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Russian Speaking Immigrants: Drug Use, Infectious Disease and Related Health Behavior

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Abstract This article focuses on drug use, infectious disease and other factors comparing FSU males who became addicted before and after immigration to Israel. 810 drug users were surveyed in treatment centers from January 2002 to January 2012. The Addiction Severity Index and other data collection instruments were used. Those addicted before immigration have a higher level of infectious disease (i.e., HCV, HIV/AIDS and tuberculosis) and opiate use other than heroin. Those addicted after immigration reported higher rates of last 30 days sedative; cocaine and opiates other than heroin use. Injection drug use and ASI domain problem behavior were more prevalent among those addicted before immigration. Results evidence the impact of country of addiction origin on drug use patterns, infectious disease rates as well as other health related factors. Additional research of the relationship between acculturation and drug use is needed.

Keywords Russian speaking immigrants · Drug use · Infectious disease · Israel

Background

Since 1991, with the fall of the Soviet Union and removal of exit barriers, over a million people immigrated from the Former Soviet Union (FSU) to Israel. A large proportion of the FSU immigrants had training and education in technical and professional fields [1]; additionally, there were immigrants who arrived in Israel with drug abuse problems and

others became addicted during the absorption process [2]. FSU immigrants are 11 percent of the Israeli population but about 25 percent of the estimated 30,000 illicit drug users in the country [2]. The FSU drug users are mostly from Russia and the Ukraine; others originated from Georgia and the Caucasus region that includes Azerbaijan and the Russian Federation republics of Dagestan, Chechnya, and Ingushetia.

Former Soviet Union immigrants came from an environment that has poor health indicators and life expectancies caused, in part, from high rates of alcoholism, heroin use and infectious disease [3]. Russia, for example, has 2.5 million drug addicts and over 5.1 million drug users; and, HIV infection rates are up to 61 percent among drug users in some regions of the country linked, in part, to injecting drugs. Both Hepatitis B virus (HBV) and Hepatitis C virus (HCV) infections are highly prevalent among injection drug users.

It is logical to believe there are uniform data about the health issues among FSU immigrants in Israel and other absorbing countries. However, a review of professional literature reveals scant information about drug use, risk behaviors, police reports and service utilization [4, 5]. This article focuses on drug use, infectious disease and health related factors comparing FSU male adults who became addicted before and after immigration to Israel. This study has implications for drug use prevention and treatment, policy and future research.

Methods

A total of 810 male (540 FSU born and 270 Israeli born) drug users were surveyed in treatment centers from January 2002 to January 2012. The sampling procedure was

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primarily one of convenience and geared toward collecting psychosocial data on a large sample to estimate the drug abuse situation in Israel. Interviewers made scheduled visits to four treatment sites located in the Negev region and invited individuals to participate in the study. The treatment sites included an intake center, a detoxification clinic, a methadone clinic, and a day-treatment facility. These sites represent the types of treatment facilities available in the Negev region and elsewhere in the country.

Data were collected in a voluntary, anonymous and confidential manner complying with human subject guidelines of the participating drug treatment facilities and Ben Gurion University. A staff member responsible for the interview was available to help understand the questions if necessary.

For the present study, all drug use, psychosocial, and health data were based on participants' self-report. The primary data collection tool was the Addiction Severity Index (ASI), 5th Edition [6]. The ASI is a structured interview that assesses problem severity in seven domains (alcohol, drug, medical, employment, legal, family/social, and psychiatric) and has been validated with diverse populations in a wide variety of settings; scores range from 0 to 1 with higher scores indicating greater severity [6].

Participants were asked to report medical problems including Hepatitis C (HCV), HIV/AIDS, and tuberculosis (TB). In Israeli treatment centers, patients are routinely tested for HCV, HIV/AIDS, and TB and given their results by clinic staff. Other data collection instruments used were the Substance Use Survey Instrument (SUSI) that consists of 56 questions about personal background characteristics,

substance use patterns and related problem behavior; and, the Short Acculturation Scale (SAS) [7]. Data collection instruments were translated from English to Russian and Hebrew, back translated and examined for reliability. Cronbach alpha scores were: ASI (0.71); SUSI (0.88); and SAS (0.91).

Statistical analyses were performed using SPSS, version 19. FSU immigrants who became addicted before and after immigration users were compared using Chi square tests for categorical variables and *t* tests for continuous variables.

