Evaluating the Influence of Prescriber Type on Total and Same Class Psychotropic Polypharmacy
Across Northern and Southern California START Programs: Strengthening Prescriber Capacity
Building Initiatives: Psychotropic Polypharmacy and IDD

INTRODUCTION
Psychotropic polypharmacy, the concurrent use of multiple psychotropic medications, is a common practice in the treatment of mental health vulnerabilities (Akef et al., 2014; Klabunde et al., 2010). The high rates of psychiatric polypharmacy in the intellectual and developmental disabilities (IDD) population is especially concerning considering that this population is particularly vulnerable to the detrimental effects of psychotropic medications. In fact, multiple medications used concurrently have been identified as an important strategy to improve the appropriateness of psychotropic medications in this population (Shawyer et al., 2017). However, it has been unclear to what degree these capacity building efforts for prescribers of psychotropic medications working with individuals enrolled in California START Programs are effective. This paper aims to explore the underlying causes of the regional variations in psychotropic polypharmacy practices discovered in our study. Such efforts can refine their approaches to better support prescribers in managing psychotropic polypharmacy among individuals with IDD and mental health vulnerabilities.

REVIEW OF THE LITERATURE
High Rates of Psychotropic Polypharmacy in IDD Population: Several studies report the high prevalence of psychotropic polypharmacy in individuals with IDD. The rate of polypharmacy can vary widely across different populations, with rates ranging from 43.1% to 54.4% (So et al., 2010; Novak et al., 2016; Esposito et al., 2013). Moreover, several empirical studies suggest that individuals with IDD are more likely to be prescribed multiple psychotropic medications due to their complex needs.

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 parentheses indicate that the regional differences were not significant. SCP rates at initial intake for Atypical Antipsychotics were similar across both Psychiatrists and Non-Psychiatrists for all prescribers working with individuals enrolled in California START programs. The results showed differences in rates depending on the rate of psychiatric polypharmacy in the intellectual and developmental disabilities population. A study by Lott and colleagues (2011) showed that psychiatrists and non-psychiatrists prescribed polypharmacy affects over half of adults diagnosed with depression, with total polypharmacy being the most prevalent pattern.

Methods
This observational research study takes place in a population referred to as START (Systematic, Therapeutic, Assessment, Resources, and Treatment), an evidence-based crisis prevention and intervention model targeted at improving the mental health of people with IDD in California. This study was referred to by community-based service coordinators. The most likely reason for referral is a history of mental health concerns, physical and/or verbal aggression, and risk of emergency service use. The START program provides evidence-based practices for people with IDD who are at-risk of non-adaptive behaviors or acute mental health crises. The START Program is designed to improve mental health service outcomes and promote well-being for individuals with IDD and their families. Ongoing, comprehensive assessment of mental health needs is a standard part of START practice.

This study evaluated a de-identified dataset set from a START staff service user enrolled in a California START (CA START) program between 2021 and 2022. Each person enrolled in START is assigned a unique identifier and all data entered is linked to that identifier. There was no data entered in identification. All demographic, assessment, and service outcome data for those enrolled in START is nationally entered in START information Reporting System (UHBR-SITR) database. The dataset used in this study comes from the SRS database. As such, informed consent was not required.

The primary outcome of the study is the rate of psychiatric polypharmacy in the intellectual and developmental disabilities population. A study by Lott and colleagues (2011) showed that psychiatrists and non-psychiatrists prescribed polypharmacy affects over half of adults diagnosed with depression, with total polypharmacy being the most prevalent pattern.

The study's primary objective was to evaluate the rate of psychiatric polypharmacy among individuals with IDD across Northern and Southern California START programs. The study's secondary objectives were to explore the underlying causes of the regional variations in psychotropic polypharmacy practices discovered in our study. Such efforts can refine their approaches to better support prescribers in managing psychotropic polyphony among individuals with IDD.

Limitations and Future Research: Moving forward, our next step is to conduct an ANOVA test, which will enable us to statistically analyze the differences between rates in total and same class polypharmacy across California START programs. Future research could evaluate the distinct contributions of specific prescriber types, individual characteristics, and contextual factors to the variation in polypharmacy rates. Such studies could also examine the impact of capacity building initiatives designed to improve these practices.

REFERENCES

METHODOLOGY
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RESULTS
Across both regions, Psychiatrists facilitated significantly more Total Psychotropic Polypharmacy (TPP) when compared to Non-Psychiatrist prescribers. In Northern California, there were no significant changes in TPP rates from initial to final re-evaluation for either prescriber group. However, in Southern California, there was a decrease in TPP from initial to re-evaluation (6 months) for both pre-prescriber groups.

At initial intake in Southern California, Psychiatrists had higher rates of Same-Class Psychotropic Polypharmacy (SCP) compared to Non-Psychiatrist prescribers for all drug classes except for Anticonvulsants, Antianxiety, and Sedatives. Psychiatrists had higher rates of SCP compared to Non-Psychiatrist prescribers in Typical Antipsychotics, Antipsychotics, Stimulants, and Other Psychotropic medications. At initial intake in Northern California, Psychiatrists had higher rates of SCP compared to Non-Psychiatric patients in Antipsychotics, Antidepressants, Sedatives, Stimulants and Other Psychotropic medications. SCP rates at initial intake were similar both Psychiatrists and Non-Psychiatrists in Northern California.

At 6-months in evaluation in Northern California, Psychiatrists had higher rates of SCP compared to Non-Psychiatrists for all psychotropic drug classes except for Antidepressants and Antipsychotics medications. Psychiatrists had higher rates of SCP compared to Non-Psychiatric prescribers in Typical Antipsychotics, Antipsychotics, Stimulants, and Other Psychotropic medications. SCP rates at initial intake were similar both Psychiatrists and Non-Psychiatric prescribers in Southern California.

DISCUSSION
Data from this exploration underscores a critical observation: Although regional variations in the prescribing practices of both psychiatrists and non-psychiatrist prescriber groups examined in this study involved high rates of same-class and total psychotropic polypharmacy across all regions and time periods examined. This trend accentuates the paramount role these professionals occupy within the realm of psychotropic polypharmacy management. Consequently, it underscores the pressing necessity for well-rounded capacity-building initiatives aimed at refining prescribing practices involving inappropriate same-class and total psychotropic polypharmacy for all prescribers working with individuals enrolled in California START programs. Further examination of our data reveals regional differences in same-class and total psychotropic polypharmacy practices between psychiatrists and non-psychiatrist prescribers, suggesting the influence of local factors on the impact of polypharmacy practices.

Such customization could result in regional-specific training sessions, the formation of local multidisciplinary teams to bolster prescriber support, and the crafting of regional guidelines that reflect the nuanced needs of medication-related adverse events and drug interactions (Akef et al., 2014; Safi et al., 2016; Barankin and Reissman, 2011) and higher rates of emergency department visits/hospitalizations (Barankin et al., 2013).

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