

Role of individual, treatment, and post-treatment factors on sustained remission: Examining gender differences

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Acknowledgements and Disclosures

- **Funded by National Institutes on Drug Abuse
Grant R01DA015133**
- **The authors have no financial relationships
related to the topic of this presentation.**

Background

- ☞ **Several treatment modalities have been found effective at addressing drug and alcohol dependence**
- ☞ **HOWEVER**
 - ◆ **Low treatment retention and completion rates mitigate the potential benefits of treatment; and**
 - ◆ **Treatment gains are typically short-lived**
 - ◆ **Post-treatment relapse rates are high**

Background:

Research on predictors of post-treatment substance use outcomes has investigated

- ◆ **Role of individual-level domains**

- ◆ **Clients' Background (e.g., gender, age)**

- ◆ **Clinical/history (e.g., dependence severity, prior treatment exposure)**

- ◆ **Clinical processes (e.g., therapeutic alliance)**

- ◆ **Cognitions: motivation, coping, self-efficacy**

- ◆ **Social support**

- ◆ **Recovery-oriented activities: During and post-treatment participation in 12-step fellowships**

- ◆ **Role of program-level domains**

- ◆ **Treatment modality (outpatient, inpatient)**

- ◆ **Program orientation (12-step/Minnesota model, cognitive behavioral)**

Need for integrated approach

- ◆ Research typically considers only a handful of single-level predictors (e.g., client variables only)
- ◆ Substance use and remission are dynamic, multi-determined processes
- ◆ An integrated approach (individual AND program factor) can further elucidate predictors of substance use outcomes and inform service development
- ◆ In particular, need to consider predictor domains that can be altered in the context of treatment services

Gender differences

- ◆ **Gender differences in substance use and remission processes**
- ◆ **Need to examine separately predictors of post treatment substance use among men and women in mixed-gender programs to maximize effectiveness of services**

Study Objectives

- ☞ To examine concurrently
 - the role of individual and program domains on **treatment completion**
 - the role of individual, program and post-treatment on **Substance use** one year after the end of outpatient treatment
- ☞ To determine whether predictors of remission differ by gender.

Study Outcome Domains

- **Outpatient treatment program completion (yes/no)**
- **Sustained remission: Continuous self-reported drug abstinence over 12 month following last day of service: Computed from data obtained at 3-, 6-, and 12-months follow-ups post discharge**

Predictors Domains: treatment completion

INDIVIDUAL LEVEL *assessed at Intake*

- ◆ Lifetime Dependence severity
- ◆ Length of abstinence
- ◆ Commitment to abstinence
- ◆ Drug abstinence self-efficacy
- ◆ Friends support for recovery

IN-TREATMENT DOMAINS *assessed at treatment end*

- ◆ Length of stay in treatment
- ◆ Number of 12-step meetings attended during treatment
- ◆ Level 12-step involvement during treatment (e.g. working program, reading recovery literature, having home group)
- ◆ Treatment helpfulness rating
- ◆ Overall relationship with counselor
- ◆ Whether treatment matches expectation of what is helpful

PROGRAM LEVEL:

- ◆ “12-steppedness:” Presence/absence of 12-step meeting onsite

Predictors Domains: Sustained remission

INDIVIDUAL LEVEL *assessed at treatment end*

- ◆ Length of abstinence
- ◆ Completed treatment (yes/no)
- ◆ Commitment to abstinence
- ◆ Drug abstinence self-efficacy
- ◆ Friends support for recovery

PROGRAM LEVEL:

- ◆ “12-steppedness:” Presence/absence of 12-step meeting onsite

POST-TREATMENT DOMAINS *assessed at one-yr post tx end*

- ◆ 12-step attendance over the post treatment year
- ◆ 12-step involvement over the post treatment year

Analytic Plan

- All analyses conducted separately for men and women
- Descriptive statistics (ANOVA/Chi sq) to compare gender on background, predictor and outcome domains
- Bivariate analyses to quantify association between each hypothesized predictor and outcome domains (not presented here)
- Multivariate analyses (logistic regressions) to quantify combined role of predictors on outcomes:
 - Treatment completion
 - Sustained remission

Settings and procedures

- **314 consecutive admissions recruited at two large publicly funded outpatient programs in New York City**
- **36 participants remained in treatment < 30 days and were dropped from the study**
- **250 clients re-interviewed at treatment end (90% re-contact) who constitute the prospective study cohort**
- **Follow-up interviews 3-, 6- and 12-months post treatment end**
- **Voluntary participation based on informed consent.**
- **Computer-assisted semi-structured interviews**
- **Participants received \$30 at each interview.**
- **Full dataset on 219 participants (87.6% retention)**

