Real-World Impact of a Prescription Digital Therapeutic on Retention in Treatment and Relapse Indicators in Patients With Opioid Use Disorder

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SCAN ME

INTRODUCTION

The opioid epidemic continues to grow, with annual opioid overdose deaths in the U.S. **quadrupling since 1999.**[1] Compounding the crisis, the U.S. healthcare system is struggling with an insufficient number of behavioral healthcare providers to help patients in recovery.[2,3]

Opioid Use Disorder (OUD) is a chronic, relapsing illness, associated with significantly increased rates of morbidity and mortality.[4] As a chronic disease, **a major goal of therapy is retention of patients in treatment** with a coordinated team of mental health care professionals, counselors, care coordinators, and other allied health professionals. This treatment is essential to minimize exposure to sources of illicit opioids and help prevent relapse. Studies have shown that the relapse rate among patients with substance use disorder is similar to that of patients with other chronic conditions (e.g., asthma, diabetes, and hypertension). As in those conditions, **whenever a patient experiences an interruption in their treatment plan, they are more likely to relapse**.[5]

Prescription digital therapeutics (PDTs) are a new class of FDA-authorized, software-based disease treatments that deliver evidence-based therapeutic interventions on smartphones or tablets. A PDT for opioid use disorder (OUD) was developed providing cognitive-behavioral therapy with contingency management to adults in outpatient treatment for OUD.

This claims analysis examined the real-world, 12-month impact of the PDT on indicators of relapse and retention among patients with OUD who activated the PDT (cases) versus those who did not (controls).

OBJECTIVE

To compare 12-month relapse and retention rates among adults prescribed a PDT for OUD vs patients with OUD who did not use the PDT

METHODS

DESIGN

- Using the HealthVerity PrivateSource20 claims database (01 January 2018 – 28 February 2020), this analysis compared treatment retention and relapse in patients who activated the PDT (cases) to patients who did not (controls).
- Retention was defined as a claim for a rehabilitative or psychiatric service or buprenorphine prescription at 3, 6, and 12 months following PDT activation.
- Relapse was defined as: a change from opioid abuse/dependence in remission diagnosis to any other OUD diagnosis code; OUD hospitalization; OUD emergency department visit; or opioid detoxification.
- The percentages of patients retained in treatment and who relapsed were compared with a ratio (cases:controls) using binomial models adjusted for age, sex, region, and payer type.

INTERVENTION

- The PDT is an adjunct to outpatient treatment using transmucosal buprenorphine, cognitive-behavioral therapy, and contingency management to increase retention of patients with OUD.
- Content is delivered over 12 weeks (84 days) and includes 67 lessons—31 Core lessons and 36 supplemental lessons. Lessons are comprised of cognitive-behavioral therapy and skill-building exercises.

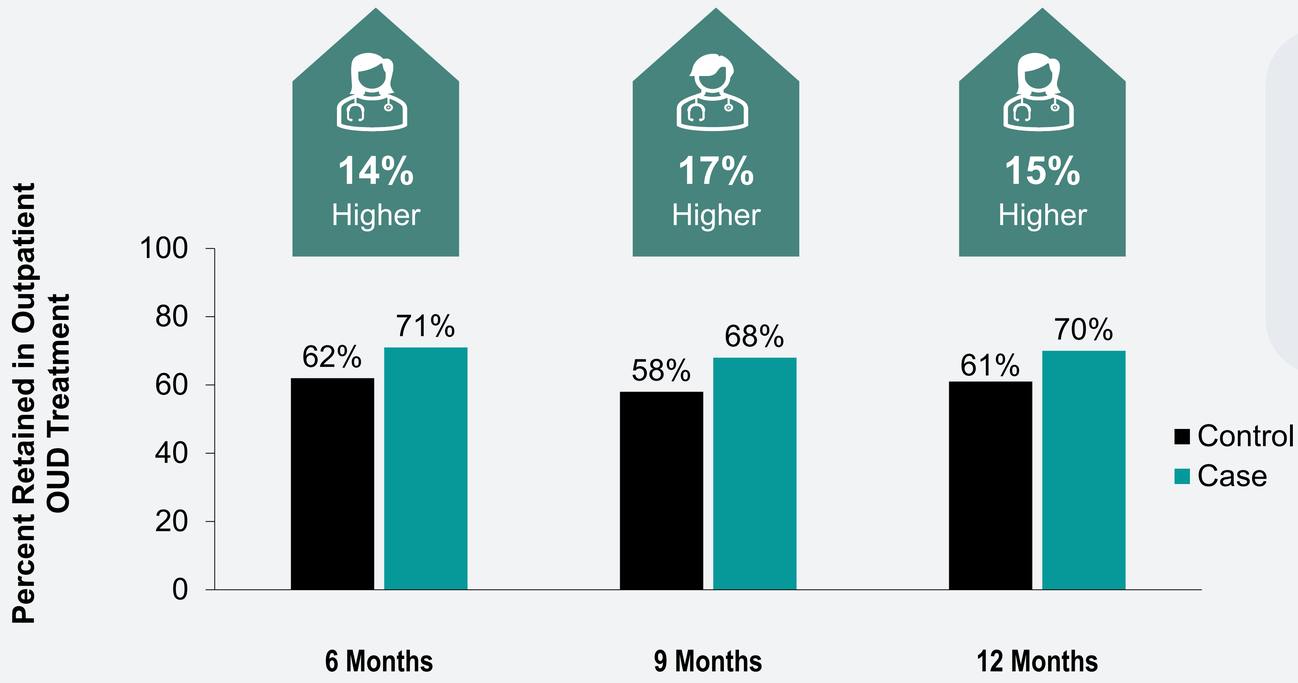
LIMITATIONS

- Despite conducting a case versus control comparison to help alleviate some of the concerns about regression to the mean inherent in a pre–post analysis, it is possible that latent differences may exist between the 2 groups. However, the analysis also controlled for multiple covariates (i.e., age, sex, region payer type, Charlson Comorbidity Index, and baseline healthcare resource utilization) to help mitigate these concerns.
- Another limitation of this study, as with all such studies, is the inability to capture all direct and indirect costs associated with OUD.
- The way relapse was defined in this methodology is based on claims data and thus may not fully capture actual relapse and hospitalizations.

