The Clinical Trials Network and Treatment Innovations: Differences in Counselor Attitudes toward Buprenorphine

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INTRODUCTION

The National Institute on Drug Abuse's Clinical Trials Network (CTN) has two primary aims:

- Conduct multi-site clinical trials of substance abuse treatment techniques
- Transfer these evidence-based treatment techniques into everyday practice in order to improve the quality of addiction treatment in the US

A key feature of the CTN is the collaboration between researchers and community-based treatment programs in the design and implementation of these trials.

Buprenorphine, a medication approved by the FDA for the treatment of opiate dependence, has been the focus of several multi-site clinical trials within the CTN:

- Buprenorphine/naloxone vs. clonidine for opiate detoxification in inpatient settings
- Buprenorphine/naloxone vs. clonidine for opiate detoxification in outpatient settings
- Buprenorphine/naloxone taper schedules
- Buprenorphine/naloxone-facilitated rehabilitation for adolescents/young adults
- Effects of buprenorphine vs. methadone on liver enzymes

Given the emphasis placed on buprenorphine within the CTN, it is important to consider if CTN involvement has implications for counselors within these treatment settings.

Organizational theory would suggest that CTN-affiliated counselors would be more receptive to buprenorphine because of their greater exposure to this medication.

- Three potential explanations:
  - ▲ CTN-affiliated counselors may be more likely to work in settings where buprenorphine is being used.
  - ▲ CTN-affiliated counselors may have greater access to information and training about buprenorphine.
  - ▲ CTN-affiliated counselors may differ from other counselors on key characteristics that are associated with attitudes toward innovations, such as educational attainment, experience, and lower adherence to a 12-step treatment philosophy.

RESEARCH QUESTIONS

Do counselors affiliated with the CTN perceive buprenorphine to be more acceptable than non-CTN counselors?

To what extent is the difference in perceived acceptability explained by counselor characteristics?

To what extent is the difference explained by greater access to training and greater routine use of buprenorphine within CTN-affiliated treatment programs?

METHODS

Data drawn from surveys of counselors employed in three types of treatment settings:

1. CTN-affiliated treatment programs (n = 1,001 counselors, 60.9% response rate)
   - ▲ 238 counselors in privately funded CTN-affiliated programs
   - ▲ 443 counselors in publicly funded CTN-affiliated programs
   - ▲ Excluded from analysis: 320 counselors in methadone programs because of the lack of a non-CTN methadone sample for comparison
2. Privately funded treatment programs (n = 1,091, 61.1% response rate)
3. Publicly funded treatment programs (n = 1,207, 61.8% response rate)

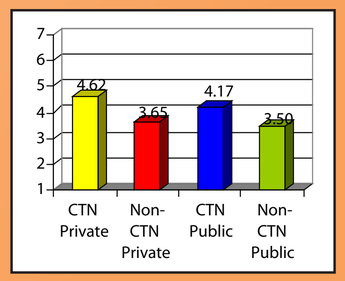
Dependent Variable: Perceived Acceptability of Buprenorphine

"To you as a treatment professional, how acceptable is the use of buprenorphine as a treatment technique for substance abuse?"

1 = completely unacceptable
7 = very acceptable

SUMMARY OF RESULTS

There were significant mean differences in perceived acceptability of buprenorphine between counselors working in CTN-affiliated and non-CTN treatment centers.



These differences were not mediated by counselor characteristics, although three counselor characteristics were associated with perceived acceptability of buprenorphine:

- Master's-level counselors reported greater perceived acceptability than counselors with less than a Master's-level degree.
- Greater adherence to a 12-step treatment philosophy was associated with lower perceived acceptability.
- African American counselors reported significantly lower perceived acceptability of buprenorphine than white counselors.

The differences between CTN and non-CTN counselors were reduced to non-significant levels when buprenorphine-specific training and routine use of buprenorphine at the center were added to the model.

- Counselors that reported receiving more training about buprenorphine perceived buprenorphine to be more acceptable.
- Greater routine use of buprenorphine within centers was positively associated with perceived acceptability.

CONCLUSIONS

CTN counselors are more receptive towards buprenorphine than counselors outside of the CTN.

Although there were measurable differences in counselor characteristics between CTN and non-CTN programs, counselor characteristics did not account for the differences in perceived acceptability.

The greater receptivity of CTN counselors to buprenorphine appears to be related to their greater access to training and greater use of this medication within their treatment programs.

These findings suggest that treatment programs may be able to overcome resistance among staff to implementing innovative clinical strategies by investing in training and other opportunities to provide first-hand exposure to novel treatment technologies.

