HIV Transmission Risk Behaviors of Inpatients of a Dependence Treatment Clinic

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Abstract

The social and behavioral characteristics of the target group were studied to search for a new approaches to the prevention of HIV infection among psychoactive substance (PAS) users by an anonymous survey of patients at a drug treatment hospital, HIV testing procedure; compliance with the consultation procedure; the infectious status of patients and their sexual partners; information on the treatment of HIV infection, and the need for additional knowledge. The expediency of the active involvement of patients in the conduct of measures for the prevention of HIV infection at the drug treatment hospital has been substantiated.

Keywords: Addiction to Psychoactive Substances; Addiction Treatment Clinic; HIV Infection; Patient-Oriented Prevention Programs; School for Patients

Introduction
From the onset of HIV epidemic in Russia, people with alcohol and drug addictions have been the key population groups particularly vulnerable to HIV. Since the majority of the patients learned about their HIV status not at the communicable disease clinics, but after turning for dependence treatment services, the narcological (addiction, dependence treatment) clinics became a major services access point for the largest sub-group of PLHIV - for people with substance dependencies. Furthermore, multiple studies revealed HIV transmission risk behaviors (sexual and drug use practices alike) being widely adopted among inpatients of dependence treatment clinics [1-5]. Consequently, health specialists working in dependence treatment clinics (psychiatrist-narcologists, in Russian terminology) had to face the need to deliver HIV prevention services as part of their daily work.

The share of HIV-positive people in overall patient flow of specialized care institutions has been steadily growing ever since: for instance, the proportion of PLHIV among clients of the drug dependence (narcological) clinics has went from 3.2% in 2009 up to 25.6% in 2017 [6]. Hence, HIV prevention questions are of a paramount importance for dependence treatment (narcological) clinics, whereas interventions seeking to equip patients in narcological care with infection transmission prevention skills are much-in-demand.

Research Goal
To provide evidence of need for patient-centered HIV and other BBV infections prevention interventions being integrated into the services provided at drug dependence (narcological) clinics.

Methodology
Study design
In order to develop interventions to improve prevention strategies relevant to harmful consequences of substance abuse, members of the Socially Significant Diseases Prevention Department of the National Scientific Research Center on Addictions studied knowledge and skills of inpatients receiving care at the Center’s clinic. Since 2017, a cohort of 215 inpatients attending counselling events as part of a routine rehabilitation process (thematic lectures and cinematherapy sessions) participated in the study. Each participant was anonymously surveyed using a questionnaire which contained questions on respondent socio-demographic characteristics (gender, age, level of education, employment etc.); history of receiving pre- and post- HIV test counseling; knowing own HIV status and other infections (hepatitis B and C, tuberculosis, STI) status; knowing infections status of their sexual partners; and information needs on the topic of infections of interest (hepatitis B and C, tuberculosis, STI).

Age of respondents varied between 19 and 75 years old; mean age of the sample was 38.61 ± 9.6 years. 72.1% of the sample (155) were male, 27.9% (60) - female. Of all respondents, 152 (70.7%) were patients with alcohol dependence and 57 (26.5%) - patients with drug dependence. Six more respondents (2.8%) had a dual diagnosis of alcohol and drug dependence. As the survey was completely anonymous, all diagnoses information was collected in a self-report manner only.

Collected data were analyzed using methods of descriptive statistics: frequency analysis was applied for the categorical variables and comparison of means tests for continuous variables. Student’s t-test for independent samples was used for the analysis of means; for variance analysis, Pearson chi-squared non-parametric test for independent samples was used. Statistical analysis was performed with the help of SPSS for Windows, version 16, Copyright © SPSS Inc. (2009).

Study Results and Discussion
According to the survey data, 125 participants (58.1%) had higher (completed or not completed) education; secondary education level was completed by 80 respondents (37.2%); incomplete secondary was reported by 10 respondents (4.65%). Notwithstanding relatively
high level of education, only 99 respondents (46%) reported being full- or part-time employed. More than a half of the survey participants were unemployed - 115 people (52.5%), which indicates having considerable difficulties in the sphere of social adaptation. Cross-tabulation analysis did not reveal any significant relationship between socio-demographics and HIV-related behaviors.

The survey results demonstrate that 189 respondents (88%) were aware of their HIV status. The majority of them - 115 (61%) - were tested in some other health facilities; 58 respondents (27%) were tested during their current stay in the clinic.

Although HIV testing is mandatory for inpatient admissions at the drug treatment clinic, some of the survey participants (16 people (7.4%)) reported having not been tested; 10 more patients answered they "did not know" whether they have ever undergone a testing of the like (Figure 1). In total, about 10% of the survey participants were not sufficiently informed about the procedure for testing HIV.

