Residential substance abuse treatment outcomes and costs for urban American Indians

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OBJECTIVE

The objective of this study was to examine residential substance abuse treatment outcomes and costs for urban American Indians with chemical dependency.

INTRODUCTION

Most American Indians and Alaska Natives live in cities. Substance abuse is a substantial problem for urban Natives.

Residential substance abuse treatment constitutes a higher percentage of chemical dependency care for urban American Indians than for members of other racial groups.

Residential treatment is defined to be overnight care other than detoxification provided in a non-hospital setting. Residential care is often divided into short term (30 days or less) *versus* long term (over 30 days) based on planned length of stay.

There are few data regarding substance abuse treatment outcomes and costs for urban American Indians. Information is also lacking about types of services provided, lengths of stay, and treatment completion for urban Natives in residential care. A topic of considerable interest is the relationship (if any) between planned length of stay and outcomes. These data are needed for program planning and evaluation.

This project obtained information pertaining to American Indians who received residential care at two substance abuse treatment agencies that focus on urban Natives.

METHODS

Prospective observational study

- Participant interviews, record reviews, culturally -informed tracking
- Treatment service description via qualitative observations
- Staff interviews

Programs (Agency A and Agency B)

- Located in the western United States (State A and State B)
- Focused on American Indians and Alaska Natives
  - Natives on staff
  - Culturally specific services (e.g., sweat lodges)
- Residential and outpatient substance abuse treatment
- Primary health care

Treatments

- Long duration (Agency A)
  - Planned 90 days
  - Outpatient follow-up
- Short duration (Agency B)
  - Planned 30 days
  - Long-term or outpatient follow-up

Recruitment

- Consecutive self-identified Native admissions (2006 – 2008)
- Approached by Native researchers
- Informed consent
- Cultural biography
- Standardized instruments

Follow-up

- Telephone and mail contact quarterly
- Collateral contacts
- Native community contacts
- State administrative data systems

Instruments

- Global Assessment of Individual Needs (GAIN)
- Orthogonal Cultural Identification Scale (OCIS)
- Drug Abuse Treatment Cost Analysis Program (DATCAP)

Outcomes

- Twelve months after admission
- Interview (30-day abstinence)
- Composite (known neither jailed, nor homeless, nor at institution)
- Costs (to agency, 2006 dollars, adjusted for city price differences)

RESULTS

Most participants were enrolled tribal members with blood quantum (Native ancestry) of 50% or greater (Table 1). Alcohol was primary substance for most and amphetamine next most common. Most completed residential substance abuse treatment. Composite outcome measures based on interviews and-or other data at 12 months were available for most (Table 2).

Optimal 12-month outcomes (known to be housed and not incarcerated) ranged from 95% for males and 47% for females at Agency A to 32% for males and 17% for females at Agency B. In multivariate models including demographics, substance abuse, cultural measures, and co-occurring conditions, only program site (p less than 0.001) and male gender (p less than 0.001) consistently predicted either abstinence (for participants with 12-month interviews) or known optimal outcome (for all participants).

Agencies differed markedly on economic cost per treatment episode. Length of stay differences accounted for almost all (88%) variation in cost. Better outcomes were associated with higher costs (longer stays).

Table 1. Participants at baseline

	Agency A	Agency B	p-value *
N	111	75	
Female	62%	24%	.001
Age			.02
18-20	3%	0%	
21-29	35%	23%	
30-39	28%	20%	
40-49	29%	44%	
50 +	5%	13%	
Culture			
Enrolled tribal member	90%	81%	NS
State A tribe	34%	3%	.001
State B tribe	9%	25%	.004
Tribe outside States A and B	57%	72%	.04
Blood quantum ½ or more	44%	60%	.04
Education high school or more	35%	33%	NS
Married ever or lived as	79%	61%	.01
Employed	10%	23%	.02
Health insurance - public	39%	84%	.001
Uninsured	45%	13%	.001
Substance dependence			
Alcohol	76%	79%	NS
Amphetamine	43%	8%	.001
Cannabis	29%	9%	.002
Cocaine	13%	36%	.001
Opioid	23%	16%	NS
Controlled environment (e.g., jail)	53%	77%	.001
Treatment previously for addiction	89%	92%	NS

* Fisher's exact test two-tailed
NS = not significant

Table 2. Processes and outcomes

	Agency A	Agency B	p-value [a]
Processes of care			
Treatment completion	51%	85%	.001
Short term	NA	85%	
Entered long term	100%	37%	
Completed long term	51%	61%	
Weeks of stay			
Mean	10.6	6.3	.001
Median	10.4	4.1	.001
Costs of care			
Mean	$8797	$2982	.001
Median	$8577	$2015	.001
Interviewed at 12 months	58%	41%	.04
Outcomes at 12 months			
Abstinent at interview	86%	52%	.001
Known optimal [b]	66%	28%	.001

[a] Fisher's exact test for proportions, t-test for means, Wilcoxon test for medians (all tests two-tailed)
[b] Neither homeless nor institutionalized based on all data
NA = not applicable

DISCUSSION

Urban Native people (especially American Indian women) face substantial challenges when dealing with substance abuse. High cost (long duration) residential treatment may lead to improved outcomes.

Policy makers and funders might wish to consider these findings when planning and evaluating programs tailored for the needs of urban American Indians with chemical dependency.

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