

Physical and psychiatric problems in injecting drug users in Indonesia

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Abstract

Background:

Injecting drug use is an important cause of HIV transmission, especially in Eastern Europe, South America, and East and Southeast Asia. Outpatient substance abuse treatment (OSAT) plays a crucial role in HIV prevention programs but access to this treatment is often limited. Integrating care in OSAT which addressed patient need will improve the utilization of the service. Therefore, we characterized and compared physical, psychiatric, and drug use problems and treatment need in Indonesian injecting drug users (IDUs) that did and did not utilize OSAT.

Methods:

Injecting drug users (IDUs) were recruited by respondent driven sampling in an urban setting in Java and interviewed regarding physical, psychiatric, and drug use problems, perceived severity, perceived treatment need, and interviewer severity rating using the European Addiction Severity Index. Those variables were compared between IDUs who did not access and accessed OSAT in the last 30 days, using Mann-Whitney and Pearson Chi-square test. **Results:**

Only 55 out of 210 participants (26%) utilized OSAT in the last 30 days. Characteristics, perceived drug severity, drug treatment need, physical and psychiatric problems were similar regardless the utilization of OSAT in the last 30 days. The most frequent co-occurring problems were HIV (58%), trouble in remembering anxiety (51%), and anxiety

(48%) and the most used drugs in the last 30 days were alcohol, heroin, cannabis, and benzodiazepine. **Conclusion:**

This study from Indonesia showed that physical, psychiatric, and drug use problems are very common among IDUs. These findings support the implementation of “one stop care facilities” to increase the effectiveness and higher utilization of services.

Keywords: substance abuse, co-occurring problems

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Background

Clinicians and policymakers have underlined the crucial role of outpatient substance abuse treatment (OSAT) services to prevent HIV transmission among injecting drug users (IDUs). This is because injecting drug use is estimated to account for 30% of new HIV infections outside sub-Saharan Africa (UNAIDS 2006). In 2007, of the estimated 15.9 million IDUs worldwide, probably 3 million were infected with HIV (Strathdee, Hallett et al.). Many OSAT facilities have the capacity to offer counseling and testing for HIV, refer HIV-infected clients to specialized health care workers, help reducing the risk behavior, and maintain adherence to prescribed HIV therapies (Metzger and Navaline 2003; Kimber, Mattick et al. 2008; Pollack and D’Aunno 2010). However, many studies showed that the utilization of OSAT and also HIV treatment among IDUs is very limited (Mathers, Degenhardt et al. ; Slutske).

Access to OSAT may be different from access to services for other health care needs since drug use is illegal and highly stigmatized (Hser, Maglione et al. 1998).

Furthermore, low threshold services such as drug consumption rooms and free drug treatment program are mostly lacking in low- or middle-income countries and this will influence treatment seeking behavior (Kimber, Hickman et al. 2008; Larsen, Omland et al. 2010).

Previous studies on IDUs have shown several factors related to treatment seeking behavior, such as individual characteristics, environmental circumstances, the sociocultural context, perceived severity, and perceptions of treatment effectiveness (Neale, Sheard et al. 2007; Kimber, Mattick et al. 2008). However, most of the existing literature only provides useful information on the problems IDUs encounter in accessing services. Nevertheless, information on factors that can improve user engagement by providing what drug users need is also important and can guide policy makers and practitioners (Neale, Sheard et al. 2007).

In Indonesia, injecting drug use increased dramatically in the late '90s, acting as the main force driving the HIV-epidemic. Among the general population, the prevalence of HIV-infection is still low (0.3%), but up to 50% or more of the IDUs are already HIV-infected (NAC 2007). IDUs in Indonesia engage in high risk behavior, both through needle sharing and unprotected sex (Iskandar, Basar et al. 2010). A high percentage of IDUs in Indonesia visit commercial sex workers without using a condom and may as such facilitate the transmission of HIV to the general community (Pisani, Dadun et al. 2003). In response to these problems intervention programs have been developed in Indonesia. However, the coverage of addiction and HIV treatment services for IDUs remains very low: only 1% of the IDUs are covered by Methadone Maintenance

Treatment (MMT) programs; and only 6% of the HIV-infected IDUs have received anti-retroviral treatment (ART) (Mathers, Degenhardt et al.).

