**Suicidality and Treatment Experience among Young People Who Inject Drugs**

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**Abstract**

*Background*. We examined correlates of past year suicidal thoughts and behavior (STB) and described past year treatment experiences among young people who inject drugs (PWID). *Methods.* Participants were 570 adults (18-25 years) who injected primarily heroin. Interviews were conducted at field stations operated by Community Outreach Intervention Projects in Chicago, Illinois (USA). Interviewers administered the Psychiatric Research Instrument for Substance and Mental Disorders. Substance use and mental disorders were based on DSM-IV diagnostic criteria. Past year STB was based on multiple questions. *Results*. Sixteen percent of men and 25% of women reported STB in the past year. In multivariable analysis, STB was associated with non-heterosexual orientation, foster care, and being raised by two parents. Primary major depression, post-traumatic stress disorder, other anxiety disorders, and borderline personality disorder had independent effects on suicidality. Among those reporting past year STB (n=111), 83% ever received mental health treatment, while 44% did so in the past year. While 24% of respondents indicated that at least one treatment matched their needs very well, 30% reported treatment that did not match their needs at all. The most common reason for ending treatment was program completion (about 50%) while getting better was endorsed by about 25%. Nearly half reported ending treatment due to a bad experience, logistical issues, or expense. *Conclusions*. Young PWID are at high risk for suicidal behavior and their mental health treatment experiences often do not meet their needs. There is a pressing need for more integrated substance use and mental health treatment.

**Keywords: injection drug use, suicidal behavior, mental health treatment, co-occurring disorders**

**1. Introduction**

There is a well-established connection between substance misuse and suicidality (Borges et al., 2000; Mino et al., 1999; Tondo et al., 1999; Wilcox et al., 2004), that has been recently highlighted by the ongoing opioid crisis (Wilson et al., 2020) and the recent upward trend in suicide deaths (Bohnert and Ilgen, 2019; Braden et al., 2017; Curtin and Heron, 2019; Curtin et al., 2016; Hedegaard et al., 2018; Trust for America's Health and Well Being Trust, 2019). The problem may even be understated as some proportion of overdose deaths counted as accidental were likely suicides (Bohnert et al., 2010; Connery et al., 2019; Gicquelais et al., 2020; Liu et al., 2020; Neale, 2000; Oquendo and Volkow, 2018; Richer et al., 2013). In particular, polydrug use and injection drug use are associated with greater risk of suicidal behavior (Wilcox et al., 2004), a difference attributable to higher rates of predisposing factors including childhood trauma, depression, and other mental health problems (Artenie et al., 2015; Darke et al., 2004; Darke et al., 2007; Darke and Torok, 2013; Havens et al., 2006; Havens et al., 2004; Lloyd et al., 2007; Maloney et al., 2007; Roy, 2010). Major depression, bipolar disorder, borderline personality disorder (BPD), and post-traumatic stress disorder (PTSD) are associated with suicidality among people with substance use disorder (Yuodelis-Flores and Ries, 2015). Sexual orientation and gender identity minority status are also significant risk factors, likely through increased psychological distress (Haas et al., 2010; Havens et al., 2006; King et al., 2008; Pompili et al., 2014).

The mental health treatment experiences of people who inject drugs (PWID) are not well known. While some progress has been made in the recognition of the need to address substance use treatment needs within mental health treatment (Substance Abuse and Mental Health Services Administration (SAMHSA), 2020), few providers offer integrated treatment in line with the Integrated Dual Diagnosis Treatment model (Mueser, 2003; Spivak et al., 2020). There is evidence that people with psychiatric problems experience less success with substance abuse treatment (premature termination, relapse) compared to those without comorbid conditions, and consequently experience more adverse outcomes (Andersson et al., 2019; Syan et al., 2020; Teesson et al., 2015; Teesson et al., 2008; van Hagen et al., 2019). The need for better systems of treatment for comorbid substance use and other mental health problems is starkly evident in the wake of the COVID-19 pandemic, that has both exacerbated mental health issues and disrupted systems of care.

