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## Finding Shelter: Two-Year Housing Trajectories Among Homeless Youth

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### Abstract

**Purpose:** The aim of this study was to (1) identify trajectories of homeless youth remaining sheltered or returning to shelter over a period of 2 years, and (2) to identify predictors of these trajectories.

**Method:** A sample of 426 individuals aged 14–24 years receiving services at homeless youth serving agencies completed six assessments over 2 years. Latent class growth analysis was applied to the reports of whether youth had been inconsistently sheltered (i.e., living on the street or in a squat, abandoned building, or automobile) or consistently sheltered (i.e., not living in any of those settings) during the past 3 months.

**Results:** Three trajectories of homeless youth remaining sheltered or returning to shelter were identified: consistently sheltered (approximately 41% of the sample); inconsistently sheltered, short-term (approximately 20%); and inconsistently sheltered, long-term (approximately 39%). Being able to go home and having not left of one's own accord predicted greater likelihood of membership in the short-term versus the long-term inconsistently sheltered trajectory. Younger age, not using drugs other than alcohol or marijuana, less involvement in informal sector activities, being able to go home, and having been homeless for <1 year predicted membership in the consistently sheltered groups versus the long-term inconsistently sheltered groups in the multivariate analyses.

**Conclusions:** Findings suggest that being able to return home is more important than the degree of individual impairment (e.g., substance use or mental health problems) when determining the likelihood that a homeless youth follows a more or a less chronically homeless pathway.

### Keywords

Homeless youth; Longitudinal studies; Adolescent

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Approximately 1.7 million youth are homeless each year in the United States [1]. Youth often leave home because of family conflict, dysfunction, abuse, and/or neglect [2–4]. Once homeless, they are at increased danger of engaging in substance use and risky

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sexual behaviors, as well as experiencing physical health problems, educational failure, and victimization [5–8]. Evidence indicates that the likelihood of these negative out-comes increases when youth are homeless for longer periods of time [9–12].

To conceptualize patterns of youth homelessness, frame-works have been proposed that differentiate between youth who escape street life and those who acculturate to street life and become chronically homeless [13,14]. Among two samples (United States and Australia) of newly homeless youth who were followed up for 2 years, many returned home (70% United States, 47% Australia), and stayed for 12 months (39% United States, 17% Australia) [15]. Beyond this study of newly homeless youth, the previously published data empirically identifying patterns of youth homelessness are lacking. Recent research examining adults has suggested three trajectories of homelessness. A 3-year longitudinal study of adult welfare clients at risk for homelessness identified the following three trajectories: those who were unlikely to be homeless over time, those who had a decreasing likelihood of being homeless over time, and those who were more chronically homeless [16]. However, it is not clear whether youth have similar patterns. In the current study, we seek to identify patterns of being sheltered over a 2-year period among homeless youth and to examine which factors increase the likelihood that homeless youth will follow particular pathways. After the trajectories of youth homelessness are identified, determining predictors for those trajectories provides targets for interventions to prevent further youth homelessness.

The relationship between homelessness and mental health and substance abuse problems has been established. Mental health and substance abuse problems, which may interfere with the ability to maintain relationships with those who can provide housing or to maintain independent housing, have been found to be higher among homeless as compared with nonhomeless populations [17,18]. However, findings have been mixed with respect to substance abuse and mental health problems predicting homelessness longitudinally [16,19,20].

In understanding the patterns and predictors of youth homelessness, family factors may be particularly important [21]. Disaffiliation from family may minimize opportunities to receive assistance that could lead to an exit from homelessness [22,23] and lack of instrumental support from parents, not having a home to return to, and having been made to leave home may be specific factors of disaffiliation that lead to more chronic homelessness. As has been found for homeless adults [22,24], greater engagement with homelessness as a way of life and greater involvement in informal survival activities (e.g., selling drugs or begging) may decrease the likelihood that homeless youth will exit the streets. Lack of consistent entitlement benefits and earned income also have been found to predict longer periods of homelessness in adult samples [20,22,24]. However, these factors may not be important for youth exiting homelessness given greater likelihood of family involvement or government intervention.

