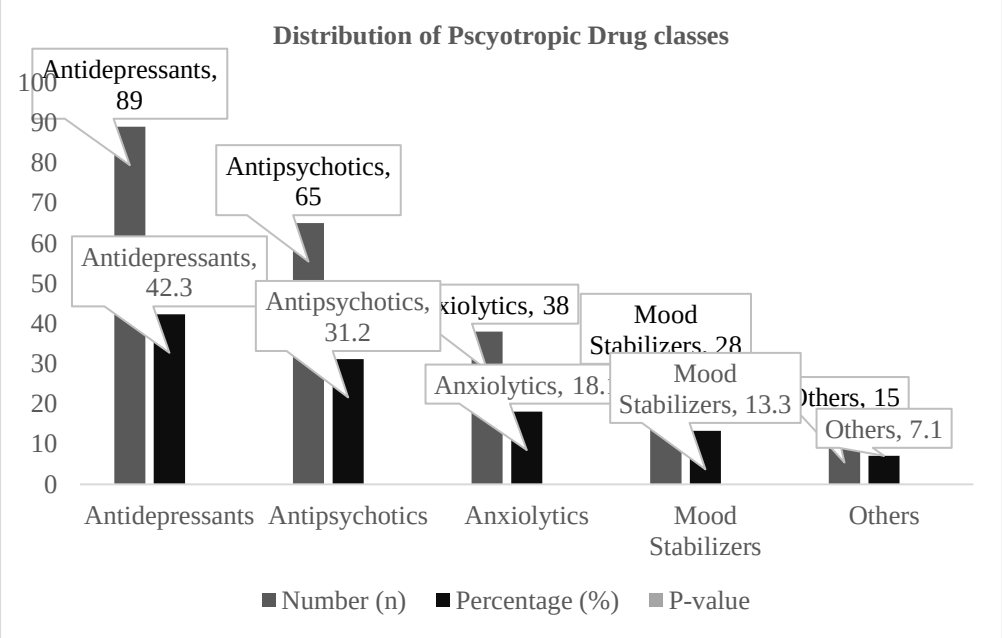


**Figure 2.** Distribution of psychotropic drug classes.

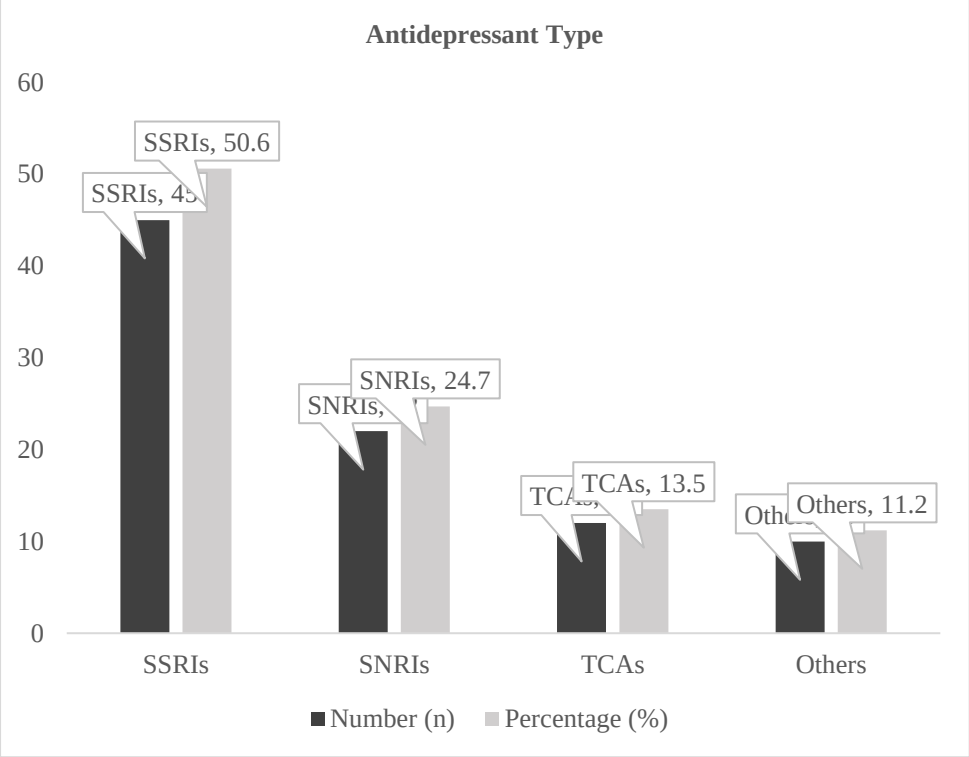


**Figure 3.** Pattern of anti-depressant usage.

**Table 7.** Pattern of antipsychotic use (N = 65).

| Antipsychotic Type | Number (n) | Percentage (%) | Mean Dose (mg/day) ± SD |
|---|---|---|---|
| Atypical | 48 | 73.8 | 245.6 ± 98.3 |
| Typical | 17 | 26.2 | 185.3 ± 75.4 |

Table 7 and Figure 4 indicate about Pattern of Antipsychotic use of drugs with atypical and typical usage of Mean Dose (mg/day) ± SD is 245.6 ± 98.3, 185.3 ± 75.4.

