



# Exploration of treatment services used by adult 50 and older with opioid use disorder

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## ABSTRACT

- This study is a secondary analysis of the 2019 Treatment Episodes Data Set Discharge (TEDS-D), which is the national substance use dataset.
- Statistical analysis was used to examine the relationship between treatment services and dual diagnosis. In addition, statistical analysis was used to examine the relationship between treatment services and dual diagnosis across different regions in the United States.
- The most common treatment service utilized among adults 50 and older with an opioid use disorder was ambulatory, non-intensive outpatient services.
- There was a significant relationship between treatment services and dual diagnosis.

## INTRODUCTION

### Significance of the Study

- Understanding the types of treatment services used by adults 50 and older by geographic location, social workers can identify service gaps and advocate for more services.

### Purpose of Research

- This study examines the relationship between opioid use and treatments services utilized among adults 50 and over with a dual diagnosis and adults 50 and older without a dual diagnosis.
- This study will explore the types of treatment services utilized by adults 50 and over with a dual diagnosis and without dual diagnosis across different regions in the United States.

### Exploratory Study

- This study will examine the types of treatment service used by adults 50 and older with opioid use disorder. This study will also explore the types of treatment services used across the United States.

## LITERATURE REVIEW

### Factors Associated with Opioid Use

- In 2019, 36% of adults 50 and older regularly used prescription opioids (Han et al., 2019).
- Older adults with multiple chronic conditions and between the ages of 65 and 75 were 6.75 times more likely to misuse opioids (Carter et al., 2019).
- Between 2015 to 2017, more than two million Americans had co-occurring mental health and substance use with Opioid Use Disorder (OUD) (Jones & McCance-Katz, 2019).

### Treatment for Opioid Use

- Medication is the standard treatment method to address OUD however it is only available through specialized opioid treatment facilities (NIH, 2020b).

### Barriers to Treatment

- Individuals with beliefs of being able to handle their addiction on their own and not needing treatment were challenges to engage clients (Ober et al., 2021).
- Stigma of addiction and fear of intense and uncontrollable pain also prevent an individual from seeking out treatment (Stumbo et al., 2016).

## Research Design and Data Collection Procedures

- This study is a secondary analysis of the 2019 TEDS-D, which collects admission and discharge treatment information at the client level from substance use treatment facilities that use federal or state funding for their programs.

### Sample and Sample Method

- The TEDS-D data is a qualitative convenience sample of treatment episodes at a client level as data was collected at admissions from every state's substance use treatment facility.
- The current study used a subsection of the TEDS-D and will focus on adults 50 and older who used opioids. The sample size of the secondary data with adults 50 and older who used opioids was n = 74,762.

### Measures

#### Independent variables:

- Opioid Use was measure using the categorical variables of substance use detected at admission
- Co-occurring mental and substance use (dual diagnosis) was measure using the categorical variable indicating a dual diagnosis

- Dependent variable:** treatment services was measure indicating the type of treatment the client was placed at the time of discharge

### Statistical Analysis

#### Two-way Chi-square

- All the two-way chi-square analyses were significant.
- A chi-square analyses indicated a significant association was found ( $\chi^2(7) = 1,163.826$ ,  $p<0.001$ ) between treatment services and dual diagnosis, while a Cramer's V statistic suggested a weak association (0.134).

#### Three-way Chi-square test

- Nine of the ten three-way chi-square analyses conducted were significant
- A significant association was found between treatment services and dual diagnosis within the New England region  $\chi^2(7) = 225.432$ ,  $p<0.001$ , while a Cramer's V statistic suggested a weak association (0.164).

## METHODS

## RESULTS

Figure 1  
Treatment services and co-occurring mental health and substance use disorder

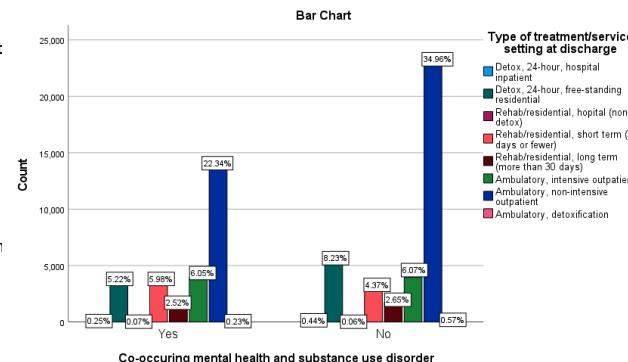


Table 1  
Results of chi-square analyses examining the relationship between treatment service and dual diagnosis across the U.S.