The present study reports findings from a sample of 426 homeless youth in Los Angeles County who were followed up for 2 years. For identifying trajectories of homeless youth becoming sheltered and/or maintaining consistent shelter over a 2-year period, a relatively

new approach to identifying distinct patterns of homelessness over time, latent class growth analysis (LCGA), was used [25]. This semiparametric, group-based approach can be used to identify clusters of individuals who follow similar patterns of homelessness over a period. Similar to hierarchical and latent growth curve modeling, LCGA examines trends over multiple periods as opposed to a single period (e.g., total days of being homeless). In addition, LCGA does not assume variability from a single population trajectory and allows for the examination of multiple distinct trajectories within a population. For example, three trajectories were identified from LCGA applied to longitudinal data collected from adult welfare clients at risk for homelessness: those who were unlikely to be homeless over time, those who had a decreasing likelihood of being homeless over time, and those who were more chronically homeless [16].

## Methods

### Participants

The recruitment of youth, aged 14–24 years, occurred at nine runaway and homeless youth serving agencies in Los Angeles County, CA. Agencies included shelters and drop-in centers (i.e., where youth could receive services but not stay overnight). Youth were recruited for an evaluation of an HIV/STD risk-reduction program. Participation in the program was controlled in the current analysis.

Over 1.5 years (2004–2005), 474 youth were recruited. Only the 442 youth who reported living in a setting indicative of homelessness (i.e., street/ squat/ abandoned building, automobile, shelter, friend's home, motel/hotel/single room occupancy/ youth hostel) for some part of the past 3 months were included in the current study. Of these, 391 (88%) completed the baseline and at least one follow-up interview. All completed interviews for the 391 youth were included in the current analysis. Most youth ( $n = 360$ ; 92%) completed more than one follow-up and almost half of the youth ( $n = 184$ ; 47%) completed all five follow-ups. Individuals without ( $n = 44$ ) versus individuals with a follow-up in our analysis sample ( $n = 391$ ) were more likely to be male, white, to have lived in an automobile, and were less likely to have received entitlement benefits (all  $p$  values  $> .05$ ). On average, individuals without a follow-up had lower scores on a measure of mental health problems ( $p = .02$ ).

The average age of participants was 19.5 years ( $SD = 2.6$ ). As indicated in Table 1, 65% were male. The majority were from racial or ethnic minority backgrounds. Just over half of the sample reported having been homeless for  $> 1$  year.

### Procedure

All procedures were approved by the university's institutional review board. Field interviewers recruited youth by approaching them directly at participating agencies. Youth wishing to participate engaged in an informed consent process. The university's institutional review board waived parental consent requirements for minors because participants did not live with their parents and the study was of minimal risk. In all, 93% of youth approached decided to participate and completed a baseline interview.

Interviews took approximately 1.5 hours and used an audio computer-assisted self-interviewing system. Follow-up interviews were conducted at 3, 6, 12, 18, and 24 months after baseline. Participants received \$20 after completing the baseline interview. Incentives were increased from \$5 to \$10 at each follow-up interview until the final interview for which participants received \$50.

## Measures

**Sheltered status.**—At baseline and each follow-up interview, participants indicated all of the settings they lived in within the past 3 months. Youth who reported living on the street, in a squat, in an abandoned building, and/or in an automobile as the setting(s) in which they lived in the previous 3 months were classified as inconsistently sheltered. Youth who did not report living in any of the aforementioned settings in the past 3 months (e.g., reported only that they lived in a shelter and with relatives) were classified as consistently sheltered.

**Impairment.**—Mental health problems were assessed with the Brief Symptom Inventory [26], a multidimensional symptom inventory that includes items from multiple domains such as obsessive-compulsive, depression, and paranoid ideation. The Brief Symptom Inventory was shown to be a highly reliable measure in studies with homeless youth and HIV-infected youth [27,28]. Respondents indicated if specific problems bothered them on a scale of 0 (not at all) to 4 (extremely). The total score is an average of these 53 responses.