To inform intervention development for suicide prevention among high-risk populations such as PWID, we analyzed data from a study on the mental health of young PWID. The present study reports correlates of past year suicidal thoughts and behavior (STB) in this out-of-treatment sample recruited in 2008-2010, as well as clinical characteristics and self-reported mental health and substance use related treatment experiences among those who disclosed past year STB.

**2. Methods**

Details of the study methods have been previously reported (Mackesy-Amiti et al., 2012). All study procedures were approved by the Institutional Review Board of the University of Illinois at Chicago.

*2.1. Sample recruitment*.

The study was conducted at two field sites of the Community Outreach Intervention Projects in West and Northwest Side neighborhoods in Chicago, Illinois (USA). These sites provide a variety of services including HIV testing and counseling, hepatitis (HBV and HCV) testing, substance abuse treatment referrals, and syringe services. Participants were eligible for the study if they had injected drugs at least once in the past 30 days and were age 18 to 25. Current injection was verified by trained counselors who inspected for injection stigmata, and age was verified with a driver’s license or state identification card. Those without identification were assisted by staff assisted in obtaining these documents.

Study participants were recruited using outreach and respondent-driven sampling (RDS) methods (Heckathorn, 1997, 2002). Initial participants (seeds) were recruited by outreach workers at the two field sites and were selected to be heterogeneous with respect to gender, race/ethnicity, socioeconomic status, and sexual orientation. Each seed, and each recruited participant that followed, received up to four recruitment coupons after completing the interview. Coupons included a map to the field site from which they were issued, a toll-free phone number for obtaining more information or for arranging appointments, and a unique serial number, with the first digit identifying the site. The coupon numbers were entered into a computer database that established links between seeds and the chains of recruits and recruiters that followed. Participants received compensation for each coupon that was brought in by a person eligible to participate in the study. Compensation began at $15 and was later increased to $20 in an effort to increase recruitment. Recruitment chains tended to be short, and many seeds were not productive, therefore outreach workers also continued to recruit participants directly throughout the study. Forty percent of enrolled participants were recruited by outreach.

Participants who distributed coupons had to return to the field site to receive compensation and were paid $10-$15 for the coupon review session, independent of compensation for coupons redeemed. Those who successfully recruited eligible potential participants, and returned to the field site for a coupon review, were given additional coupons. Lost coupons were replaced upon request, and the original coupons voided.

*2.2. Procedures.*

After screening for eligibility, and completing informed consent procedures, participants completed a brief computer-based assessment including questions about the size and composition of their injection drug-using network, and the nature of their relationship with their recruiter. Participants then completed an audio computer-assisted self-interview (ACASI) to assess socio-demographic background, family background, drug use, injection risk behavior, sexual risk behavior, recent mental health and substance use treatment services, HIV and hepatitis testing, HIV/hepatitis knowledge, attitudes regarding and subjective norms for HIV risk behavior, and self-efficacy for sex- and injection-related HIV risk reduction behaviors.

Following the ACASI, a trained interviewer administered the Psychiatric Research Interview for Substance and Mental Disorders (PRISM, version 6). On request, or if no interviewer was immediately available, participants were allowed to make an appointment to return for the PRISM interview. Participants were compensated for completing the interviews. Compensation was initially set at $50 and was later increased to $75 due to the demanding nature of the PRISM interview.

*2.3. Measures.*

2.3.1. Sociodemographic variables.

Basic demographic variables included sex, age, race and ethnicity, and sexual orientation. Assessment of family background included questions on adoption (“Were you adopted?” If yes, “at what age were you adopted?”), and parental separation (“Before you reached 18 years of age, did your mother or father die, or were you separated from one or both parents (e.g. by abandonment, separation/divorce, or parent's imprisonment)?” with response categories being mother died, father died, mother separated, father separated. Subjects were also asked to indicate whether they grew up with a mother (or female parent-figure) only, a father (or male parent-figure) only, or with both mother and father (or female and male parent-figures), and whether they had lived for more than 6 months with an adult who was not their natural or adoptive parent (including a relative, step-parent, foster parent, state-appointed guardian, or someone else).

