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Racial/ethnic differences in health status and morbidity among adults who use methamphetamine

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Abstract

Higher disease rates among ethnic-minority populations compared to Whites have been pervasive and persistent over time, and as methamphetamine (MA) use continues to penetrate ethnically diverse geographic regions across the United States, minority populations may be at increased risk for adverse MA-related health consequences, thus further contributing to poorer health among vulnerable populations. This study examines racial/ethnic differences in health status and health conditions among individuals who used MA. Data are from a natural history interview study of adult MA users (N=512), half of whom received treatment for MA abuse, and a comparison group who had not received substance abuse treatment. Chi square and logistic regression analyses examined differences by race/ethnicity in self-reported health status and morbidity, adjusting for age, gender, and health behaviors including MA use severity and tobacco use. Overall, back/neck injuries (27%), severe dental problems (26%), gunshot/knife injury (25%) and sexually transmitted diseases (24%) were commonly reported. Racial/ethnic differences were observed for conditions including gunshot/knife injuries, hearing loss and learning disabilities disproportionately affecting Latino populations, and asthma and STDs disproportionately affecting African Americans. Results varied by whether treatment for MA abuse was received. Although poor health and morbidity were common overall, each ethnic group may be at higher risk for specific health problems. Health status and conditions in this MA-using sample are examined and discussed with reference to general population data. These findings may assist researchers and treatment providers in addressing health consequences of the increasing prevalence of MA use among minority populations. Understanding ethnic differences in health status among MA users may assist in developing interventions to target specific health care needs.

Keywords

Ethnicity; Health disparities; Methamphetamine; Morbidity; Race

Introduction

The National Healthcare Disparities Report indicates racial/ethnic disparities in health and health care are common, uninsurance is an important contributor, and many disparities are not decreasing (Agency for Healthcare Research and Quality [AHRQ], 2009). Barriers to health care affecting minority communities also include residence in areas where safety-net services are overburdened and unhealthy and high risk lifestyles (Benjamin-Johnson, Moore, Gilmore, & Watkins, 2009; Aday, 2001). Members of racial and ethnic minority groups are less likely to have regular access to a doctor, have higher rates of preventable chronic

illnesses, and receive lower quality care (AHRQ, 2009). For example, African American children have a rate of hospitalization for asthma that is four to five times higher than the rate for White children; and 36% of Latinos are uninsured, compared to 22% of African Americans, and 13% of Whites (Kaiser Family Foundation, 2008).

In addition, substance abuse has been identified as a significant barrier to health care access, and chronic medical conditions including asthma, arthritis, injuries and hypertension have been reported to be more prevalent among substance abuse patients when compared to matched controls (Cunningham et al., 2006; Mertens, Lu, Parthasarathy, Moore, & Weisner, 2003; Mertens, Flisher, Satre, & Weisner, 2008). Moreover, research indicates that ongoing medical care is significantly related to improved substance abuse treatment outcomes (Mertens et al., 2008). Adults who use illicit drugs including methamphetamine (MA) constitute a group that is medically underserved and hard to reach, and have a substantial need for health care services. It has been estimated that life expectancy is reduced 13.8 years for individuals with a substance use disorder (Hannerz, Borga, & Borritz, 2001).

As MA use continues to penetrate diverse geographic regions across the United States, ethnic minority communities are increasingly at risk for adverse health consequences associated with MA abuse and dependence. Overall, the number of past month MA users rose 60% from 314,000 in 2008 to 502,000 in 2009 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010a), and clients admitted to treatment for MA abuse were increasingly diverse in race/ethnicity. In California, White admissions decreased from 82% in 1992 to 60% in 2002 (Brecht, Greenwell, & Anglin, 2005), to 48% in 2008; and 39% of MA admissions were Hispanic in 2008 (California Department of Alcohol and Drug Programs, 2009). Similarly, national data show the rate of Hispanics admitted to substance abuse treatment with a primary problem of MA doubled from 9% in 1992 to 18% in 2005 (Maxwell & Rutkowski, 2008) and rose to 21% in 2009 (SAMHSA, 2010b). For Los Angeles County, in the first half of 2010, MA admissions to substance abuse treatment comprised 33% White, 56% Hispanic, and 11% other race/ethnic categories (Brecht, 2011).

