Perceived Need and Receipt of Behavioral Health Services at Drop-In Centers among Homeless Youth

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Objective. Homeless youth are a population in need of housing assistance and case management, as well as services to address behavioral health problems. This study examines youth's perceived need for and receipt of services through drop-in centers.

Data Source. Surveys of 273 homeless youth.

Study Design. Cross-sectional.

Extraction Methods. Descriptive analyses with bivariate and multivariable regression models.

Principal Findings. About one-third to half of the sample met criteria for behavioral health problems, yet half or less of those meeting criteria reported a need for services targeting the problems. Most youth who perceived a need for services received relevant services through a drop-in center, with the exception of care for substance use problems. Youth with behavioral health problems were more likely to perceive a need for services related to housing and case management than those addressing behavioral health problems more directly. Multivariable regression analyses indicated that the factors most strongly associated with perceived need for services were not behavioral health problems, but rather race/ethnicity, traveler status, trouble meeting basic needs, delinquency, abuse/victimization experiences, and trading sex.

Conclusions. Findings can help to develop outreach and intervention efforts to reach homeless youth and help promote the use of behavioral health services.

Key Words. Homeless youth, substance use, mental health, drop-in center, service use

Nearly 41,000 unaccompanied youth under the age of 25 are homeless on any given night in the United States (Henry et al. 2017). These youth become homeless for various reasons; some leave home without parental or guardian consent ("runaways"), others are forced out of their homes for some reason ("throwaways"), and some become homeless after aging out of the foster care

system (Rew et al. 2001; Hammer, Finkelhor, and Sedlak 2002; Greene et al. 2003; Thompson et al. 2010). Homeless youth are at risk of multiple behavioral health problems, including poor mental health (e.g., posttraumatic stress disorder [PTSD], depression) and problematic substance use (Huba et al. 2000; Robertson 2004; Wenzel et al. 2010; Nyamathi et al. 2012; Tucker et al. 2012; Bender et al. 2015). These behavioral health problems can be both determinants and consequences of the myriad challenges faced by homeless youth, such as physical and sexual victimization, risky sexual behavior, and legal troubles (De Rosa et al. 2001; Martino et al. 2011; Kennedy et al. 2012; Tyler, Akinyemi, and Kort-Butler 2012; Pedersen, Tucker, and Kovalchik 2016).

Homeless youth have multiple and interrelated service needs to address these behavioral health problems, in addition to the immediate need for stable housing (Kelly and Caputo 2007). Drop-in centers are often a homeless youth's initial resource for services (Slesnick et al. 2008, 2016; Pergamit and Ernst 2010; Shillington, Bousman, and Clapp 2011), and these centers provide daytime shelter and basic need services such as food, hygiene, and clothing. Case management and other health, education, employment, and housing services may be offered as well, either on-site or through referrals (Beechinor and Matsushima 1997; Shillington, Bousman, and Clapp 2011), placing drop-in centers in a unique position to help engage youth in higher-level services to address behavioral health problems.

Despite the promise of drop-in centers to offer or refer youth to higher-level services, the use of such services is a self-initiated decision. Indeed, internal motivation was a key factor identified in focus group work with homeless youth that facilitated decisions to seek services at drop-in centers and elsewhere (Kozloff et al. 2013). With the exception of mandated treatments resulting from legal troubles, youth most likely must first perceive that they need a specific service to seek that service and ultimately receive it. This is particularly important for youth that meet screening criteria for behavioral health problems, as this represents an objective measure of whether a youth "needs" a specific service and could likely benefit from receipt of it. Although barriers to drop-in center use may preclude youth from engaging in needed services (see Pedersen, Tucker, and Kovalchik 2016 for review), little is known about what factors are associated with homeless youths's perceived need for services.

The Present Study

The present study was designed to provide further understanding of the service needs of homeless youth by examining their perceptions of need for services in four targeted areas: (1) housing; (2) mental health counseling, programs, or referrals (mental health services); (3) alcohol/drug counseling, programs, or referrals (alcohol/drug services); and (4) case management. We first examined the extent to which youth who screened positive for behavioral health problems perceived a need for these four types of services and, among those who perceived a need, the percentage of youth who reported receiving the service at a drop-in center. We then identified characteristics of homeless youth that were associated with their perceived need for these four types of services. We considered not only their “actual need” (i.e., screening positive for a behavioral health problem, experiencing victimization), but a range of other factors such as demographics and homelessness factors. In this study, we aimed to provide important information to help better design outreach efforts to reach those in need and tailor these efforts to help enroll those with a perceived need for services into those services.

