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Correlates of Depressive Symptoms among Homeless Young Adults

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Abstract

Adolescent homelessness has received increasing attention due to its fast growth throughout the United States and the poor mental outcomes experienced by homeless young people. This cross-sectional study ($N = 156$) identified correlates of depressive symptomatology among homeless young adults and investigated how depressive symptoms are influenced by the coping strategies these young adults employ. The findings are based on analysis of baseline data collected for a hepatitis vaccination intervention pilot study conducted in partnership with a young adult's drop-in center in Santa Monica, California. Standardized tools assessed drug use history, coping ability, and psychiatric symptomatology. Linear regression modeling was used to identify correlates of depressive symptom severity. Poor perceived physical health, recent crack cocaine use and recent use of tranquilizers were significantly associated with increased severity of depressive symptoms. Self-destructive escape, non-disclosure/avoidance, passive problem-solving and thoughts of harming self were also associated with increased severity of depressive symptoms.

Keywords

Young adults; Homeless; Depressive Symptoms; Coping; Mental Health

The transition from adolescence to adulthood is in general, a difficult phase riddled with challenging physical, mental, and social changes (Park, Kim, Kim & Sung, 2007; Votta & Manion, 2004). For homeless young adults, the difficulty of this transition is compounded by lack of financial, psychological, and social support, exposure to violence and crime, and resulting mental health issues (Moore, 2005). It is estimated that between 500,000 to 2 million young adults are homeless each year within the U.S. (Bantchevska, Bartle-Haring, Dashora, Glebova & Slesnick, 2008; Bucher, 2008) and that over 7% of adolescents have been homeless at some time in the previous year (Ringwalt, Greene, Robertson, & McPheeters, 1998) As a population, they have been found to be at high risk for a wide range of mental health conditions including depression, conduct disorder, post-traumatic stress disorder (PTSD) and psychotic symptoms (Kidd, 2006; National Coalition for the Homeless, 2008; Nyamathi et al., 2005).

How these young adults cope with the compounded stressors of homelessness and adolescence has a significant impact on their mental and physical health and health-risk behaviors. Among adolescents, poor coping abilities have been associated with psychological distress and suicide attempts, substance use, and high-risk sexual behaviors (Rew et al., 2008, Ireland, Boustead & Ireland, 2005). If service providers are better able to

predict and identify maladaptive coping strategies among homeless young adults, perhaps they can more effectively intervene to improve coping skills. Improved coping skills may result in the young adults perceiving and reacting to stressors in less harmful ways (Garcia, 2010; Busen, & Engebretson, 2008).

A Population at High Risk

Homeless young adults face a stressful existence and nearly constant stigma. They are isolated from family support networks and may not have enough to eat or a safe place to sleep at night. Many have experienced sexual, physical or emotional abuse (Kidd & Carroll, 2007), death of a parent and/or shelter placement (Ayerst, 1999). Coping strategies thus play an important role in their psychological adjustment. Poor coping skills can forecast future psychological problems (Votta & Farrell, 2009). Some homeless adolescents who disengage as a way to cope with trauma have been found to have higher suicidal and injurious behaviors, depressive symptoms (Votta & Manion, 2004), behavioral problems like self-mutilation (Mallon & Hess, 2005; Tyler, Whitbeck, Hoyt, & Johnson, 2003). Thus, a relationship between coping strategies, mental health and behavioral outcomes has been established (Kidd & Carroll, 2007; Votta & Farrell, 2009; Votta & Manion, 2003).

Mental Health, substance use and social support networks are factors in the lives of homeless adolescents that have been shown to be associated with susceptibility to health disparities and mental health outcomes that are influenced by coping strategies. It is estimated that 20% of teens will experience teen depression before they reach adulthood and that about 5% of teens are suffering from major depression at any one time (SAMHSA, 2010). Among homeless adolescents, rates of depressive symptoms are very high, with rates of clinical depression ranging from 29% to 83.6% (Unger, Kipke, Simon, Montgomery, & Johnson, 1997; Van Leeuwen et al., 2004).