Health disparities found in general populations may be prevalent among individuals who use MA, and may vary between populations treated and untreated for substance abuse. The purpose of this study is to examine ethnic differences in health status and health conditions among individuals who frequently used MA. Understanding ethnic differences in health status among MA users may assist researchers and treatment providers in anticipating specific health care needs, and developing interventions to address such needs. Interventions that address substance abuse and health problems in earlier phases of the conditions may contribute to improved health outcomes (Bindman et al., 1995), and efficient provision of medical services can play an important role in the treatment of substance use disorders (Mertens et al., 2008).

Methods

Sample

Data are from an intensive natural history study of two cohorts of adult MA users: 1) a stratified (by gender, ethnicity, modality) random sample of primary MA users selected from admissions for residential or outpatient drug treatment in the Los Angeles County publicly funded treatment system (n=351); and 2) a cohort of MA users from the same communities who had not participated in formal substance abuse treatment, recruited using community approaches including an acquaintance-sampling approach, key informants, and extensive outreach in a range of community venues to achieve socio-demographic and MA use behavior diversity (n=298). All participants had used MA at least 12 times, were age 18-64, and were English or Spanish speaking. The treated sample was first interviewed in

1999. In 2001-03, a follow-up interview was conducted with 278 of the 351 participants in the treated sample, and the not-treated sample was recruited and interviewed, during which extensive health information (for the current analysis) was collected. Further detail regarding the sample and study procedures can be found in Brecht, O'Brien, Von Mayrhauser, & Anglin, 2004.

Of the 576 respondents interviewed in 2001-03, data from 512 are included in this analysis; due to small sample sizes of participants who were American Indian (n=14), Asian American (n=8) or multiracial (n=36), respondents from these ethnic groups were not included in this analysis. In addition, six respondents did not provide race/ethnicity information. The sample was 65% male, 43% White, 30% Mexican American, 8% other Latino, 19% African American; the mean age was 34.2 years (SD=8.8). The mean age of first MA use was 20.1 (SD=6.8); 43% used MA in the past 30 days. Significant differences ($p<.001$) were observed between the not-treated and treated samples on the following variables: the mean age of the treated sample was older (35.5 years [SD=6.9] vs. 33.0 years [SD=10.2]); the treated sample had higher proportions of females (44% vs. 26%) and tobacco users (87% vs. 74%); and were more likely to have health insurance coverage (69% vs. 54%); fewer in the treated sample used MA in the past 30 days (15% vs. 70%) compared to the not-treated sample.

Study procedures

In-depth, face-to-face interviews were conducted in English or Spanish according to the participant's preference, using a Natural History Interview protocol (McGlothlin, Anglin, & Wilson, 1977; Murphy, Hser, Huang, Brecht, & Herbeck, 2010). This approach, used for over 30 years to assess substance use history and related topics, includes questions on sociodemographics and other background factors, physical and mental health, criminal behavior and substance use. During the interview, respondents were also asked to provide information on a comprehensive list of lifetime chronic and acute illnesses, infectious diseases, injuries and attention deficit and learning disorders. The Institutional Review Board at the University of California, Los Angeles, approved the study and participants provided written informed consent.

Measures

Health status and health conditions—Respondents were asked to rate their current overall health status on a five-point scale with response options of excellent, very good, good, fair, and poor. The respondent's opinion regarding the extent drug or alcohol use caused his/her physical health problems was assessed with the question, "In your opinion, to what extent were any physical health problems caused by your drug or alcohol use?" with responses ranging from 0=not at all to 4=extremely. Respondents were then asked whether they had any major health problems that kept them from working, going to school or performing daily activities, and if so, they were asked to report the number of months in the past 12 that they experienced the disabling condition; those who reported one or more months were compared to those who did not report a disability in the past 12 months. Lastly, respondents were asked whether they had health insurance, and if so, whether it was through Medi-Cal, California's Medicaid program.

A comprehensive list of medical conditions and health problems from Centers for Disease Control and Prevention's *National Health Interview Survey* was used to assess whether respondents had ever experienced specific conditions, including: high blood pressure; heart attack; hardening of the arteries; stroke, cancer (e.g., of the lung, throat, colon); asthma; arthritis; ulcer; severe dental problems (rotting teeth); frequent headaches/migraines; infectious diseases including HIV; hepatitis; and gonorrhea; and injuries to the back or neck;

and gunshot and knife wounds. Respondents were also asked whether they ever experienced a learning disability or attention deficit disorder/ADHD. To conclude, respondents were asked if they experienced any other medical problem(s) not previously mentioned.

