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# Understanding the Attainment of Stable Housing: A Seven-Year Longitudinal Analysis of Homeless Adolescents

#### Jordan M. Braciszewski, Ph.D.,

Decision Sciences Institute, Pacific Institute for Research and Evaluation, Pawtucket, RI

Paul A. Toro, Ph.D., and Department of Psychology, Wayne State University, Detroit, MI

#### Robert L. Stout, Ph.D.

Decision Sciences Institute, Pacific Institute for Research and Evaluation, Pawtucket, RI

#### Abstract

Stable housing provides a solid foundation for youth development, making it an essential topic of study among young homeless people. Although gains have been made in research with adolescents and young adults experiencing homelessness, few longitudinal studies of this population exist, clouding the long-term housing outcome picture. The current study examined the course and risk factors for homelessness in a sample of 243 homeless adolescents followed over a seven-year period. The vast majority of youth returned to stable housing quickly; however, early experiences of homelessness, even at this young age, were observed to have a substantial negative impact on future housing. Participants from poorer neighborhoods and those identifying as ethnic minorities also took longer to achieve stable housing. The data suggest that family reunification interventions may serve this population well. Preparing youth for returning home may prevent subsequent homeless episodes, while also improving their overall functioning.

#### Keywords

Homeless; adolescents; young adults; longitudinal; survival

In the past two decades, research on homeless young people has increased dramatically (Toro, Dworsky, & Fowler, 2007). Studies have identified a variety of risk factors, including family conflict, abuse and neglect (MacLean, Embry, & Cauce, 1999; Tyler & Johnson, 2006), low levels of parental monitoring and closeness to caregivers (Tyler & Johnson, 2006), and caregiver mental illness and substance use (Robertson & Toro, 1999). Risk profiles also include individual characteristics, such as mental health and substance use problems (Tucker, Edelen, Ellickson, & Klein, 2011), pregnancy (Whitbeck, 2009), and delinquent behavior (Haynie, Petts, Maimon, & Piquero, 2009).

Correspondence should be addressed to the first author: Jordan M. Braciszewski, Pacific Institute for Research and Evaluation, Decision Sciences Institute, 1005 Main St., Suite 8120, Pawtucket, RI 02860, (o) (401) 729-7505 ext. 2105, (f) (401) 729-7506; jbraciszewski@pire.org.

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Despite these gains, our knowledge of the *course* of youth homelessness is fragmentary. Some have suggested possible long-term negative outcomes, including a resemblance to chronically homeless adults, with less access to services (e.g., Whitbeck & Hoyt, 1999). Others have noted high return-to-housing rates, with 77% returning home in less than a week and 99.6% by the end of one year (Hammer, Finkelhor, & Sedlak, 2002). Another study noted that 73% had exited homelessness at a 2-year follow up, and nearly half had permanently exited quickly following baseline (Milburn et al., 2009). More recently, however, Whitbeck (2009) followed homeless adolescents for three years into young adulthood. After three months, 37.6% were living on the street, compared to 16% living at home; by the final interview, 46.1% remained on the street.

Little is also known about how quickly homeless young people are able to return to *stable* housing. Previous studies have often relied on static snapshots (i.e., "Where are you currently living [today]?") of homelessness, even when examining these variables longitudinally (i.e., consecutive reports of static, point-in-time outcomes). Such an approach lends itself to generalizing about a history of housing from few, single dates. Data from Milburn et al. (2007) are one exception, where nearly 40% of their U.S. sample remained at home for at least one consecutive year after their initial homeless episode. More information is needed about the process of returning to long-term stable housing, including robust predictors of these outcomes.

One source of possible mechanisms involved in the transition to rehousing lies in the Risk Amplification and Abatement Model (RAAM; Milburn et al., 2009). The RAAM posits that, while disorganized family environments and subsequently amplified deviant social networks are contributors to negative outcomes among homeless adolescents, many youth maintain positive relationships with their families, remain in school, and interact with prosocial peers, leading to positive outcomes. Indeed, engagement with prosocial peers, maternal social support, and continued school attendance have been related to exiting homelessness (Milburn et al., 2009).

Understanding the course of housing instability among homeless youth is essential, given the strong link between residential transitions and poor outcomes (Masten, Obradovic, & Burt, 2006). The present study investigated length of time to achieving consecutive days of housing following an episode of homelessness among 243 homeless adolescents, followed for seven years. Consistent with previous findings and the RAAM, we expected younger age, connection with school, and supportive relationships with caregivers to predict a quicker transition to rehousing. Residing in a poorer neighborhood, which may offer fewer service options, presence of mental health or substance use issues, association with deviant peers, and longer history of homelessness were hypothesized to predict more difficulty in obtaining and maintaining secure, stable housing.