2.3.1. Mental health treatment experiences.

Substance abuse and mental health service use was assessed in the ACASI questionnaire with a series of questions based on the Service Assessment for Children and Adolescents (SACA) (Stiffman et al., 2000). We selected the SACA for disaggregating types of services from provider and setting, and assessing the duration, intensity, and content of services received. Questions assessed the types of mental health services used, the treatments received within service settings, the reasons for service use, and the quality of services. Quality was evaluated with the questions “How well did the treatment chosen for you meet your needs?” with response options of “not well”, “okay”, and “very well”, and “How much has your treatment helped you?” with response options of “not at all”, “some”, and “a lot”.

2.3.2. Suicidal thoughts and behavior.

The PRISM is a semi-structured clinical interview that provides diagnoses based on DSM-IV criteria, and is specifically designed to differentiate between the expected effects of intoxication and withdrawal, and between primary (independent) and substance-induced psychiatric disorders (Caton et al., 2005; Hasin et al., 2006; Hasin et al., 1996). For both substance use and psychiatric disorders, diagnoses are made using two time frames: “past year” (criteria were met within the past 12 months) and “prior” (criteria were met before the previous 12 months). Suicidal thoughts and behavior (STB) were assessed in the depression module, and in the borderline personality disorder (BPD) module. In addition to PRISM responses, we used responses to questions on reasons for mental health treatment endorsed in the ACACI questionnaire to code whether a subject had any suicidal thoughts or behavior in the past 12 months.

In the depression module, if a potential major depressive episode was indicated by responses to the screening questions, subjects were then asked about symptoms during the worst part of the most recent episode. They were asked if they had attempted suicide (“[During this time] did you do anything to hurt or kill yourself”), made an aborted or interrupted attempt (“did you start to do something in order to kill yourself, even if you changed your mind and stopped, or if someone else stopped you?”), thought of a plan for committing suicide (“did you think of any specific plan for committing suicide?”), had recurrent thoughts about suicide (“did you have any thoughts about suicide or killing yourself? How often did you have that thought?”), or recurrent thoughts of death (“did you find yourself thinking about death or dying?”) Recurrent suicidal ideation and recurrent thoughts of death were coded if the thought occurred at least three times in a week. In the BPD module subjects were asked about recurrent suicidal behavior, gestures or threats (“[Since early adulthood] have you ever threatened to kill yourself? ... have you ever tried to kill yourself? How many times did that happen?”) This behavior was coded overall and for the past 12 months.

*2.4. Analyses*.

We conducted descriptive analyses of STB prevalence, sociodemographic characteristics associated with STB, and treatment and service use among subjects with past year STB. We tested bivariate associations between demographic characteristics and past year STB using chi-square tests, and conducted multivariable logistic regression analyses. Sexual orientation categories were collapsed into heterosexual vs. non-heterosexual (lesbian/gay/homosexual, bisexual, none of the above, or refuse to answer) for analysis. We estimated two models, the first including sociodemographic variables, and the second adding relevant primary and substance-induced psychiatric diagnoses including past year substance-induced depression, and lifetime primary depression, PTSD, other anxiety disorder, and BPD.

**3. Results**

We completed interviews with 570 young PWID who primarily used heroin. Characteristics of the sample and rates of STB are shown in Table 1. Women were significantly more likely than men to identify as non-heterosexual (27% vs. 8%, Chi2 = 38.53, p<.001), and 20% of women identified as bisexual. Among 570 young PWID interviewed, 143 (25%) reported lifetime STB and 111 (19%) reported STB in the past 12 months. Six percent (n=32) reported lifetime suicide attempt, and 4% (n=22) reported a suicide attempt in the past 12 months. Seven percent (n=42) reported that they sought treatment for STB in the past 12 months, 11 of whom did not disclose STB in the PRISM interview.

Women were more likely than men to report STB in the past year, while suicide attempts were reported equally. Other variables associated with past year STB were non-heterosexual orientation, being raised in a two-parent household vs. mother-only or father-only, and living with a foster parent or state-appointed guardian.