Sociodemographic characteristics—Variables examined in this analysis included gender, age, race/ethnicity, country of origin, whether the respondent's first language was English, and number of years living in the U.S.

Health-related behaviors—To ascertain severity of MA use, respondents were asked whether they had ever engaged in any injection drug use, with responses coded as no=0 and yes=1. Respondents were also asked to report the number of days they used MA in the past 30 days, with responses ranging from 0-30. Lifetime tobacco use (regular use of more than one pack a week for four or more weeks in a row) was assessed with responses coded as no=0 and yes=1.

Analysis

Separate analyses were conducted for the treated and not-treated groups. Chi-square tests were conducted to examine differences in health variables by race/ethnicity. Logistic regressions were conducted for health variables in which racial/ethnic differences were approaching statistical significance at $p < .10$ in bivariate analyses for either the treated or not-treated sample. Separate regression analyses examined the likelihood of having a specific health condition or health status adjusting for race/ethnicity (reference group=White non-Hispanic) age, gender, injection drug use, recent MA use (i.e., number of days used MA in past 30 days) and lifetime tobacco use. T-tests were conducted to examine differences in acculturation variables by ethnicity. Unless otherwise indicated, the significance level (two-tailed) was set at $p < .05$.

Results

The most commonly reported health conditions in MA users overall were back or neck injury (27%), severe dental problems/rotting teeth (26%), gunshot/knife injury (25%), sexually transmitted diseases, i.e., gonorrhea, syphilis, herpes and/or chlamydia (24%), asthma (19%), hypertension (18%), hepatitis (15%), and arthritis (15%). Overall, 33.4% reported being in fair or poor health; 31.5% of younger adults (age 18-44), and 45.6% of older adults (age 45-64) reported being in fair or poor health.

Health status and health insurance

Among MA users who had not received substance abuse treatment, racial/ethnic differences were observed in how they rated their overall health, and in whether they engaged in injection drug use (IDU; Table 1). Over half of Mexican Americans considered themselves to be in fair or poor health. A large proportion of the not-treated sample did not have health insurance, particularly Mexican Americans (77%) and Whites (72%), although ethnic differences were not statistically significant ($p = .08$).

Among the treated sample, more Latinos (other than Mexican Americans) felt that their health problems were caused, to some extent, by drug or alcohol use compared to the other three ethnic groups (Table 1). More than one-fourth of other Latinos (29%) reported being disabled in the past year, as did 18% of African Americans and 23% of Whites, compared to only 9% of Mexican Americans ($p = .09$).

Health conditions

Among the not-treated sample African Americans had the highest rates of hypertension, asthma, HIV, sexually transmitted diseases (STDs), hepatitis and back or neck injuries (Table 2). Mexican Americans had a higher rate of learning disabilities (15%) compared to the other ethnic groups ($p=.06$), and a significantly lower rate of coronary or circulatory disease. Almost half of other Latinos (46%) were injured by a gunshot or knife, and had a higher rate of hearing loss (18%) than African Americans or Mexican Americans.

Among the treated sample, racial/ethnic differences in health conditions were observed, however did not show many of the same trends found in the not-treated sample (Table 2). Latinos other than Mexican Americans had the highest rates of many of the health conditions, including cancer, coronary disease, dental problems, hearing loss, and back/neck injuries. African Americans in the treated sample had a higher rate of gonorrhea, and Whites had a higher rate of ADHD.

Multivariate analyses

For the not-treated sample, ethnic differences observed in bivariate analyses remained after adjusting for demographic and health behaviors for several conditions, but were no longer statistically significant for ulcer, dental problems or hepatitis (Table 3). Mexican Americans were three times more likely to report being in fair or poor health, and were over four times more likely to report having a learning disability compared to Whites. African Americans were more likely to report having asthma, HIV and gonorrhea than Whites. Mexican Americans were less likely than Whites to have had coronary or circulatory disease, and both Latino groups were less likely than Whites to have ADHD. Other Latinos were almost four times more likely than Whites to report a gunshot or knife wound.

