

Evaluating a Pre-Arrest Diversion Program: Who Benefits and Does It Work?

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Background

- Many in the criminal justice system have an active substance use disorder (SUD) or are incarcerated for a drug use-related crime.
- After incarceration, without SUD treatment, they are an increased risk of overdose and crime recidivism.
- While pre-arrest diversion programs have become more popular, there is limited research on their impact on crime recidivism and addiction treatment-related outcomes.

Objective

Assess the impact of a city-wide, pre-arrest diversion-to-treatment program by examining predictors of program completion, and the program's impact on crime, arrest recidivism, clinical outcomes.

Methods

Design: Prospective program evaluation.

- Adults who committed an eligible, drug use-related crime were invited to enroll in the 6-month program, which involved SUD treatment referral and monitoring, and crime monitoring.
- Program completers' initial criminal charges were voided; non-completers faced criminal charges.

Outcome Measures: All participants at baseline, completers at 6 months

- Mental health (PHQ-9, GAD7)
- SUD scope/severity & relapse risk factors (Brief Addiction Monitor - BAM).
- Proportion receiving medications for opioid use disorder (MOUD).
- Crime recidivism outcomes (arrest and incarceration) for 12 months before and after program enrollment.

Statistical Analysis:

- One-way ANOVA (continuous) and chi-square test (categorical).
- Logistic regression comparing differing baseline characteristics completers vs non-completers to identify predictors of completion.

Results - Demographics

Tab. 1: Completors and Non-completers had similar demographics

Demographics	Completers (n=100)	Non-completers (n=60)	p value
Age, years, mean (SD)	33.9 (10.7)	34.6 (9.9)	0.656
Women, # (%)	24 (40%)	27 (27%)	0.088
Race, # (%)			0.326
White	46 (76.7%)	83 (83%)	
Other	14 (23.3%)	17 (17%)	
Residence, # (%)			0.519
Madison	40 (66.7%)	69 (69%)	
Other residence	15 (25%)	27 (27%)	
Homeless	5 (8.3%)	4 (4%)	
Employment status, # (%)			0.517
Full time	21 (35%)	41 (41%)	
Part-time	4 (6.7%)	10 (10%)	
Disability	2 (3.3%)	1 (1%)	
Unemployed	33(55%)	48 (48%)	

Take-Away Points

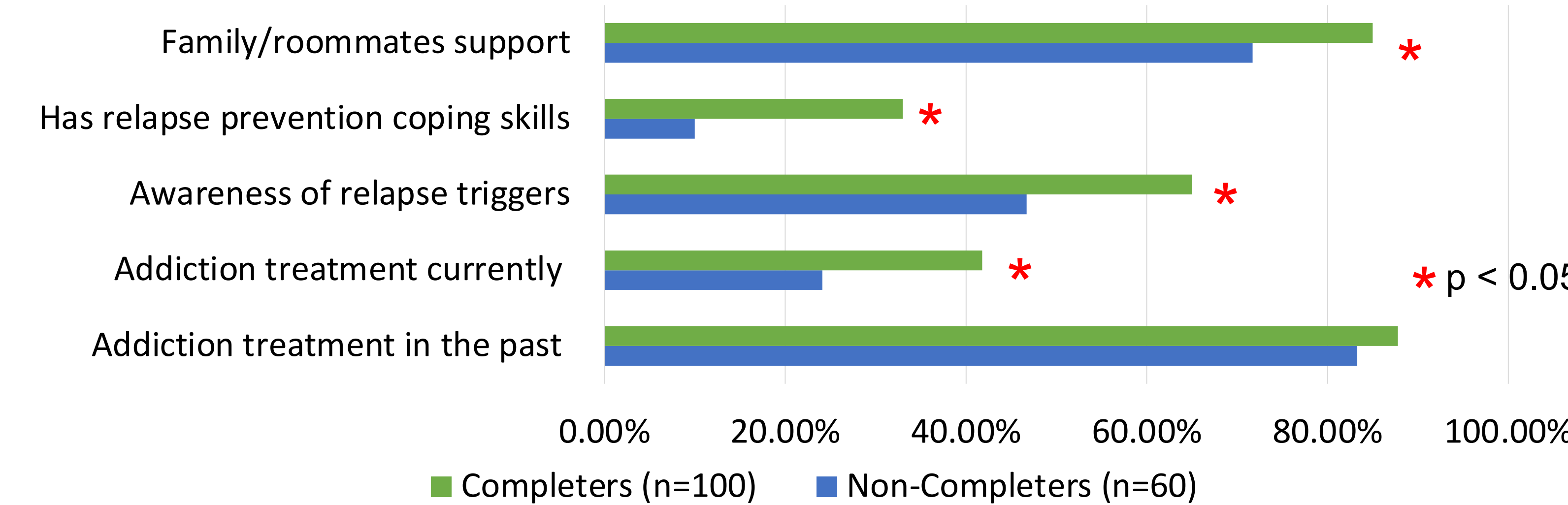
Who Benefits?

