

# Improving Housing Referrals and Treatment Participation in an Outpatient Substance Use Disorder Treatment Program

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## Introduction

- An estimated one in five persons experiencing homelessness also has a substance use disorder (SUD)
- Homelessness has detrimental effects on mental and physical health, and in combination with a SUD also negatively affects successful SUD treatment
- Access to housing within SUD treatment programs remains limited and is an ongoing barrier to successful treatment.
- The purpose of this project was to improve the coordination of housing services and treatment participation for clients of an outpatient substance use disorder (SUD) treatment center who are experiencing homelessness through the development of a database of housing resources and updated housing referral process

## Project Aims

**Aim 1:** Improve understanding of the characteristics and needs of the population of clients at the center who are experiencing homelessness

**Aim 2:** Clarify the process through which clients experiencing homelessness are referred to housing services

**Aim 3:** Increase the number of clients of the center who are referred to appropriate housing services

**Aim 4:** Determine the impact of housing referrals on treatment participation

## Methods

- Integrative review resulted in eight articles with descriptions of process or key elements of housing coordination/referral in the context of SUDs; four themes emerged to guide project development and implementation (Table 1)
- Two-part intervention: Development of a housing resource document and revision of the center's housing policy – based on themes from literature and stakeholder input
- Nov. 2018 and Feb. 2019: Baseline demographic and treatment data gathered via retrospective chart review on clients admitted to the center
- May and November 2019: Interventions implemented
- Nov. 2019 and Feb. 2020: Post-intervention data again gathered via retrospective chart review on clients admitted to the center
- Variables by aim and associated analytical tests illustrated in Table 2

**Table 1: Literature Themes**

Theme	Description
<b>Theme 1</b>	Housing as a primary element of SUD treatment
<b>Theme 2</b>	Need for improved collaboration among service providers
<b>Theme 3</b>	Importance of person-centered care
<b>Theme 4</b>	Improving discharge planning and referral systems



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**Table 2: Project Aims and Analysis**

Aim	Variables	Comparison Groups	Analysis
<b>1: Improve understanding of the characteristics and needs of the population of clients at the center who are experiencing homelessness</b>	Age, Race, Education Level, Number of Substances Used, Type of MAT, Number of Co-Occurring Medical and Psychiatric Conditions, Housing Status on Admission	Baseline and Post-Intervention	Independent Samples T-test and Chi-Square tests
<b>2: Clarify the process through which clients experiencing homelessness are referred to housing services</b>	N/A (Process-related aim only)		N/A
<b>3: Increase the number of clients of the center who are referred to appropriate housing services</b>	Proportion of clients referred to housing	Baseline and Post-Intervention	Chi-Square
<b>4: Determine the impact of housing referrals on treatment participation</b>	Positive Urine Screens, ED and Hospital Admissions, Average Group Attendance, Early Departure from Treatment	Clients referred to housing and clients not referred (Baseline and Post-Intervention groups combined)	Independent Samples T-test and Chi-Square tests

## Results

- Review of 120 client charts – 70 from baseline sample and 50 from post-intervention sample
- No statistically significant differences among demographic characteristics between samples (see Table 3 for sample characteristics)
- No changes in proportion of clients referred to housing between baseline and post-intervention groups
- Absence of statistically significant differences for treatment variables between clients with housing referrals and those without
- See Tables 4-6 for outcome variables and analysis

**Table 3: Sample Characteristics (Aim 1)**

Variables	Baseline	Post-Intervention	P values
<b>Age, mean (SD)</b>	44.6 (11.63)	46.48 (12.002)	0.391
<b>Sex, n (%)</b>			
Cis male	61 (87.1)	39 (78.0)	0.185
Cis female	9 (12.9)	11 (22.0)	
<b>Race, n (%)</b>			
Caucasian	36 (51.4)	19 (38.0)	0.512
African American	32 (45.7)	28 (56.0)	
Asian/Pacific Islander	1 (1.4)	1 (2.0)	
Latino			
Mixed/Other	1 (1.4)	1 (2.0)	
<b>Education Level, n (%)</b>			
High School Graduate or GED	25 (35.7)	20 (40.0)	0.855
Some High School	15 (21.4)	12 (24.0)	
Some College or Trade School	14 (20.0)	10 (20.0)	
Unknown	10 (14.3)	4 (8.0)	
No High School	5 (7.1)	4 (8.0)	
Some Graduate School	5 (7.1)	4 (8.0)	
1 (1.4)			
<b>Number of Substances Used, mean (SD)</b>	3.37 (1.32)	3.32 (1.115)	0.823
<b>Type of Medication Assisted Treatment (MAT), n (%)</b>			
None	27 (38.6)	15 (30.0)	0.365
Methadone	21 (30.0)	17 (34.0)	
Suboxone	21 (30.0)	16 (32.0)	
Methadone and Suboxone (transition)	1 (1.4)		
Other		2 (4.0)	
<b>Number of Medical Comorbidities, mean (SD)</b>	2.27 (1.785)	2.52 (2.306)	0.507
<b>Number of Psychiatric Comorbidities, mean (SD)</b>	1.09 (0.756)	1.2 (1.050)	0.489
<b>Housing Status on Admission, n (%)</b>			
Program housing	55 (78.6)	41 (82.0)	0.184
Other temporary/recovery housing	6 (8.6)		
Own/family housing	6 (8.6)	6 (12.0)	
Unknown	3 (4.3)	3 (6.0)	

**Table 4: Clients Referred to Housing (Aim 3)**

Groups, n (%)	Baseline	Post-Intervention	% Difference
<b>Not Referred for Housing</b>	49 (70)	35 (70)	0
<b>Referred for Housing</b>	21 (30)	15 (30)	
<b>Pearson Chi-Square, Value (p)</b>			0.000 (1.000)

**Table 5: Treatment Outcomes (Aim 4)**

Groups, n (%)	Not Referred for Housing	Referred for Housing	% Difference	P Value
<b>No Positive Screen</b>	57 (67.9)	26 (72.2)	4.3	0.635
<b>At Least One Positive Screen</b>	27 (32.1)	10 (27.8)		
<b>No ED Admission</b>	71 (84.5)	27 (75)	9.5	0.217
<b>At Least One ED Admission</b>	13 (15.5)	9 (25)		
<b>No Hospital Admission</b>	78 (92.9)	34 (94.4)	1.5	0.749
<b>At Least One Hospital Admission</b>	6 (7.1)	2 (5.6)		
<b>No Early Departure</b>	48 (57.1)	23 (63.9)	6.8	0.491
<b>Early Departure</b>	36 (42.9)	13 (36.1)		

**Table 6: Average Group Attendance (Aim 4)**

Groups, mean (SD)	Not Referred for Housing	Referred for Housing	Difference
<b>Average Group Attendance</b>	73.05 (20.39)	76.61 (18.391)	3.56
<b>Independent t-test, significance</b>			0.392

## Conclusion

- Consistency across samples provides important information about characteristics and needs of clients being served
- Absence of statistically significant outcomes
- Clinical outcomes include housing policy revision and resource document
- Lessons learned for future projects and studies include importance of consistency in documentation, potential for increased length of study and examination of different variables for greater effect

## Dissemination

- Results from project presented to center leadership in April 2020
- Project information entered into School of Nursing repository for potential future student projects to continue to build on findings
- Project to be presented via poster at Sigma Theta Tau International (STTI) European Conference in May 2020 and developed into manuscripts for publication

## References

Available upon request

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