EPH 150

Associations Between Co-occurring Mental Disorders and Treatment Completion among Women of Reproductive Age Admitted for Cannabis Use Disorder: Evidence from the United States Treatment Episode Data Set

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INTRODUCTION

- With increasing legalization of marijuana across the United States (US), many individuals are turning to cannabis for recreational use, leading to higher usage rates and increased reports of cannabis related disorders and dependence[1]
- According to a recent study using data from the 2022 National Survey on Drug Use and Health (NSDUH), 38.4% of people suffering from Cannabis Use Disorder (CUD) also had a moderate to severe co-occurring mental health diagnosis[2]
- Mental illness and substance abuse disorders often potentiate or worsen one another, making treatment significantly more difficult
- Limited research is available identifying factors that may influence completion of treatment in this population

OBJECTIVE

- The purpose of this study is to investigate associations between mental illness and sociodemographic factors that may influence treatment completion among women of reproductive age (18-49 years old) admitted for CUD

METHODS

- A cross-sectional study design was used to analyze data from the 2015-2019 Treatment Episode Data Set (TEDS) system which included 11,500 reproductive-aged women living in the US who were admitted to a treatment facility for CUD (treatment naïve) and had a co-occurring mental health diagnosis
- The TEDS-Admissions database utilized for the study is a compilation of substance abuse treatment data collected from publicly funded inpatient and outpatient treatment facilities which includes a range of sociodemographic information and substance abuse characteristics
- Cannabis Use Disorder (CUD) was defined as any patient who presented to a treatment facility with cannabis as their primary substance of abuse
- Co-occurring mental illness was defined as any patient who presented to a treatment facility with a documented and diagnosed mental and substance abuse disorder
- Treatment completion data was collected from TEDS-D dataset and was recoded as a binary outcome (treatment complete or treatment incomplete). Completion of treatment was defined as any patient who was discharged from a treatment facility for the sole reason of completion of treatment documented by a healthcare professional
- Descriptive statistics, chi-squared tests, and multivariate logistic regression analyses were conducted using STATA statistical software version SE 16.1

REFERENCES

1. Farrelly KN, Wardell JD, Marsden E, et al. The Impact of Recreational Cannabis Legalization on Cannabis Use and Associated Outcomes: A Systematic Review. *Subst Abuse*. 2023;17:11782218231172054. Published 2023 May 9. doi:10.1177/11782218231172054
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RESULTS

Table 1. Sample Characteristics of Women of Reproductive Age (18-49 years old) Admitted for Cannabis Use Disorder Stratified by Completion of Treatment

