Socio-economic situation and illicit drug use profiles as factors associated with HIV prevalence among drug users in Northern Poland

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OBJECTIVES

- describe the socio-economic and drug use characteristics among the drug addicted persons in Poland
- identify specific socio-economic factors associated with HIV risk factors and higher HIV prevalence
- identify drug use profiles associated with HIV risk factors and higher HIV prevalence

METHODS

Two hundred drug users were recruited in Northern Poland into a cross-sectional study

Participants were tested for HIV-Ab

A self-report questionnaire was utilized to obtain information on socio-demographic and medical characteristics, as well as risk behaviors

Social and drug combination profiles were explored by factor analysis

RESULTS - description

Mean age of the 200 participants was 28.7 years; 23% were women.

Many participants reported economic and social hardship, including unemployment (63%), no means of support (12%), home-lessness (38%), and prison terms (34%).

Approximately 70% of participants (68.9% among those 25 years old or older) had primary or vocational educationas compared to 56.9% in general population.

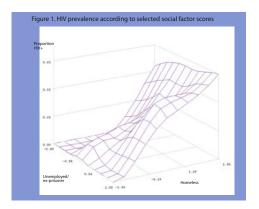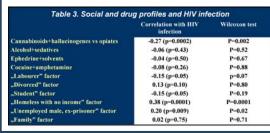73% of subjects were taking more then one type of illicit drugs.
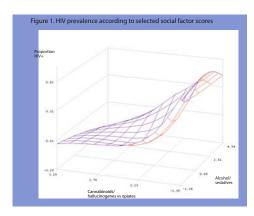
RESULTS - factor models

Table 1. Factor model for social variables

	„Labourer"	„Divorced"	„Student"	„Homeless with no income"	„Unemployed male, ex-prisoner"	„Family"
MALE GENDER	- 0.27	0.12	- 0.40	- 0.12	0.61	- 0.18
EVER HOMELESS	- 0.10	- 0.07	- 0.11	0.79	0.17	- 0.01
HAVING CHILD	- 0.06	0.78	0.02	0.08	0.06	0.47
EVER IMPRISONED	0.13	0.02	0.00	0.25	0.83	0.05
LIVING AT OWN PLACE	0.07	0.15	0.55	0.05	- 0.18	0.41
LIVING WITH FAMILY	- 0.02	- 0.35	- 0.25	- 0.68	0.07	0.14
MARRIED	0.03	- 0.01	0.11	- 0.07	0.01	0.93
DIVORCED	- 0.03	0.91	0.07	0.12	0.06	- 0.17
NO STABLE INCOME	- 0.32	0.19	- 0.41	0.57	0.18	0.17
VOCATIONAL EDUCATION	- 0.80	- 0.09	- 0.08	0.09	0.15	- 0.07
PRIMARY EDUCATION	0.86	- 0.15	- 0.13	- 0.07	0.20	- 0.00
CURRENTLY WORKING	0.46	- 0.07	- 0.37	- 0.09	- 0.42	- 0.06
CURRENTLY STUDYING	0.14	0.04	0.83	- 0.10	- 0.00	0.03

Table 2. Factor model for types of drugs used

	Cannabinoids+hallucinogenes vs opiates	Alcohol+sedatives	Ephedrine+solvents	Cocaine+amphetamine
AMPHETAMINE	0.37	-0.26	-0.15	0.48
COCAINE	-0.02	0.05	0.17	0.84
OPIATES	-0.67	-0.39	-0.04	-0.22
HALLUCINOGENES	0.78	-0.10	-0.04	0.12
CANNABINOIDS	0.80	-0.07	0.08	0.15
ALCOHOL	0.11	0.82	-0.12	-0.02
EPHEDRINE	-0.14	-0.09	0.67	0.31
ORGANIC SOLVENTS	0.18	0.08	0.86	-0.11
SEDATIVES	-0.14	0.74	0.11	-0.05

„Divorced" factor was correlated with injecting drugs for over 10 years (p=0.0001)

"Student" factor was inversely correlated with sharing needles (p=0.0002)

"Homeless with no income" factor was correlated with sharing needles (p=0.03), sex in exchange for money (p=0.04) or drugs (p=0.001)

"Unemployed, ex-prisoner" factor was correlated with injecting drugs for over 10 years (p=0.001) and inversely correlated with ever having homosexual intercourse (p=0.04)

"Cannabinoids+hallucinogenes vs opiates" factor was correlated with injecting drugs (p=0,0001), sharing needles (p=0,01), injecting drugs for over10 years (p=0.0001), and high number of partners (p=0,0001)

"Alcohol+sedatives" factor was correlated with having a lot of partners (p=0,0001)

Figure 1. HIV prevalence according to selected social factor scores

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Table 3. Social and drug profiles and HIV infection

	Correlation with HIV infection	Wilcoxon test
Cannabinoids+hallucinogenes vs opiates	-0.27 (p=0.0002)	P=0.002
Alcohol+sedatives	-0.06 (p=0.43)	P=0.52
Ephedrine+solvents	-0.04 (p=0.50)	P=0.67
Cocaine+amphetamine	-0.08 (p=0.26)	P=0.88
„Labourer" factor	-0.15 (p=0.05)	p=0.07
„Divorced" factor	0.13 (p=0.10)	P=0.80
„Student" factor	-0.15 (p=0.05)	P=0.19
„Homeless with no income" factor	0.38 (p=0.0001)	P=0.0001
„Unemployed male, ex-prisoner" factor	0.20 (p=0.009)	P=0.02
„Family" factor	0.02 (p=0.75)	P=0.71

HIV infection was more common among people who were ever homeless, had no stable income and didn't live with family at the time of the study.

HIV infection was more common among men who had been imprisoned in the past and were unemployed.

HIV infection was less common among cannabinoids and hallucinogens users who didn't use opiates.

CONCLUSIONS

Certain social characteristics were closely interrelated and linked to higher or lower risk behavior frequency.

Poor socio-economic condition was associated with risk behaviors and indicated higher HIV prevalence.

The majority of subjects used several drugs, in typical combinations.