#### Method

#### **Participants**

Data were collected as part of a larger study of homeless and other at-risk youth in a large, Midwest metropolitan area. The sample of homeless youth included 243 adolescents who

had spent at least one night on their own during the past month unaccompanied by a legal guardian. They were recruited from agencies providing services to homeless adolescents including shelters, substance abuse treatment programs, psychiatric facilities, and street settings. Among the sample, 48% identified as White, 46% African-American, 3.6% Latino/a, and 2.4% another ethnicity; 67% were female. Age at baseline ranged from 12.7 to 17.9 (M = 15.3, SD = 1.3). Less than 5% (n = 11) had experienced homelessness previous to the baseline incident(s).

#### Procedure

Interviews were conducted by paid full-time staff, trained graduate students, and advanced undergraduates. Consent was obtained from the youth, their parents, and shelter staff when necessary. Interviews took place at six months, and at one, two, five, six, and seven years after baseline. Follow-up rates at these six time points were 58%, 38%, 59%, 82%, 75%, and 83%, respectively.

#### Measures

**Demographics and Screening**—Basic demographic and screening variables were collected at baseline, including sex, ethnicity, age, and neighborhood income.

**Housing, Education, and Income Timeline (HEIT)**—The HEIT provided a record of residential, academic, and employment histories for study participants using a calendarbased method, shown to have adequate reliability and validity in studies of homeless adolescents and adults (McCaskill, Toro, & Wolfe, 1998, references deleted to protect blind review). Participants were asked at baseline to list each of their residences over the previous year. Subsequent interviews assessed each living site since the previous contact with the participant; thus, if an interview was missed, additional information was gathered at later waves. Taken together, housing data were available for 95%, 94%, 94%, 92%, 87%, and 80% of the sample at each follow-up wave. Housing data were divided into pre- and post-baseline periods. A sum of pre-baseline homeless days was calculated, as well as the number of days elapsed prior to each youth beginning 30, 90, and 365 days of consecutive housing. HEIT data were also used to indicate current school attendance (1 = yes, 0 = no).

**Family Environment Scale (FES)**—The FES (Moos & Moos, 1994) is a 90-item, self-report measure assessing a broad range of family environment dimensions. This study used the Cohesion (commitment, help, and support provided by family members; sample  $\alpha = .83$ ) and Conflict (openly expressed anger among family members; sample  $\alpha = .78$ ) subscales.

**Parental Monitoring**—Parental monitoring was assessed using a 9-item subscale (sample  $\alpha = .81$ ) adapted from Whitbeck and Hoyt (1999). Items target the degree to which parents monitor their child's whereabouts and activities. The mean score was used for this study.

**Diagnostic Interview Schedule for Children (DISC)**—The DISC is a structured instrument allowing lay interviewers to obtain reliable diagnoses of child and adolescent psychiatric disorders (Shaffer et al., 1993). Participants were coded yes/no for two variables: past year substance use disorder (sample  $\alpha$  range .80–.92, depending on substance) and past

**Association with deviant peers**—Number of deviant friends was assessed using the Social Network Interview (SNI; Bates & Toro, 1999). Participants are asked first to list their friends, and are then asked several questions about each. Ten items address various illegal behaviors. A network member was recorded as deviant if they endorsed at least one of these behaviors.

**Data Analytic Strategy**—The goal was to examine length of time to transition from homelessness to stable housing, as well as how baseline characteristics were related to rehousing. Kaplan-Meier life table techniques were used to examine the length of time to achieve 30, 90, and 365 days of consecutive stable housing. Because the survival time distributions were highly skewed, violating proportional hazards assumptions, we used logistic regression rather than survival regression methods to ascertain predictors of quick vs. delayed return to housing stability. Predictors included sex, minority status, age, neighborhood income, parental monitoring, number of deviant peers, current school attendance, family cohesion and conflict, past year substance use disorder, past year mental health disorder, and the sum of pre-baseline homeless days.

### Results

Of the original 243 participants, 9 were lost to follow-up immediately after the baseline interview and were, thus, censored on Day 1. With regard to achieving 30 days of consecutive housing, 2 of the remaining 234 youth did not meet this milestone before contact was lost at the 6-month interview. In addition to these two participants, one additional person was lost to follow-up after the 6-month interview. This person was able to achieve 30 consecutive days of housing, but was censored for the 90-day outcome. Finally, two more individuals achieved 30 and 90 days of consecutive housing, but were lost to follow-up before 365 days could be achieved. In addition, 3 participants were followed to study completion before securing one year of stable housing and were, thus, censored after the end of follow-up. Taken together, 232, 231, and 225 individuals were eligible to experience the three respective outcome events. Presence of missing data did not significantly differ by any of the proposed predictors.