Characteristics	Total n=11,500 n (%)	Completed Treatment n=4,690 n (%)	Treatment Incomplete n=6,810 n (%)	P-value
Co-occurring Mental Illness				<0.0001
Yes	4,351 (37.8)	1,379 (29.4)	2,972 (68.3)	
No	7,149 (62.2)	3,311 (70.6)	3,838 (53.7)	
Race				<0.0001
White, non-Hispanic	5,630 (50.0)	2,226 (47.5)	3,404 (50.0)	
Black, non-Hispanic	3,132 (27.2)	1,338 (28.5	1,794 (26.3)	
Hispanic	1,741 (15.1)	675 (14.4)	1,066 (15.7)	
Other	997 (8.7)	451 (9.6)	546 (8.0)	
Marriage status				<0.0001
Married	1,096 (9.5)	438 (9.3)	658 (9.7)	
Never married	7,665 (66.7)	3,230 (68.9)	4,435 (65.1)	
Separated/ divorced/ widowed	1,212 (10.5)	466 (9.9)	746 (10.5)	
Unknown	1,527 (13.3)	556 (11.9)	971 (14.3)	
Education				<0.0001
No high school	3,038 (28.0)	1,059 (25.3)	1,979 (29.6)	
High school or GED	5,285 (48.6)	2,110 (50.5)	3,175 (47.5)	
College or more	2,544 (23.4)	1,010 (24.2)	1,534 (22.9)	
Service setting				<0.0001
Detox facilities	53 (0.5)	40 (0.9)	13 (0.2)	
Rehabilitative or residential facilities	156 (1.36)	59 (1.3)	97 (1.4)	
Ambulatory care facilities	11,291 (98.2)	4,591 (97.9)	6,700 (98.4)	
Treatment referral				<0.0001
Self	2,221 (20.1)	707 (15.6)	1,514 (23.2)	
Alcohol/drug abuse	154 (1.4)	72 (1.6)	82 (1.3)	
Other health care provider	790 (7.1)	208 (4.6)	582 (8.9)	
School/Employer/EAP	157 (1.4)	76 (1.7)	81 (1.2)	
Criminal justice	3,654 (33.0)	1,806 (39.8)	1,848 (28.3)	
Other community referral	4,101 (37.0)	1,669 (36.8)	2,432 (37.2)	
Frequency of use				<0.0001
No use	5,020 (43.7)	2,401 (51.2)	2,619 (38.5)	
Some use	4,513 (39.2)	1,667 (35.5)	2,846 (41.8)	
Daily use	1,674 (14.6)	516 (11.0)	1,158 (17.0)	
Unknown	293 (2.6)	106 (2.3)	187 (2.8)	
Additional substance use				<0.0001
None	7,531 (65.5)	3,146 (67.1)	4,385 (64.4)	
At least one	3,066 (26.7)	1,156 (24.7)	1,910 (28.1)	
Unknown	903 (7.9)	388 (8.3)	515 (7.6)	
Length of stay in treatment				<0.0001
1 month	1,246 (10.8)	467 (10.0)	779 (11.4)	
2-3 months	4,729 (41.1)	1,746 (37.2)	2,983 (43.8)	
4-6 months	2,869 (25.0)	1,444 (30.8)	1,425 (20.9)	
7-12 months	1,535 (13.4)	717 (15.3)	818 (12.0)	
Over 1 year	1,121 (9.8)	316 (6.7)	805 (11.8)	
Region				<0.0001
Northeast	2,346 (20.4)	1,007 (21.5)	1,339 (19.7)	
Midwest	1,997 (17.4)	797 (17.0)	1,200 (17.6)	
South	4,442 (38.6)	1,804 (38.5)	2,638 (38.7)	
West	2,715 (23.6)	1,082 (23.1)	1,633 (24.0)	

Table 2. Associations Between Sample Characteristics and Treatment Completion among Women of Reproductive Age Admitted for Cannabis Use Disorder

Characteristics	Treatment Completion OR (95% CI)	P-value
Co-occurring Mental Illness		
Yes	1.60 (1.46, 1.75)	<0.0001
No	Reference	
Race		
White, non-Hispanic	Reference	
Black, non-Hispanic	0.99 (0.90, 1.10)	0.903
Hispanic	0.91 (0.80, 1.03)	0.147
Other	1.05 (0.89, 1.24)	0.556
Marriage status		
Married	Reference	
Never married	1.01 (0.87, 1.16)	0.944
Separated/ divorced/ widowed	1.08 (0.91, 1.30)	0.381
Education		
No high school	Reference	
High school or GED	0.80 (0.72, 0.88)	<0.0001
College or more	0.73 (0.65, 0.82)	<0.0001
Service setting		
Detox facilities	Reference	
Rehabilitative or residential facilities	5.28 (2.38, 11.70)	<0.0001
Ambulatory care facilities	8.10 (3.96, 16.57)	<0.0001
Treatment referral source		
Self	Reference	
Alcohol/drug abuse	0.54 (0.38, 0.77)	0.001
Other health care provider	1.40 (1.13, 1.74)	0.002
School/Employer/EAP	0.43 (0.30, 0.60)	<0.0001
Criminal justice	0.53 (0.47, 0.61)	<0.0001
Other community referral	0.77 (0.68, 0.88)	<0.0001
Frequency of use		
No use	Reference	
Some use	1.52 (1.39, 1.66)	<0.0001
Daily use	2.05 (1.79, 2.36)	<0.0001
Unknown	1.91 (1.47, 2.49)	<0.0001
Additional substance use		
None	Reference	
At least one	1.12 (1.01, 1.23)	0.027
Unknown	0.92 (0.78, 1.08)	0.296
Length of stay in treatment		
1 month	Reference	
2-3 months	0.72 (0.61, 0.85)	<0.0001
4-6 months	0.35 (0.29, 0.41)	<0.0001
7-12 months	0.34 (0.28, 0.41)	<0.0001
Over 1 year	0.50 (0.40, 0.62)	<0.0001
Region		
Northeast	Reference	
Midwest	1.28 (1.12, 1.47)	<0.0001
South	1.23 (1.09, 1.39)	0.001
West	1.70 (1.45, 2.00)	<0.0001