Table 2 summarizes clinical characteristics and treatment experience among the 111 PWID with past 12 month STB. Most (72%) reported STB during the depression screening, with an additional 18% (n=20) disclosing STB outside of a potential depression episode in the BPD module. As noted above, 10% disclosed STB only in the ACASI interview. Over two-thirds met the diagnostic criteria for substance-induced major depression in the past 12 months, and more than half (56%) met the criteria for borderline personality disorder. Substantial proportions also met the criteria for lifetime primary major depression, post-traumatic stress disorder, or other anxiety disorder. Over 80% had ever received psychiatric or psychological treatment, however less than half had received mental health services in the past year, with 38% specifically having sought treatment for suicidal thoughts or behavior.

In multivariable regression, adjusting for sex, age, and race/ethnicity (Table 3), non-heterosexual orientation, living with a foster parent or guardian, and being raised in two-parent household (Chi2 = 9.79, p = .0075) were associated with increased likelihood of STB in the past 12 months. In Model 2, the largest effect was due to past year substance-induced depression. In addition, lifetime primary major depression, primary anxiety disorder other than PTSD, and borderline personality disorder had independent effects on suicidality.

Table 4 shows the specific services accessed and reasons for seeking treatment. Overall, 76% (n=84) of PWID with past year STB reported some kind of treatment or service use (not including crisis hotline or self-help group). They were more likely to access substance use treatment (64% not including ED and hospital treatment) than mental health services (44% including hospital inpatient stays for mental health reasons and outpatient mental health treatment). Among those who accessed services, most felt that they did not need any additional services. Those who did want additional services (n=11) desired drug or alcohol treatment (7), outpatient services (4), or something else (unspecified, 5). The main reasons endorsed for not getting additional care were cost (9), and “you decided you could handle your problems on your own” (9). Among the 27 respondents who experienced past 12 month STB but reported no service use, 11 (41%) felt that they needed help, including help for drugs or alcohol (10), feelings of depression (8), feelings of anxiety (4), or suicidal thoughts (2). The main reasons endorsed for not getting help were again cost (7), and “you decided you could handle your problems on your own” (6).

Table 5 shows participant evaluations of treatment on how well the treatment matched their needs, and how much it helped. Most respondents gave mid-range ratings for all services, however there were more negative ratings (20%, 71/358) than positive ratings (14%, 50/358). Among 84 people who received services, 24% reported that at least one service matched their needs very well, and 17% that at least one service helped a lot, while 30% reported that at least one service did not match their needs at all, and 30% also reported that at least one service did not help at all. Mental health services tended to be evaluated more favorably on helpfulness than substance use treatment services. Nearly half (48%) reported ending treatment due to a bad experience (32%), logistical issues (18%), or expense (25%). The most common reason for ending treatment was that the “program was completed” (about 45%, mostly regarding drug treatment) while getting better was endorsed by about 25%.

**4. Discussion**

In this community-recruited sample of young adults who inject drugs interviewed in 2008-2010, about 1 in 5 reported having suicidal thoughts or behaviors in the past year. In contrast, the 12-month prevalence of suicidal ideation among young adults the general population National Survey on Drug Use and Health (NSDUH) was 6.7% in 2010 (Han et al., 2018). Women were more likely than men to report past year STB, and this difference was largely tied to the high prevalence of non-heterosexual orientation among women. Perhaps surprisingly, young PWID who were raised in a two-parent household were more likely to report STB than those raised by one parent or caregiver. This may be due to parental conflicts that contribute to the development of mental health problems such as depression, anxiety disorders, and borderline personality disorder. Past year STB was strongly associated with a substance-induced depressive episode, however borderline personality disorder and lifetime anxiety disorders other than PTSD also made a significant contribution.