METHODS

Participants and Procedures

Data were collected as part of a larger survey study to examine experiences of drop-in center service use among homeless youth. Homeless youth were eligible if they (1) were age 13–25; (2) were not currently living with, or getting most of their support for food and housing, from their family or a guardian; (3) had spent the previous night in a shelter, outdoor or public place, hotel or motel room rented with friends (because of no place else to go), or other place not intended as a domicile; and (4) had ever gone to a drop-in center (only 8 percent of screened youth were ineligible solely because they had never been to a drop-in center). Drop-in centers were defined as a place “where you can get some of the things that you need like clean clothes or a shower or different services.”

Youth were recruited from 10 street sites in two diverse regions of Los Angeles County with the largest concentrations of homeless youth, Hollywood and Venice/Santa Monica. Our previous work indicates that a sampling frame comprising these two regions captures 90 percent of the homeless youth population in Los Angeles County (Golinelli et al. 2014).

A total of 431 individuals were approached; of these, 13 refused to be screened, 140 were ineligible, and 278 were eligible and completed the survey. Our minimum target sample size of 200 afforded 80 percent power to detect small to medium effect sizes, assuming two-sided tests with probability of type I error equal to 0.05. During analysis, five individuals were determined to be repeaters; their second completed survey was dropped from analysis, resulting in a final analytic sample of $N = 273$. Eligible youth provided verbal consent to participate and were paid \$20 for completing a 30-minute survey. The research protocol was approved by RAND's institutional review board.

Measures

Demographics. Participants completed questions on age, biological sex, sexual orientation (straight/heterosexual, gay, lesbian, bisexual, questioning, asexual), and race/ethnicity [white (reference group), black/African American, Hispanic/Latino(a), Other/Multiracial].

Homelessness Severity. Participants indicated how long they had been homeless during the most recent period when they had not had a regular place to stay (which we converted into number of years) and whether they had slept outdoors in the past month (Tucker et al. 2015). We also classified youth by traveler status, with "traveler" defined as having stayed in at least two states outside of California (the state in which they were interviewed), with at least one of those states being a non-neighboring state to California (i.e., a state other than Arizona, Nevada, or Oregon) (Martino et al. 2011). Trouble meeting basic needs during the past 30 days was assessed with two items asking whether they had any problems getting (1) a clean and safe place to sleep for the night; or (2) enough food to eat (Koegel, Burnam, and Morton 1996; Gelberg, Andersen, and Leake 2000). Items were assessed as yes or no, and a sum of the two items was created for analyses.

Mental Health and Substance Use. To assess for current PTSD symptoms, participants first indicated if they had ever experienced something unusually or especially frightening, horrible, or traumatic (e.g., a serious accident or fire, physical or sexual assault or abuse), and if so, they completed the five-item Primary Care PTSD scale (PC-PTSD-5; Prins et al. 2016), with items related to past month symptoms of PTSD (e.g., been constantly on guard, watchful, or easily startled). Scores of 3 or higher on the PC-PTSD-5 indicated a positive PTSD screen. Participants received a score of 0 on the measure if they denied

ever experiencing a traumatic event. To assess for current depression symptoms, participants completed the eight-item Patient Health Questionnaire (PHQ-8; (Kroenke et al. 2009)) for symptoms of depression in the past 2 weeks (e.g., feeling down, depressed, or hopeless). Scores of 10 or higher indicated a positive screen for depression. To assess for current symptoms of a substance use disorder (SUD), participants completed the five-item substance use disorder screener of the Global Appraisal of Individual Needs (GAIN; Dennis, Chan, and Funk 2006) substance use scale for substance use problems related to alcohol or marijuana use. Participants indicated if they experienced each problem (e.g., used alcohol or marijuana weekly, experienced withdrawal) in the past month, year, or at some point prior to the past year. We coded this scale based on whether they had ever experienced the symptoms in the past month, with a score of 3 or more indicating a positive SUD screen. Participants also indicated if they had used drugs other than alcohol or marijuana (e.g., crack/cocaine, heroin, methamphetamines, prescription medicines to get high) in the past 30 days.