Table 3. Unadjusted and Adjusted Odds Ratios for Treatment Completion Among Women of Reproductive Age Admitted for Cannabis Use Disorder by Co-occurring mental Illness

	Treatment Completion n=11,500		P-value	Treatment Completion Unadjusted OR (95% CI)	Treatment Completion Adjusted OR* (95% CI)
	Yes n(%)	**No n(%)**	<0.0001		
Total	4,690 (40.8)	6,810 (59.2)			
Mental Illness	1,379 (31.7)	2,972 (68.3)		1.86 (1.72, 2.01)	1.60 (1.46, 1.75)
No Mental Illness	3,311 (46.3)	3,838 (53.7)		Reference	Reference

***Adjusted for sociodemographic factors including women's race, marital status, education, service setting at discharge, treatment referral source, frequency of marijuana use, additional substance use, length of stay in treatment, and region**

- Only 31% of women with a co-occurring mental illness completed CUD treatment compared to 46.3% of those without mental illness
- The vast majority (98.2%) of patients attended ambulatory care facilities and did not indicate any other substance prior to admission (65.5%)
- The majority of patients also lived in the south (38.6%), underwent treatment for 2-3 months (41.1%), had a high school/GED education (48.6%), and were of white, non-Hispanic race and ethnicity (50.0%)
- Women who attended ambulatory care facilities (AOR=8.10, 95% CI: 3.96, 16.57) or received a referral for treatment by a physician, psychiatrist, other health care provider (AOR=1.4, 95% CI: 1.13, 1.74) had higher odds of completing treatment for CUD
- Females who reported daily use of cannabis (AOR=2.05, 95% CI: 1.79, 2.36) or at least some use (AOR=1.52, 95% CI: 1.39, 1.66) over the past 30 days prior to admission were at increased odds of completing treatment relative to those who reported no use

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- Women who underwent treatment for up to 1 month were more likely to complete treatment relative to those who underwent treatment for 2-3 months (AOR=0.72, 95% CI: 0.61, 0.85), 4-6 months (AOR=0.35, 95% CI: 0.29, 0.41), 7-12 months (AOR=0.34, 95% CI: 0.28, 0.41), or more than a year (AOR=0.50, 95% CI: 0.40, 0.62)
- Patients living in the Northeast were at lower odds of completing treatment relative to those living in the South (AOR=1.23, 95% CI: 1.09, 1.39), West (AOR=1.70, 95% CI: 1.45, 2.00) or Midwest (AOR=1.28, 95% CI: 1.12, 1.47)
- An initial unadjusted odds ratio indicated that women who had a co-occurring mental health diagnosis were at increased odds (UOR=1.86, 95% CI: 1.72, 2.02) of completing treatment compared to those without mental illness
- After adjusting for sociodemographic, substance use, and treatment characteristics it was found that women presenting with CUD who were diagnosed with mental illness still had higher odds (AOR=1.60, 95% CI: 1.46, 1.75) of completing treatment compared to those without a co-occurring mental health diagnosis

CONCLUSION

- Overall, this study concludes that women with a co-occurring mental health diagnosis admitted for CUD are at increased odds of completing treatment compared to those without mental illness
- These findings can help healthcare practitioners and public health officials tailor interventions to the unique needs of women with and without mental illness who present with CUD