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# Sex-based differences in the rate of follow-through to treatment centers for substance use disorders

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## Background

- A higher prevalence of substance use disorders exists in the population served by the ED.<sup>1</sup>
- Studies have demonstrated that interventions in the ED setting, along with subsequent referral to treatment centers, can reduce harmful substance use.<sup>2,3</sup>
- Barriers to treatment of substance use include socioeconomic factors that can be associated with specific genders.<sup>4</sup>

## Problem Statement

This project investigated the difference between sexes in their rate of participation at treatment centers for substance use, specifically amongst patients who had received brief interventions and referral to treatment centers while they were in the ED.

## Methods

Prospectively collected data:



## Results

Table 1. Screening, Intervention, and Follow-up<sup>5</sup>

Intervention	Finding	No. (%) of patients		p
		Male (n = 976)	Female (n = 1233)	
Patient screening (n = 2209)	Screened negative for unhealthy substance use <sup>a</sup>	678 (69.5)	984 (79.8)	0.01
	Screened positive for unhealthy substance use	298 (30.5)	249 (20.2)	
Intervention interview (n = 187)	Agreed to intervention interview	106	81	
	Patient or facility contacted	82 (73.2)	78 (83.9)	0.213
Follow-up evaluation (n = 160)	Could not contact (missing, wrong telephone number)	23 (20.5)	11 (11.8)	
	Died by follow-up evaluation	2 (1.8)	0 (0.0)	
	Refused to participate in follow-up	2 (1.8)	3 (3.2)	
	Other (power of attorney or family member)	3 (2.7)	1 (1.1)	
	Accepted referral	57 (50.9)	54 (58.1)	0.249
	Refused referral	22 (19.6)	21 (22.6)	
	Missing or incomplete	33 (29.5)	18 (19.3)	
	Patient participated in a follow-up program (according to patient)?			
	Yes	26 (32.9)	14 (18.2)	0.035
	No	53 (67.1)	63 (81.8)	
	Attempted to change substance use pattern?			
	Yes	16 (19.5)	17 (21.8)	0.691
	No	32 (39.0)	30 (38.5)	
	Not applicable <sup>b</sup>	31 (37.8)	23 (29.5)	
	Missing	3 (3.7)	8 (10.3)	

a- Includes: Marijuana, cocaine, methamphetamines, narcotics without a prescription.

b- Includes patients who were in an inpatient facility during follow-up period and those who report trying to cut down on their own

## Discussion

- Of the 187 patients with substance use disorders who agreed to the brief intervention, 111 accepted referrals, and 40 patients actually participated at a treatment center.
- 18.2% of the females who accepted referrals followed through at a treatment center, while 32.9% of males who accepted referrals followed through (p = 0.035).

## Conclusions

- A statistically significant higher percentage of males compared to females participated in a treatment center after receiving brief intervention and referral, which agrees with studies that have found women who use alcohol to be less likely to seek treatment than their male counterparts.
- Sex-based differences in the treatment and outcomes of substance use disorders may indicate sex-specific barriers to treatment, an issue of access to healthcare.
- Identifying such barriers requires a values-based, patient-centered care approach.

## REFERENCES

1. Wu LT, Swartz MS, Wu Z, Mannelli P, Yang C, Blazer DG. Alcohol and drug use disorders among adults in emergency department settings in the United States. *Ann Emerg Med.* 2012;60(2):172-80.e5. doi:10.1016/j.annemergmed.2012.02.003.
2. D'Onofrio G, Degutis LC. Integrating Project ASSERT: a screening, intervention, and referral to treatment program for unhealthy alcohol and drug use into an urban emergency department. *Acad Emerg Med.* 2010;17(8):903-11. doi: 10.1111/j.1553-2712.2010.00824.x.
3. Madras BK, Compton WM, Avula D, et al. Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: comparison at intake and 6 months later. *Drug Alcohol Depend.* 2009; 99:280-295. doi:10.1016/j.drugalcdep.2008.08.003.
4. Greenfield SF, Back SE, Lawson K, Brady KT. Substance Abuse in Women. *Psychiatr Clin North Am.* 2010;33(2):339-355. doi:10.1016/j.psc.2010.01.004.
5. Amaducci AM, Greenberg MR, Sheen AW, Warren HR, Parikh PM, Roth P, Weaver KR, Richardson DM, Burmeister DB, Stephens JL, Cannon RD. Sex-specific outcomes in a substance use intervention program. *Clinical Therapeutics.* 2020. doi: 10.1016/j.clinthera.2020.01.020.