Substance use among homeless young adults is frequently mediated by poor coping skills and depression. For many homeless young adults, substance use is perceived as “self medication” to cope with mental health problems (Christiani, Hudson, Nyamathi, Mutere, & Sweat, 2008). Compared to their non-homeless counterparts, homeless young adults use substances earlier and with greater frequency (Barczyk & Thompson, 2008; Meade, Slesnick & Tonigan, 2001; Nyamathi et al., 2007; Park et al., 2007). Positive associations between substance use and poor mental health status have been found among adolescent homeless populations (Ayerst, 1999; Van Leeuwen et al., 2004, Merscham, Van Leeuwen, & McGuire, 2009).

Previous studies (Stein, Dixon & Nyamathi, 2008) have found that social support is predictive of less emotional distress and more positive coping among homeless adults. In order to cope with the lack of family and social supports in their lives, homeless adolescents frequently rely on peer support networks. Peer support has been found to reduce stress and ameliorate depressive symptoms (Bao, Whitbeck, & Hoyt, 2000; Zhang & Fogarty, 2007). Low levels of support or conflict with family support networks are frequently associated with posttraumatic stress symptoms and depression in homeless young adults (Meade & Slesnick, 2002; Thompson, Maccio, Desselle, & Zittel-Palamara, 2007; Votta & Manion, 2003; Whitbeck, Hoyt, & Bao, 2000). However, the peer networks homeless young adults engage with young adults may put them at risk for mental health problems. Homeless young adults tend to gravitate to other homeless young adults for support because of lack of connections with mainstream society (Unger, Kipke, Simon, Johnson, Montgomery & Iverson, 1998). These ‘street family’ supports entrench the young adults further in the street lifestyle, including engaging in substance use and participating in high-risk sexual activity (Higgitt, Wingert, & Ristock, 2003; McCreary Centre Society, 2002, Solorio et al., 2008);

behaviors that can put homeless young adults at high risk of mental illness (Harper, Davidson, & Hosek, 2008).

Purpose

The purpose of this study is to build on the body of evidence concerning correlates of depressive symptomatology among homeless young adults. Specifically, we were interested in assessing the impact of coping style on homeless young adults' depressive symptomatology. A better understanding of the role of coping in homeless young adults' psychological adjustment may identify potential interventions to improve the mental health status of this disadvantaged population.

Theoretical Framework

The Comprehensive Health Seeking and Coping Paradigm (CHSCP) (Nyamathi, 1989) served as the theoretical framework used to guide the study in relation to health seeking and coping behaviors. Originally adapted from Lazarus and Folkman's (1984) stress and coping paradigm and Schlotfeldt's (1981) health seeking paradigm, CHSCP outlines factors in the lives of vulnerable populations which may be associated with susceptibility to health disparities. These include sociodemographic, situational, and personal characteristics associated with health disparities, as well as physical health, social resources, social support, and coping responses.

Among homeless young adults, pertinent sociodemographic factors leading to health disparity may include the young age, homeless status, and lack of education. Poor health seeking behaviors, and perceived physical and mental health, and coping strategies, including use of drugs and alcohol as well can impact long-term impact of homeless young adults.

Methods

This cross-sectional study of young, homeless drug users draws upon baseline data collected between February 2009 and July 2009 for a pilot study promoting hepatitis A and B vaccination among homeless young adults. The young adults were recruited from a drop-in agency in Santa Monica, California. The HAV/HBV vaccination series was offered to all young adult participants who did not already test positive for HBV antibodies. The UCLA Human Subjects Protection Committee approved the study design.

Participants and Setting

Eligibility for the larger study included: a) being homeless, defined as having spent the previous night in a shelter, hotel, motel, car, or abandoned building; in the home of a friend and being uncertain about residence in the next 60 days, or having been on the streets or other outside environment; b) aged 15–25 years; and c) actively engaged in drug use for the last six months. Active drug use was considered an important eligibility requirement as active users would know best how to design messages related to prevention or cessation of drug use for their peers. A convenience sample of 156 homeless young adults who met eligibility criteria were enrolled in the study. All participants were recruited from a drop-in site in Santa Monica that served homeless young adults.

Procedure

Meetings of study members, including a community advisory board (CAB) comprised of homeless young adults, faculty of California Institute of the Arts (CalArts), a staff representative of the drop-in site, and the study investigators and research staff, preceded all

data collection activities. The CAB refined the semi-structured interview guide (SSIG), which directed the conduct of extensive focus groups (Nyamathi et al., under review) and led to the final design of the Art Messaging intervention. The research staff, consisting of a nurse and outreach workers who were later joined by the CalArts faculty, were all trained extensively in study design and administration of instruments prior to the onset of the study.

