



Comorbid substance use disorders in Veterans with opioid use disorder: the association with treatment receipt

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INTRODUCTION

- Opioid Use Disorder (OUD) in Veterans is associated with serious harms including overdose and suicide.
- Only 1/3rd of Veterans receive buprenorphine and methadone treatment, which can prevent these harms.
- Comorbid diagnoses of other Substance Use Disorders (SUDs) can impact clinicians' willingness to use these medications.
- Little is known about comorbid SUDs among Veterans with OUD and their impact on treatment.
- This study aims to 1) compare patients with OUD only and those with other comorbid SUDs and 2) examine the association between comorbid SUDs and receipt of medication and other outpatient treatment for OUD.**

METHODS

Data

VA CDW data used to create cohort of Veterans diagnosed with OUD receiving care from the Veterans Health Administration (VHA) in Fiscal Year 2017.

Analyses

Aim 1: Compare patient characteristics among those diagnosed with OUD only with those diagnosed with one other SUD and with multiple SUDs.

Aim 2: Examine relationship between comorbid SUDs and receipt of buprenorphine, methadone, and SUD clinic treatment during one year follow-up, adjusting for demographics and clinical conditions.

RESULTS

65,741 Veterans with OUD received care from the Veterans Health Administration in Fiscal Year 2017.

Table 1. Prevalence of specific substance use disorders (SUD) across SUD comorbidity groups among patients with OUD

Substance Use Disorder	OUD + 1 Other SUD N(%)	OUD +>1 Other SUD N(%)	χ^2	p-value
Alcohol Use Disorder	7531 (50.0)	19592 (83.1)	4813.01	<.001
Cannabis Use Disorder	1968 (13.1)	12728 (54.4)	6531.04	<.001
Cocaine/Stimulant Use Disorder	2823 (18.7)	16915 (71.7)	10332.17	<.001
Sedative Use Disorder	1010 (6.7)	5509 (23.4)	1819.98	<.001
Other Substance Use Disorder	1743 (11.6)	11234 (47.6)	5364.32	<.001

Table 2. Demographic, clinical and treatment characteristics across SUD comorbidity groups among patients with OUD

Characteristics	OUD only N=27078 (41.2%)	OUD + 1 Other SUD N=15075 (22.9%)	OUD + >1 Other SUD N=23588 (35.9%)	χ^2	p-value
Age				2103.4	<.001
18-29	1487 (5.5)	1109 (7.4)	2170 (9.2)		
30-64	18038 (66.6)	10987 (72.9)	18619 (78.9)		
65 & over	7553 (27.9)	2979 (19.8)	2799 (11.9)		
Female	2249 (8.3)	1070 (7.1)	1626 (6.9)	41.2	<.001
Race				945.18	<.001
White	20998 (77.5)	11225 (74.5)	16157 (68.5)		
Black	3989 (14.7)	2771 (18.4)	5954 (25.2)		
Other/Multi-race	464 (1.7)	267 (1.8)	406 (1.7)		
Unknown	1384 (5.1)	681 (4.5)	831 (3.5)		
Hispanic (vs. non)	1361 (5.0)	874 (5.8)	1458 (6.2)	32.91	<.001
Location				186.0	<.001
Urban	21977 (81.2)	12612 (83.7)	20023 (84.9)		
Large Rural City/Town	1773 (6.5)	846 (5.6)	1144 (4.8)		
Small/Isolated Rural	1463 (5.4)	635 (4.2)	841 (3.6)		
Unknown	1865 (6.9)	982 (6.5)	1580 (6.7)		
Homeless	2064 (7.6)	2681 (17.8)	9793 (41.5)	8621.4	<.001
Care location				750.17	<.001
CBOC	9992 (36.9)	4899 (32.5)	6587 (27.9)		
VAMC	12615 (46.6)	7591 (50.4)	13773 (58.4)		
Unknown	4471 (16.5)	2585 (17.1)	3228 (13.7)		
Major Depression	9511 (35.1)	7182 (47.6)	14872 (63.0)	3939.4	<.001
Bipolar Disorder	1666 (6.2)	1621 (10.8)	4815 (20.4)	2417.2	<.001
PTSD	7917 (29.2)	5814 (38.6)	11994 (50.8)	2474.3	<.001
Other Anxiety disorder	5732 (21.2)	4529 (30.0)	9578 (40.6)	2260.5	<.001
Psychotic disorder	1401 (5.2)	1143 (7.6)	3412 (14.5)	1372.7	<.001
Charlson Index				302.26	<.001
0	16205 (59.8)	8794 (58.3)	12538 (53.2)		
1	5714 (21.1)	3323 (22.0)	6330 (26.8)		
> 1	5159 (19.1)	2958 (19.6)	4720 (20.0)		
Treatment received					
Buprenorphine	5104 (18.8)	2698 (17.9)	3296 (14.0)	227.99	<.001
Methadone	4689 (17.3)	2639 (17.5)	3784 (16.0)	19.65	<.001
SUD clinic visits	11746 (43.4)	9269 (61.5)	18053 (76.5)	5782.2	<.001

