

Regular article

# Methamphetamine dependence and human immunodeficiency virus risk behavior

Richard A. Rawson, (Ph.D.)<sup>a,\*</sup>, Rachel Gonzales, (Ph.D.)<sup>a</sup>, Valerie Pearce, (M.P.H.)<sup>a</sup>,  
Alfonso Ang, (Ph.D.)<sup>b</sup>, Patricia Marinelli-Casey, (Ph.D.)<sup>a</sup>, Julie Brummer, (B.A.)<sup>a</sup>  
Methamphetamine Treatment Project Corporate Authors

<sup>a</sup>University of California Los Angeles (UCLA) Integrated Substance Abuse Programs, Los Angeles, CA 90025, USA

<sup>b</sup>UCLA School of Medicine, Los Angeles, CA 90024, USA

Received 5 September 2007; received in revised form 5 November 2007; accepted 19 November 2007

## Abstract

We examined human immunodeficiency virus (HIV)-related risk behaviors among methamphetamine (MA)-dependent users. Secondary data analysis was performed on data from a large clinical trial: The Methamphetamine Treatment Project ( $N = 784$ ). All MA-dependent participants were enrolled in an outpatient treatment program, receiving either a standardized psychosocial protocol (Matrix model) or treatment-as-usual. HIV-related risk behavior, including injection and unsafe sexual practices, was assessed using the AIDS Risk Assessment at baseline, treatment discharge, and 6, 12, and 36 months following treatment participation. Results indicated that HIV risk behaviors substantially decreased over time. Treatment factors (retention and completion) and frequency of MA use were both positively associated with increased reduction of HIV risk behaviors. The findings suggested that treatment of MA dependence is promising for reducing behaviors that have been shown to transmit HIV. © 2008 Elsevier Inc. All rights reserved.

*Keywords:* HIV risk; Methamphetamine; Injection use; Unsafe sexual behaviors

## 1. Introduction

National epidemiological data indicate that roughly 1 million individuals in the United States are infected with human immunodeficiency virus (HIV), with rates on the rise since 2001 (Centers for Disease Control and Prevention [CDC], 2005). Injection practices (CDC, 2003) and risky sexual behaviors (Leigh & Stall, 1993) among illicit drug abusing populations have greatly contributed to the rapid growth and spread of HIV in the United States. Much attention regarding high rates of HIV among illicit drug users in the United States has centered on heroin and cocaine or crack users (Gyarmathy, Neaigus, Miller, Friedman, & Des Jarlais, 2002; Neaigus, Miller, Friedman, & Des Jarlais,

2001). However, a growing number of studies have identified methamphetamine (MA) use as a significant cofactor associated with increased HIV infection (Buchacz et al., 2005; Colfax et al., 2001, 2004, 2005; Schwarcz et al., 2007). Most of this work to date has been on men who have sex with men (MSM) populations (Frosch, Shoptaw, Huber, Rawson, & Ling, 1996; Gorman, Morgan, & Lambert, 1995; Halkitis, Parsons, & Stirratt, 2001; Paul, Stall, & Davis, 1993; Peck, Shoptaw, Rotheram-Fuller, Reback, & Bierman, 2005; Reback, Larkins, & Shoptaw, 2004; Semple, Patterson, & Grant, 2002; Shoptaw, Reback, Frosch, & Rawson, 1998). Very little HIV risk-related literature exists among non-MSM identified MA users (Semple, Patterson, & Grant, 2004; Semple, Grant, & Patterson, 2006).

Studies of MA users, not specifically selected as MSMs, reported that MA use is associated with numerous HIV-related risk factors. Rawson, Washton, Domier, and Reiber (2002) observed that MA-dependent users engage in a higher frequency of sexual activity, have more sexual partners, and

\* Corresponding author. UCLA Integrated Substance Abuse Programs, Los Angeles, CA 90025, USA. Tel.: +1 310 267 5311; fax: +1 310 312 0538.