Integrating care in OSAT which addressed patient need will improve the utilization of the service. Therefore, we characterized and compared physical, psychiatric, and drug use problems and treatment need in Indonesian injecting drug users (IDUs) that did and did not utilize OSAT.

Methods

Participants

From June to September 2008, 210 IDUs were recruited in Bandung, the capital of West-Java and epicenter of the epidemic of injecting drug use in Indonesia. Respondent driven sampling, a form of peer recruitment, was used for recruitment of IDUs from the community (Heckathorn, Semaan et al. 2002). With help from local non-governmental organizations involved in outreach to IDUs, six IDUs from different parts of Bandung were selected to act as ‘seeds’ for RDS and invited to a community clinic with a specific program for IDUs.

Only those candidates who were or had previously been IDUs were eligible to be included in the study. Two outreach workers from non-governmental harm reduction organizations, both with a previous history of drug use, confirmed that the respondents were indeed IDUs.

Assessment

The interviewers used four validated questionnaires: the European Addiction Severity Index (EuropASI), an adaptation of the Addiction Severity Index (fifth version). ASI has shown excellent reliability and validity across a range of types of patients and treatment settings in many countries (McLellan, Cacciola et al. 2006). For the translation into Bahasa Indonesia, WHO translation procedures were used (WHO 2003). ASI is a semi-structured interview which takes about one hour, covering issues that may contribute to patients' substance-abuse problems, such as medical status, employment/support status, drug/ alcohol use, legal status, family social relationship, and psychiatric problems (Institute 1990). Each of these areas is examined individually by collecting information regarding the frequency, duration, and severity of symptoms of problems both historically over the course of the patient's lifetime and more recently during the thirty days prior to the interview. Within each of the problem areas, the EuropASI provides a 10-point, interviewer-determined severity rating of lifetime problems (0 (no real problem) to 4-5 (moderate problem, some treatment indicated) to 8-9 (extreme problem, treatment absolutely indicated) and a 4-point, client rating scale for problem & help in the last 30 days (0 (Not at all), 1 (Slightly), 2 (Moderately), 3 (Considerably), 4 (Extremely)) (Blanken, Hendriks et al. 1994).

Results

A total of 210 IDUs were recruited, of whom 55 IDUs had visited OSAT in the last 30 days (26%). Demographic data did not differ between those who had not accessed and those who had accessed the out-patient drug treatment in the last 30 days (**table 1**). The mean age was 28 (± 4) years, most participants had graduated from senior high school

and had an income which was slightly higher than the minimum regional payment (Krishand). IDUs had started using injecting drugs at a young age (18 ± 3 years) and the period of injecting drugs averaged $7 (\pm 4)$ years. Half of them had still injected drug in the last 30 days and all of them smoked cigarettes ($438 \pm 245/ 30$ days). Seventy eight percent of them still engaged in one or more risk behavior such as injecting, sexual, tattooing, and piercing risk behavior.

The following variables were significantly different between those who did not access and accessed OSAT: history of overdose; testing for HIV and HCV; medication use for physical problems; treatment by physicians; knowledge on HIV; and body mass index. Over dose was experienced by 66% of those who had visited OSAT and by 41% of those who had not visited OSAT in the last 30 days ($p < 0.01$).

Although in both groups almost 50% of subjects had a chronic medical problem interfering with their life, access to medical services was very different between groups. Those who had accessed OSAT in the last 30 days were more likely to take prescribed medication for physical problem on regular basis (28% vs. 46%), have a higher body mass index (BMI; $20.1 (3.0)$ vs. $21.6 (3.2) \text{ kg/m}^2$) and better knowledge on HIV. They were also more likely to be tested for HIV and HCV, but there was no significant difference in the prevalence of HIV and HCV infection. Of importance, 72% of subjects had experienced psychiatric symptoms in the last 30 days but only 12% had been treated for psychiatric problems.

All IDUs reported drug use in the last 30 days; none of them had been totally clean. Two thirds of them had used two or more substances. The most used substances for

those who did not come to the OSAT were alcohol, heroin, and cannabis while those who accessed OSAT mostly used methadone or buprenorphine, heroin, and alcohol (**table 2**).