Results

Among the FSU drug users, 52 % ($n = 282$) were addicted before and 48 % ($n = 258$) after immigration. The median age was 32.0 years; 39 % were from Russia; 30 % from the Ukraine; and 31 % from countries including Georgia, Moldova, and Uzbekistan among others. Table 1 provides information about FSU immigrant related characteristics, those addicted before and after immigration.

The rates of infectious disease for the study cohort are: Hepatitis C 66.0 %; HIV/AIDS 5.6 %; and tuberculosis 3.7 %. Those addicted before immigration have a higher level of infectious disease. Table 2 shows the results including the rate found for Israeli origin drug users (reported in *italic*).

Patterns of life time drug use show only opiate use other than heroin (84.0 vs. 34.4 %; $p < .001$) more prevalent among those addicted before immigration. Those addicted

Table 1 FSU male drug users: immigration related characteristics

	Start drug use before immigration ($n = 282$) ^a	Start drug use after immigration ($n = 258$) ^a
Mean age (range SD)	36.6 (18–78; 9.5)***	29.7 (17–52; 7.7)***
FSU countries origin, % (n)	***	***
Russia	38.6 (109)	39.1 (101)
Ukraine	36.2 (102)	22.9 (59)
Other (Moldova, Georgia, Uzbekistan, etc.)	25.2 (71)	38.0 (98)
Mean age of immigration (range SD)	27.4 (13–62; 8.5)***	18.0 (3–40; 6.7)***
Mean years of life in Israel (range; SD)	17.0 (3–39; 4.5)***	19.3 (8–41; 5.1)***
Conditions of Immigration, % (n)	***	***
Alone	37.6 (105)	13.6 (35)
With partner and with/without children	31.6 (88)	12.8 (33)
With parent(s) and/or other family members	26.2 (73)	68.9 (177)
Other (e.g. with friends)	4.6 (13)	4.7 (12)
Married, % (n)	29.4 (83)	27.5 (71)
Jewish, % (n)	48.7 (132)**	61.5 (152)**

** $p < .01$; *** $p < .001$ (*t* test for means or Chi square for percentages)

^a Up to 10 subjects with missing data on one or more variables

Table 2 medical status and infectious disease rates

	Start drug use before immigration (n = 282) ^a	Start drug use after immigration (n = 258) ^a	Israeli born drug users (n = 270) ^a
Hepatitis C, % (n)	73.5 (200)***	57.7 (142)***	34.2 (90)
HIV/AIDS, % (n)	8.1 (22)*	2.9 (7)*	0.0 (0)
Tuberculosis, % (n)	5.5 (15)*	1.6 (4)*	0.4 (1)

* $p < .05$, *** $p < .001$ (Chi square test)

^a Up to 10 subjects in each group with missing data on one or more variables

Table 3 Alcohol and drug use patterns

	Start drug use before immigration (n = 282) ^a	Start drug use after immigration (n = 258) ^a	Israeli born drug users (n = 270) ^a
Life time heroin use, % (n)	91.8 (247)	92.7 (228)	88.5 (238)
Last month heroin use, % (n)	53.3 (144)*	63.8 (157)*	54.3 (146)
Injection drug use, %	96.1 (246)*	90.6 (211)*	57.4 (155)
Life time alcohol use, % (n)	46.6 (125)	46.1 (113)	31.0 (83)
Last month alcohol use, % (n)	29.6 (80)	28.6 (70)	18.9 (51)
Life time cannabis use, % (n)	78.1 (211)	83.0 (205)	85.8 (224)
Last month cannabis use, % (n)	26.2 (71)	32.7 (80)	20.9 (56)
Life time sedatives use, % (n)	33.2 (89)	31.7 (77)	49.4 (123)
Last month sedatives use, % (n)	26.3 (70)**	38.5 (94)**	41.9 (113)
Life time cocaine use, % (n)	27.4 (72)***	46.3 (111)***	49.2 (121)
Last month cocaine use, % (n)	16.3 (44)*	24.8 (61)*	22.6 (61)
Life time amphetamine use, % (n)	16.7 (44)	14.2 (34)	9.0 (24)
Last month amphetamine use, % (n)	0.7 (2)	2.5 (6)	0.0 (0)
Life time hallucinogens use, % (n)	15.6 (42)***	39.3 (95)***	30.9 (81)
Last month hallucinogens use, % (n)	6.6 (18)	9.3 (23)	6.3 (17)
Life time inhalants use, % (n)	6.1 (16)	7.5 (18)	0.7 (2)
Last month inhalants use, % (n)	0.0 (0)	0.0 (0)	0.0 (0)
Life time other opiate use, % (n)	84.0 (226)***	34.4 (84)***	13.1 (35)
Last month other opiate use, % (n)	13.3 (36)***	26.5 (65)***	22.4 (60)
Clean of heroin but using other drugs while in treatment, % (n)	66.2 (178)	58.8 (144)	28.2 (70)
Treatment for FSU addicts would be better if there were special units only for them	70.3 (187)***	54.5 (134)***	30.2 (76)

