Treatment refinements for young adults with opioid use disorder: a focus on mental health

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Introduction

Opioid Use Disorder (OUD) has a devastating public health impact. OUD usually starts in early adulthood and has a chronic course characterized by periods of remission and relapse. Although effective treatments are available, including medication-assisted treatment (MAT), retention in treatment is an important challenge, especially for individuals who are more vulnerable to poor outcomes such as young adults and individuals with comorbid mental health disorders.[1] There is substantial room for refinement in the treatment of young adults with OUD, including the integration of services for comorbid mental health and substance use disorders (SUDs), which may increase the risk of dropping out of OUD treatment early. Young adults with OUD are at risk for poor treatment outcomes and the number of young adults with any mental illness or SUD has been gradually increasing each year.[2] Prior research has found that receiving psychotherapy promotes greater retention in MAT for OUD, whereas psychiatric hospitalizations and ER visits are associated with early discontinuation .[3] These findings underscore the importance of integrating mental health services with OUD treatment, while also demonstrating that those with severe mental health needs are at increased risk of early drop out.

This analysis aims to contribute to the literature on mental health symptom severity and treatment retention among young adults receiving treatment for OUD to help inform best practices for effectively serving this population. This pilot analysis aims to address the following question:

1) Are young adults' severity of depression and/or anxiety symptoms associated with early treatment dropout in a recovery residence?

It was hypothesized that the residents with successful completion would have a lower severity of mental health symptoms upon admission to the house, compared to those with non-successful completion.

Methods

Forty-seven young adults receiving services for OUD in a residential recovery house, and most (98%) receiving some form of MAT, completed questionnaires assessing basic demographics and mental health upon entry into the recovery residence.

Demographic information assessed included age, sex, MAT, history of drug use including route of administration amongst other variables. Route of administration was coded as 1=oral, 2=nasal, 3=smoking, 4=Intravenous (from most mild to most severe). The Patient Health Questionnaire (PHQ-9)[4] and the Generalized Anxiety Scale (GAD-7)[5] are self-report questionnaires that were used to capture anxiety and depression symptoms, respectively. The PHQ-9 contains 9 items assessing symptoms such as "poor appetite or overeating" and "feeling tired or having little energy". The scale items range from 0=not at all to 3=nearly every day with higher scores indicating greater depressive symptoms. A score of 10 or more indicates moderate to severe depression symptoms on the PHQ-9. The GAD-7 assesses anxiety symptoms using seven items

such as having “trouble relaxing” and “becoming easily annoyed or irritable”. The scale yields a total score with higher scores indicating greater anxiety symptoms. A score of 10 or more indicates moderate to severe anxiety on the GAD-7. Discharge statuses were coded as either successful completion, or non-successful completion which is defined as a resident being admitted to a higher Level of care while in the house or leaving against treatment advice. Due to small cell counts, with Severe being the most frequently reported category on both the PHQ-9 and the GAD-7, the Mild and Moderate categories were combined to create binary distributions (i.e., Severe vs. Mild/Moderate) for both questionnaires.

Bivariate Fisher’s exact tests were conducted in STATA to examine whether depression and anxiety at admission were associated with successful completion of treatment. The Fisher’s exact test was chosen due to the low number of successful completers yielding small expected cell counts (see Tables 3 and 4).

Results

Demographics are shown in Table 1. The residents were on average 24.5 years old, (SD=2.6), mostly male (66%), and most likely to have a history of nasal drug use (66%) and be on some form of MAT (Figure 1). Most of the residents were on suboxone (46%) or extended-release medication for OUD (Sublocade or Vivitrol (45%)). The remaining residents were on methadone (7%) or declined MAT (2%).

Table 2 shows the mental health scores for all residents at baseline. The average PHQ-9 score was 14.3 (*SD*=7.4), and the average GAD-7 score was 12.5 (*SD*=6.2).

Results of the analyses testing the hypothesis showed that discharge status (successful vs. unsuccessful) did not significantly vary by mental health symptoms (Severe or Mild/Moderate; *p*s > .05). Tables 3 and 4 show the Fisher’s exact result of the GAD-7 Severity/Discharge Status and PHQ-9 Severity/Discharge Status, respectively.

Table 1.

Descriptive Statistics

Demographics (n=53)	***M, SD* or %**
Age	*M*=24.5, S*D*=2.6
Male	66%
Avg Length of Stay (Days)	*M*=135.1, *SD*=109.5
Age of 1st Opioid Use	*M*= 17.8, *SD*=3.8
Primary Route of Administration (Nasal)	66%

Table 2.