For the treated sample, ethnic differences remained for several conditions (i.e., hearing loss, gonorrhea, ADHD). Other Latinos were four times more likely to report their health problems were caused by drug or alcohol use, and were 10 times more likely than Whites to report hearing loss. African Americans were more likely than Whites to report having had an STD compared to Whites. Whites were more likely than one or more ethnic groups to report having had an ulcer, back or neck injury and ADHD (Table 3). Mexican Americans had an odds ratio of .43 for dental problems ($p=.06$), whereas other Latinos showed an opposite trend, with an odds ratio of 2.82 ($p=.08$) compared to Whites.

Acculturation

These analyses suggest health differences may exist between the two Latino groups, therefore, acculturation variables were examined for Mexican Americans and other Latinos in the not-treated and treated samples. In the not-treated sample, 48% of Mexican Americans, and 43% of other Latinos were born outside of the United States. Of those who were not born in the U.S., Mexican Americans reported residing in the U.S. for less time on average (9.9 years, $SD=8.9$) compared to other Latinos (16.0 years, $SD=8.2$; $p<.05$). In the not-treated sample, 44% of Mexican Americans and 46% of other Latinos reported English was their first language. Conversely, few Latinos in the treated sample were born outside of the United States (6% of Mexican Americans and 21% of other Latinos), and the majority reported English was their first language (80% of Mexican Americans and 71% of other Latinos).

Discussion

Similar to previous studies of MA use (Shetty et al., 2010; Gonzales, Mooney, & Rawson, 2010) and other substances (Mertens et al., 2003; Benjamin-Johnson et al., 2009; De Alba,

Samet, & Saitz, 2004), our findings indicate MA users face significant threats to their health including chronic illness, infectious diseases and injuries, with hypertension, asthma, arthritis, STDs, dental problems and violent injuries most commonly reported. Although some health conditions were common overall, race/ethnicity and substance abuse treatment status were significantly associated with a higher likelihood of having specific health problems.

For those who had not received substance abuse treatment, lack of insurance, as well as socio-cultural differences may be acting as barriers to treatment access. This group was younger and more likely to be actively using MA, therefore may experience different health issues than those who received treatment for MA abuse. The changing demographics of MA addiction indicates culturally appropriate outreach and treatment is needed, particularly among less acculturated Latinos who have not received MA treatment. Latinos who did not receive treatment were disproportionately affected by learning disabilities, which should be taken into consideration when planning outreach and treatment engagement efforts.

Similar to previous studies of MA users in outpatient, residential and detoxification treatment (De Alba et al., 2004; Greenwell & Brecht, 2003), no ethnic differences were observed in overall health status of MA users in the treatment sample. However, ethnic differences were observed for specific conditions in the treatment sample including higher rates of hearing loss among Latinos other than Mexican Americans, higher rates of STDs among African Americans, and higher rates of ulcer and ADHD among Whites. Among those who had not received treatment, Mexican Americans were more likely to report being in fair or poor health, and African Americans had higher rates of asthma, HIV and STDs. All racial/ethnic groups experienced high rates of violent injuries, suggesting assessment of violence exposure and substance use in settings such as emergency departments, and interventions targeting these risks may be especially important among MA users. The not-treated sample and Latinos other than Mexican Americans had particularly high rates of violent injuries, which also suggests the importance of considering the diversity of sub-populations of Latino ethnic groups, as well as potential differences among those who have and have not received substance abuse treatment.

Overall health status and rates of health conditions reported in the 2003 National Health Interview Survey (NHIS), a nationally representative U.S. sample, indicate that rates of adults reporting fair or poor health and certain health conditions were lower in the NHIS sample (CDC, 2010; Lethbridge-Cejku & Vickerie, 2005) than in this sample of MA users. In our sample, almost one-third (32%) of younger MA users (age 18-44) and 46% of MA users age 45-64 reported fair/poor health whereas 6.0% of 18-44 year-old adults, and 15.6% of adults age 45-64 reported fair/poor health in the NHIS. In addition, the overall rates of asthma (9.7%; Lethbridge-Cejku & Vickerie, 2005) and hearing loss (2.8; CDC, 2010) in the NHIS sample (representing all adults ≥ 18) appeared to be lower than our not treated and treated samples (representative of the middle of the adult age spectrum); however, for hypertension, the rate reported in the NHIS (21.6%) was higher than our treatment sample (13.7%) but similar to the not treated sample (20.5%).

