

# Physician prescribing patterns of psychotropic drugs for adults with Down syndrome

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## INTRODUCTION

- Down syndrome (DS) is the most common chromosomal condition and cause of developmental disability.
- Given the recent dramatic increase in life expectancy and its association with premature aging, these individuals are more likely to experience the effects of multimorbidity and polypharmacy early in adulthood.
- Individuals with DS are frequently prescribed psychotropic medications, which may not correlate with clinical psychiatric diagnoses.**
- The extended use of polypharmacy, especially with psychotropic drugs, places patients at risk of adverse side effects due to drug-drug interactions and may reduce their quality of life.
- Physician prescribing practices around psychotropic medications have not been adequately assessed in the DS adult patient population.

## METHODS

- A retrospective chart review was conducted using the Trinity Health of New England Epic Database
- Inclusion Criteria
  - Patient of Trinity Health of New England between 2015-2023
  - Between 18-89 years of age
  - Diagnosis of DS
- ICD-10 Codes were used to gather psychiatric diagnosis and drug information
- Descriptive analysis was performed using percent frequencies

## PATIENT DEMOGRAPHICS

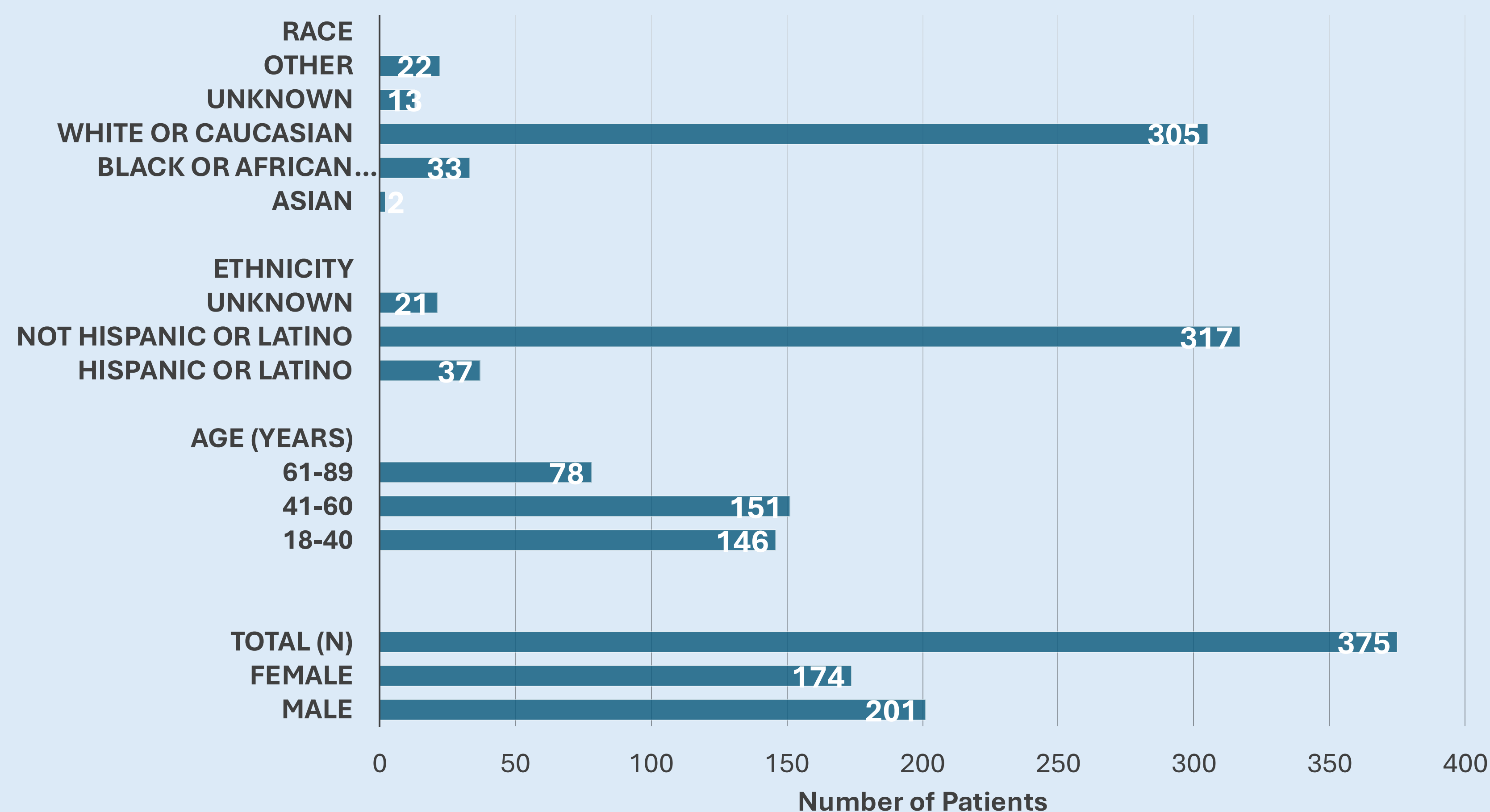


Figure 1. Total patient demographics (n=375) categorized by race, ethnicity, age (years), and biological sex.