Flyers that were designed for this study by homeless young adults who frequented the drop-in site featured an artistic front followed by the standard Institutional Review Board (IRB) language on the back. These flyers were designed to capture the attention of potential homeless young adults' participants. Following posting of the flyers in the local area, interested homeless young adults gathered at the drop-in site and research staff discussed the study and for those interested, assisted them in signing of informed consent.

Following written informed consent allowing screening for determination of eligibility criteria, research staff conducted the brief eligibility assessment that elicited information about demographic characteristics, Texas Christian University (TCU) Drug Screener information (Simpson & Chatham, 1995), homeless status, and eligibility for the hepatitis B vaccination. Eligible and interested persons then signed a second informed consent to enroll in the study and were administered a baseline questionnaire by the research staff. All participants were paid \$10 for completion of the screener and baseline questionnaire and were subsequently randomized into intervention and control groups. Further details of the design of the parent study can be found in a previously published article (Nyamathi et al., 2009).

Measures

The instruments and items described below have been previously tested, modified, and validated for homeless populations. Socio-demographic variables collected at baseline included age, ethnicity, gender, education, religion, intimate partnership, sexual partner history, homeless history and foster care history. Dangerous sexual encounters were assessed by an item asking about trading sex for money.

Drug and alcohol use was measured by the TCU Drug History Form (Simpson & Chatham, 1995). This questionnaire has been tested with drug-using homeless adults (Nyamathi et al., 2006); it records the lifetime and current (within the last six months) use of 16 drugs used by injection, intradermally and orally. Drugs assessed were heroin, street methadone, other opiates, cocaine, crack, methamphetamine and other amphetamines, inhalants, marijuana/hashish, hallucinogens, tranquilizers, barbiturates, other sedatives, designer drugs and alcohol. An item assessing use of nicotine was added to the questionnaire.

Social Support was measured by an item that inquired about whether social support came primarily from drug or alcohol users, non-substance users, or equally from substance and non-substance users or whether there was no social support.

Coping with recent stressful events, adapted by Murphy et al. (2003) for young adults, consists of 37 items rated on a five-point Likert scale. Seven subscale scores are calculated: self destructive escape, passive problem solving, positive action, spiritual hope, depression/withdrawal, social support and nondisclosure/problem avoidance.

Specifically, items from the reduced Murphy et al. (2003) subscales were first examined for internal consistency, as measured by Cronbach's alpha. If a single item resulted in poor reliability ($< .50$) (Waltz & Bausell, 1981) for a subscale in this sample, that item was dropped. This procedure yielded 4 subscales with acceptable reliability: self-destructive escape, including reducing tension by drinking, using drugs, or smoking more than usual

(alpha = .70); non-disclosure/avoidance, including keeping feelings to self and refusing to think about problems (alpha = .66); positive action, including thinking about what is really important and getting life together (alpha = .57); and passive problem-solving, including understanding sources of problems, seeking cheer from others, daydreaming and going over problems (alpha = .55). Three additional coping strategies, social support, spiritual hope and withdrawal were represented by the single items “went to a support group,” “trusted belief in God” and “planned ways to injure self”, respectively.

Reliability coefficients range from .65 to .87 for young adults. For this study, an 18-item instrument was constructed to reduce response burden. At least one item from each of the seven subscales was retained.

The outcome measure, depressive symptoms, was measured with the CES-D Depression Scale (CES-D) (Radloff, 1977). The CES-D is a weighted sum score of number of depressive symptoms. It consists of 20 items, with 4 phrased in reverse order. Each item elicits information about a symptom of depression, e.g., feeling downhearted and blue – and asks how often respondents have recently experienced that symptom. Responses vary from 0 “none of the time” to 3 “most of the time.” For the general population, a score of 16 or higher suggests a need for psychiatric evaluation (Radloff, 1977; Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977). For youth and young adults, a score of 12 for males and 22 for females may suggest a similar need (Garrison, Addy, Jackson, McKeown & Waller, 1991). We left the measures as continuous for this study since cutpoints for youth are less well established. No particular meaning is attached to a given score; scores just measure depressive symptomatology on a continuum from 0 to 60. Among a homeless young adult population, Cronbach’s alphas for the measure were .87 and .90 for boys and girls, respectively (Whitbeck et al., 2000). In this study, reliability for the CES-D was .91.