E-mail address: rrawson@mednet.ucla.edu (R.A. Rawson).

participate in more risky sexual behavior (i.e., no condom use and anal sex) than users of other types of drugs. Molitor, Truax, Ruiz, and Sun (1998) found that heterosexual MA users are likely to have more sex partners, higher rates of unprotected anal and vaginal sex, and lower rates of condom use when compared with non-MA users. Semple, Grant, and Patterson (2004) observed a similar trend among MA-using women, who reported multiple partners, many anonymous sex partners, infrequent condom use, and frequent unprotected anal intercourse. Other studies have found that MA-injecting non-MSM users are also at great risk of HIV infection because they tend to report increased sexual desires compared with noninjecting MA users (Hall & Hando, 1994; Klee, 1993).

Research has shown that behavioral-based treatments for drug abuse can be effective vehicles for reducing HIV infection among illicit drug abusers (Metzger, Navaline, & Woody, 1998). Studies among heroin and cocaine users receiving treatment show that risky drug use injection and unsafe sexual practices greatly reduce or cease after treatment (Schroeder, Epstein, Umbricht, & Preston, 2006; Woody et al., 2003). Similar treatment effects have been observed among MA-dependent MSM users (Reback et al., 2004).

With HIV rapidly expanding among illicit drug abusers, this article contributes to this body of knowledge by examining HIV risk behavior among an adult MA-dependent sample who participated in a multisite, randomized behavioral intervention trial not specific to MSM populations. Although all participants received psychosocial treatment, the trial was not a controlled comparison of treatment versus no treatment; hence, this study only serves to provide some preliminary information on the changes in HIV risk behavior associated with behavioral treatment participation.

## 2. Methods

### 2.1. Sample

Analyses are based on secondary data from a multisite clinical trial called the Methamphetamine Treatment Project (MTP) comparing a standard psychosocial-based treatment (Matrix model) to treatment-as-usual in eight treatment programs located in Montana, Hawaii, and California between 1999 and 2002 (Elkashaf et al., 2007; Rawson et al., 2004). Funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT), the trial included 978 MA-dependent adults who were eligible for study participation if they met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*, criteria for MA dependence, used MA in the month before treatment entry, were proficient in the English language, were 18 years or older, and resided in the same geographical location as the treatment facility as defined by city and zip code.

#### 2.1.1. The Matrix model is a manualized multicomponent psychosocial treatment

The model consists of 16 weeks of thrice-weekly group sessions, including cognitive-behavioral, family education, social support, and individual counseling combined with urine drug testing (Obert et al., 2000).

#### 2.1.2. Treatment-as-usual conditions followed no standard treatment guidelines

Interventions represented eight diverse treatment approaches, including individual or group-based counseling sessions that were of different intensities (i.e., once per week vs. thrice weekly) and ranged from 8 to 16 weeks in duration (Galloway et al., 2000).

### 2.2. Study variables and measures

The data examined included participant sociodemographic (gender, age, and ethnicity), and treatment characteristics (condition, retention, and completion), and current (past 30-day use at admission) and lifetime MA use collected at baseline and follow-up periods using the Addiction Severity Index (McLellan et al., 1992).

Treatment characteristics, including study condition (Matrix vs. treatment-as-usual), retention, and completion status, were obtained from treatment records. The length of treatment (retention) was measured by weeks in treatment based on the first day of admission to the last day of treatment discharge, and treatment completion was defined as those who completed the prescribed treatment regimen with no more than 2 consecutive missed weeks of treatment versus those who did not complete treatment.

Risky behaviors, as measured by self-reported injection and high-risk sexual practices, were collected from the Texas Christian University AIDS Risk Assessment (Simpson et al., 1994) at baseline and follow-up periods. This measure is an 18-item inventory assessing high-risk sexual and drug use behaviors commonly associated with exposure to HIV. Most items require an answer specifying the number of times or number of people involved in the behavior being assessed. A sexual risk behavior composite was calculated, summing individual sexual risk items, with a higher score indicative of engaging in more risky sexual activities. For logistic regression purposes, sexual risk composite scores were coded to 0 (if no risky behaviors) or 1 (if they engaged in risky behavior, regardless of the number of times).

### 2.3. Data analysis

Chi-square and independent samples *t* tests were used to examine the associations between the study variables. Linear and logistic regression modeling were used to assess factors that contributed to change in risky behaviors (injection and unsafe sexual practices) over time at follow-

Download English Version:

<https://daneshyari.com/en/article/330013>

Download Persian Version:

<https://daneshyari.com/article/330013>

[Daneshyari.com](https://daneshyari.com)