Violence and Victimization. Participants responded to items about previous physical or sexual abuse experienced while they were still living at home (Kort-Butler and Tyler 2012). They were asked if a parent, foster parent, relative, guardian, or any adult who was supposed to be taking care of them ever hit them with a fist or other object, beat them, kicked them, choked them, burned them, or did something similar to them (physical abuse; 1 item) or ever touched their private parts in a sexual way or made them do something sexual (sexual abuse; 1 item). If participants reported “yes” to the physical abuse item, they were coded as 1, and if they reported “no,” they were coded as 0. The same coding system was used for the sexual abuse item. Delinquency was measured with four items of verbal fights, physical fights, trouble with the police, and gone to jail or prison in the past 30 days, with response options ranging from not at all (0) to 20 or more times (5). A mean score was created for each participant for analyses. Physical victimization in the past month was indicated by a dichotomous score of 1 coding any yes response to at least one of four items such as been beaten up and been assaulted with a weapon (Kort-Butler and Tyler 2012). Sexual victimization in the past month was indicated by a dichotomous score of 1 coding any yes response to at least one of four items such as been forced to do something sexual and been sexually assaulted or raped. Denial of all four items in either factor was coded as 0. Lastly, participants indicated whether they had traded sex for food, shelter, money, or drugs, with response options of never, 1–3 months ago, 4–12 months ago,

and 1 or more years ago (Kort-Butler and Tyler 2012). The traded sex factor was coded as a dichotomous factor of ever having traded sex in their lifetime.

Perceived Need for Services and Receipt of Services

Based on the specific focus of the larger survey study to look at facilitators and barriers of drop-in center use, we created a measure of service use that was facilitated by the field interviewer once participants had completed the survey items indicated above. For each of the four targeted areas of service use (housing, mental health, alcohol/drug use, case management), participants were first asked whether they had needed that service since they had been living on their own. If they indicated they ever needed the service (perceived need), they were then asked whether they ever received that service at a drop-in center. If they stated they did not receive the service at a drop-in center, they indicated why they did not receive the service at a drop-in center, with one of the response options being "I got it somewhere else." Participants that reported both needing and receiving a particular service (at a drop-in center or, if not, from somewhere else) were coded as having received the service (receipt of service).

Analytic Plan

Survey weights were used to account for the probability of a participant being sampled and probability of response. Counts from site visits along with responses to the survey question: "In the past 30 days, how many days did you hang out in Hollywood [Venice/Santa Monica]?" (where the respondent could write in the exact number of days) were used to calculate the sampling probability. Weights were truncated at the median plus 4 times the interquartile range of the pretruncated weights (Chowdhury, Khare, and Wolter 2007; Potter and Zheng 2015).

Perceived need of services and receipt of services were dichotomous outcomes in all analyses. We first explored the demographics of the sample through descriptive statistics, as well as reported the percentage of participants who screened positive for each of the three targeted behavioral health problems (PTSD, depression, SUD). We next determined how many and what percentage of participants, who screened positive for each of these behavioral health problems, perceived a need for services in the four targeted areas. Next, among those within each behavioral health problem screening category who perceived a need for each service, we examined the number of and percentage

of youth who reported receiving the service at a drop-in center (or, if not at a drop-in, then receiving the service elsewhere).

In addition to these descriptive reports, we conducted a series of bivariate and multivariable models with the outcome of whether participants reported a perceived need for each of the four types of services. Perceived need was selected as the target outcome in these models over the receipt of care because perceiving a need for services is usually the first step in getting assistance. We conducted four logistic bivariate regression models for each service type that included (1) demographic factors (age, biological sex, sexual orientation, and race/ethnicity); (2) homelessness severity factors (years homeless, slept outdoors in the past month, traveler status, and competing needs in the past month); (3) mental health and substance use factors (PTSD screening, depression screening, alcohol or marijuana use-related SUD screening, and use of drugs other than alcohol and marijuana); and (4) violence and victimization factors (previous physical or sexual abuse experienced at home, delinquency, sexual or physical victimization in the past month, trading sex). For each type of service, we then conducted a logistic multivariable regression model of perceived need for the service. Given our sample size and concerns about multicollinearity of covariates, only variables found to be significantly associated ($p < .05$) in at least one of the bivariate models for perceived need for the service were included.

RESULTS

Sample Description

Table 1 contains the weighted sample demographics, including age, biological sex, sexual orientation, and race/ethnicity. Of note, participants in the sample were primarily male (71 percent) and of white (45 percent), black (20 percent), or Hispanic/Latino(a) (15 percent) race/ethnicity. Between approximately one-third and one-half of participants screened positive for each of the behavioral health problems: 39 percent for PTSD, 47 percent for depression, and 30 percent for an SUD.