Substance use and dependence were assessed using items adapted from the National Institute on Drug Abuse National Household Survey [29]. Alcohol or marijuana was determined to have been used in the past 3 months if the participant responded yes to separate questions asking about use of each substance. A measure of the extent of use was created by adding reports of the number of days alcohol was used to the number of days marijuana was used. Comparable measures were used to assess use of any other drugs (e.g., methamphetamine, cocaine) in the past 3 months. Substance dependence was assessed with items reflecting the seven symptoms of dependence indicated in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Reporting the presence of three or more symptoms was considered indicative of drug dependence.

Participants also reported whether they had received lifetime drug treatment or mental health services. Participants were queried on problematic parental drug use by responding to the statement “My parent/guardian’s use of alcohol or drugs has been a problem for our family” using a four-point Likert-type scale (1 = strongly disagree to 4 = strongly agree).

**Disaffiliation from family and home.**—The Social Support Microsystem Scale was used to assess instrumental support from parents [30]. Participants who responded that their mother or their father was “somewhat” or “a great deal” helpful when they needed money and other things were indicated to have received instrumental support from parents. All others were indicated to have not received such support.

Participants were asked to indicate the reason they left home the last time. Those who indicated that they chose to leave were coded as having left of their own accord. All other responses (forced out, taken out by a government agency, or other) were coded as having not

left of their own accord. In a separate item, participants indicated whether they were able to go back home.

**Homelessness as way of life.**—Involvement in informal sector activity was measured by participants' indication of whether they had supported themselves in the past 3 months by trading sex for money, selling drugs, gambling, shoplifting or stealing, pornography, trading sex for a place to stay, begging or panhandling, and selling blood. The total number of activities was calculated. Additionally, participants reported the total number of days they had been homeless during their lifetimes.

**Economic resources.**—Participants indicated whether they had received entitlement benefits and whether they had worked full time in the past 3 months.

## Statistical methods

LCGA [25,31,32] was conducted to identify patterns of homelessness over time. Similar to hierarchical and latent growth curve modeling, LCGA examines trends over multiple periods as opposed to a single period (e.g., total days homeless). In addition, LCGA assumes that individual variation occurs around more than one trajectory and thus allowed us to determine which factors predicted trajectory group membership. Trajectories were formed from longitudinal patterns of whether participants were consistently sheltered during the 3 months prior to each of the six assessments conducted over 2 years. Models were fit using SAS 9.1 software (SAS Institute Inc., Cary, NC) through the PROC TRAJ procedure [33].

Model selection began by determining the number and shape of the trajectories to fit. Intercepts and time trends are the only predictors in the model at this stage. Models with two, three, four trajectories, as well as linear, quadratic, and cubic time factors were considered. Selecting the number and shape of the trajectories was based on the Bayesian Information Criterion [34] for both the number of participants and the number of observations across participants. Probabilities of individual youth belonging to each trajectory group, that is, posterior probabilities, were calculated by the LCGA model. Individuals were then assigned to the trajectory group they had the highest posterior probability of belonging to; the proportion of the sample in each group was estimated.

We then conducted bivariate analyses to determine predictors of trajectory group membership. Individual measures from the domains of youth and parental impairment, disaffiliation from home and family, homelessness as a way of life, and economic resources were entered into separate LCGA models. Predictors that were significant in the models were included in a multivariate model.

## Results

### Latent class growth analysis

Based on the Bayesian Information Criterion fit statistics, models with two quadratic-trajectories and three linear-trajectories provide the best fit. We chose the three-group model after considering the conceptual perspectives and study objectives to validate previous findings. Past research using LCGA to examine trajectories of homelessness supported a

similar three-group model [16] and past conceptualizations of the types of homelessness also support a three-group model [35]. Figure 1 shows the observed and expected trajectories from the LCGA model.