* $p < .05$, ** $p < .01$, *** $p < .001$ (Chi square test)

^a Up to 10 subjects in each group with missing data on one or more variables

after immigration reported higher life time use of cocaine (46.3 vs. 27.4 %; $p < .001$) and hallucinogens (39.3 vs. 15.6 %; $p < .001$). Males who became addicted after immigration reported higher rates of last 30 days use of sedatives (38.5 vs. 26.3 %; $p < .01$); cocaine (24.8 vs. 16.3 %; $p < .05$) and opiates other than heroin (26.5 vs. 13.3 %; $p < .001$). Injection drug use was more prevalent among those addicted before immigration (96.1 vs. 90.6 %; $p < .05$). Drug users addicted before immigration reported they were more in favor of special treatment programs for FSU immigrants than those addicted after immigration

(70.3 vs. 54.5 %; $p < .001$). Table 3 shows life time, last 30 days drug use and other related factors.

Among most ASI domains, those addicted before immigration evidenced more problem behavior. Only the legal domain, including such issues as shoplifting, drug charges, forgery, assault, burglary, larceny etc., were more problematic for those addicted after immigration (Table 4).

The SAS showed those who immigrated at an earlier age were more inclined to be acculturated based on Hebrew language skills acquisition. Those with technical and semi-skilled employment reported a better command of Hebrew language.

Table 4 ASI Composites Scores

ASI Scores, (SD)	Start drug use before immigration (n = 282) ^a	Start drug use after immigration (n = 258) ^a	Israeli born drug users (n = 270) ^a
Alcohol	0.07 (0.14)*	0.04 (0.10)*	0.03 (0.11)
Drug	0.25 (0.13)	0.25 (0.14)	0.23 (0.15)
Medical	0.27 (0.28)***	0.17 (0.24)***	0.16 (0.26)
Employment	0.83 (0.24)	0.81 (0.25)	0.85 (0.22)
Legal	0.25 (0.26)*	0.31 (0.27)*	0.25 (0.24)
Family/Social	0.28 (0.25)	0.27 (0.24)	0.27 (0.25)
Psychiatric	0.29 (0.21)*	0.24 (0.20)*	0.23 (0.21)

* $p < .05$, *** $p < .001$ (t test)

^a Up to 10 subjects in each group with missing data on one or more variables

Discussion

This study is the first large scale comparison of FSU male adults who became addicted before and after immigration to Israel. Results show addiction before immigration correlated with infectious disease and health. This outcome tends to be consistent with other studies about migrant drug use [8, 9].

While the study findings provide an important overview of drug use patterns and raise critical public health concerns, the study has several limitations. First, the study was not based on a random probability sample. However, the cross section of treatment programs included as interview sites and the repeated visits to treatment programs produced a large sample, broadly representative of FSU drug users in treatment. While the possibility of underreporting drug use, infectious disease and other factors exists with self-report, the use of the data still allows for the comparisons examined in the study.

The primary function of prevention and treatment programs for drug users should be to enhance their well-being through functions that are conducted on two levels—societal and individual. However, the majority of drug users do not receive such services. Among FSU immigrants who do seek intervention, short term detoxification tends to be preferred even if only for modifying the level of drug tolerance [5].

In Israel, there has been a demand for treatment programs for FSU drug abusers only. However, this approach has met with resistance because of the belief that it does not contribute to population integration interests of the country. Study results show FSU males addicted before and after immigration have different views on this issue. Most Israeli origin addicts do not believe separate services for FSU immigrants are necessary based on their perception of cultural adjustment and Hebrew language acquisition of those immigrants with whom they are in contact. FSU males addicted after immigration evidence Hebrew language use

that tends to be linked to employment and the use of addictive substances (e.g., cocaine, sedatives and hallucinogens) common to the culture of drug use in Israel.

Clearly, this present study points to the need for additional research of the relationship between acculturation and psychological and behavior outcomes associated with drug use. Such research needs to take into account multiple theoretical models of acculturation addressing stress, assimilation, biculturalism and other factors as a pliable process in which individuals do not necessarily relinquish the values, behaviors and attitudes prescribed by their culture of origin in order to adopt those of the host culture [10–12].

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