Table 3. Logistic regression models examining the relationship between SUD comorbidity and receipt of OUD treatment

Characteristic	Buprenorphine AOR (95% CI)	Methadone AOR (95% CI)	SUD clinic visits AOR (95% CI)
OUD only	ref	ref	ref
OUD + 1 SUD	0.91 (0.86, 0.96)	0.96 (0.90, 1.02)	1.91 (1.83, 2.00)
OUD + ≥ 2 SUDs	0.72 (0.68, 0.76)	0.88 (0.83, 0.94)	3.52 (3.36, 3.69)
Age			
18-29	ref	ref	ref
30-64	0.85 (0.78, 0.91)	0.92 (0.83, 1.01)	0.64 (0.59, 0.69)
>= 65	0.40 (0.36, 0.44)	0.72 (0.64, 0.80)	0.33 (0.30, 0.36)
Female	0.85 (0.79, 0.93)	0.83 (0.76, 0.92)	0.79 (0.74, 0.84)
Race			
White	ref	ref	ref
Black	0.52 (0.48, 0.56)	1.09 (1.02, 1.16)	1.19 (1.13, 1.25)
Other/Multi-race	0.74 (0.64, 0.86)	1.00 (0.86, 1.17)	0.89 (0.80, 1.00)
Unknown	0.84 (0.75, 0.94)	0.92 (0.81, 1.03)	0.93 (0.85, 1.01)
Hispanic	0.88 (0.79, 0.98)	1.22 (1.09, 1.35)	1.21 (1.11, 1.32)
Location			
Urban	ref	ref	ref
Large Rural City/Town	1.10 (1.00, 1.21)	0.57 (0.50, 0.66)	0.75 (0.69, 0.81)
Small/Isolated Rural Town	1.07 (0.97, 1.19)	0.51 (0.43, 0.61)	0.81 (0.74, 0.88)
Unknown	0.54 (0.49, 0.60)	0.56 (0.51, 0.63)	0.55 (0.51, 0.59)
Homeless	0.86 (0.81, 0.91)	1.07 (1.01, 1.14)	1.85 (1.76, 1.94)
Care location			
VAMC	ref	ref	ref
CBOC	0.77 (0.73, 0.82)	0.75 (0.71, 0.80)	0.73 (0.70, 0.76)
Unknown	1.01 (0.95, 1.08)	1.06 (0.98, 1.13)	1.32 (1.25, 1.40)
Major Depression	0.98 (0.93, 1.03)	0.84 (0.80, 0.88)	0.97 (0.93, 1.00)
Bipolar Disorder	0.87 (0.81, 0.93)	0.78 (0.72, 0.85)	0.95 (0.90, 1.00)
Other Anxiety disorder	0.97 (0.92, 1.02)	0.85 (0.80, 0.90)	0.91 (0.88, 0.95)
PTSD	1.22 (1.17, 1.28)	1.01 (0.96, 1.06)	1.21 (1.17, 1.26)
Psychotic disorder	0.64 (0.59, 0.71)	0.71 (0.65, 0.78)	0.74 (0.70, 0.79)
Charlson Index			
= 0	ref	ref	ref
= 1	0.57 (0.53, 0.62)	0.86 (0.80, 0.92)	0.57 (0.54, 0.60)
> 1	0.87 (0.82, 0.91)	1.16 (1.09, 1.23)	0.86 (0.82, 0.90)

CONCLUSIONS

- The majority of Veterans with OUD have at least one comorbid SUD; many have multiple SUDs.
- Despite higher likelihood of a SUD clinic visit, having an additional SUD is associated with lower likelihood of buprenorphine treatment.
- Additional efforts are needed to understand barriers to medication treatment for the majority of Veterans with OUD who have comorbid SUDs.
- Comorbid SUDs must be addressed within efforts to expand medication treatment access for OUD.