Although nationally representative samples would be expected to differ in terms of sociodemographic characteristics from our sample (e.g., a high proportion of our sample had incomes below poverty level and lacked health insurance), frequent MA use as reported in this sample, in addition to poverty and lack of health insurance, may be related to poorer health when compared to general populations. In addition, the not-treated group was more likely to be actively using, and consequently appeared to be in poorer physical health than the treated sample as suggested by a higher rate reporting overall fair to poor health, and higher rates of hypertension, gunshot/knife injuries, and headaches/migraines. Previous

studies indicate MA use history and intoxication have been associated with significant medical comorbidity, including hepatitis C, HIV, trauma from vehicular accidents and interpersonal trauma such as gunshot and stab wounds, and increased incidence of violent behavior and violent death (Meredith, Jaffe, Ang-Lee & Saxon, 2005; Gonzales, Mooney & Rawson, 2009).

Results of this study should be interpreted within constraints of several limitations. Data are self-reported and retrospective, thus may be affected by respondents' ability to remember and accurately report information. It is possible that use of MA could mask the symptoms of underlying medical conditions (McKetin, Kelly, McLaren, & Proudfoot, 2008) resulting in under-reporting of health conditions. Although these data suggest the importance of examining Latino groups separately, the sample size for Latinos other than Mexican Americans was limited, and the country of origin was not ascertained. The respondent's opinion regarding the extent their physical health problems were caused by substance use was assessed, however, this measure is limited in that it is not substantiated by medical records or physician assessment. In addition, the data are somewhat old, having been collected about nine years ago. Consequently, results related to lack of health care coverage may underestimate the actual extent of uninsurance among MA users. In recent years, policy changes have reduced rates of insurance and accessible care for poverty populations (Bustillo, 2002), and health needs in general are likely to be more severe, as many local and state economies are in retrenchment due to economic crises. This is the case in Los Angeles County where the safety net system has been shrinking over the past decade, resulting in numerous clinic and hospital closures (Teruya et al., 2010).

Nevertheless, the current study provides comprehensive data on variations in morbidity and health status for diverse populations of adults with long histories of MA use. Future work should assess the stability of these results over diverse geographic regions, across time, and include other racial/ethnic groups. The extent and quality of health care treatment MA users receive should also be further explored. Painful and debilitating health conditions have been reported to be more prevalent among substance users (Mertens et al., 2003) and racial/ethnic minorities (AHRQ, 2009), and lack of effective health care treatment may further contribute to poor health, health disparities, and impede substance abuse recovery efforts.

Investigating health disparities among the neediest within these generally needy populations helps to refine what is documented in general populations, for example, asthma and HIV disproportionately affecting African Americans, while adding new findings related to conditions that have not been as well-studied, such as learning disabilities and hearing loss among Latino substance-using populations. Thus, the study contributes important information that may help to inform approaches to improve the health status of MA users in general, while also highlighting the need and importance of examining MA treatment status and race/ethnicity. Significant health problems among all ethnicities of MA users underscore the need for further study of the impact of MA on health and morbidity.

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Table 1

Self-reported health, health behaviors, and insurance coverage by race/ethnicity for methamphetamine users who did and did not receive substance abuse treatment (%)

	Overall (n=257)	Never in treatment				Received treatment				
		African American (n=47)	Mexican American (n=86)	Other Latino (n=28)	White (n=96)	Overall (n=255)	African American (n=49)	Mexican American (n=66)	Other Latino (n=14)	White (n=126)
Current health status ^a										
Excellent/very good	29.7	27.7	20.9	32.1	35.1	37.5	36.7	36.4	35.7	37.6
Good	31.2	29.8	27.9	35.7	35.1	35.3	34.7	37.9	21.4	36.8
Fair	30.8	31.9	46.5	14.3	22.7	21.2	20.4	22.7	28.6	20.8
Poor	8.2	10.6	4.7	17.9	7.2	5.9	8.2	3.0	14.3	4.8
Disabled in past 12 months	11.8	14.9	5.8	17.9	12.4	18.2	18.4	9.1	28.6	23.2
Extent health problems caused by substance use ^b										
Not at all	88.5	89.4	88.4	82.1	87.6	87.4	83.7	95.5	64.3	85.6
A little	2.9	2.1	2.3	3.6	4.1	1.9	4.1	0.0	0.0	2.4
Somewhat	3.6	6.4	3.5	7.1	2.1	2.6	4.1	1.5	7.1	2.4
Very much	1.8	0.0	2.3	0.0	3.1	3.7	6.1	1.5	0.0	4.8
Extremely	3.2	2.1	3.5	7.1	3.1	4.5	2.0	1.5	28.6	4.8
Used MA in past 30 days	70.4	76.6	69.8	57.1	71.9	14.5	10.8	24.3	10.8	15.9
Any tobacco use	73.8	63.8	72.1	67.9	82.5	87.7	89.8	83.3	85.7	88.8
Any injection drug use ^a	39.4	36.2	23.3	46.4	56.7	46.1	44.9	36.4	35.7	52.8
Health insurance status										
No insurance	69.2	53.2	76.7	64.3	72.2	53.5	53.1	56.1	42.9	54.4
Medi-Cal	19.7	31.9	11.6	21.4	20.6	21.6	26.5	12.1	42.9	23.2
Other insurance	11.1	14.9	11.6	14.3	7.2	24.9	20.4	31.8	14.3	22.4