## TYPES OF PSYCHOTROPIC MEDICATION

- SSRI
- SNRI
- Serotonin Modulator
- Tricyclic Antidepressant
- 1<sup>st</sup> Generation Antipsychotic
- 2<sup>nd</sup> Generation Antipsychotic
- Mood Stabilizer
- Benzodiazepines
- Bupropion
- Mirtazapine

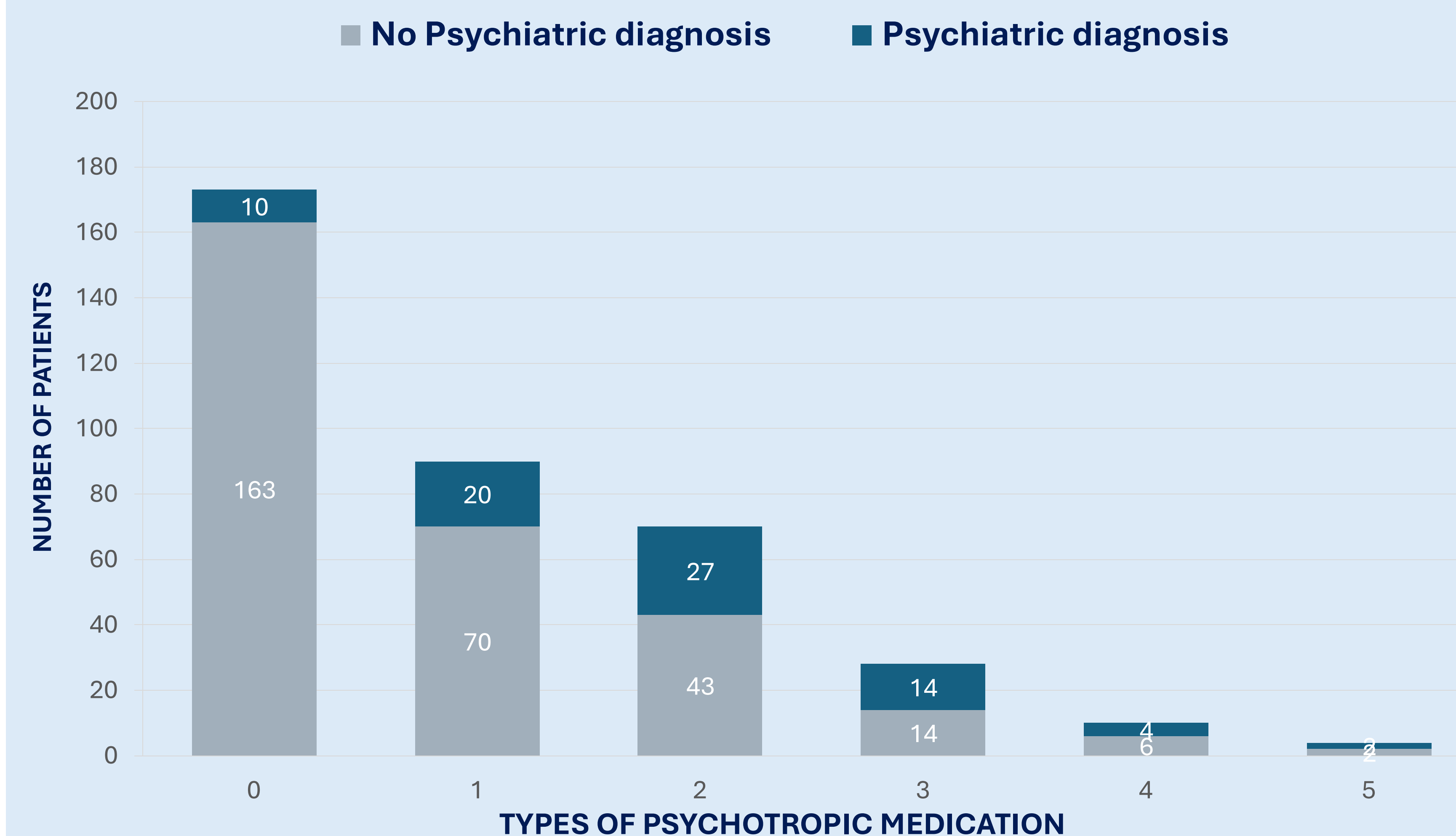


Figure 2. Quantity of different types of psychotropic medications categorized by concurrent psychiatric diagnosis.