The largest percentages (41.4%) of individuals were classified in the *consistently sheltered* group. The rest of the individuals were classified into one of the two trajectories indicating inconsistent shelter at baseline assessment. The short-term (ST) *inconsistently sheltered* group (20.0%) had a high probability of finding and maintaining shelter over time. The long-term (LT) *inconsistently sheltered* group (38.6%) had a lower probability of finding and maintaining shelter over time. The sizeable number of participants in all three groups and the reasonably good posterior probabilities (.88, .72, and .80 for the LT inconsistently sheltered group, ST inconsistently sheltered group, and consistently sheltered group, respectively) also support the acceptability of the three-group model [25,32].

Separate models were fit to each of the demographic variables and baseline predictors in Table 1. Prediction of membership in the ST inconsistently sheltered versus the LT inconsistently sheltered trajectories, as well as the consistently sheltered group versus the LT inconsistently sheltered group is represented by parameter estimates (B) in Table 2. In comparing ST and LT inconsistently sheltered, being female, and having not left home of one's own accord increases the likelihood of following the ST inconsistently sheltered trajectory. In comparing consistently sheltered versus LT inconsistently sheltered, being younger, female, and nonwhite, having not used alcohol/marijuana or other drugs, not meeting criteria for alcohol or drug dependency, able to go home, having been homeless for <1 year at baseline, not receiving entitlement benefits, and having lower scores on measures of psychological distress, days used alcohol or marijuana, parental substance use problems, and informal sector activity were predictive of being consistently sheltered. In addition, intervention status was not a significant univariate predictor of group membership and did not change the conclusions drawn about other predictors when added to univariate models in Table 1. Intervention status was therefore not included in the final univariate or multivariate models.

Parameter estimates for the multivariate model are shown in Table 3. Because parameter estimates for nonwhite ethnicities were similar in the univariate analysis, categories for the nonwhite ethnicities were collapsed into one before the multivariate analysis. Because of collinearity between the measures of youth substance use and dependence, each measure was tested in the model without the others included. Only other drug use was significant in the multivariate model and was thus retained in the final model.

Being able to go back home and having not left of one's own accord predicted membership in the ST versus the LT inconsistently sheltered trajectory. Younger age, not using other drugs, less involvement in informal sector activities, being able to go home, and having been homeless for <1 year predicted membership in the consistently sheltered groups versus the LT inconsistently sheltered groups in the multivariate analyses.

## Discussion

In one of the first studies of patterns of youth homelessness over time, three trajectories of homeless youth maintaining or returning to shelter were identified: consistently sheltered, ST inconsistently sheltered, and LT inconsistently sheltered. The estimated 41% of the entire sample classified to the consistently sheltered trajectory indicates that a substantial proportion of youth attending homeless youth serving agencies are able to consistently maintain some type of shelter over time. Many may be able to maintain consistent shelter by returning home, as found in a longitudinal study of newly homeless youth [15]. The current results also indicate that unsheltered homeless youth recruited from homeless youth serving agencies were nearly twice as likely to follow a trajectory of chronic difficulty maintaining consistent shelter, as they are to follow a trajectory in which youth more quickly come to maintain consistent shelter. These findings suggest that most youth reporting inconsistent shelter will need support services over a lengthy period.

Two variables related to the youth's home predicted membership in the ST versus the LT inconsistently housed trajectories in the multivariate analyses. Those youth who reported leaving home because they were kicked out or removed by authorities as opposed to making the choice to leave were more likely to follow a ST rather than a LT inconsistently housed trajectory. This is consistent with the findings that homeless adolescents who report that their families discriminate against them (i.e., hassle, abuse, or assault because homeless, lesbian/gay/bisexual, or because of race) also exit homelessness more quickly [36]. Youth who did not choose to leave home but find themselves unsheltered because of rejection or other mistreatment by their family may be more willing to accept help leading to stable housing or more willing to actively seek housing.

Having a home to which youth could return is the second home-related factor that predicted a greater likelihood of membership in the ST versus the LT inconsistently housed trajectory. This finding held true only in the multivariate analysis in which there was statistical control for the variable indicating whether the youth chose to leave home. It may be that having a home to which an unsheltered youth can return only results in that youth experiencing consistent shelter when the home is not one from which the youth was removed or forced to leave.