The perceived problems, perceived treatment needs, and interviewer rating scale on drug, medical and psychiatric condition among IDUs were similar, regardless of the access to OSAT in the last 30 days, except for days have drug problems in the last 30 days and perceived medical problems (**table 3**). The average score for drug perceived problems, drug perceived treatment needs, and interviewer rating scale on drug mean that those IDUs had moderate problems and some treatment may be indicated. The high correlation between interviewer severity for drug treatment and perceived drug treatment need ($p < 0.01$, $r = 0.51$) and perceived drug problem ($P < 0.01$, $r = 0.66$) illustrate the severity of the drug problem and confirm the need for drug treatment.

Discussion

In this cross-sectional survey from Indonesia, a group of relatively young and well-educated IDUs showed limited access to outpatient substance abuse treatment (OSAT) in spite of the severe drug related problems, high drug treatment need, and high prevalence of HIV-infection. Furthermore, both those who did and did not access OSAT engaged in high risk behavior for the transmission of blood-borne infections such as HIV and HCV, stressing the need for further additional interventions.

Drug use in the last 30 days among respondents was quite high, especially for alcohol, heroin, and methadone or buprenorphine. Unfortunately, the EuropASI questionnaire does not allow us to verify whether the use of methadone/ buprenorphine was as part of substitution treatment or not. Both drugs are officially registered in Indonesia for substitution treatment but illegal use is quite common. Buprenorphine

injection has been reported in many countries including Indonesia, and can be regarded as a response to inadequate care, rather than simply as misuse (Roux, Villes et al. 2008).

Besides handling drug problems, OSAT can be used as an entry point for other harm reduction programs and health services, especially HIV care [3]. However, it is estimated that a large percentage of drug users in many countries are not covered by drug- and HIV treatment services. (Mathers, Degenhardt et al.). Reluctance to use services, in particular drug-related services, has been noted in a number of other studies. The reasons of the reluctance are: not comfortable with the treatment staffs; afraid of treatment failure; lack of confidentiality; and being diagnosed with HIV infection. Some IDUs even do not feel that their drug use is a problem (Morrison, Elliott et al. 1997; Neale, Sheard et al. 2007).

Quite the opposite to the above findings, other research showed that most IDUs are able to self-diagnose injecting-related harm, but many are unlikely to seek prompt medical treatment (Morrison, Elliott et al. 1997). In line with this finding, this study showed that the perceived drug problems and perceived drug treatment need were highly correlated with interviewer rating scale indicating the right conformity of the severity of the drug problem and treatment need. However, there were no differences in perceived drug problems and perceived drug treatment need between those who did not access and accessed OSAT in the last 30 days meaning that these factors were not associated with the utilization of OSAT.

In spite of the limited coverage of OSAT, this study showed that those who accessed OSAT had better access to medical treatment in the past six months, a higher body weight, better knowledge on HIV, and that they had been tested for HIV and HCV

more often. It showed that OSAT can be used for delivering comprehensive services. Programs, such as HIV testing and counseling for the IDUs themselves and for their sexual partners; diagnosis, and treatment of viral hepatitis; and prevention, diagnosis, and treatment of tuberculosis can be applied in OSAT to increase the effectiveness of the drug treatment program and the prevention of HIV transmission (Mathers, Degenhardt et al.).

On the other hand, more than half of IDUs suffered from psychiatric symptoms but only 12% of them had ever been treated for this. One of the reasons for the limited psychiatric treatment use is clients with a history of treatment for psychiatric illness and/or self-harm are less likely to confirm drug treatment referral uptake (Kimber, Mattick et al. 2008). Interventions to increase referral from/ to mental treatment should be addressed (Kessler, Brown et al. 1981; Biddle, Gunnell et al. 2004).

Furthermore, IDUs in this study had more often been treated in drug treatment facilities compared to other studies (Mathers, Degenhardt et al. ; Heriawan, Ahnaf et al. 2005; Todd, Abed et al. 2009). Substance-dependent patients leaving against medical advice is a big challenge in the addiction treatment. Several researches showed that the dropout rate in drug substitution treatment is high; 20 - 30% in the first 3 months; and 43 – 52% in 12 months (Deren, Goldstein et al. 2001; Che, Assanangkornchai et al. 2010). Some of the reasons for leaving OSAT were dissatisfaction with the program, especially counselors; unmet social services needs; and lack of flexibility in scheduling (Laudet, Stanick et al. 2009).

