Impact of the Collaborative Practice Model on Patterns of Psychotropic Medication Use

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Objective

In 2021, the US Surgeon General declared a national emergency regarding the urgent need to improve access to child mental healthcare. This SAMHSA funded study examines the impact of the Collaborative Practice Model (CPM), a novel pediatric integrated care approach to improving child mental health treatment access, on patterns of psychotropic medication utilization and cost among high- need children insured by Medicaid.

Methods

- We hypothesized that differences in the health care delivery system model might result in differences in patterns of psychotropic medication prescriptions.
- For this prospective, longitudinal study we used Medicaid claims to compare prescribing patterns for the intervention group of youth receiving treatment in the **collaborative practice model (CPM)** vs. a matched group of youth with psychiatric diagnoses receiving mental health **treatment-as-usual (TAU)** (Table 1.)
- The CPM intervention combines elements from pediatric integrated care with a wraparound approach. The CPM team is comprised of *peer-to-peer family support specialists*, *integrated child mental health clinicians, a consulting child psychiatrist*, and *PCPs;* along with community-based therapists, natural supports, involved agencies (child welfare, juvenile justice, mental health), teachers and school counselors
- Patterns of psychotropic medications, and associated costs, were assessed using propensity-score matched difference-in-difference analyses
- In this study, "concurrent prescription" is defined as receipt of more than one medication within a six-month period.

Relative to treatment as usual
the Collaborative Practice Model was associated with:

- 47% reduction in the use of psychotropic medications
- 34% reduction in the use of concurrently prescribed psychotropic medications
- 69% reduction in the cost of psychotropic medications

Fig. 1 Average number of prescriptions per-patient per month for psychotropic medications

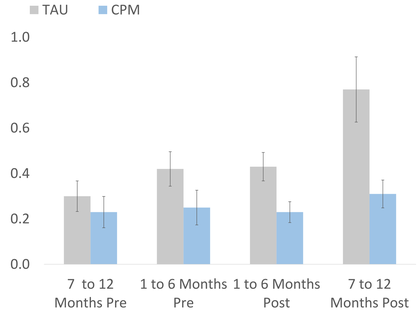


Fig. 2 Average number of concurrently prescribed psychotropic medications per-patient

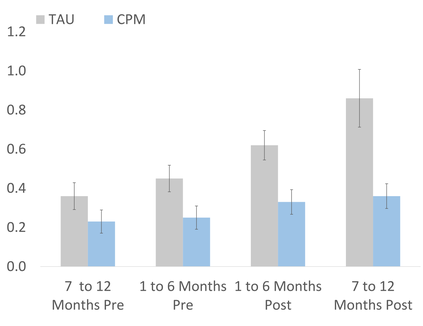
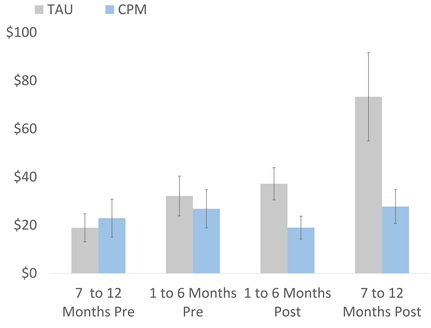


Fig. 3 Average per member per month cost of prescriptions for psychotropic medications



Results

- The overall sample size was 700 children, aged 3 to eighteen yrs. old; of these, 60% were male. Among the 700, there were 152 children in the CPM group, and 548 children in the TAU group
- Relative to the TAU group, the CPM group was less likely to be white (22% vs. 31%, p=0.006) or to carry a psychiatric dx pre-enrollment (50% vs. 62%)
- CPM youth were more likely than TAU youth to identify as Latinx (43% vs. 29%, p=0.002) and to speak Spanish or Portuguese (48% vs. 30%, p=0.002)
- Pre-post 12 months utilization comparisons showed that, relative to TAU, being in the CPM group was associated with a significant reduction in the average per child/per month number of psychotropic prescriptions -0.39 (95% CI -0.67, -0.11; p=0.006)
- Similarly, there was a relative reduction in the average per child number of concurrently prescribed medications over a 6-month interval -0.37 (95% CI -0.65, -0.1; p = 0.008)
- An average reduction of -$49.7 (95% CI -$88.5, -$10.9; p = 0.012) was found in pmpm cost for CPM relative to TAU, when cost for 7 to 12 mos. post was compared to that for 7 to 12 pre.

Conclusions

As children in the US and globally struggle with an increased prevalence of serious mental health conditions, there continue to be concerns about both under and overutilization of psychotropic medications.

As with other clinical services, barriers in health equity impact both access to and monitoring of psychotropic medications. The Collaborative Practice Model approach, which specifically targets improvement in child mental health access and engagement for BIPOC children, warrants further investigation into associated effects on psychotropic medication prescribing, including types of medications, patterns of concurrent prescribing and pharmacy expense.