Perceived Need of Services and Receipt of Services

Table 2 includes the *N*s and weighted percentage of participants that screened positive for PTSD, depression, or an SUD that then perceived a need for services from each of the four targeted area. Fifty percent of

Table 1: Sample Description

	<i>All Participants (N = 273) Weighted % or Mean (SD)</i>
Age	21.6 (1.5)
Female	29.4
Straight/heterosexual	65.0
Race/ethnicity	
Caucasian/white (reference group)	45.2
Black/African American	19.8
Hispanic/Latino(a)	14.9
Other/multiracial	20.1
Years homeless	5.9 (2.20)
Slept outdoors	79.8%
Traveler	32.4%
Trouble meeting basic needs (past month)	80.0%
Positive PTSD screen*	38.7%
Positive depression screen [†]	47.4%
Positive substance use disorder (SUD) screen [‡]	30.1%
Use of other drugs	38.8%
Physical abuse at home	50.4%
Sexual abuse at home	15.8%
Delinquency	1.7 (0.52)
Physical victimization (past month)	35.9%
Sexual victimization (past month)	21.1%
Traded sex (ever)	19.1%

Note. Data for some respondents were not available for race ($n = 2$), sexual orientation ($n = 5$), PTSD ($n = 2$), depression ($n = 1$), SUD ($n = 3$), other drug use ($n = 5$), years homeless ($n = 1$), abuse at home ($n = 4$), trouble finding a place to eat or sleep ($n = 6$), delinquency (1), victimization ($n = 9$), and traded sex ($n = 3$).

*Score of 3 or higher on the Primary Care Posttraumatic Stress Disorder measure (PC-PTSD), past month.

[†]Score of 10 or higher on the Patient Health Questionnaire-8 (PHQ-8), past 2 weeks.

[‡]Score of 3 or higher on the Global Appraisal of Individual Needs (GAIN) substance use disorder screener, past month use.

those who screened positive for PTSD and 47 percent of those who screened positive for depression perceived a need for mental health services. Thirty-two percent of those who screened positive for an SUD perceived a need for alcohol/drug services. The majority of those with these positive screens also perceived a need for housing or case management services. For example, there was a range of 62 percent for those with positive SUD screens to 70 percent for those with positive depression screens for perceived need for housing services, and a range of 55 percent for those with positive PTSD screens to 62 percent for those with positive depression screens for perceived need of case management.

Table 2: Perceived and Received Need of Care for Housing, Mental Health, Substance Use, and Case Management Services among Youth with Positive Screens for Behavioral Health Problems

	Housing		Mental Health Counseling, Programs, or Referrals		Alcohol/Drug Counseling, Programs, or Referrals		Case Management	
	Perceived Need for Services*	Received Services†	Perceived Need for Services*	Received Services†	Perceived Need for Services*	Received Services†	Perceived Need for Services*	Received Services†
Posttraumatic stress disorder (past month)								
Positive screen for PTSD (N = 99/39%)	66 (67%)	Drop-in: 45 (61%) Elsewhere: 3 (2%) Total: 48 (63%)	47 (50%)	Drop-in: 33 (70%) Elsewhere: 7 (6%) Total: 40 (76%)	26 (27%)	Drop-in: 16 (43%) Elsewhere: 1 (1%) Total: 17 (44%)	56 (55%)	Drop-in: 47 (78%) Elsewhere: 4 (3%) Total: 51 (81%)
Depression (past 2 weeks)								
Positive screen for depression (N = 119/47%)	88 (70%)	Drop-in: 59 (64%) Elsewhere: 6 (3%) Total: 65 (67%)	58 (47%)	Drop-in: 38 (67%) Elsewhere: 9 (11%) Total: 47 (78%)	37 (27%)	Drop-in: 22 (48%) Elsewhere: 3 (4%) Total: 25 (52%)	73 (62%)	Drop-in: 60 (77%) Elsewhere: 2 (2%) Total: 62 (78%)
Substance use disorder (past month)								
Positive screen for SUD (N = 83/30%)	55 (62%)	Drop-in: 38 (53%) Elsewhere: 4 (4%) Total: 42 (57%)	41 (50%)	Drop-in: 29 (61%) Elsewhere: 6 (11%) Total: 35 (72%)	25 (32%)	Drop-in: 17 (48%) Elsewhere: 2 (9%) Total: 19 (57%)	50 (60%)	Drop-in: 42 (62%) Elsewhere: 1 (2%) Total: 43 (64%)