This study showed that history of overdose was the only independent factor associated with access to OSAT. This result was in accordance with other studies which

showed that IDUs came to the treatment facilities in case of an emergency (Morrison, Elliott et al. 1997; Biddle, Gunnell et al. 2004).

This study suffers from the limitations of a cross-sectional study in a population which is difficult to reach raising the question how representative the samples are. By using RDS, we tried to minimize this risk (Salganik and Heckathorn 2004; Platt, Wall et al. 2006). Numerical simulations have shown that the possible bias, even if the seeds are not drawn randomly, is extremely small (0.3%) for all sample sizes greater than 200 (Salganik and Heckathorn 2004). Still, some IDUs who are not in the social networks with these participants can not be recruited through respondent driven sampling (Trotter, Bowen et al. 1995).

Conclusion

This study from Indonesia showed that physical, psychiatric, and drug use problems are very common among IDUs. These findings support the implementation of “one stop care facilities” to increase the effectiveness and higher utilization of services.

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Table 1 Characteristics of IDUs who did not access and accessed OSAT in the last 30 days

Characteristics	Outpatient substance abuse treatment (OSAT)		X ² / Z	P
	No (n=155)	Yes (n=55)		
Male gender, N (%)	141 (91)	53 (96)	1.68	0.25
Age, mean (SD)	28 (4)	28 (3)	-0.83	0.41
Education, N (%)			1.59	0.81
Junior high school or lower	10 (6)	2 (4)		
Senior high school	122 (79)	42 (76)		
Diploma or higher	23 (15)	11 (20)		
Marital status, N (%)			3.43	0.64
Married	48 (31)	15 (27)		
Widowed, separated, or divorce	22 (14)	6 (11)		
Never married	85 (55)	34 (62)		
Drug use				
Age first inject, mean (SD)	18 (3)	18 (3)	-0.45	0.66
Inject in the life time, mean (SD)	7 (4)	8 (4)	-1.88	0.06
Inject in the last 30 days, N (%)	79 (51)	27 (49)	0.06	0.88
Over dose, N (%)	63 (41)	36 (66)	10.11	<0.01
Cigarettes smoked in the last 30 days, mean (SD)	422 (230)	486 (282)	-1.18	0.24
Medical condition				

Tested HIV, N (%)	109 (70)	48 (87)	6.18	0.01
HIV +, N (%) (N total=145)	64 (59)	27 (56)	0.61	0.90
AIDS +, N (%) (N total=83)	16 (25)	9 (33)	0.68	0.71
Tested Hepatitis C, N (%)	87 (56)	38 (69)	6.77	0.03
Have chronic problem, N (%)	65 (42)	23 (42)	0.00	1.00
Taking prescribed medication for physical problem regularly, N (%)	44 (28)	25 (46)	5.36	0.03
Treated for medical problems in the past 6 months, N (%)	48 (31)	26 (47)	4.73	0.03
Psychiatric condition in the 30 last days				
Depression, N (%)	34 (22)	13 (24)	0.07	0.85
Anxiety, N (%)	72 (47)	29 (53)	0.64	0.44
Problem in remembering, N (%)	79 (51)	28 (51)	0.00	1.00
Hallucination, N (%)	22 (14)	11 (20)	1.03	0.39
Trouble in controlling violent in the last 30 days, N (%)	40 (26)	12 (22)	0.35	0.59
Ever treated for psychological problems, N (%)	22 (14)	4 (7)	1.83	0.24

Table 2 Drug use among IDUs who did not access and accessed OSAT in the last 30

days

Kind of drug [#]	Outpatient substance abuse treatment (OSAT)				Z	P
	No (N = 155)		Yes (N = 55)			
	N	days using drug, mean	N	days using drug, mean		
Any use of alcohol	87	11	21	7	-2.36	0.02
Alcohol, over threshold ^{##}	61	13.8	13	11.2	-0.94	0.35
Heroin	69	7.7	24	8.6	-0.00	1.00
Methadone or buprenorphine	49	21.0	25	25.9	-1.98	0.05
Other opiates	5	13.8	2	19.0	-0.59	0.56
Benzodiazepines	53	15.6	19	14.8	-0.38	0.70
Amphetamine	6	1.3	5	1.2	-0.47	0.64
Cannabis	55	8.7	12	10.3	-0.52	0.60
Ecstasy (MDMA)	19	6.6	6	15.0	-2.27	0.02
More than one substance	59	14.1	17	16.4	-0.62	0.53

[#] regular use (more than 3 times or 2 consecutive days a week)

^{##} ≥ 3 drinks in 1-2 hours, ≥ 3 times or 2 consecutive days a week.