Data Analysis

Unadjusted associations of severity of depressive symptoms with sociodemographic, physical health and behavioral measures were examined with two-sample t tests and analysis of variance, followed by Duncan’s multiple range tests. The relationships between severity of depressive symptoms and coping strategies were assessed as well as correlations between the coping strategies and severity of depressive symptoms.

Because of the large number of correlates, stepwise backward linear regression modeling was used to assess independent associations between severity of depressive symptoms and socio-demographic, health, coping and behavioral measures. Variables that were related to depressive symptoms at the .15 level in unadjusted analyses were included in the initial model. The .10 level was used for retention. Findings were confirmed with stepwise forward analysis. Tolerances for the parameter estimates were examined to assure that multicollinearity was not a problem; influence statistics indicated that no persons were unduly influential. A similar analysis was performed excluding self-destructive escape to assess the effect of specific drug use in the absence of using substances as a coping mechanism. Analyses were conducted using SAS version 1.3.

Stepwise selection of variables can lead to spurious inclusion/exclusion of variables since the selection at each step is based on partial correlations. If two “independent” variables are more highly correlated with each other than they are with the outcome, stepwise selection will likely only include one of them in a model, leaving the impression that the other is unimportant. However, when stepwise forward and backward techniques arrive at the same model, one can have more confidence in the legitimacy of that model. The CHSCP framework guided the selection of variables examined for associations with severity of depressive symptoms. Statistics then assumed a more prominent role. However, variables

that were related to depressive symptoms at the 0.15 level were given an opportunity to be in the regression model, allowing those with relatively low unadjusted associations to be among the final set of predictors if they were theoretically important and they had relatively high adjusted associations with depressive symptoms. Self destructive escape was excluded from a parallel set of analyses since it primarily reflects coping via drug use and we wanted to determine whether use of one or more individual drugs was an important correlate of depressive symptom severity.

Results

Sociodemographic Characteristics

The average age of the young adult sample was 21.2 years (*SD*: 2.4) and their median length of homelessness was 1.5 years. They had an average of 11.6 years of education (*SD*: 1.8). Depressive symptoms in the sample were noteworthy: young adults had an average CES-D score of 18.5 (*SD*: 12.3), and over half (52.6%) had scores of 16 or more, and one-third (33.3%) had CES-D scores of 24 or more. Characteristics of the study cohort are shown in Table 1. In this young homeless sample, 74% were male and almost four-fifths were less than 24 years old. Slightly over half were white; African Americans, Hispanics and young adults of mixed or other ethnicities completed the sample in roughly equal proportions. A majority (60%) reported a high school education or equivalent, 41% reported an intimate partner and over half had been homeless for at least one year. Almost one-fifth reported fair or poor physical health. Fifty-five percent of the sample reported faith in God and more than one-fourth said they had been in foster care. Over two-thirds disclosed having spent time in juvenile hall, jail or prison.

Substance use was common, as was social support from alcohol and drug users. More than four-fifths smoked and only 9 had not used marijuana in the past 6 months. Past 6-month binge drinking, use of cocaine and use of methamphetamine were reported by 62%, 24% and 33% of participants, respectively. Over one-fourth of the sample reported 20 or more lifetime sex partners. Although not shown in Table 1, many participants with problems expressed interest in treatment. For example, over two-thirds (69.2%) of those with CES-D scores of 24 or more wanted mental health treatment. Moreover, 75% of those in poor health and 42% of those in fair health wanted physical health treatment, while 45% of those who had used cocaine and methamphetamine in the past 6 months wanted treatment for their drug problems.

Relationships with Depressive Symptoms

Sociodemographic characteristics were not found to be significantly associated with severity of depressive symptoms in unadjusted analyses (Table 2), although weak associations were found for having an intimate partner and social support. In particular, the mean severity of depressive symptoms was numerically greatest for young adults whose social support came primarily from alcohol and drug users, although no significant differences were found. Physical health status was strongly associated with severity of depressive symptoms, with those reporting fair/poor health averaging greater depressive severity than those reporting good or very good/excellent health ($p < .05$). In terms of recent substance use, depressive symptoms were not associated with recent use of serious drugs, like cocaine and hallucinogens, injection drug use, binge drinking, or the measures of sexual activity. However, depressive symptom severity was associated with recent crack use and use of tranquilizers.