Those with lower relapse risk may benefit the most with current program iteration. A program with more intensive support may be better for those at higher relapse risk.

Does It Work?

For those who commit drug use-related minor crimes, this program may help with addiction treatment engagement, mental health and SUD outcomes, and crime recidivism.

Fig. 1 & Tab. 2: Predictors of success for completors vs. non-completers



	Completers (n=100)	Non-Completers (n=60)	p value
Depression (PHQ-9): Total score, mean (SD)	10.8 (7.1)	11.0 (7.4)	0.854
Anxiety (GAD-7): Total score, mean (SD)	8.6 (5.7)	10.0 (6.1)	0.168
SUD (BAM): Total subscale score, mean (SD)			
Substance use	3.7 (2.3)	4.0 (2.3)	0.521
Risk factors	12.2 (5.0)	13.1 (5.9)	0.353
Protective factors	12.4 (4.4)	10.4 (4.5)	0.008

Other non-significant variables included: co-occurring mental health disorder, history of trauma, on MAT currently, prior attempts at recovery, history of overdose, acknowledged problematic use, intoxicated during assessment, withdrawing during assessment, has routine medical care access, has housing available, has financial support/employment.

Tab. 3: Better coping skills & current addiction treatment predicted successful program completion

	β	p	Odds Ratio	95% CI	
				Lower	Upper
Awareness of relapse triggers ^a	0.2	0.6	1.3	0.6	2.8
Better coping skills ^a	1.1	.03	3.2	1.1	9.1
Family/roommates support ^a	0.5	0.3	1.7	0.7	4.2
Current addiction treatment ^a	1.2	.01	3.3	1.3	8.3
BAM substance use score	0.1	0.2	1.1	0.9	1.4
BAM risk factors score	-0.04	0.5	0.9	0.9	1.1
BAM protective factors score	0.1	0.2	1.1	0.9	1.2
PHQ-9 score	0.1	0.06	1.1	0.9	1.2
GAD-7 score	-0.1	0.05	0.9	0.8	1.0
Constant	0.4	0.6	1.6		

^aReferences for awareness of triggers, coping skills, family/roommate support, current addiction treatment: No Logistic regression model: $\chi^2(9) = 29.002$, $p < .001$, explained 23.4% (Nagelkerke R²) of the variance, correctly classified 70.8% cases.

Tab. 4: Completors had improved PHQ-9, GAD-7 and BAM scores, and more were on MOUD at follow-up

	Completers (n=100)	Change from baseline	p value
MOUD present, yes, # (%)			
2 month follow-up	61/70 (87.1%)	70.0%	<.001
6 month follow-up	37/67 (55.2%)	37.8%	<.001
PHQ-9: Total score, mean (SD)	5.6 (5.9)	-5.1 (7.2)	<.001
GAD-7: Total score, mean (SD)	4.9 (5.2)	-3.5 (5.5)	<.001
BAM total score, mean (SD)			
Substance use	0.5 (1.0)	-3.2 (2.4)	<.001
Risk factors	6.6 (4.2)	-5.5 (5.1)	<.001
Protective factors	15.4 (5.0)	2.9 (4.6)	<.001

Tab. 5: Compared to completors, non-completers continued to have more arrest & incarceration episodes, with a longer incarceration duration

	Completers (n=100)	Non-completers (n=60)	p value
12 months before program enrollment, mean (SD)			
Number of arrests	0.24 (0.61)	0.68 (1.14)	0.002
Number of incarcerations	0.18 (0.48)	0.77 (1.05)	<.001
Average duration per incarceration (days)	7.10 (27.23)	7.22 (21.63)	0.977
6 months after program enrollment, mean (SD)			
Number of arrests	0.14 (0.43)	0.82 (1.55)	<.001
Number of incarcerations	0.16 (0.44)	0.88 (1.14)	<.001
Average duration per incarceration (days)	0.32 (1.05)	9.68 (26.94)	<.001
12 months after program enrollment, mean (SD)			
Number of arrests	0.26 (0.56)	1.25 (1.94)	<.001
Number of incarcerations	0.37 (0.92)	1.72 (1.61)	<.001
Average duration per incarceration (days)	2.94 (13.37)	21.02 (46.35)	<.001

Fig. 2: Compared their baseline, non-completers experienced a greater % change in arrests, incarceration, and average incarceration duration