Census Division	Co-occurring diagnosis	Treatment Services Category % (n)					
		Detox, 24 hour, hospital inpatient	Detox, 24 hour, free-standing residential	Rehab, hospital (non-detox)	Residential, short term (30 days or fewer)	Residential, long term (30+ days)	Ambulatory, intensive outpatient
New England	Yes	30.1 (2)	0.9 (0)	5.8 (208)	5.9 (213)	5.8 (209)	49 (1,757)
	No	2.1 (44.9)	0.6 (31)	3.6 (174)	4.5 (218)	6.9 (333)	5.5 (2,042)
Middle Atlantic	Yes	7.5 (756)	0.4 (0)	(2,151)	9.2 (933)	13.2 (1,340)	47.9 (4,861)
	No	0.5 (42)	4.4 (383)	0.2 (1)	1.5 (566)	8.7 (758)	12.6 (1,106)
East North Central	Yes	30.2 (1,123)	23.4 (869)	1.2 (43)	4.6 (170)	40.4 (1,499)	0.2 (8)
	No	0.1 (3)	25.4 (1,204)	14 (662)	1.6 (758)	8 (381)	50.5 (2,398)
West North Central	Yes	9.6 (62)	0.5 (3)	15.4 (99)	0.5 (3)	34.6 (223)	39.1 (252)
	No	0.1 (0)	13.6 (95)	0 (0)	7 (49)	0.6 (41)	51.1 (356)
South Atlantic	Yes	7.0 (37)	3.6 (200)	0.1 (3)	6.1 (335)	4.4 (243)	21.1 (716)
	No	1.5 (119)	9.1 (741)	0 (1)	2.7 (218)	2.8 (226)	23.6 (3,229)
East South Central	Yes	1.1 (24)	18 (38)	5.2 (110)	3.9 (83)	17.1 (361)	70.9 (1,500)
	No	1.4 (6)	7.3 (32)	16.3 (71)	5.7 (22)	15.6 (68)	54.4 (2,371)
West South Central	Yes	3.8 (6)	4.5 (7)	35.7 (86)	1.9 (5)	8.3 (13)	45.9 (72)
	No	2.4 (6)	26 (64)	24 (59)	5.7 (14)	7.7 (19)	34.1 (84)
Mountain	Yes	1.4 (10)	7.7 (53)	0.7 (5)	7.1 (49)	4.9 (34)	68.1 (470)
	No	1.2 (5)	0.2 (4)	1.5 (29)	1.1 (19)	2.2 (41)	82.1 (552)
Pacific	Yes	6.6 (74)	0.2 (4)	0.9 (10)	7.4 (82)	3 (33)	80.7 (3,099)
	No	5.6 (417)	0.2 (12)	5.2 (384)	1.3 (100)	85.3 (6,327)	2.4 (175)

Table 2  
Results of chi-square analyses examining the relationship between treatment service and dual diagnosis across the U.S.

	DF	$\chi^2$	Cramer's V	P
U.S. Territories	2	5.615	0.195	0.60
New England	7	225.432	0.164**	<.001
Middle Atlantic	7	174.466	0.096**	<.001
East North Central	6	211.420	0.158**	<.001
West North Central	7	58.933	0.210*	<.001
South Atlantic	7	356.956	0.162**	<.001
East South Central	5	119.409	0.216*	<.001
West South Central	5	37.162	0.304*	<.001
Mountain	7	195.466	0.275**	<.001
Pacific	5	52.828	0.079**	<.001

\*Moderate association \*\*Weak association

## DISCUSSION

### Summary of Findings

- Findings from this study show that regardless of gender, race, ethnicity, education level, region in the U.S. or dual diagnosis, the most utilized service was ambulatory, non-intensive outpatient treatment among adults 50 and older with opioid use.
- Even though ambulatory non-intensive outpatient services were the most common treatment in this study, adult with dual diagnosis utilized residential treatments (residential non detox hospital, short term, and long term) and intensive outpatient services more than adults without a dual diagnosis.
- Findings from the current study show that in the New England region which includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, adults with a dual diagnosis utilized residential detox (44.9%) treatment at higher rates than ambulatory non-intensive outpatient (36.9%).
- Finding indicated that all the central regions utilized ambulatory outpatient services both intensive and non-intensive more than residential treatment settings and detox treatment settings.

### Practice and Policy Implications

- The findings about the Central region and New England regions highlight the need to advocate and address service gaps within those regions.
- Social workers can advocate for policy changes to increase the number of outpatient treatment facilities to help reduce distance and increase the number of practitioners in Central regions.
- Social workers can advocate for policy changes to fund more outpatient treatment to address dual diagnosis and healthcare treatment for adults.

### Strengths and Limitation

- The TEDS-D only collects admission data on facilities that reports to SAMHSA. Thus, a person can be counted for more than one admission in a year.

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