Several coping strategies proved to be important in correlation analyses. Self-destructive escape, non-disclosure/avoidance, passive problem-solving and thoughts of harming self

were all related to severity of depressive symptoms ($r = 0.49, 0.43, 0.39$ and 0.36 , respectively; all $p < .001$).

Multivariate Findings

Results of linear regression modeling for severity of depressive symptoms are shown in Table 3. As shown, worse physical health was a major correlate of more severe depressive symptoms. The four coping strategies also retained their importance. Depressive symptomatology was strongly related to passive problem-solving and self-destructive coping and moderately related to nondisclosure/avoidance coping and thoughts of self-harm. The model explained 44% of the variation in severity of depressive symptoms. When self-destructive coping was excluded from the set of candidate predictors, the resulting model was similar to that in Table 3. The primary differences were that recent use of tranquilizers and nondisclosure/avoidance coping had stronger associations with depressive symptomatology ($p < .05$ and $p < .001$, respectively).

Discussion

This study sought to predict factors implicated in the development of depressive symptoms among homeless young adults. In particular, we examined mood as measured by depressive symptoms in this population and focused on the effect of homeless young adults' coping style on their depressive symptomatology. As the coping styles developed during adolescence largely determine those employed in adulthood (Kinnunen, Laukkanen, Kiviniemi & Kylma, 2010), it is important to identify poor coping strategies before they become entrenched. Findings from this study indicate that the homeless young adults in our study sample experienced poor mental health, a finding consistent with other studies (Kidd, 2006; Nyamathi et al., 2005).

In concordance with the theoretical framework, our findings indicate that physical health was linked to mental health. Poor physical health is one of the stressors experienced by a sizeable number of homeless young adults. Studies have shown that homeless young adults suffer from sleep deprivation, respiratory illness, tuberculosis, hepatitis B, HIV and other sexually transmitted diseases (Dachner & Tarasuk, 2002). In both unadjusted and adjusted analyses, perceived physical health status was a significant factor associated with depressive symptoms. Young adults who had worse perceived physical health reported greater severity of depressive symptoms than those who had better health. This finding is consistent with other studies showing that perceived physical health status is associated with emotional well-being among diverse populations (Baumeister, Kriston, Bengel, & Harter, in press; Beyton, Roe, Duffy, & Pickering, 2009; Schmitz, Lesage, & Wang, 2009). The finding also suggests that improvement in mental health would accompany improvement in physical health status, especially in this vulnerable population.

Substance use, such as recent crack and tranquilizer use, was found to be correlated with a higher depressive symptom score in unadjusted analyses. This finding supports other studies showing that drug use is related to greater emotional distress (Stein et al., 2008). Previous studies have shown that some drugs can cause brain damage and psychological problems (Krasnova & Cadet, 2009; Rodriguez, Pugliese, & Mahy, 2009). Nevertheless, substance use has been used as an emotional coping strategy to deal with mental health problems by many homeless young adults (Christiani, Hudson, Nyamathi, Mutere, & Sweat, 2008; Moeller & Crocker, 2009).

In this sample, it is noteworthy that use of tranquilizers was a weak correlate of depressive symptom severity, even when self-destructive coping was controlled. It may be that tranquilizers are more readily obtainable or they may be used for specific purposes by those

who do and do not use illegal drugs. Our data suggest, however, that it is not substance use itself, but the ineffective coping strategies often associated with it that are primarily related to homeless young adults' poor mental health. Indeed, the significant unadjusted associations between drug use and high depressive symptom scores became non-significant once coping strategies were taken into account.

We also found that maladaptive coping strategies, including passive problem solving, non-disclosure/avoidance, self-destructive escape and depression/withdrawal coping, were all associated with greater depressive symptoms in the adjusted model. Further, when self-destructive coping was excluded, the only significant drug measure was recent use of tranquilizers and its association with severity of depressive symptoms was weaker than those of the three remaining coping measures. These findings are consistent with other studies showing the impact of coping strategies on psychological adjustment among homeless young adults. Votta & Manion (2003) found that homeless young adults used the disengagement coping style and had higher levels of depression compared with non-homeless counterparts. Kidd & Carroll (2007) found that a greater risk of suicidality among homeless young adults was associated with use of avoidant coping strategies.

