

Stimulant Injectors from Three Ukraine Cities

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Study's Purpose

- ❖ To assess drug- and sex-related risk behaviors, as well as HIV status, among stimulant injectors compared to injectors of opiates and opiates/sedatives
 - ❖ Sample (N = 525) included (359 polydrug injectors excluded):
 - ❖ 236 stimulant injectors (45%)
 - ❖ 176 opiate injectors (34%)
 - ❖ 113 opiate/sedative injectors (22%)

Methods

- **Between June 2005 and August 2006, 900 IDUs were recruited from Makeevka/Donetsk, Kiev and Odessa.**
- **Participants were recruited through street outreach by former drug users familiar with the drug-using scene in their respective city.**

Eligibility criteria included:

- **18 years of age or older**
- **Self-reported drug injection in the previous 30 days**
- **Not too dysfunctional or incapable of providing informed consent**

Assessments

- ❖ **Risk Behavior Assessment Questionnaire (NIDA, 1991) was modified, translated into Russian, and “computerized”**
 - **Self-reported information about drug use, risky behaviors, drugs injected, sex behaviors, health status (including HIV)**
- ❖ **Rapid HIV Test (HIV I + II One-Step Test) was given**

Demographics

Female	27.2%
Average age	29.4 (SD = 7.9)
Married or living as married	33.3%
Education	
Unfinished secondary education	14.3%
Completed secondary education	38.5%
Some post-secondary education	47.2%
Homeless	6.5%
Ever arrested	59.4%

Drugs Typically Injected

- ❖ Pseudo-ephedrine solution that also contains jod (iodine), red phosphorus and vinegar. Known as “vint”, “jeff” or “boltushka” in Kiev and Makeevka/Donesk and “shirka” or “boltushka” in Odessa
- ❖ Poppy straw that also contains baking soda, solvent, vinegar and formaldehyde and, in some cases, blood or egg whites. Known as “shirka” in Kiev and Makeevka/Donesk and “hemia” in Odessa
- ❖ Opiates/Sedative Mixture – opiates combined with demerol

Drug Injector Type

Overall and by City

Drug Injector Type	Total N and percent	Makeevka/ Donetsk	Kiev	Odessa
Stimulants only	236 (45.0%)	49.1%	67.7%	24.6%
Opiates only	176 (33.5%)	40.5%	16.1%	41.1%
Sed/Opiate mix only	113 (21.5%)	10.4%	16.1%	34.3%
Total	525 (100%)	100%	100%	100%

Drug-Related Risk Factors by Drug Injector Type

Drug Risk past 30 days	Stimulants Only	Opiates Only	Sed/Opiate Mix Only	Test Statistic
Years injecting	7.6	12.2	13.1	F=35.5***
Times Injected	26.9	22.0	27.4	F=1.6 (ns)
Used a used syringe	24.2	10.2	13.4	X ² =15.2***
Always injected w/others	55.9	38.6	41.6	X ² =13.8***
Front/back loaded with dealer	22.9	58.3	79.6	X ² =112.4***
Front/back loaded with others	58.9	47.4	55.0	X ² =5.4 (ns)
Used collective solution	68.6	33.0	25.7	X ² =78.9***

* p<.05; ** p<.01; *** p<.001

Sex-Related Risk Factors by Drug Injector Type

Sex Risk past 30 days	Stimulants Only	Opiates Only	Sed/Opiate Mix Only	Test Statistic
Had sex	85.0	84.7	67.3	$X^2=17.8^{***}$
Had sex without a condom	43.2	35.2	31.9	$X^2=5.1(\text{ns})$
Had more than one sex partner	29.6	29.5	23.0	$X^2=1.9(\text{ns})$
Had an IDU sex partner	51.1	34.9	37.2	$X^2=12.3^{**}$
Had an HIV+ sex Partner or DK	36.9	39.8	41.6	$X^2=0.8(\text{ns})$

* $p<.05$; ** $p<.01$; *** $p<.001$

Composite Drug & Sex Risks by Drug User Type

Drug Risks

Sex Risks

	Mean (SD)	F statistic	Mean (SD)	F statistic
Drug User Type		7.59***		3.38**
Stimulant	2.31 (1.2)		2.43 (1.4)	
Opiate	1.87 (1.1)		2.23 (1.3)	
Opiate/Sed.	2.14 (1.0)		2.01 (1.6)	

* p<.05; ** p<.01; *** p<.001

HIV Status by Drug Injector Type (Overall and for each city)

	Total	Makeevka/ Donetsk	Kiev	Odessa
Drug Injector Type	Percent HIV+***	Percent HIV+***	Percent HIV+*	Percent HIV+ ns
Stimulants only	23.0	5.0	26.9	43.1
Opiates only	29.7	19.7	20.0	40.5
Sed/Opiate mix only	49.1	41.2	52.0	50.0
Total	30.8%	14.7%	29.9%	44.4%

Total HIV status by city was significant at $p < .001$.

Conclusions

- ❖ The IDUs in this study averaged nearly 30 years of age and they had been injecting for slightly more than 10 years, or since they were 20 years of age
- ❖ They reported extremely high rates of drug and sex-related risk behaviors
 - More than 50% front/backloaded with another IDU, nearly 50% front/back loaded with a dealer and nearly 50% shared the drug solution
 - Approximately 40% had sex without a condom, 43% reported an IDU sex partner and 39% had an HIV infected partner or they did not know the HIV status of their partner
- ❖ More than 30% were HIV infected, including 30% in Kiev, 15% in Makeevka/Donesk, and 44% in Odessa

Conclusions...

- ❖ Stimulant injectors were more likely than other drug injectors to have used a used needle/syringe, always inject with others, front/back load others and inject with a collectively prepared solution
- ❖ Stimulant injectors were the least likely to have used a condom during sex and the most likely to report that their sex partner was an IDU
- ❖ Stimulant injectors scored significantly higher than other injectors on both the drug and sex composite risk measures
- ❖ **Yet, stimulant injectors had been injecting significantly fewer years (7.6) than opiate (12.2) or opiate/sedative (13.1) injectors AND they had the lowest rate of HIV infection (23%), versus 30% and 49% for opiate and opiate/stimulant injectors, respectively**

Conclusions

- ❖ In all likelihood, the rate of HIV infection among stimulant injectors will rise rapidly in the future, given their high rate of injection-related risk behaviors and the relationship between years injecting and HIV.
- ❖ Given the high percentage of stimulant injectors who do not use condoms, it is likely that HIV will be spread sexually, as well as through drug use



Ukraine Research Team