^a p<.05 in the never in treatment group;

^b p<.05 in the treatment group.

Table 2
Health conditions by race/ethnicity for methamphetamine users who did and did not receive substance abuse treatment (%)

	<i>Never in treatment</i>					<i>Received treatment</i>				
	Overall (n=257)	African American (n=47)	Mexican American (n=86)	Other Latino (n=28)	White (n=96)	Overall (n=255)	African American (n=49)	Mexican American (n=66)	Other Latino (n=14)	White (n=126)
Coronary/circulatory disease ^a	14.3	19.1	4.7	17.9	20.6	14.9	14.3	12.1	28.6	16.8
Hypertension ^a	22.6	34.0	14.0	10.7	27.8	13.7	14.3	10.6	14.3	15.2
Cancer ^b	3.9	2.1	2.3	3.6	7.2	5.2	4.1	1.5	21.4	6.4
Asthma ^a	18.0	31.9	9.3	17.9	18.8	20.4	10.2	22.7	21.4	23.2
Arthritis	16.0	21.3	10.5	14.8	18.6	13.7	12.2	6.1	21.4	17.6
Headaches, migraines	36.2	27.7	33.7	28.6	44.3	24.3	28.6	21.2	7.1	26.4
Ulcer ^a	12.5	2.0	1.5	14.3	16.0	9.4	12.8	8.1	10.7	16.5
Blackouts, seizures	14.8	10.2	4.5	0.0	10.4	8.2	14.9	15.1	10.7	15.5
Severe dental problems ^{a b}	27.6	21.3	20.9	21.4	38.5	25.2	28.6	12.1	50.0	28.0
Hearing loss/deafness ^{a b}	11.7	4.3	7.0	17.9	17.5	8.2	4.1	3.0	35.7	9.6
Blindness	9.7	4.3	9.3	14.3	11.5	5.5	8.2	6.1	14.3	3.2
HIV ^a	3.9	15.9	0.0	0.0	2.4	4.5	11.1	3.2	9.1	2.6
Hepatitis ^a	14.8	21.3	5.8	10.7	20.6	15.3	20.4	10.6	7.1	16.8
Gonorrhea ^{a b}	11.3	25.5	9.3	3.6	8.2	9.8	20.4	6.1	14.3	7.2
Syphilis ^a	4.3	12.8	1.2	0.0	4.1	4.3	10.2	3.0	7.1	2.4
Chlamydia	7.0	6.4	5.8	10.7	7.2	9.8	12.2	6.1	14.3	10.4
Back or neck injury ^a	25.7	38.3	16.3	25.0	27.8	28.2	16.3	25.8	42.9	32.8
Gunshot or knife wound	30.4	25.5	31.4	46.4	26.8	19.2	24.5	21.2	14.3	16.8
ADHD ^b	15.6	10.6	12.8	7.1	22.7	13.0	8.2	4.6	14.3	19.4
Learning disability	8.6	6.4	15.1	7.4	4.2	11.1	14.3	6.2	21.4	11.3

^a p<.05 in the never in treatment group;

^b p<.05 in the treatment group.