RESULTS

978 controls	Median age (years)	55.1% female	901 cases	Median age (years)	62.4% female
	38			36	

Retention in OUD Outpatient Treatment at 6, 9, and 12 Months Among Cases vs Controls

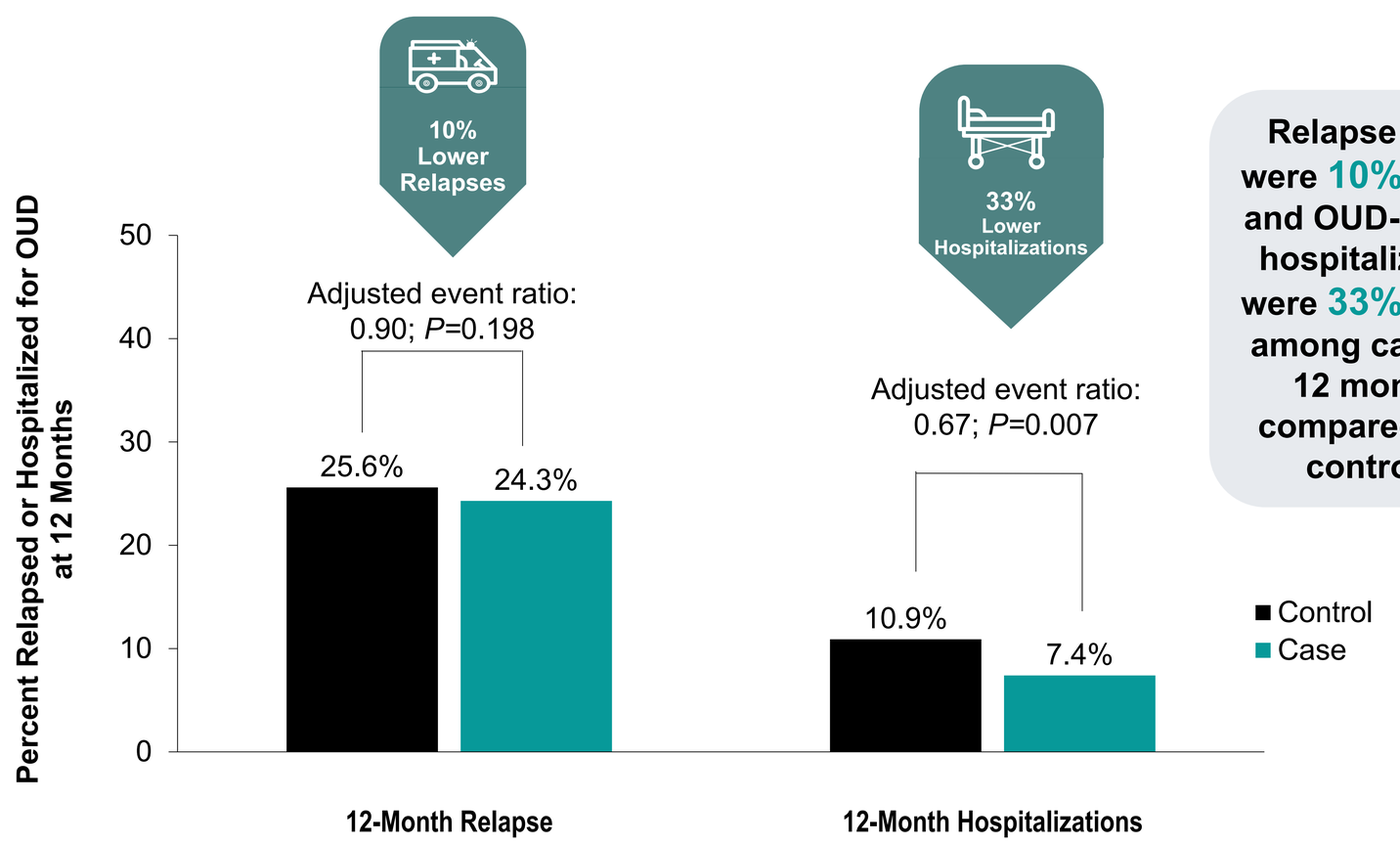


Retention was 14%–17% higher at 6, 9, and 12 months among cases compared with controls.

CONCLUSIONS

- ✓ In this real-world, 12-month follow-up study, **treatment of OUD with the PDT** was associated with **significantly more patients being retained in outpatient treatment**, both short and long term, compared with patients who did not access the PDT.
- ✓ Patients accessing the PDT also experienced **lower rates of relapse and significantly fewer OUD-related hospitalizations** at 12 months.
- ✓ These data provide further support for the use of the PDT in helping to close treatment access and provision gaps to fight the ongoing opioid epidemic.

12-Month Relapse and Hospitalization Rates Among Cases vs Controls



Relapse rates were 10% lower and OUD-related hospitalization were 33% lower among cases at 12 months compared with controls.

KEY TAKEAWAYS

Use of a PDT among adults in outpatient treatment for OUD:

- ✓ Resulted in **improved short- and long-term retention rates** compared with adults in OUD treatment who did not use the PDT.
- ✓ **Lower relapse rates and significantly fewer hospitalizations** at 12 months.

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