## PSYCHOTROPIC MEDICATIONS

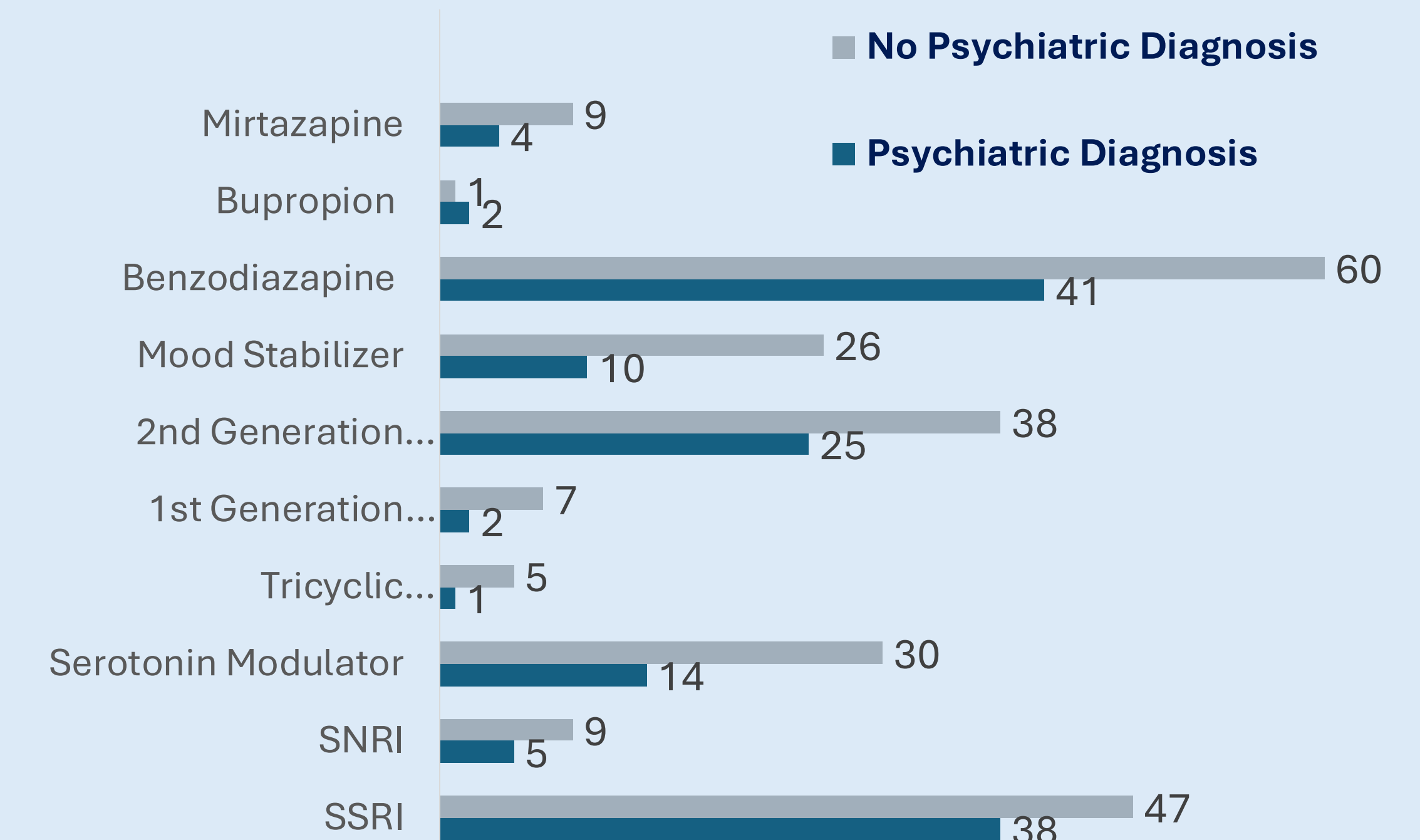


Figure 3. Listed psychotropic medications categorized by concurrent psychiatric diagnosis.

## CONCLUSIONS

- Many Individuals with DS are prescribed psychotropic medications without evidence of a psychiatric diagnosis.**
- This data might suggest the use of mood-altering drugs to remedy challenging behaviors.
- The complex clinical profile of this patient population places them at risk for complications imputable to psychotropic drug interactions.
- Highlights the **importance of medication reconciliation** in the primary care setting.

## RESULTS

- 20.5% of patients had a psychiatric diagnosis.**
- 53.9% of patients are prescribed at least one psychotropic medication.**
- Of the patients receiving at least one type of psychotropic drug, 66.8% of the patients do not have a psychiatric diagnosis.**
- 11.2% of patients were prescribed more than three types of psychotropic medications.**

## FUTURE DIRECTIONS

- Deep dive into types of psychotropic medications and correlation with a listed diagnosis.
- More descriptive analysis of common psychiatric diagnoses in this patient population.
- Chart review of patients taking multiple types of psychotropic medications.

## REFERENCES



## CONTACT INFORMATION

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No conflicts of interest to declare.