ABSTRACT

The National Institute on Drug Abuse's Clinical Trials Network (CTN) conducts multi-site clinical trials and aims to diffuse evidence-based treatment techniques into the treatment field. A critical research question is whether involvement in the CTN has implications for the attitudes of clinicians toward innovative practices. One such innovation is buprenorphine, which is FDA approved for the treatment of opiate dependence and has been the subject of multiple CTN clinical trials. This research compares CTN counselors and non-CTN counselors on their perceptions of the acceptability of buprenorphine. Hypothesis: Counselors affiliated with the CTN will perceive buprenorphine to be more acceptable than non-CTN counselors. Methods: Data were collected via mailback questionnaires from 681 counselors in CTN-affiliated centers and 2265 counselors in non-CTN facilities. Separate OLS regression analyses were conducted for privately funded and publicly funded centers, although the substantive results were similar across the two samples. Results: There was a significant positive bivariate association between CTN affiliation and perceived acceptability of buprenorphine. The addition of counselor characteristics, including educational attainment, certification in addiction counseling, personal recovery status, and 12-step orientation, did not mediate the association between CTN affiliation and perceived acceptability of buprenorphine. This difference was completely mediated by the addition of two variables to the model: specific training on buprenorphine and the routine use of buprenorphine at the center. Notably, CTN-affiliated counselors reported significantly greater amounts of training and greater implementation of buprenorphine. Conclusions: Although these data suggest that CTN counselors perceived buprenorphine to be more acceptable than non-CTN counselors, this difference was explained by greater training and implementation in CTN-affiliated centers. These data clearly demonstrate that training and implementation of novel treatment techniques are strongly associated with counselors' attitudes toward these innovations. Supported by NIDA R01-DA-13110 and NIDA R01-DA-14482.

Table 1: Descriptive Statistics of Independent Variables

	Private Centers		Public Centers	
	CTN Mean (SD) or %	Non-CTN Mean (SD) or %	CTN Mean (SD) or %	Non-CTN Mean (SD) or %
Counselor Characteristics				
Personally in Recovery	49.22%	53.22%	42.66%**	50.83%
12-Step Orientation *(1 = strongly disagree to 7 = strongly agree)*	4.23 (1.34)***	5.04 (1.47)	4.43 (1.53)***	4.77 (1.50)
Master's-Level Degree	52.85%	46.18%	49.46%***	36.93%
Certified in Addictions Counseling	39.90%***	59.67%	48.91%	52.70%
Age in Years	43.54 (12.19)	45.93 (10.95)	44.28 (11.36)	43.88 (10.65)
Female	58.55%	56.09%	61.14%	62.07%
Race/Ethnicity				
African American	18.65%**	10.62%	20.11%	24.26%
Latino/Hispanic	5.70%	3.34%	7.88%	8.16%
Other Racial Minority	6.22%	4.06%	4.89%	5.73%
White	69.43%**	81.98%	67.12%	61.85%
Buprenorphine-Related Measures				
Extent of Specific Training Received *(1 = no extent to 7 = great extent)*	3.39 (2.13)***	2.27 (1.81)	2.62 (2.02)***	1.94 (1.58)
Routine Use of Buprenorphine at the Center *(1 = never used to 7 = always used)*	3.24 (2.33)***	1.89 (1.70)	2.21 (2.03)***	1.56 (1.42)
N	193	838	368	907

*Significant CTN/non-CTN difference within treatment sector, *p<.05, **p<.01, ***p<.001*

Table 2: OLS Regression of Perceived Acceptability of Buprenorphine on CTN Affiliation, Counselor Characteristics, and Buprenorphine-Related Measures

	Private Centers		Public Centers	
	Model 1 β	Model 2 β	Model 1 β	Model 2 β
Employed in CTN-Affiliated Center	.174***	.045	.130***	.045
Counselor Characteristics				
Personally in Recovery	.061	.055	.027	.008
12-Step Orientation	-.185***	-.173***	-.156***	-.155***
Master's-Level Degree	.143***	.140***	.173***	.161***
Certified in Addictions Counseling	.021	.007	.032	-.001
Age in Years	-.024	-.046	-.010	-.036
Female	-.058	-.045	.002	-.010
Race/Ethnicity				
African American	-.115***	-.107***	-.089**	-.106***
Latino/Hispanic	-.031	-.026	.002	-.-22
Other Racial Minority	-.024	-.034	-.035	-.040
White	Reference	Reference	Reference	Reference
Buprenorphine-Related Measures				
Extent of Specific Training Received		.267***		.283***
Routine Use of Buprenorphine at the Center		.237***		.189***
Adjusted R^2	.109	.287	.096	.252

**p<.05, **p<.01, ***p<.001 (two-tailed tests)*