As the contemporary phase of the HIV epidemic evolvement in Russia is characterized by increase of the role of sexual contacts in the virus transmission, respondents’ knowledge of their sexual partners’ HIV status is of a particular interest [7,8]. More than a half of the survey participants - 140 (65.1%) - reported their sexual partners being HIV negative; about one in five respondents did not know their partners’ HIV status. Four patients (1.9%) were aware of their partner being HIV positive; some respondents preferred not to answer this question (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Yes/no</th>
<th>Men %</th>
<th>Women %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing own HIV status*</td>
<td>Know</td>
<td>81.3</td>
<td>91.7</td>
<td>84.2</td>
</tr>
<tr>
<td></td>
<td>Don't know</td>
<td>18.7</td>
<td>8.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Being aware of partner HIV status*</td>
<td>Know</td>
<td>76.8</td>
<td>93.3</td>
<td>81.4</td>
</tr>
<tr>
<td></td>
<td>Don't know</td>
<td>23.2</td>
<td>6.7</td>
<td>18.6</td>
</tr>
<tr>
<td>Being acquainted with PLHIV</td>
<td>Have</td>
<td>31.6</td>
<td>26.7</td>
<td>30.2</td>
</tr>
<tr>
<td></td>
<td>Don't have</td>
<td>68.4</td>
<td>73.3</td>
<td>69.8</td>
</tr>
</tbody>
</table>

Table 1: Patient awareness of HIV transmission risks, %.

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Survey results demonstrated that HIV is present in the social networks of the survey participants: 43 respondents (20.1%) were acquainted with HIV-positive people and 17 participants (8%) reported being acquainted with six PLHIV.

It is important to note that majority of the survey participants - 150 people (70.2%) - reported not having been counseled on the questions of HIV at the time they were tested. At the same time, more than a half of respondents - 118 (54.9%) - expressed their interest in acquiring additional information on the topic of HIV and other sexually transmitted infections (Table 2).

**Table 2: HIV counseling and information needs (%).**

<table>
<thead>
<tr>
<th>Reported that HIV counseling was provided</th>
<th>Yes/No</th>
<th>Men %</th>
<th>Women %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30.3</td>
<td>26.7</td>
<td>29.3</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>69.0</td>
<td>73.3</td>
<td>70.2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expressed information needs</th>
<th>Yes/No</th>
<th>Men %</th>
<th>Women %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>52.3</td>
<td>61.7</td>
<td>54.9</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>47.7</td>
<td>38.3</td>
<td>45.1</td>
<td></td>
</tr>
</tbody>
</table>

Statistical analysis did not reveal significant difference in the way male and female respondents answered the survey questions; however, some gender differences in HIV behaviors were statistically proven. Women in general were more likely to fear getting HIV infected, were better informed of their HIV status and of HIV status of their sexual partners and were more interested in acquiring additional information on HIV and STI, compared to male participants of the survey (61.7% and 54.9% respectively). The revealed difference between men and women was statistically supported at a significance level of 0.05.

As respondents reported having history of various STIs as well as HCV/HBV (transmittable via sexual contact), we can assume that they had a risk of HIV transmission (Table 3).

**Table 3: History of other infections as reported by respondents, %.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI</td>
<td>12.6</td>
<td>86.0</td>
<td>1.4</td>
</tr>
<tr>
<td>HBV</td>
<td>4.7</td>
<td>94.0</td>
<td>1.3</td>
</tr>
<tr>
<td>HCV</td>
<td>26.0</td>
<td>71.6</td>
<td>2.3</td>
</tr>
<tr>
<td>TB</td>
<td>2.8</td>
<td>96.3</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Fear of acquiring HIV through sexual contacts was reported by 50 respondents (23.3%); as a result of substance use - 24 patients (11.2%); having multiple risks was reported by 65 respondents (30.2%). Twenty-five survey participants (11.6%) reported not being afraid of getting HIV (Figure 2).
The survey results highlight that additional information and education needs to be provided to psychoactive substance users; it is expected that such education would stimulate protective behaviors to avoid transmission of HIV and other socially significant infections.

Active engagement of patients into this process and equipping them with knowledge and skills necessary for adopting protective behaviors should be integrated into the routine drug dependence treatment service delivery.

**Conclusion**

To conclude, the study results revealed that inpatients at the dependence treatment (narcological) clinic had certain behavioral risks related to HIV transmission.

It was demonstrated that the survey target group representatives were considerably sexually active. Psychoactive substance users being unaware of their partners’ HIV status may present an epidemiological hazard as they serve as a bridge enabling HIV infection being brought to the general population.

Being HIV positive requires caution to be exercised by the infection carrier due to high risk of transmission of HIV to his sexual partners, as well as because of the possibility of superinfection with a different strain of HIV, which might be resistant to ARVT. The chances of transmission increase if practicing of unprotected sex or sharing injection equipment goes on. Hence, there is a need to provide counseling and motivate these patients to test for HIV regularly, as well as to learn their partners’ HIV status.

HIV testing is an essential element of HIV prevention. Testing for HIV is deemed to be a procedure that focuses not only on medical diagnostics but also on provision of the pre- and post-test HIV counseling, which is a powerful prevention tool [9-11]. Taking this into consideration, it should be emphasized that by the study results, not all of the participants knew their HIV status, some of them never were tested for HIV and those who did test, oftentimes were not provided with the necessary HIV counseling.

The study results demonstrate that, despite the existing behavioral risks, patients are not sufficiently interested in HIV-related issues. This highlights the need for additional motivational work that would help substance users to recognize their HIV and other socially significant infections risks. Active learning methods focusing on helping patients to develop an active position towards acquiring knowledge and skills for HIV prevention are particularly important. One of possible ways to implement this could be establishing patient learning initiatives - Schools for patients - at dependence treatment (narcological) clinics to focus on prevention of a wide spectrum of socially significant infections. These learning initiatives would inform patients of their right for pre- and post-test HIV counseling. Furthermore, the School could be a means to teach the patients skills, necessary to engage into prevention activities themselves.

**Bibliography**


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