Homeless young adults often lack positive coping skills due to dysfunctional family backgrounds. Many have grown up in a family environment with little communication, understanding and security (O'Sullivan & Lussier-Duynstee, 2006). Thus, interventions targeted to problem solving and coping skills training for homeless young adults should improve the mental health status of this vulnerable population. Specifically, since self-destructive escape, non-disclosure/avoidance passive problem-solving, and depression/withdrawal are all associated with higher depressive severity scores, programs targeted to reducing substance abuse, providing more social support, and improving self-esteem and confidence about discussing problems should help to counter homeless young adults' feelings of depression. However, because of the lack of the "social capital" of a positive adult support network in their lives, homeless young adults are unlikely to trust authority figures.

The majority of homeless young adults in this sample sought support partially or exclusively from alcohol and drug users. However, we found that two-thirds of those who reported depressive symptomatology wanted mental health treatment; 75% of those who were in poor physical health; and 42% of those in fair health wanted physical health treatment. Moreover, 45% of those who used cocaine and methadone in the past 6 months wanted treatment for their drug problems. Our study shows that while participants wanted medical intervention, they sought support from substance abusers rather than from healthcare providers. This suggests that there is a barrier which needs to be overcome and perhaps social service providers and healthcare practitioners should focus on establishing trust in their initial encounters with homeless young adults (Hudson, Nyamathi & Sweat, 2008). Indeed, programs that emphasize relationships instead of 'problems' might be more successful, as there will be appreciable progress only when homeless young adults perceive help as trustworthy, respectful and available (Galbo, 1986; Mech, Pryde, & Rycraft, 1995).

Limitations

There are several limitations to this study. First, participants were recruited from one drop-in site in Santa Monica, California, without random selection. External generalizability of the findings to other groups of young homeless drug users may be limited. Second, the data were based on self-report, which is subject to recall biases and may be vulnerable to socially desirable responding and self-deception (Moeller & Crocker, 2009). However, in another study of homeless groups, strong correlations were found between self-report and objective measures of substance abuse (Nyamathi, Leake, Longshore, & Gelberg, 2001). While a need

to improve coping skills among homeless youth has been identified, the scope of this study was inadequate to assess approaches to improving those skills. Lastly, the cross-sectional study design prevents an assumption of causality between independent predictors and the dependent variable (Zamboanga, Schwartz, Jarvis, & Van Tyne, 2009). Therefore, although we found that coping strategies and physical health status are related to severity of depressive symptoms, we cannot categorically state that one causes the other.

Conclusion

This study has identified correlates of severity of depressive symptoms among homeless young adults as mediated by coping skills. Social support and substance use were examined specifically as factors influencing young homeless people's mental and physical health. Poorer perceived physical health and maladaptive coping strategies were significantly associated with more severe depressive symptoms. Tailored programs, including facilitating healthcare access and providing coping skills training, should be implemented to promote better psychological adjustment in this population. Healthcare providers working with homeless youth should gain the capacity to identify coping strategies and recognize when a poor coping skills are causing detriment to a young person's mental or physical health. Moreover, service workers and healthcare providers should also be aware of the need to establish trust when interacting with homeless young adults.

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Table 1Sample Characteristics (*N* = 156)

Characteristics	<i>N</i>	Percent
Gender:		
Male	115	73.7
Female	41	26.3
Age Groups:		
15–20	63	40.4
21–23	60	38.5
24–25	33	21.2
Race/Ethnicity:		
African-American	21	13.5
White	86	55.1
Hispanic	19	12.2
Mixed	17	10.9
Other	13	8.3
Education:		
High School/GED	93	59.6
< 12 years	63	40.4
Intimate Partner:		
Yes	64	41.0
No	92	59.0
Chronically Homeless ^a		
Yes	79	50.6
No	77	49.4
Physical Health:		
Excellent/Very Good	72	46.2
Good	56	35.9
Fair/Poor	28	18.0
Persons of Faith:		
Yes	85	54.8
No	70	45.2
Foster Care:		
Yes	44	28.2
No	112	71.8
Juvenile Hall/Prison History:		
Yes	106	68.4
No	49	31.6
Primary Support:		
Drug/Alc Users	61	38.4
Non-Users	21	13.2
Both Equally	66	41.5