The prevalence of past year use of mental health services among our sample of PWID with past year STB (44%) was higher than that reported by Han et al. (Han et al., 2018) among suicidal young adults in the 2009-2015 NSDUH sample (36.2%). This difference may reflect greater help-seeking for substance use problems; mental health services were accessed for problems with drugs and alcohol as often or more often than for STB. Yet, a large proportion of PWID in need of mental health services are not receiving or accessing them, often in spite of having received services in the past. Common barriers to treatment for co-occurring disorders (Chen et al., 2013; Priester et al., 2016) including expense and logistical problems were reported. Lack of perceived need and preference for self-management are also factors identified in previous research on people with STB (Hom et al., 2015).

Among those who received services, most reported that their treatment matched their needs to some extent and was somewhat helpful. Only 17% reported that at least one service helped a lot, while 30% reported an adverse outcome. This might be expected given that the sample is comprised of people who are actively using injection drugs; those who found treatment that was helpful would presumably be more likely to cease using. However, this highlights a common occurrence among people with co-occurring substance use and mental health treatment needs (Brooks et al., 2007; Haskell et al., 2016; Ness et al., 2014), as well as among people with suicidal ideation who seek treatment (Hom et al., 2020). In addition to the impact on treatment attrition, adverse treatment experiences may contribute to negative attitudes about treatment effectiveness and distrust of providers (Hom et al., 2015). We also note that on reasons for stopping treatment, program completion was selected twice as often as getting better, highlighting the inferior value of short-term term treatment that is unlikely to produce long-term results (Pettersen et al., 2019).

*4.1. Limitations*.

The structured interview used in this study leaves several gaps in our understanding of service use by PWID with suicidal ideation. For example, it did not allow us to explore issues associated with past treatment, perhaps as an adolescent, and the impact of that experience on current attitudes. The computer-assisted self-interview did not include questions to assess STB, but did indirectly capture STB in questions on reasons for treatment that was not reported in the PRISM interview. An unknown number of respondents who did not seek treatment for STB may have also failed to disclose STB in the face-to-face interview.

*4.2. Conclusions.*

There is a pressing need for better integration of substance use and mental health treatment. In substance use treatment programs, the use of safety screening to identify suicidal clients (Stover et al., 2020) should be widely promoted. The results suggest that history of foster care, parental conflict, and non-heterosexual orientation should be considered as indicators of potential suicidal risk among young PWID. Further research is needed to improve understanding of factors that affect the under-utilization of mental health services. A better understanding of reasons for not seeking mental health treatment could help to inform outreach services and interventions for PWID with STB.

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| Table 1. Demographic characteristics and suicidal thoughts and behavior past 12 months among young PWID (N=570) | | | | | | | |
|  | Sample | | STB past 12 months | |  | |  | |
| Variable | *n* | *%* | *n* | *%* | *Chi2* | | *p* | |
| Sex |  |  |  |  |  | |  | |
| Male | 353 | 62% | 56 | 16% | 7.70 | | 0.006 | |
| Female | 217 | 38% | 55 | 25% |  | |  | |
| Race/ethnicity |  |  |  |  |  | |  | |
| NH white | 477 | 84% | 86 | 18% | 3.90 | | 0.142 | |
| Hispanic | 64 | 11% | 17 | 27% |  | |  | |
| Other, NH | 29 | 5% | 8 | 28% |  | |  | |
| Sexual orientation |  |  |  |  |  | |  | |
| heterosexual | 483 | 85% | 82 | 17% | 12.58 | | < .001 | |
| non-heterosexual | 87 | 15% | 29 | 33% |  | |  | |
| Parental / caregiver involvement |  |  |  |  |  | |  | |
| Mother / female caregiver only | 177 | 31% | 26 | 15% | 8.43 | | 0.015 | |
| Father / male caregiver only | 43 | 8% | 4 | 9% |  | |  | |
| Both parents / caregivers | 350 | 61% | 81 | 23% |  | |  | |
| Adopted |  |  |  |  |  | |  | |
| No | 545 | 96% | 104 | 19% | 1.21 | | 0.271 | |
| Yes | 25 | 4% | 7 | 28% |  | |  | |
| Mother or father died |  |  |  |  |  | |  | |
| No | 518 | 91% | 100 | 19% | 0.15 | | 0.697 | |
| Yes | 51 | 9% | 11 | 22% |  | |  | |
| Mother or father separated |  |  |  |  |  | |  | |
| No | 361 | 63% | 74 | 20% | 0.62 | | 0.432 | |
| Yes | 208 | 36% | 37 | 18% |  | |  | |
| Lived with a step-parent |  |  |  |  |  | |  | |
| No | 532 | 93% | 100 | 19% | 3.38 | | 0.066 | |
| Yes | 31 | 5% | 10 | 32% |  | |  | |
| Lived with foster parent or state-appointed guardian |  |  |  |  |  | |  | |
| No | 546 | 96% | 102 | 19% | 8.45 | | 0.004 | |
| Yes | 17 | 3% | 8 | 47% |  | |  | |
| PWID: people who inject drugs; STB: suicidal thoughts and behaviors; NH: non-Hispanic | | | | | |  | |

