

Sex Trading, Substance Abuse, and Mental Health Problems Among Indigent HIV Positive Women: Implications for HIV Treatment, Adherence, and Diversion

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Abstract

Aims: Few studies have examined the factors affecting HIV treatment utilization and ARV medication adherence and diversion among indigent, HIV positive substance abusers. This study sought to determine the association of past year sex trading on substance use, mental health, HIV treatment utilization, ARV medication adherence and ARV diversion (the unlawful channeling of regulated pharmaceuticals from legal sources to illicit markets) among a sample of indigent, substance abusing, HIV positive women.

Methods: 204 HIV positive, substance abusing females in urban South Florida completed a comprehensive health and social risk assessment including demographics, substance use and dependence, and mental health status.

Results: Study participants were predominately African American (78.9%), with a median age of 46. Compared to non-traders, past year sex traders were more likely to meet criteria for substance dependence (p=.000) and report homelessness (p=.000). Recent sex trading was also associated with more significant mental health problems including depression (p=.001), anxiety (p=.002), traumatic stress (p=.000), and increased victimization (p=.001). In terms of treatment utilization, sex traders reported less time spent with primary source of HIV care (p=.002) and more difficulty in accessing medical specialists (p=.023). Sex trading was also associated with ARV medication diversion (30.6% vs. 49.6%; p=.007) and lower levels of past month ARV medication adherence (7.1 days missed vs. 12.7 days missed; p=.002).

Conclusions: This is the first study that documents the diversion of ARV medications by HIV positive, substance using women. Our results suggest that sex traders are especially vulnerable to substance dependence and mental health issues, participate in ARV diversion more often, and have less access to HIV treatment and care. Due to the significant health consequences resulting from ARV non-adherence and diversion, these findings have important public health implications.

Introduction

♀ Critical factors in the management of HIV include medication adherence and consistency in following prescribed treatments. Some research has shown that factors such as female gender and current drug abuse and dependence are associated with sub-optimal ARV medication adherence (Turner, Laine, Cosler, Hauck, 2003; Hinkin et al. 2004).

♀ Given that female drug abusers often engage in risky behaviors, including trading sex for money or drugs, it is important to understand the implications of ongoing substance abuse among indigent, HIV positive females.

♀ Female sex work has long been associated with negative health consequences, including increased physical and mental health problems, increased risk for violent victimization and sexually transmitted diseases, drug use and, social isolation (Cohan, et al., 2006; Kurtz, Surratt, Kiley, & Inciardi, 2005).

♀ HIV positive, substance abusing women engaging in sex trade behaviors are likely an even more vulnerable and hidden population in need of examination.

♀ This study focuses on a sample of substance abusing, indigent, HIV positive women to examine the association of past year sex trading on substance use, mental health, HIV treatment utilization, ARV medication adherence and ARV diversion.

Methods

♀ Using targeted sampling strategies, this study recruited indigent, HIV positive heroin and cocaine users ages 18 and over in South Florida for a comprehensive health and social risk assessment using a modified version of the Global Appraisal of Individual Needs (Dennis, 2002) which included demographics, substance use and dependence, and mental health status. HIV stigma was assessed through a modified version of the HIV Internalized Stigma Measure (Sayles et al. 2009); higher scores reflect greater levels of stigma.

♀ This analysis includes a total of n=204; females (n=191) and transgendered individuals identifying as female (n=13).

♀ Sex traders were identified by an endorsement of past year sex trading to obtain drugs, gifts, or money.

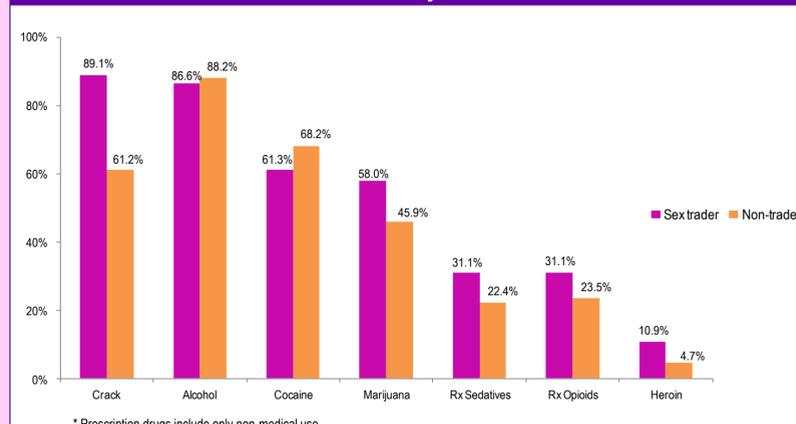
♀ To examine differences between sex traders and non-sex traders, Pearson chi-square tests were used to compare categorical demographic variables; t-tests were used to examine continuous variables related to HIV treatment and ARV adherence.