Similar to research with adult homeless populations [22], being female also predicted a greater likelihood of following the ST versus the LT inconsistently housed trajectory, although only in the bivariate analysis. Female youth may be seen as more vulnerable by family or friends who may be more likely to provide a place to live than they would for male youth [37].

Interestingly, indicators of youth impairment, economic resources, and deeper involvement in homelessness as a way of life failed to predict membership in the ST versus the LT inconsistently sheltered group. These findings suggest that, of the factors measured, those related to home and family may be most important in putting unsheltered youth on a path toward more chronic homelessness. This is in contrast to findings from research with adults in which impairment, fewer resources, and deeper engagement in homelessness have all

been found to predict a greater likelihood of remaining homeless over time [19,20,22,24]. Homeless adults may have fewer opportunities for assistance from family or social services as compared with homeless youth and may rely on themselves to a greater extent. Without the buffer that assistance from others can provide, individual factors such as impairment or lack of economic resources would be expected to have a greater effect.

In contrast to the analyses examining the prediction of membership in the LT versus the ST unsheltered trajectories, most of the factors examined did distinguish between the consistently sheltered and the LT inconsistently sheltered trajectories. These findings may reflect the difference in the two trajectories at baseline such that one group reported consistent and the other reported inconsistent shelter. Although there are apparently no studies of homeless youth that compare sheltered with unsheltered youth, similar differences were found between young adults reporting a history of homelessness and those reporting no such history in a population-based sample [38]. Studies that begin before the initial onset of homelessness are needed to determine whether the factors measured in the current study also account for vulnerable youth becoming unsheltered in the first place.

Study findings must be considered in context of the study's limitations. Because only youth receiving services at a shelter or drop-in center were included in the current study, the most chronically unsheltered youth may not have been included. Future research that recruits youth from street settings may be able to identify additional trajectories of homelessness among more chronically unsheltered youth. The timing of assessments in the current study also may have limited the number of trajectories identified. More frequent assessment over the same period would increase the likelihood that trajectories in which youth move in and out of homelessness repeatedly are identified.

Additionally, we did not evaluate whether childhood neglect and abuse predict trajectories of youth remaining or returning to shelter. Exposure to family violence generally has been linked to a lesser likelihood of youth exiting homelessness [39]. Including measures of neglect and abuse in future research may help us better understand the circumstances under which youth leave home and are able to return home.

The current findings indicate the importance of homeless youth having a home to which they can return to reduce the likelihood of following a chronically homeless pathway. These results suggest the possible value of working with the families of homeless youth to help youth to be able to safely return home, whenever possible [15].

Findings from the current study also suggest that some youth who indicate that they chose to leave home may need intervention targeted at enhancing motivation to leave behind life on the street. Finally, the consistently housed trajectory suggests that even among youth indicated to not have a home of their own, youth who are consistently sheltered are likely to continue to be sheltered. These findings further suggest the importance of preventing homeless youth from beginning to spend their nights in unsheltered locations.