Characteristics	<i>N</i>	Percent
No Help	11	6.9
Current Smoker:		
Yes	129	82.7
No	27	17.3
Recent ^b Marijuana Use:		
Yes	147	94.2
No	9	5.8
Binge Drinking		
Yes	96	61.9
No	59	38.1
Recent ^b Crack Use		
Yes	19	12.2
No	137	87.8
Recent ^b Cocaine Use:		
Yes	38	24.4
No	118	75.6
Recent ^b Methamphetamine Use:		
Yes	52	33.3
No	104	66.7
Recent ^b Hallucinogen Use		
Yes	53	34.0
No	103	66.0
Recent ^b Tranquilizer Use:		
Yes	16	10.3
No	140	89.7
Recent Injection Use:		
Yes	25	16.0
No	131	84.0
Five or More Recent ^b Partners		
Yes	28	18.0
No	128	82.1
> 20 Lifetime Partners		
Yes	42	26.9
No	114	73.1
Ever Traded Sex for Money:		
Yes	21	13.6
No	134	86.4

^aHomeless for a year or more

^bPast 6 months

Table 2

Associations of Severity of Depressive Symptoms with Socio-Demographic, Health and Behavioral Characteristics

Depressive Symptoms			
Characteristics	Mean	Standard Deviation	P-Value^{df}
Gender:			.129
Male	17.6	12.1	
Female	21.0	12.7	
Age:			.391
15–20	17.4	12.4	
21–23	18.4	12.0	
24–25	21.0	12.5	
Race/Ethnicity:			.615
White	19.5	12.2	
African-American	15.3	10.0	
Hispanic	16.5	10.7	
Mixed	19.6	13.5	
Other	19.1	16.5	
Education:			.683
High School/GED	18.2	11.9	
< 12 years	19.0	13.0	
Intimate Partner:			.056
Yes	20.8	13.3	
No	17.0	11.3	
Chronically Homeless:			.341
Yes	19.5	12.8	
No	17.6	11.7	
Physical Health:			.001
Excellent/Very Good	15.1	12.02	
Good	19.4	11.4	
Fair/Poor	25.8	11.5	
Person of Faith			.074
Yes	16.9	11.0	
No	20.4	13.6	
Foster Care History:			.107
Yes	21.1	13.5	
No	17.5	11.7	
	16.6	11.1	
Primary Support:			.051
Drug/Alc Users	22.0	12.8	
Non-Users	16.2	13.3	
Both Equally	16.6	11.1	

Depressive Symptoms			
Characteristics	Mean	Standard Deviation	P-Value ^a
No Support	15.7	10.9	
Incarceration History:			.222
Yes	19.4	12.4	
No	16.8	12.0	
Smoker:			.791
Yes	18.7	12.3	
No	18.0	12.3	
Binge Drinking			.580
Yes	19.0	12.1	
No	17.8	12.7	
Recent ^b Crack Use			.016
Yes	24.9	10.7	
No	17.7	12.3	
Recent ^b Cocaine Use:			.131
Yes	21.2	13.0	
No	17.7	12.0	
Recent Methamphetamine Use:			.070
Yes	21.1	12.2	
No	17.3	12.2	
Recent Hallucinogen Use			.314
Yes	17.2	12.3	
No	19.2	12.3	
Recent Tranquilizer Use:			.004
Yes	26.9	11.7	
No	17.6	12.0	
Recent ^b Injection Use:			.138
Yes	21.9	12.8	
No	17.9	12.1	
5 Recent ^b Partners:			.165
Yes	21.5	11.5	
No	17.9	12.4	
20 Lifetime Partners			.079
Yes	21.4	10.5	
No	17.5	12.8	
Traded Sex for Money:			.521
Yes	20.2	11.0	
No	18.3	12.6	

^aBased on two-sample t tests or analysis of variance

^bPast 6 months

Table 3Linear Regression Model for Severity of Depressive Symptoms ($N= 156$)

Characteristic	Beta	s.e.	P value
Intimate Partner	2.9	1.5	.061
Physical Health	2.4	0.7	.002
Coping Strategies			
Recent Tranquilizer Use	4.3	2.6	.098
Passive Problem Solving	4.3	1.0	.001
Non-Disclosure/Avoidance	1.8	0.8	.027
Self-Destructive Escape	2.4	0.8	.005
Withdrawal	2.2	0.9	.018