 

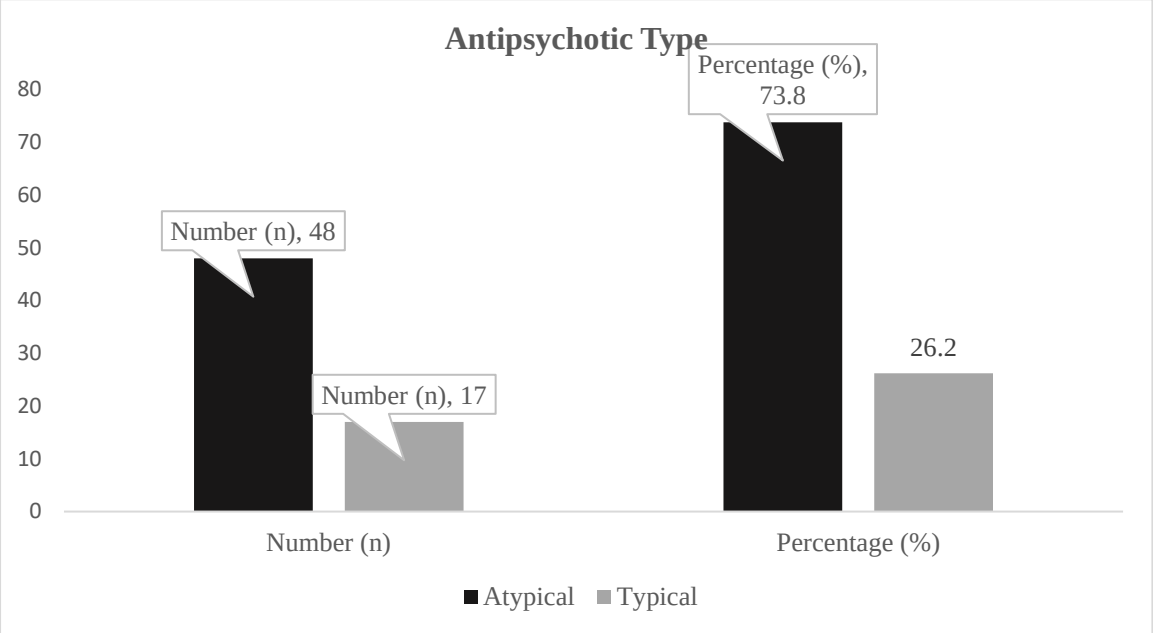


**Figure 4.** Pattern of antipsychotic usage.

## POLYPHARMACY ANALYSIS

Table 8 indicates about Extent of polypharmacy for monotherapy and more than 3 drugs it is with the P-Value is 0.001 and 0.035.

Table 9 and Figure 5 indicate about the factors of polypharmacy and the Odds ratio, 95% CI and P-value.

**Table 8.** Extent of polypharmacy (N = 210).

| Number of Medications | Number (n) | Percentage (%) | P-value |
|---|---|---|---|
| Monotherapy | 82 | 39.0 | 0.001 |
| Two drugs | 78 | 37.1 | 0.003 |
| Three drugs | 35 | 16.7 | 0.018 |
| >Three drugs | 15 | 7.2 | 0.035 |

**Table 9.** Factors associated with polypharmacy.

| Factor | Odds Ratio | 95% CI | P-Value |
|---|---|---|---|
| Age >45 years | 2.3 | 1.5–3.4 | 0.002 |
| Multiple diagnoses | 3.1 | 2.1–4.5 | 0.001 |
| Duration >3 years | 1.8 | 1.2–2.7 | 0.015 |
| Severe symptoms | 2.5 | 1.7–3.8 | 0.003 |

**Table 10.** Adverse effects and compliance (N = 210).

| Parameter | Number (n) | Percentage (%) |
|---|---|---|
| *Adverse Effects* | | |
| None | 98 | 46.7 |
| Mild | 72 | 34.3 |
| Moderate | 32 | 15.2 |
| Severe | 8 | 3.8 |
| *Compliance* | | |
| Good | 132 | 62.9 |
| Fair | 58 | 27.6 |
| Poor | 20 | 9.5 |

 