Table 3
Likelihood (odds ratios, 95% confidence intervals) of reporting health status and health conditions for African American, Mexican American and other Latino groups compared to White ethnic group^a

	<i>Never-in-treatment</i>			<i>Received treatment</i>		
	African American	Mexican American	Other Latino	African American	Mexican American	Other Latino
<i>Health Status:</i>						
In fair or poor health	1.73 (0.80-3.74)	3.07 (1.53-6.14)**	1.26 (0.49-3.27)	1.27 (0.58-2.79)	1.52 (0.73-3.20)	2.44 (0.73-8.12)
Drug/alcohol use caused health problems	0.94 (0.30-2.98)	1.12 (0.42-2.99)	1.51 (0.46-4.97)	1.08 (0.42-2.78)	0.36 (0.10-1.31)	4.13 (1.16-14.67)*
Disabled in the past 12 months	1.01 (0.35-2.93)	0.57 (0.18-1.87)	1.51 (0.44-5.12)	0.75 (0.31-1.81)	0.44 (0.17-1.18)	1.62 (0.43-6.03)
<i>Health Conditions:</i>						
Coronary or circulatory disease	0.91 (0.36-2.35)	0.26 (0.08-0.87)*	1.08 (0.34-3.43)	0.89 (0.33-2.42)	0.95 (0.37-2.45)	2.00 (0.50-8.01)
Hypertension	1.11 (0.50-2.48)	0.44 (0.19-1.00)*	0.29 (0.08-1.08)	0.72 (0.26-1.91)	0.91 (0.33-2.40)	1.58 (0.30-8.18)
Cancer	0.20 (0.02-1.93)	0.98 (0.15-6.51)	0.57 (0.05-6.35)	0.84 (0.16-4.38)	0.30 (0.04-2.64)	2.87 (0.54-15.24)
Asthma	3.09 (1.27-7.52)*	0.64 (0.24-1.68)	1.14 (0.36-3.65)	0.48 (0.17-1.38)	1.14 (0.52-2.46)	0.84 (0.21-3.36)
Ulcer	0.68 (0.23-2.01)	0.76 (0.26-2.18)	0.79 (0.20-3.19)	0.10 (0.01-0.83)*	0.10 (0.01-0.78)*	0.98 (0.19-5.12)
Severe dental problems	0.43 (0.18-1.03)	0.50 (0.24-1.05)	0.50 (0.18-1.40)	1.05 (0.49-2.25)	0.43 (0.18-1.03)	2.82 (0.89-8.91)
Hearing loss/deafness	0.26 (0.06-1.22)	0.49 (0.17-1.41)	1.07 (0.33-3.46)	0.33 (0.07-1.58)	0.38 (0.08-1.84)	10.04 (2.45-41.22)**
HIV	7.31 (1.26-42.43)*	--	--	4.34 (0.85-22.52)	2.06 (0.27-15.66)	13.34 (0.90-197.27)
Hepatitis	0.86 (0.32-2.29)	0.38 (0.12-1.18)	0.50 (0.12-2.10)	1.49 (0.55-4.04)	1.09 (0.38-3.15)	0.35 (0.03-3.72)
Gonorrhea	3.31 (1.15-9.50)*	1.45 (0.47-4.53)	0.36 (0.04-3.21)	3.64 (1.32-10.08)*	1.02 (0.28-3.59)	2.50 (0.45-13.66)
Syphilis	2.38 (0.55-10.34)	0.45 (0.04-5.00)	--	6.99 (1.40-34.99)*	2.35 (0.33-16.91)	2.42 (0.18-32.21)
Back or neck injury	1.72 (0.79-3.76)	0.52 (0.24-1.14)	0.93 (0.35-2.52)	0.39 (0.16-0.93)*	0.88 (0.43-1.78)	1.75 (0.55-5.63)
Gunshot or knife wound	1.21 (0.51-2.89)	1.70 (0.80-3.60)	3.78 (1.45-9.89)**	1.33 (0.56-3.16)	1.02 (0.44-2.28)	1.16 (0.21-6.29)
ADHD	0.62 (0.20-1.96)	0.34 (0.14-0.85)*	0.14 (0.03-0.74)*	0.36 (0.11-1.12)	0.14 (0.04-0.51)**	0.82 (0.16-4.06)
Learning disability	2.34 (0.46-12.00)	4.21 (1.18-14.97)*	1.66 (0.27-10.30)	1.11 (0.41-3.02)	0.47 (0.14-1.57)	2.74 (0.65-11.62)

^aLogistic regression analyses adjusted for age, gender, injection drug use, number of days of methamphetamine use in the past 30, and tobacco use.

-- Odds ratio not calculated; 0% of members of this ethnic group reported having the condition.

* p<.05;

.10
p<.01
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