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| Table 2. Clinical characteristics and treatment experiences of PWID reporting STB past 12 months (N=111) | | |
|  | n | % |
| Suicide attempt, gesture, plan, ideation or recurrent thoughts of death during recent potential depressive episode | 80 | 72% |
| Any suicidal behavior past year (gesture, threat, attempt) - BPD module | 46 | 41% |
| Substance-induced depression, past 12 months | 76 | 68% |
| Primary major depression, lifetime | 39 | 35% |
| Post-traumatic stress disorder, lifetime | 28 | 25% |
| Anxiety disorder (except PTSD), lifetime | 34 | 31% |
| Borderline personality disorder | 62 | 56% |
| Suicide attempt, past year | 22 | 20% |
| Suicide attempt, ever | 28 | 25% |
| Psychiatric or psychological treatment, ever | 92 | 83% |
| Substance abuse treatment past 12 months | 71 | 64% |
| Mental health services in past 12 months | 49 | 44% |
| Sought treatment for suicidal thoughts or behaviors, past 12 months | 42 | 38% |
| PWID: people who inject drugs |  |  |

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| Table 3. Logistic regression predicting suicidal thoughts and behavior past 12 months among young PWID (N=570) | | | | | | | | | | |
|  | Model 1 | | | | Model 2 | | | | |
|  | OR | 95% Conf. Int | | p (Wald) | OR | 95% Conf. Int | | | p (Wald) | |
| Female vs. male | 1.41 | 0.90 | 2.22 | 0.134 | 0.84 | 0.46 | 1.50 | 0.549 | | |
| Non-heterosexual vs. heterosexual | 2.02 | 1.17 | 3.51 | 0.012 | 1.73 | 0.83 | 3.59 | 0.144 | | |
| Age | 0.98 | 0.89 | 1.09 | 0.775 | 0.99 | 0.87 | 1.13 | 0.904 | | |
| Hispanic vs. NH white | 1.66 | 0.87 | 3.16 | 0.121 | 2.16 | 0.99 | 4.72 | 0.054 | | |
| Other, NH vs. NH white | 1.89 | 0.76 | 4.71 | 0.170 | 0.79 | 0.23 | 2.75 | 0.716 | | |
| Mother only vs. both parents | 0.48 | 0.29 | 0.81 | 0.005 | 0.53 | 0.28 | 1.02 | 0.058 | | |
| Father only vs. both parents | 0.38 | 0.13 | 1.11 | 0.077 | 1.00 | 0.29 | 3.42 | 0.997 | | |
| Lived with foster parent | 3.43 | 1.23 | 9.58 | 0.018 | 4.13 | 1.17 | 14.63 | 0.028 | | |
| Lived with a step-parent | 2.25 | 0.98 | 5.17 | 0.057 | 1.66 | 0.57 | 4.84 | 0.350 | | |
| Primary major depression, lifetime | - |  |  |  | 2.02 | 1.01 | 4.04 | 0.046 | | |
| Post-traumatic stress disorder, lifetime | - |  |  |  | 1.72 | 0.77 | 3.87 | 0.189 | | |
| Any other anxiety disordera, lifetime | - |  |  |  | 3.03 | 1.52 | 6.04 | 0.002 | | |
| Borderline personality disorder | - |  |  |  | 2.94 | 1.63 | 5.33 | 0.000 | | |
| Substance-induced depression, past 12m | - |  |  |  | 10.02 | 5.71 | 17.58 | 0.000 | | |
| PWID: people who inject drugs; NH: non-Hispanic  a excluding PTSD | | | | | | | | | | |