Fisher's Exact Test for GAD-7 and Discharge Status

Mental Health Scores at Baseline (n=52)	***M, SD***
PHQ-9	*M*=14.3, *SD*=7.4
GAD-7	*M*=12.5, *SD*=6.2

Table 3.

Fisher's Exact Test for GAD-7 and Discharge Status

	GAD Severity at Baseline		
Discharge Status	Mild/Moderate	Severe	**TOTAL**
Non-successful Completion	20	20	40
Successful Completion	4	3	7
TOTAL	24	23	47

Fisher's exact two-tailed $p = 1.000$

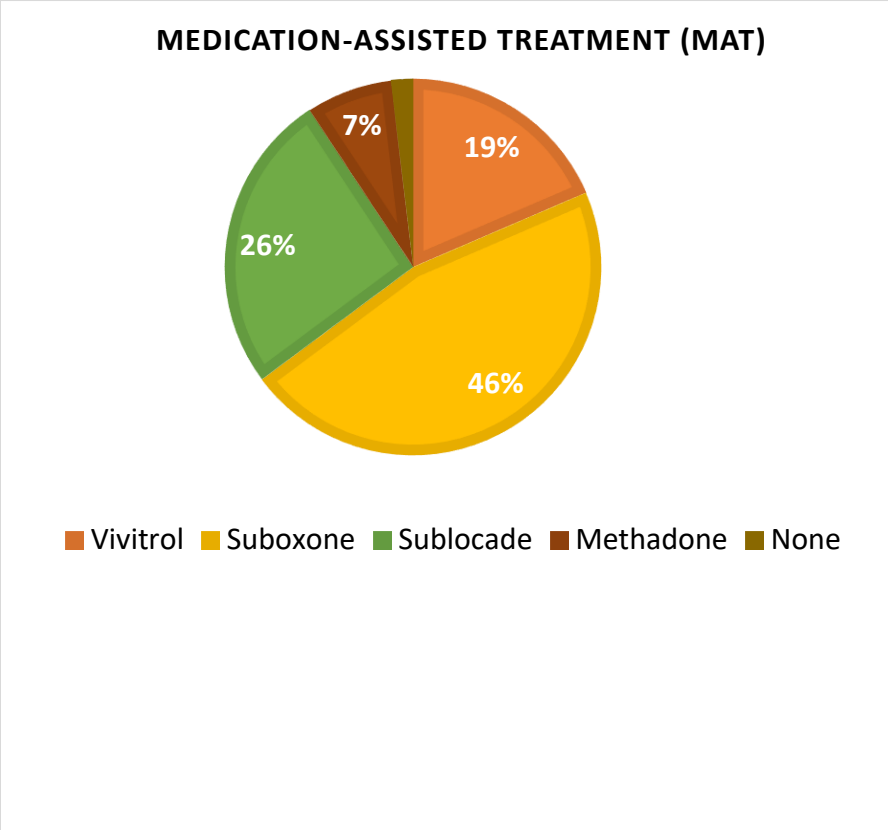
Table 4.

Fisher's Exact Test for PHQ-9 and Discharge Status

	PHQ-9 Severity at Baseline		
Discharge Status	Mild/Moderate	Severe	**TOTAL**
Non-successful Completion	17	22	39
Successful Completion	2	6	8
TOTAL	19	28	47

Fisher's exact two-tailed $p = 0.445$

Figure 1.



Discussion

This pilot analysis showed that young adults with OUD in this sample have high rates of comorbid mental health symptoms, which is consistent with prior literature. Since most successful completers and non-successful completers had high symptoms, a statistical significance was not detected. The results also highlight the low rates of successful treatment completion in young adults with OUD. A possible explanation for this null finding is that mental health symptom severity at baseline might not be a predictor of treatment outcomes. Additionally, those with more severe mental health symptoms might be more desperate for relief and therefore more incentivized to complete treatment. However, these findings should be interpreted with caution due to sample size restrictions limiting the ability to test the study's hypothesis. Specifically, the low number of successful completers (n=8) left little room to analyze variability by mental health symptom severity, thus any inferences drawn from the results are largely speculative. Though the results did not coincide with the hypothesis, they do illustrate that mental health is a salient need in this population of young adults with OUD, consistent with prior literature. [1,2] This analysis represents an important step in the treatment refinements of young adults with OUD. Future analyses with a larger sample size should focus on predictors of treatment outcomes, retention, and relapse.

References

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