Note. All percentages reported in this table are based on the weighted sample, while Ns are unweighted. Ns and percentages in the first column are unstricted and include the full sample with the exception of participants that left screening items blank.
*“Perceived need of services” column represents total N and the percent of all participants that screened positive for each behavioral health problem within that row.
†“Received services” column represents total N and the percent of participants among those who also indicated they perceived a need for that service (e.g., 63% of those who screened positive for PTSD who perceived a need for housing services reported receiving housing services: 61% from a drop-in center and 2% from somewhere else).

Also included in Table 2 are the Ns and weighted percentages of those with positive screens for behavioral health problems who perceived a need for care that also reported receiving such care at a drop-in center (or, if not at a drop-in, then receiving it elsewhere). It was typically the case for housing, mental health, and case management services that the majority who perceived a need for a specific service also reported receiving that service. Furthermore, for each type of service, the vast majority of youth who reported receiving the service indicated that they had done so at a drop-in center. For example, among those who screened positive for PTSD and perceived a need for mental health services, 70 percent reported receiving such services at a drop-in center and 6 percent elsewhere. Of those who screened positive for depression and perceived a need for mental health services, 67 percent reported receiving such services at a drop-in center and 11 percent elsewhere. The total percentage who reported receiving services among participants screening positive for the three behavioral health concerns ranged from over half (57 percent for those screening positive for an SUD who perceived a need for housing services) to over four-fifths (81 percent for those screening positive for PTSD who perceived a need for case management services). However, about half or less of participants screening positive for one of the three behavioral health concerns who perceived a need for alcohol/drug services reported receipt of such services (range 44 percent for those screening for PTSD to 57 percent for those screening positive for an SUD). As with mental health services, the majority of youth who reported receiving needed alcohol/drug services had done so through a drop-in center.

Models for Perceived Need of Services

Bivariate models revealed a number of significant findings for each of the four types of services (see Table 3). For housing services, youth were more likely to perceive a need for services if they were black (vs. white), screened positive for depression, or had ever traded sex; youth were less likely to perceive a need for housing services if they were a traveler. In terms of mental health services, youth who were travelers were less likely to perceive a need for services, and those who reported sexual abuse while still living at home were more likely to perceive a need for services. Regarding alcohol/drug services, black youth were less likely to perceive a need for services than white youth. Youth were more likely to perceive a need for alcohol/drug services if they had trouble meeting their basic needs for food and a place to sleep; screened positive for PTSD, depression, or SUD; currently used drugs other than alcohol or

Table 3: Bivariate Models of the Associations between Youth Characteristics and Perceived Need for Each Type of Service