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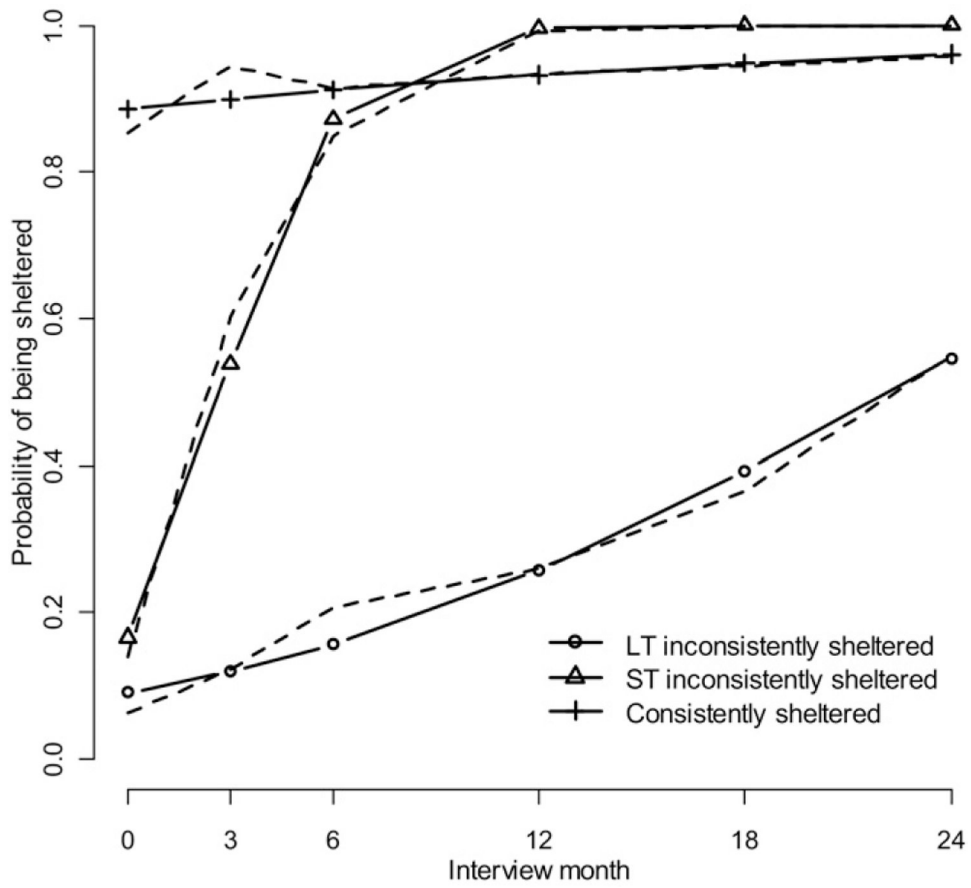
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**Figure 1.** Observed (dashed lines) and expected (solid lines) trajectories of homeless youth remaining sheltered or returning to shelter identified by applying latent class growth analysis to reports made at baseline, 3, 6, 12, 18, and 24-month follow-up of whether youth had been consistently sheltered during the past 3 months.

**Table 1**

Characteristics of youth at initial assessment (n = 391)

Characteristics	N	(%)
Demographics		
Mean age (SD)	19.5	(2.6)
Gender		
Female	137	(35.0)
Male	254	(65.0)
Race/ethnicity		
White	68	(17.4)
Black	138	(35.3)
Hispanic	82	(21.0)
American Indian	6	(1.5)
Asian	7	(1.8)
Mixed race	90	(23.0)
Impairment, mean (SD)		
BSI Global Severity Index	.8	(.7)
Past 3 months use		
Alcohol	300	(76.7)
Marijuana	323	(82.6)
Alcohol or marijuana use	350	(89.5)
Other drugs	172	(44.1)
Mean days used past 3 months (SD)		
Alcohol	10.5	(18.8)
Marijuana	23.4	(32.4)
Other drugs	22.2	(59.3)
Problematic guardian substance use	186	(47.7)
Lifetime treatment		
Mental health services	309	(79.0)
Drug treatment	76	(19.5)
Drug dependent	173	(44.2)
Disaffiliation from family and home		
Instrumental support from parents	169	(43.2)
Reason you left home		
Forced out by parent/adult	90	(23.0)
Own choice	189	(48.3)
Taken out by government agency	34	(8.7)
Other	78	(19.9)
Able to go back home	179	(45.9)
Homelessness as a way of life		
Informal sector activity		
Having/trading sex for money	38	(9.7)