Sample descriptives (N = 219)

	MEN	WOMEN
	N = 121	N = 98
Gender	55.3%	44.7%
Age: Mean years	39.1	39.8
African American	61.2%	64.3%
Hispanic/Latino	35%	32.7%
Education Mean years	10.7	10.6
Primary Income Govt. assistance	65.3%	87.8%***
Legally mandated to treatment	31.4	15.3**

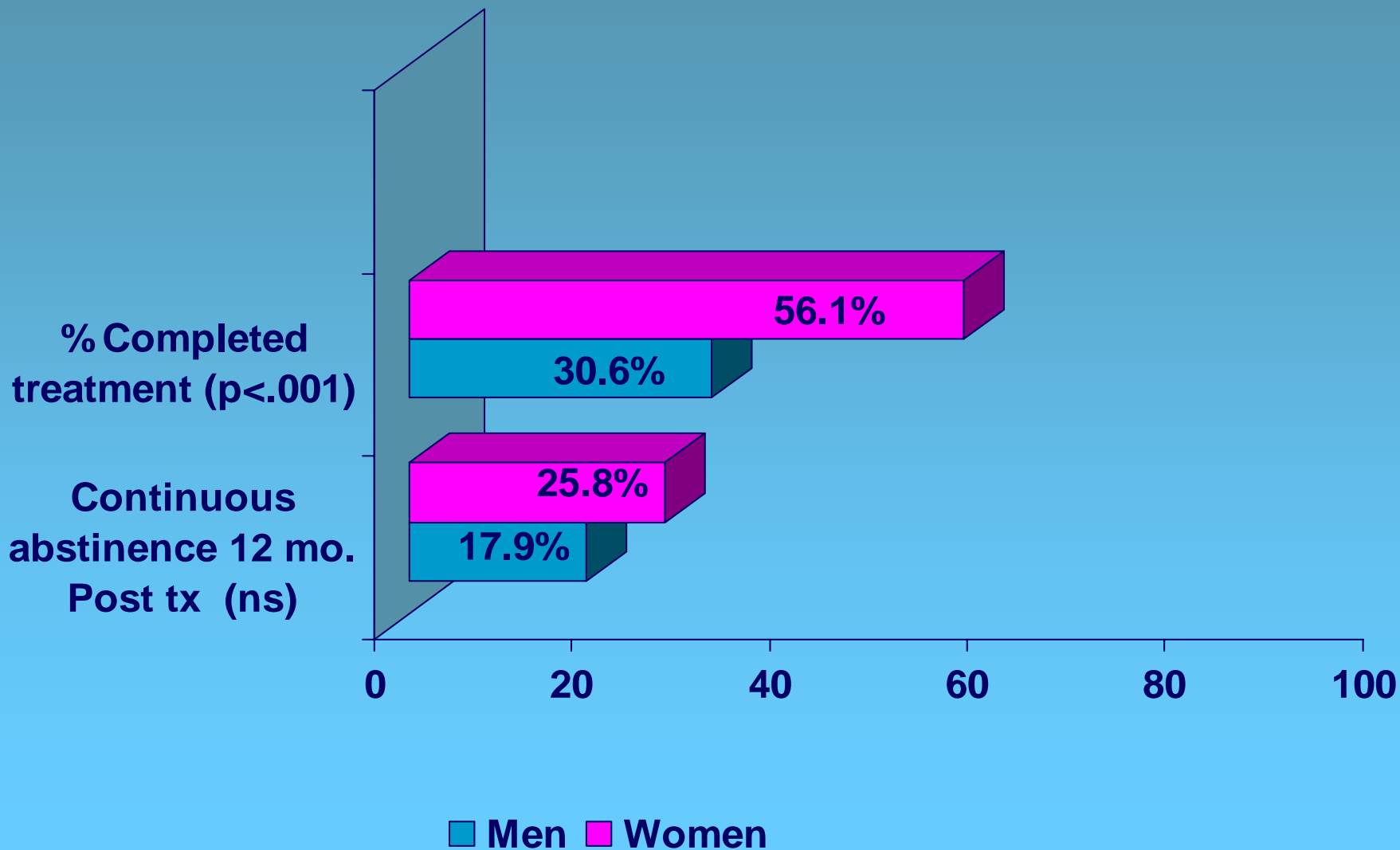
** p<.01 *** p<.001

Clinical History and Discharge status

	MEN	WOMEN
☞ Lifetime dependence severity (MINI: 0-14)	7.4	7.8
☞ Medical ASI	.28	.31
☞ Employment ASI	.60	.71*
☞ Psychological ASI	.26	.36*
☞ Legal ASI	.27	.17*
☞ Used drugs past month @ baseline	45%	38.9%
☞ Previous treatment (yes)	81%	79.6%
☞ Ever 12-step (yes)	85.1%	77.6%
PRIMARY DRUG		
☛ Crack/Cocaine	45.5%	60.2%*
☛ Heroin	15.7%	12.2%
☛ Alcohol	21.5%	16.3%
☛ Cannabis	16.5%	10.2%
☛ Other	.8%	1.1%
DISCHARGE STATUS		
☞ Used drugs past month @ discharge	43.6%	27.1%*
☞ Treatment length of stay (in days)	137	175**

*p<.05 ** p<.01

Study Outcomes



Predictors Domains: Descriptives

	MEN	WOMEN
BL Commitment to abstinence (1-4)	4.0	4.1
DIS Commitment to abstinence (1-4)	3.7	4.0**
BL Self-efficacy (1-5)	3.7	3.8
DIS Self-efficacy (1-5)	3.6	3.9*
BL Recovery support (1-4)	2.9	2.8
DIS Recovery support (1-4)	2.8	2.8
Treatment helpfulness rating	7.1	7.8
Relationship with counselor (1-4)	2.9	3.0
Treatment matches expectations of helpful	6.2	7.3*
#12-step meetings during treatment	24	40 †
12-step involvement during treatment (1-9)	2.2	2.5
Continuous 12-step attend 1 yr post DIS	15.1%	18.8%
12-step involvement @ 1 yr post DIS (1-9)	1.8	1.8
Program has 12-step meeting onsite	47.1%	41.0%

*p<.05 ** p<.01 †p <.1 [trend]

Significant Predictors of Treatment completion in Logistic regression *Odds ratio (Exp B)*

	MEN	WOMEN
Length of stay in treatment	1.01*	1.01***
BL Commitment to abstinence	2.86*	ns
Treatment helpfulness rating	ns	1.38**
Relationship with counselor	ns	2.83*
Treatment matches expectations of helpful	1.56***	ns
12-step involvement during treatment	ns	1.20*
Program has 12-step meeting onsite	2.41**	ns

*p<.05 ** p<.01 *** p<.001 †p <.1 [trend]

Significant Predictors of Sustained remission one year post-discharge

Logistic regression *Odds ratio*

	MEN	WOMEN
DIS Length of abstinence	1.01*	1.0*