<i>Characteristic</i>	<i>Housing (n = 272) OR (95% CI)</i>	<i>Mental Health Counseling, Programs, or Referrals (n = 271) OR (95% CI)</i>	<i>Alcohol/Drug Counseling, Programs, or Referrals (n = 272) OR (95% CI)</i>	<i>Case Management (n = 272) OR (95% CI)</i>
Age	1.16 (0.99, 1.36)	1.13 (0.96, 1.34)	1.03 (0.84, 1.27)	1.08 (0.92, 1.26)
Female	0.84 (0.38, 1.86)	1.10 (0.49, 2.46)	1.35 (0.51, 3.57)	0.98 (0.44, 2.18)
Not heterosexual	2.12 (0.98, 4.59)	2.01 (0.94, 4.28)	1.73 (0.69, 4.33)	1.38 (0.65, 2.94)
Black/African American	2.68 (1.04, 6.91)	0.65 (0.26, 1.65)	0.19 (0.06, 0.64)	2.91 (1.14, 7.39)
Hispanic/Latino(a)	2.67 (0.83, 8.59)	1.34 (0.48, 3.74)	1.27 (0.39, 4.13)	3.68 (1.25, 10.85)
Other race	0.95 (0.36, 2.46)	0.46 (0.17, 1.27)	0.99 (0.31, 3.21)	1.39 (0.53, 3.63)
Years homeless	1.04 (0.94, 1.15)	1.06 (0.95, 1.17)	0.98 (0.84, 1.14)	0.96 (0.87, 1.06)
Slept outdoors	1.07 (0.43, 2.69)	1.52 (0.62, 3.74)	1.04 (0.32, 3.35)	1.57 (0.64, 3.85)
Traveler	0.34 (0.16, 0.72)	0.41 (0.17, 0.94)	0.50 (0.18, 1.41)	0.30 (0.14, 0.65)
Trouble meeting basic needs (past month)	1.23 (0.77, 1.96)	1.12 (0.69, 1.81)	2.38 (1.34, 4.24)	1.20 (0.76, 1.90)
PTSD	2.05 (0.96, 4.38)	2.08 (0.98, 4.39)	2.56 (1.07, 6.12)	0.95 (0.46, 1.99)
Depression	2.87 (1.35, 6.10)	1.83 (0.88, 3.82)	3.24 (1.33, 7.90)	1.69 (0.83, 3.45)
Substance use disorder	1.32 (0.60, 2.91)	1.79 (0.82, 3.90)	3.39 (1.38, 8.35)	1.26 (0.53, 2.73)
Use of other drugs	1.05 (0.51, 2.17)	1.01 (0.48, 2.13)	3.29 (1.32, 8.18)	1.26 (0.61, 2.61)
Physical abuse at home	1.12 (0.55, 2.29)	1.92 (0.92, 4.00)	2.58 (1.06, 6.26)	1.53 (0.75, 3.13)
Sexual abuse at home	1.13 (0.39, 3.21)	3.32 (1.17, 9.43)	1.17 (0.36, 3.79)	5.19 (2.00, 13.50)
Delinquency	1.31 (0.89, 2.09)	1.16 (0.76, 1.77)	2.60 (1.62, 4.16)	1.35 (0.85, 2.16)
Physical victimization (past month)	1.09 (0.51, 2.33)	0.89 (0.41, 1.90)	4.58 (1.91, 11.00)	0.93 (0.44, 1.95)
Sexual victimization (past month)	0.66 (0.27, 1.61)	0.72 (0.29, 1.76)	1.02 (0.37, 2.84)	0.70 (0.29, 1.69)
Traded sex	5.68 (2.13, 15.12)	1.39 (0.55, 3.53)	2.87 (1.03, 8.05)	2.53 (0.99, 6.47)

Note. ORs significant at $p < .05$ are bolded.
CI, confidence interval; OR, odds ratio.

marijuana; had experienced physical abuse while at home or physical victimization in the past month, reported delinquency, or had ever traded sex. Finally, a perceived need for case management was more likely among youth who were black or Hispanic (vs. white) and among those who reported sexual

Table 4: Multivariable Models of the Associations between Youth Characteristics and Perceived Need for Each Type of Service

<i>Characteristic</i>	<i>Housing (n = 272) OR (95% CI)</i>	<i>Mental Health Counseling, Programs, or Referrals (n = 271) OR (95% CI)</i>	<i>Alcohol/Drug Counseling, Programs, or Referrals (n = 272) OR (95% CI)</i>	<i>Case Management (n = 272) OR (95% CI)</i>
Black/African American	3.17 (1.08, 9.27)	0.64 (0.25, 1.63)	0.31 (0.07, 1.34)	3.28 (1.07, 10.07)
Hispanic/Latino(a)	2.52 (0.75, 8.48)	1.09 (0.37, 3.21)	1.04 (0.29, 3.75)	3.05 (1.08, 8.59)
Other race	0.86 (0.33, 2.29)	0.38 (0.12, 1.15)	1.52 (0.47, 4.84)	1.34 (0.55, 3.24)
Traveler	0.38 (0.16, 0.87)	0.41 (0.16, 1.04)	0.44 (0.16, 1.17)	0.26 (0.12, 0.58)
Trouble meeting basic needs (past month)	0.95 (0.56, 1.60)	0.92 (0.52, 1.62)	2.07 (1.02, 4.18)	1.15 (0.70, 1.90)
PTSD	1.51 (0.65, 3.51)	1.20 (0.50, 2.87)	1.19 (0.43, 3.32)	0.50 (0.22, 1.15)
Depression	2.05 (0.91, 4.60)	1.58 (0.69, 3.63)	1.36 (0.48, 3.82)	1.40 (0.65, 2.99)
Substance use disorder	1.05 (0.44, 2.48)	1.56 (0.67, 3.65)	2.03 (0.81, 5.10)	1.02 (0.46, 2.24)
Use of other drugs	0.91 (0.39, 2.15)	0.81 (0.35, 1.87)	2.23 (0.89, 5.60)	1.14 (0.51, 2.55)
Physical abuse at home	1.23 (0.48, 3.14)	1.21 (0.50, 2.88)	2.20 (0.73, 6.62)	1.69 (0.76, 3.77)
Sexual abuse at home	0.87 (0.26, 2.88)	3.04 (0.98, 9.43)	0.47 (0.14, 1.52)	5.64 (1.64, 19.43)
Delinquency	1.35 (0.80, 2.29)	1.09 (0.65, 1.85)	1.96 (1.16, 3.30)	1.22 (0.64, 2.32)
Physical victimization (past month)	1.02 (0.44, 2.36)	0.69 (0.28, 1.69)	2.71 (1.14, 6.43)	0.90 (0.41, 1.99)
Traded sex	5.35 (1.81, 15.79)	1.40 (0.46, 4.28)	3.56 (1.08, 11.69)	2.88 (1.09, 7.61)