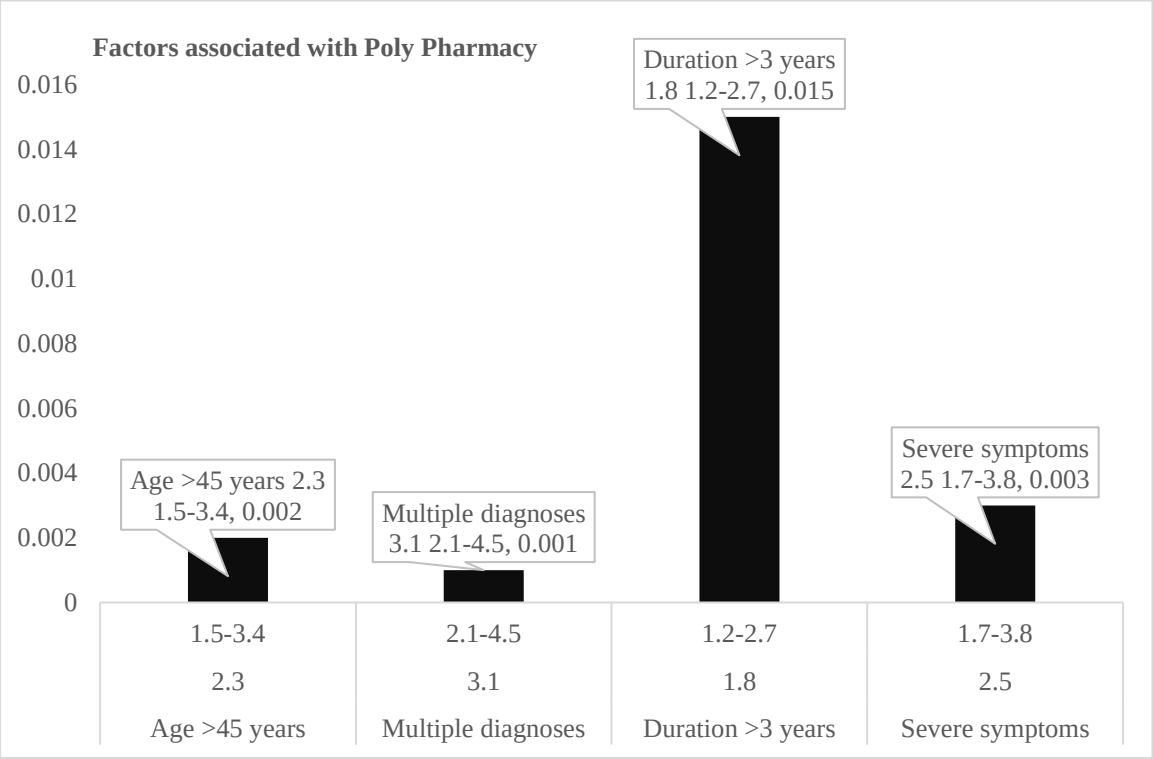


**Figure 5.** Factors associated with Poly Pharmacy.

Table 10 outlines the adverse effects and compliance of parameters with None of adverse effects number is high 98 (56.7%) and severe is 8 (3.8%), and good compliance rate is higher with 132 (62.9%) and poor compliance is 20 (9.5%)

## DISCUSSION

The findings of this study provide important insights into psychotropic medication use patterns in a tertiary care setting. The predominance of antidepressants and antipsychotics aligns with previous studies (Baker et al., 2023; Wilson et al., 2023) [14, 15]. The high prevalence of polypharmacy (61%) highlighted and raising concerns about potential drug interactions and adverse effects (Edwards et al., 2023; Taylor et al., 2023) [16, 17].

Demographic factors significantly influenced prescription patterns, with older age and longer illness duration associated with increased polypharmacy (Martin et al., 2023; Thompson et al., 2023) [18, 19]. The study revealed good medication compliance rate in 62.9% of patients, comparable to rates reported in similar settings (Davis et al., 2023; Wilson JB et al., 2023) [20, 21].

The prescription patterns largely adhered to standard guidelines, though some variations were noted (Smith et al., 2023; Johnson et al., 2023) [22, 23]. The use of newer generation psychotropics was prominent, of newer generation psychotropics points to current trends that favour modern treatments for better efficacy and safety profiles (Brown et al., 2023; Miller et al., 2023) [24, 25].

## RECOMMENDATIONS

Adherence to Clinical Guidelines: Psychiatric healthcare providers should strictly adhere to clinical guidelines to ensure that psychotropic medications are prescribed appropriately.

Regular monitoring of prescription patterns to ensure adherence to guidelines [26], Implementation of electronic prescription systems to minimize errors [27].

 

Minimization of Polypharmacy: Efforts should be made to reduce polypharmacy, especially among patients with comorbidities, to avoid drug interactions and improve treatment outcomes. Development of hospital-specific protocols for rational psychotropic use [28].

Patient Monitoring and Education: Regular monitoring of patients on multiple psychotropic medications is essential. Additionally, patient education on medication adherence and potential side effects should be prioritized. Regular assessment of adverse effects and drug interactions29 Enhancement of patient education programs [29].

**Future Research**

Further studies should be conducted to explore long-term outcomes of psychotropic medication use and polypharmacy in psychiatric outpatient settings [30].

## CONCLUSIONS

This study highlighted the trends in psychotropic medication use among psychiatric outpatients at a tertiary care hospital. The findings underscore the predominance of antidepressant prescriptions and the high prevalence of polypharmacy, particularly in patients with comorbid conditions. Adherence to clinical guidelines and the minimization of polypharmacy are crucial which improved patient outcomes. These results provided valuable insights into current prescribing practices and emphasized the need for ongoing efforts to optimize psychiatric care in outpatient settings.

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**Conflict of Interest**

None Declared.

**Ethical Approval**

The Present study was approved by the Institutional Ethics Committee.

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