Note : Less than three participants used inhalant, hallucinogens or cocaine in the last 30

days.

Table 3 Perceived problems, perceived treatment needs, and interviewer rating scale on drug, medical and psychiatric condition among IDUs who did not access and accessed OSAT in the last 30 days

The mean of	Outpatient substance abuse treatment (OSAT)		X ² /Z	P
	No (N = 155)	Yes (N = 55)		
Drug condition				
Days have alcohol problems in the last 30 days, mean (SD)	3.0 (7.2)	3.3 (8.7)	-1.20	0.23
Days have drug problems in the last 30 days, mean (SD)	6.4 (10.5)	10.7 (13.1)	-2.19	0.03
Perceived alcohol problems (score 0-4), mean (SD)	0.9 (1.2)	0.7 (1.0)	-1.04	0.30
Perceived drug problems (score 0-4), mean (SD)	1.9 (1.5)	1.7 (1.4)	-0.58	0.56
Perceived alcohol treatment need (score 0-4), mean (SD)	1.3 (1.5)	1.2 (1.5)	-0.30	0.76
Perceived drug treatment need (score 0-4), mean (SD)	2.4 (1.5)	2.8 (1.2)	-1.39	0.17
Alcohol interviewer severity rating (score 0-9), mean (SD)	2.9 (2.6)	2.2 (2.1)	-1.25	0.18
Drug interviewer severity rating (score 0-9), mean (SD)	4.9 (2.8)	5.0 (2.2)	-0.03	0.98
Medical condition				
Days have medical problem in the last 30 days, mean (SD)	6 (8)	10 (11)	-1.70	0.09
Perceived medical problems (score 0-4), mean (SD)	1.4 (1.0)	1.9 (1.1)	-2.49	0.01
Perceived medical treatment need (score 0-4), mean (SD)	2.5 (1.2)	2.7 (1.2)	-1.04	0.30
Medical interviewer severity rating (score 0-9), mean (SD)	3.2 (1.7)	3.5 (1.8)	-0.95	0.34
Psychiatric condition				
Days have emotional problems in the last 30 days, mean (SD)	5 (9)	7 (10)	-1.83	0.07
Perceived emotional problems (score 0-4), mean (SD)	1.6 (1.2)	1.7 (1.3)	-0.45	0.65
Perceived emotional treatment need (score 0-4), mean (SD)	2.1 (1.4)	2.1 (1.3)	-0.05	0.96
Psychological interviewer severity rating (score 0-9), mean (SD)	4.2 (2.2)	4.2 (2.3)	-0.09	0.93

Table 4 Drug treatment facilities which have been accessed in life time by IDUs who did not access and accessed OSAT in the last 30 days

Drug treatment facilities	Total	Outpatient substance abuse treatment (OSAT)		X ² / Z	P
		No (N = 155)	Yes (N = 55)		
Outpatient detoxification, N (%)	36 (17)	20 (13)	16 (30)	7,49	0,01
Detoxification residential, N (%)	43(20)	24 (16)	19 (35)	9,06	<0.01
Outpatient substitution, N (%)	93 (44)	56 (36)	37 (67)	15,96	<0.01
Outpatient drug-free, N (%)	20 (10)	12 (8)	8 (15)	2,18	0.18
Drug-free residential, N (%)	58 (28)	37 (24)	21 (38)	4,16	0.05
Day care, N (%)	11 (5)	7 (5)	4 (7)	0,62	0.48
Psychiatric hospital, N (%)	25 (12)	19 (12)	6 (11)	0,07	1.00
Other hospital/ward, N (%)	22 (11)	14 (9)	8 (15)	1,32	0.31
Traditional/religion based treatment, N (%)	90 (43)	63 (41)	27 (49)	1,18	0.34
All kind of drug treatments, N (%)	161 (77)	109 (71)	52 (95)	12,94	<0.01