DIS Commitment to abstinence	5.16*	ns
Completed treatment	1.94*	5.10**
Program has 12-step meeting onsite	2.24*	2.67**
12-step involvement @ 1 yr post DIS	ns	1.56**

*p<.05 ** p<.01 *** p<.001 †p <.1 [trend]

Summary of findings

- At intake: No gender difference in dependence severity, prior treatment or 12-step exposure, recent drug use, motivation for abstinence or recovery support
- Nearly twice as many men as women legally mandated to treatment
- Women: Longer treatment retention, higher completion rate
- Women: Higher satisfaction with treatment and with counselor
- YET women did not differ from men in sustained remission one year after leaving treatment
- Involvement in 12-step recovery (working the steps, having a sponsor, a home group) especially critical to promoting treatment completion and sustained abstinence for women
- Motivation for abstinence predicts completion and sustained abstinence for men –BL motivation may have been external and had declined at treatment end

General Implications

- **Generally poor outcomes overall**

- ◆ **Slightly over one half of the women and less than one in three men completed treatment**

- ◆ **One quarter of the women and less than one in five men sustained abstinence for one year after leaving treatment**

- **This is not atypical of publicly funded outpatient treatment outcomes**

- **Need to identify strategies to enhance engagement in treatment and foster sustained remission in chronically dependent under-privileged men and women**

Implications for Treatment

- In-treatment processes are critical to enhance likelihood of treatment completion and sustained remission for both men and women.
- Predictors of treatment completion differ by gender
- Importance of engaging clients to promote retention and completion requires ongoing dialogue to find out clients' goals, expectations and needs. In particular
 - ◆ For men: Importance of motivation for abstinence and treatment meeting expectations
 - ◆ For women: Quality of relationship with counselor and overall satisfaction with treatment
- ◆ Holding a 12-step meeting on site
- ◆ Fostering not only attendance but also involvement in 12-step recovery activities