♀ Bivariate logistic regression analyses were then conducted to examine the association between sex trading and substance dependence, and severe depression, anxiety, traumatic stress, and victimization.

Results: Sample Characteristics (n=204)

	Sex Traders (n=119)	Non-Traders (n=85)	Total
Age (median)	46.0 years	46.0 years	
Race/Ethnicity			
Hispanic	10.9%	5.9%	8.8%
African American	76.5%	82.4%	78.9%
Caucasian	11.8%	10.6%	11.3%
Education			
High School or more	47.9%	50.6%	49.0%
Monthly Income ≤ \$1,000	86.6%	85.9%	86.3%
Homeless (past 3 Months)	51.3%	17.6%	37.3%
ARV Diversion (past 3 Months)	49.6%	30.6%	41.7%
HIV diagnosis (Median)	12.0 years	13.0 years	

Results: Past 90 Day Substance Use



Results: Regression Analysis

	Sex trader	Non-trader	Odds Ratio	95% CI	p-value
Homeless (past 3 months)	51.3%	17.6%	4.91	2.53, 9.53	.000
Crack Use (past 3 months)	89.1%	61.2%	5.18	2.51, 10.66	.000
Past year substance dependence	67.2%	36.5%	3.57	1.99, 6.41	.000
Severe depression	66.4%	43.5%	2.56	1.44, 4.55	.001
Severe anxiety/fear	39.5%	23.5%	2.12	1.14, 4.00	.002
Severe traumatic stress	73.9%	47.1%	3.19	1.77, 5.77	.000
Severe victimization	91.6%	74.1%	3.81	1.69, 8.55	.001
ARV Diversion (past 3 months)	49.6%	30.6%	2.23	1.24, 4.01	.007

Results: HIV Treatment and Care

	Sex Trader	Non-Trader	p-value
Mean time to wait to get an appointment (days)	6.09	6.27	.893
Mean time it took to receive HIV care (minutes)	20.10	18.30	.772
Mean time with usual source of HIV care (minutes)	50.13	75.47	.002
Mean times attended HIV education or support group (past 3 months)	5.44	2.78	.011
Mean times attended doctor visit (past 3 months)	2.66	2.74	.848
Mean days missed HIV medication (past month)	12.72	7.10	.002
Mean score easy access to medical specialists (1-5 scale)	3.31	3.59	.023
Mean score of internalized HIV stigma	25.61	21.53	.000

Discussion

♀ In terms of HIV treatment, sex traders spent significantly less time with their primary source of care (50 minutes versus 75 minutes for non-traders).

♀ Sex traders also reported significantly lower scores when asked about ease of access to medical specialists (3.31 versus 3.59 for non-traders).

♀ In terms of adherence, sex traders had almost double the number of days of missed medication (12) compared to non-traders (7).

♀ Sex traders had twice as higher odds of diverting their ARV medications.

♀ Sex traders attended more HIV support and education groups than their non-trading counterparts.

Discussion

♀ Sex traders had almost 5 times higher odds of being homeless or using crack, and 4 times higher odds of reporting substance dependence.

♀ In terms of mental health, sex traders had more than two times higher odds of having severe depression and anxiety and over three times higher odds of reporting severe symptoms of traumatic stress.

♀ Sex traders also had nearly four times higher odds of severe victimization.

♀ Sex traders had significantly higher levels of internalized HIV related stigma.

Conclusions

♀ This is the first study that documents the diversion of ARV medications by HIV positive, substance using women.

♀ Sex traders are especially vulnerable to substance dependence and mental health issues, participate in ARV diversion more often, and have less access to HIV treatment and care.

♀ Despite more frequent attendance at HIV support and education groups, sex traders reported higher levels of internal HIV related stigma, and less frequent medication adherence, suggesting a need to tailor these groups to special populations including women, substance abusers and those engaging in sex work.

♀ Interventions and education for patients around adherence should also target these vulnerable populations.

♀ Due to the significant health consequences resulting from ARV non-adherence and diversion, these findings have important public health implications for treatment specialists and practitioners in order to provide better support for their patients.

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Further Information

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