Note. Variable was included in the multivariable model if it was significant at the bivariate level for any of the four service types. ORs significant at $p < .05$ are bolded.
CI, confidence interval; OR, odds ratio.

abuse while still living at home, but less likely among those who were travelers.

In the multivariable model for each of the four types of services, a number of bivariate associations remained significant when controlling for all other factors (see Table 4). For housing services, youth remained more likely to perceive a need for services if they were black (vs. white) or had ever traded sex. Youth were less likely to perceive a need for housing services if they were a traveler. Depression was no longer significantly associated with perceived need for housing services in the multivariate model. For mental health services, the only two significant bivariate associations (traveler and sexual abuse

at home) were no longer significant in the multivariable model. For alcohol/drug services, four variables remained significantly associated with perceived need after controlling for other factors: having trouble meeting their basic needs, greater involvement in delinquency, physical victimization in the past month, and ever trading sex. When controlling for other factors, race/ethnicity, screening positive for mental health or SUD, other drug use, and physical abuse at home were no longer significant correlates of perceived need for alcohol/drug services. Finally, a perceived need for case management remained significantly more likely among youth who were black or Hispanic (vs. white) and who reported sexual abuse at home, but less likely among those who were travelers. Trading sex emerged as a significant correlate of perceived need for case management in the multivariable model.

DISCUSSION

This study was designed to examine perceived need and receipt of services among homeless youth in four targeted service use areas: housing, mental health, alcohol/drug use, and case management. Given high rates of behavioral health problems among homeless youth (Huba et al. 2000; Robertson 2004; Wenzel et al. 2010; Nyamathi et al. 2012; Tucker et al. 2012; Bender et al. 2015), as expected, about one-third to half of all homeless youth participants met criteria for behavioral health problems (i.e., 39 percent PTSD, 47 percent depression, 30 percent SUD). However, half or less of participants that screened positive for these problems perceived a need for services targeting the problems. These findings suggest homeless youth with behavioral health problems may not recognize they could benefit from services to address their problems. This could be because their problems are not perceived as bothersome or because they do not know services are available; regardless, those who do not perceive a need for care are likely to never pursue it and therefore never receive services they may benefit from. Outreach efforts and targeted campaigns to demonstrate the value of service use appear necessary so that youth can see that they may benefit from additional services to target mental health symptoms and substance use problems.

About three-quarters of homeless youth that met criteria for PTSD or depression and perceived a need for mental health care also reported receiving that care, with the vast majority receiving these services at a drop-in center. However, among those who reported a need for alcohol/drug services, the percentage who reported receiving such services was much lower (57 percent

overall, 48 percent at a drop-in center). This is particularly concerning given that only one-third of those meeting criteria for an SUD reported a need for care. It underscores the finding in the general population that young people are resistant to seeking alcohol/drug services (Wu et al. 2007; Blanco et al. 2008).

In general, homeless youth with any of the behavioral health problems were more likely to perceive a need for housing or case management services than for mental health services or alcohol/drug services. For example, only 32 percent of those screening positive for SUDs perceived a need for alcohol/drug services, but 60 percent perceived a need for case management and 62 percent perceived a need for housing. This is possibly due to youth desiring to get their basic and most pressing needs met first; for example, securing housing or having a case manager assists them with finding a job or handling legal troubles. It is also possibly due to perceived stigma around pursuing mental health or substance use care, lack of availability of these services at drop-in centers or other agencies youth attend, or knowledge that such services are even available to them. If youth with behavioral health problems are willing to seek services for housing and case management, staff in charge of housing placement and case managers may want to capitalize on opportunistic meetings with youth to offer them higher-level services to address their behavioral health problems. These staff should be attuned to identify/assess behavioral health problems as youth may present to them for ostensibly other needs when they may also benefit from other high-level services.