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| Table 4. Treatment for problems with behavior or feelings among PWID with past 12 month STB (N=111) | | | | | | |
|  |  |  | Reason for visit | | | |
|  |  |  | drugs/alcohol | | STB | |
| Type of service | *n* | *%* | *n* | *%* | *n* | *%* |
| Inpatient hospital | 27 | 24% | 21 | 78% | 14 | 52% |
| Emergency department | 12 | 11% | 10 | 83% | 4 | 33% |
| Outpatient mental health | 37 | 33% |  |  |  |  |
| Mental health clinic | 15 | 14% | 11 | 73% | 11 | 73% |
| Professional counselor | 22 | 20% | 19 | 86% | 16 | 73% |
| Partial hospitalization | 10 | 9% | 9 | 90% | 5 | 50% |
| Counselor home visit | 5 | 5% | 4 | 80% | 2 | 40% |
| Drug/alcohol treatment | 71 | 64% |  |  |  |  |
| Residential program | 34 | 31% | - | - | - | - |
| Short term unit (detox) | 42 | 38% | - | - | - | - |
| Drug or alcohol clinic | 29 | 26% | - | - | - | - |
| Other services |  |  |  |  |  |  |
| Crisis hotline | 5 | 5% | 3 | 60% | 3 | 60% |
| Self-help group | 45 | 41% | 45 | 100% | 4 | 9% |
| PWID: people who inject drugs; STB: suicidal thoughts and behaviors | | | | |  |  |

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| Table 5. Evaluation of treatment for problems with behavior or feelings among PWID with past 12 month STB (N=84) | | | | | | | | | | | | | | | |
|  |  | Treatment matched needs | | | | Treatment helped | | | |  |  |  |  |  |  |
|  |  | not well | | very well | | not at all | | a lot | | Reason ended | | | | | |
| Type of treatment / service | *n* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | A | B | C | D | E |
| Inpatient hospital | 27 | 7 | 26% | 3 | 11% | 6 | 22% | 1 | 4% | 25 | 52% | 20% | 0% | 12% | 24% |
| Outpatient mental health treatment | 37 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mental health clinic | 15 | 3 | 20% | 2 | 13% | 1 | 7% | 3 | 20% | 6 | 17% | 67% | 50% | 33% | 33% |
| Professional counselor | 22 | 2 | 9% | 5 | 23% | 3 | 14% | 6 | 27% | 12 | 17% | 33% | 25% | 42% | 50% |
| Partial hospitalization | 10 | 2 | 20% | 1 | 10% | 2 | 20% | 3 | 30% | 10 | 30% | 40% | 20% | 40% | 40% |
| Drug/alcohol treatment | 71 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Residential program | 34 | 6 | 18% | 6 | 18% | 6 | 18% | 5 | 15% | 32 | 22% | 56% | 3% | 0% | 25% |
| Short term unit (detox) | 42 | 8 | 19% | 5 | 12% | 10 | 24% | 4 | 10% | 42 | 29% | 48% | 2% | 5% | 24% |
| Drug or alcohol clinic | 29 | 6 | 21% | 3 | 10% | 9 | 31% | 3 | 10% | 25 | 16% | 48% | 20% | 36% | 28% |
| PWID: people who inject drugs; STB: suicidal thoughts and behaviors | | | | | | | | | | | | | | | |
| Treatment matched needs was rated as not well, okay, or very well. Treatment helped was rated as not at all, some, or a lot. | | | | | | | | | | | | | | | |
| Reason ended: (A) got better, (B) completed treatment, (C) logistical issues, (D) too expensive, (E) bad experience. Bad experience includes not getting better, treated unfairly, therapist left, felt out of place, policies were a hassle, and “bad experience”. | | | | | | | | | | | | | | | |