

Risk factors for Suicidal Ideation Among HIV-infected Drinkers in Russia

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Supported by the National Institute of Alcohol Abuse and Alcoholism R01 AA016059

INTRODUCTION

- The HIV epidemic in Russia is one of the fastest growing in the world
- The rates of current suicidal ideation among HIV-positive individuals are markedly elevated^{1,2}, even in comparison with lifetime prevalence estimates for general population^{3,4,5}
- Alcohol use among Russian patients with HIV is common and may contribute to suicidal risk
- The following risk factors for suicidal ideation such as education, employment, marital status, ART-treatment, alcohol and drug use, also may impact on suicidal ideation among HIV-infected drinkers in Russian, but yet have not been studied

OBJECTIVE

To determine the potential risk factors for suicidal thoughts and attempts in a cohort of HIV-infected drinkers in Russia

METHODS

Design: Cross-sectional analysis of baseline data from the HERMITAGE study (HIV Evolution in Russia – Mitigation Infection Transmission and Alcoholism in a Growing Epidemic), a risk-reduction RCT among HIV-infected adults in St. Petersburg, Russia, reporting at-risk-alcohol consumption (NIAAA risky drinking definition) and unprotected sex in the past 6 months (n=700)

Potential risk factors examined

Demographics

- Education (< 9 grades, 11 grades, College, University)
- Marital status
- Employment

HIV factors

- Anti-retroviral therapy, ever
- Stigmatization

Mental Health and Substance use

- Depressive symptoms (Beck Depression Index II-none vs. mild vs. moderate vs. severe)
- Suicide attempts or thoughts, lifetime and in the past 3-month
- Alcohol Dependence from 12-month Composite International Diagnostic Interview (CIDI)
- Heroin use from 12-month Composite International Diagnostic Interview (CIDI)
- Heroin use in the past 30 days
- Other opioid use (codeine, china white, methadone, fentanyl) in the past 30 days
- Jeff or ephedrine in the past 30 days
- Amphetamine or methamphetamine in the past 30 days

Analysis

Each risk factors was analyzed by Fisher's Exact Probability Test, after that was used an iterative, stepwise model-building procedure, based on series of logistic regression models. The stepwise entry and removal criteria were set at p-value of 0,15. An $\alpha=0,05$ was considered statistically significant.

BASELINE CHARACTERISTIC (n=700)

Characteristic	n (%)
Age, mean (SD)	30.1 (5.2)
Male	415 (59.3%)
Unemployed	189 (27.0%)
Never Married or Not Living with a Partner	448 (64%)
Anti-retroviral medications	167 (23.9%)
Stigma, mean (SD)	23.4 (4.4)
Beck Depression Index II, median (IQR)	17 (11-26)
Heroin Use, 12 Month	440 (62.9%)
Heroin Use in the past 30 days	431 (61.6%)
Alcohol Dependence, 12 Month	446 (63.7%)
Other opioid in the past 30 days	85 (2.1%)
Jeff or ephedrine in the past 30 days	21 (3%)
Amphetamine or methamphetamine in the past 30 days	56 (8%)
Suicidal Ideation	
Lifetime suicide attempt or thoughts	406 (58.0%)
Attempted suicide, ever	253 (36.1%)
Attempted suicide in the past 3 months	25 (9.9%)

Risk factors for recent suicidal ideation among HIV-infected Risky Drinkers in Russia

Risk factors	Suicide ideation in the past 3-months			
		No	Yes	p
Education	<9 grades >9 grades	134 (22,6%) 458 (77,4%)	22(20,4%) 86 (79,6%)	
Marital status	Married or living with a partner	223 (37,7%)	28 (25,9%)	
	Never Married Not Living with a Partner	253 (42,8%) 115 (19,5%)	43 (39,8%)* 37 (34,3%)*	0,003
Employment	Employed regularly	232 (39,2%)	28 (25,9%)	
	Employed occasionally Unemployed	169 (28,5%) 156 (26,4%)	40 (37%)* 33 (30,6%)*	0,045
The largest number of drinks in any single day in the past 12 months	None Between 1 and 10 drinks Between 11 and 20 drinks More than 20 drinks	8 (1,4%) 474 (80,1%) 64 (10,8%) 46 (7,8%)	0 87 (80,5%) 9 (8,3%) 12 (11,1%)	
Development of Alcohol tolerance	Yes No	295 (50,4%) 290 (49,6%)	66 (61,1%)* 42 (38,9%)	0,046
Heroin	Yes No	354 (59,9%) 237 (40,1%)	86 (79,6%)* 22 (20,4%)	0,0000
Sedatives	Yes No	177 (29,9%) 415 (70,1%)	46 (42,6%) 62 (57,4%)	
Tranquilizers	Yes No	129 (21,8%) 462 (78,2%)	39 (36,1%) 69 (63,9%)	
Amphetamines	Yes No	176 (29,8%) 415 (70,2%)	42 (38,9%) 66 (61,1%)	
Severity BDI	No depression Mild Moderate Severe	63 (10,6%) 43 (7,3%) 60 (10,1%) 426 (72%)	5 (4,6%) 1 (0,9%) 8 (7,4%) 94 (87,0%)*	0,003

RESULTS BASED ON STEPWISE LOGISTIC REGRESSION

N=700	Adjusted OR	95%CI
Heroin Use in the past 30 days	2,214	1,352-3,624
Other opioid in the past 30 days	2,335	1,117-4,882
Jeff or ephedrine in the past 30 days	4,134	1,461-11,697
Beck Depression Index	1,029	1,017-1,041
Stigma	1,057	1,003-1,114

CONCLUSION

- Suicidal Ideation among HIV-infected Russians with risky alcohol consumption is common

- Among this group patients were identified the following statistically significant factors, such as unemployed, never married or not living with a partner, alcohol dependence, heroin use, jeff or ephedrine use, HIV-stigmatization and depression symptoms

- These findings should be taken into account for development of preventive intervention for this category patients

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