Beyond the descriptive findings, multivariate regression analyses revealed that, after controlling for a number of factors that were significant in bivariate analyses, none of the behavioral health problems were associated with perceived need for care in any of the four targeted service areas. Also, none of the other factors in the multivariable model for mental health services were associated with perceived need for care after controlling for significant bivariate factors. These findings underscore the idea that better outreach is needed to engage those with behavioral health problems into higher-level services by explaining the benefits of care. These outreach efforts are needed, particularly in drop-in centers where most youth will first be exposed to higher-level care offerings. Funding is needed to ensure that adequate and quality higher-level services are available at drop-in centers or that appropriate referrals can be made to agencies, hospitals, and other service centers that youth can quickly access.

Although behavioral health problems were not associated with perceived need for services, when controlling for other factors,

black/African American youth were more likely to perceive a need for housing services and case management. Hispanic/Latino(a) youth were also more likely to perceive a need for case management. Such youth may be in high need and also may be agreeable to pursue offered services. For example, black/African American youth and adults in the general population are less likely to have SUDs and depression than white youth and young adults; they are also less likely to receive treatment than white youth and young adults (Breland-Noble 2004; Center for Behavioral Health Statistics and Quality 2016). However, perceived need for services and actual need for services are both predictors of service use among black/African American youth (Assari and Caldwell 2017). Perhaps for minority youth (compared to white youth), consequences of mental health and substance use problems are more severe even at similar levels of use (D'Amico et al. 2016) and therefore they are more likely to recognize a need for help. Nevertheless, targeted outreach efforts may also be beneficial to youth outside of these demographic categories to engage them in service use and highlight how services could be valuable to them if pursued.

Other factors beyond race/ethnicity were associated with different areas of service use. For housing services, youth who trade sex may be more likely to perceive a need for housing because they are often trading sex for a place to sleep/stay. Youth who are travelers are less likely to perceive a need for housing because they are less interested in setting down roots—by definition, they are a more transient group that is moving around a lot. They are different from youth who are homeless because they ran away, were kicked out, or aged out of foster care and are looking for a more stable living situation. For alcohol/drug services, there appeared to be more perceived need for these services among those who are experiencing negative consequences that are likely attributed directly to alcohol and other drug use—trouble meeting their basic needs, getting into fights, getting into trouble with the police, being physically victimized on the street, and trading sex. It is possible these youth recognize a need for services because of these negative effects. For case management, a perceived need was more likely among youth who reported experiencing sexual abuse at home and those who were trading sex. These groups are probably among the most severe and in need for services; they are likely dealing with psychological effects of the abuse and have resorted to using sex to survive on the streets. In contrast, travelers were less likely to perceive a need for case management, perhaps because they are not in one place long enough to invest in higher-level services.

Limitations

The key limitation of our study is that we assessed receipt of care and barriers to receiving care solely using self-reported survey responses. As the larger function of the study was to examine youth's experiences using drop-in centers, only youth who had used drop-in center services at some point in their life were eligible. Although only 8 percent of screened youth were ineligible solely because they had never used drop-in center services, it is possible that findings would have differed for this more service-disengaged group of youth. Indeed, outreach efforts targeting youth who do not use drop-in centers have successfully engaged youth in services (Slesnick et al. 2016). Another limitation is the receipt of services elsewhere (besides a drop-in center) was only asked of youth who reported needing the service, but denied receiving it at a drop-in center. It is unknown whether participants received services elsewhere in addition to services at a drop-in center. Lastly, we only asked about receipt of services among those who perceived a need for care; thus, it is possible that some youth received care despite feeling they did not need it (e.g., mandated group counseling after a drug-related offense).

CONCLUSION

This study helps to identify factors that are associated with perceived need of housing, mental health, alcohol/drug use, and case management services among homeless youth. It also highlights the important role of drop-in centers in providing needed behavioral health services to homeless youth. This information can be used to develop outreach and intervention efforts to reach these youth and help them receive needed care.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix SA1: Author Matrix.