Characteristics	N	(%)
Selling drugs	82	(21.0)
Gambling deals	48	(12.3)
Shoplifting or stealing	85	(21.7)
Pornography (e.g., photos, video, film)	14	(3.6)
Having/trading sex for a place to stay	25	(6.4)
Begging, panhandling	132	(33.8)
Selling blood or plasma	37	(9.5)
Homeless for 1 year	206	(52.7)
Economic resources		
Entitlement benefits	106	(27.1)
Currently employed	53	(13.6)
Living situation <sup>a</sup>		
Unsheltered—homeless setting		
Street, squat, or abandoned building	212	(54.2)
Automobile	73	(18.7)
Sheltered—homeless setting		
Shelter	257	(65.7)
Hotel, motel, single-room occupancy	194	(49.6)
Friend's home	178	(45.5)
Sheltered—nonhomeless setting		
Own apartment, room, or house	99	(25.3)
Parent's home	106	(27.1)
Other relative's home	109	(27.9)
Foster family home	25	(6.4)
Group home	43	(11.0)
Institutional setting		
Juvenile hall, detention center, jail, etc	70	(17.9)
Job corps facility	7	(1.8)
Psychiatric hospital	19	(4.9)

BSI = Brief Symptom Inventory.

<sup>a</sup>Categories are not mutually exclusive.

**Table 2**

Parameter estimates, standard errors, and significance levels from univariate models

Group (LT inconsistently is referent)	ST inconsistently sheltered			Consistently sheltered		
	B	SE	<i>p</i>	B	SE	<i>p</i>
Demographics						
Age	-.14	.10		-.32	.06	<.01
Male versus female	-.91	.41	-.03	-.73	.27	<.01
Ethnicity <sup>a</sup>						
Mixed	.95	.59		2.06	.52	<.01
Black	.99	.52		1.81	.48	<.01
Hispanic	.72	.58		1.72	.51	<.01
White (referent group)						
Impairment						
BSI Global Severity Index	.16	.29		-.54	.21	.01
Alcohol or marijuana, past 3 months <sup>b</sup>						
Use	-1.74	1.22		-2.27	.94	.02
Days used	-.01	.01		-.02	.00	<.01
Other drugs, past 3 months <sup>b</sup>						
Use	-.34	.47		-1.82	.39	<.01
Days used	-.010	.007		-.003	.003	
Problematic parental drug use	-.020	.111		-.155	.077	.04
Lifetime treatment <sup>b</sup>						
Mental health services	.15	.52		-.22	.31	
Drug treatment	-.36	.50		-.34	.32	
Drug dependent	-.35	.39		-1.01	.27	<.01
Disaffiliation from family and home						
Instrumental support from parents	-.293	.401		.423	.264	
Left of own accord	-1.46	.48	<.01	-.39	.31	
Able to go back home	.18	.39		1.12	.28	<.01
Homelessness as way of life						
Informal sector activity	-.62	.43		-1.92	.32	<.01
Homeless a year or more	-.3574	.5605		-1.7559	.2927	<.01
Economic resources						
Entitlement benefits	.02	.37		-.90	.35	.01
Currently employed	.46	.51		.14	.39	

ST inconsistently sheltered or consistently sheltered versus LT inconsistently sheltered comparison.

LT = long-term; ST = short-term.

<sup>a</sup>Analysis on ethnicity excludes 14 youth self-reported to be American Indian or Asian.

<sup>b</sup>Measures included as predictors in same model.

**Table 3**

Parameter estimates, standard errors, and significance levels from multivariate model

Group (LT inconsistently is referent)	ST inconsistently sheltered			Consistently sheltered		
	B	SE	<i>p</i>	B	SE	<i>p</i>
Age	-.07	.10		-.44	.12	<.01
Male versus female	-.36	.45		-.60	.46	
Nonwhite versus white <sup>a</sup>	.78	.50		1.25	.66	
Other drug use, past 3 months	-.10	.45		-1.32	.50	<.01
Able to go back home	1.16	.48	.02	1.22	.48	.01
Left of own accord	-1.69	.47	<.01	-.94	.49	
Informal sector activity	-.96	.50		-2.12	.51	<.01
Homeless a year or more	-.21	.46		-1.08	.43	.01

ST inconsistently or consistently sheltered versus LT inconsistently sheltered comparison.

<sup>a</sup>Analysis excludes 14 youth self-reported to be American Indian or Asian.

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