As shown in Figure 1, 57% began 30 consecutive days of housing within the first two weeks following their baseline interview. An additional 10% (a total of 67%) initiated their 30 day run of consecutive days housed within one month of the baseline interview. Finally, 77% remained in a transitional phase for 90 days or less before they achieved 30 days of housing. Similar results were seen when investigating 90 and 365 days of consecutive housing. Fifty-three percent began 90 days of stable housing within a 2 week transition period, 61% within one month, and 70% within three months after baseline. Forty-two percent were stably housed for one year within the first two weeks following their baseline interview homelessness episode, 47% within a month, and 55% within three months. Twenty percent of participants remained in transition for over one year prior to obtaining one year of stable housing. For all three markers of consecutive housing, returning home was the most frequent

outcome, with approximately two-thirds of participants back in their parents' homes at the beginning of their string of housed days.

Initial Cox regression models violated proportional hazards assumptions, as is often the case in behavioral life event data (Vaupel & Yashin, 1985). Given that approximately half of the sample experienced transitional phases of two weeks or less for all three outcomes, it is highly likely that there are different processes operating on stable rehousing at different times (Vaupel & Yashin, 1985). Thus, participants were split into two groups: an accelerated housing group (i.e., 14 days before becoming housed) and a delayed group (> 14 days) for use in a multivariate logistic regression. Following sequential selection of predictors (i.e., individual, then social), identification as an ethnic minority, residing in a low-income neighborhood, and more pre-baseline homelessness predicted classification in the delayed group (Table 1). Pre-baseline homelessness was the sole indicator associated with the increased likelihood of taking > 14 days to achieve 90 or 365 days of consecutive housing.

Additional stratified life table analyses with a reduced sample (i.e., only those who took > 14 days to become housed, given each housing outcome, referred to as "delayed rehousing"; ns = 94, 103, and 132, respectively) suggested only minority status as a significant predictor of the 365 day outcome. However, while Log-Rank Chi-Square estimates showed evidence of a slower path to housing for minorities ( $\chi 2 = 4.20$ , p < .05), Wilcoxon tests were not significant ( $\chi 2 = 1.89$ , p = .1689), indicating that differences between ethnicities occurred early in the survival curve, with minorities slowly catching up later in time.

#### Discussion

Results suggest that, for the vast majority of homeless youth, the transition time between homelessness and housing is relatively short; a finding seen in previous studies (Milburn et al., 2007). These data further indicate that, once housing is secured, it tends to remain stable, even as long as one year. This does not imply that the housing is of excellent quality or that the relationships within that environment are harmonious. However, given that over half of the sample was able to remain housed for at least one year, with most being rehoused quickly after their baseline homeless episode, results do suggest some degree of housing satisfaction.

Consistent with the RAAM, previous struggles to secure housing (i.e., pre-baseline homeless days) predicted continued challenges. This also parallels previous hypotheses suggesting a subset of youth who resemble chronically homeless adults (Whitbeck & Hoyt, 1999). Minority youth also experienced a delay in securing housing stability, as they were more likely to take 14 days or more to achieve 30 consecutive days of housing. Minority homeless youth often find more difficulty in obtaining services (Geber, 1997); thus, this delay could be attributable to a lack of access to care/resources. This interpretation is further supported by delayed rehousing survival results, suggesting that these young people are able to achieve similar long-term outcomes after an initial delay. Finally, youth from poorer neighborhoods experienced a delay similar to that of minority youth, likely due to a lack of access to nearby resources.

Results were inconsistent with the RAAM (Milburn et al., 2009), in that older age, deviant peers, family environment, and school attendance were not related to either rapid (full sample logistic regression) or delayed (>14 days to housing) rehousing. Our sample has a slightly reduced age range compared to that of Milburn et al. (2009), as only 12% of our sample is 17 or older, possibly constraining the impact of age on rehousing. A lack of power for school effects is also possible among our sample, as only 10% were not currently in school at baseline.

As is often the case with risk and protective factors, associating with deviant peers may not be the transpose of having prosocial peers. Indeed, Milburn et al. found univariate relationships between only one measure of deviant peer relationships and rehousing. Differences in constructs may have also played a role in the family environment results. For example, items from the FES measure of cohesion evoke general emotional support, while the RAAM may imply more instrumental support (e.g., supplying money when needed). The FES also asks about the entire family, which may wash out the effects of specific family members.

The current study improves upon previous work in two major ways. First, we have collected detailed housing histories on each of the participants. Former approaches have used a point-in-time estimate of housing (e.g., Where are you living today?"), which does not offer information about the stability of the residence. We are unaware of any other study with such rich housing data on homeless youth. Second, our high retention rates allow for a robust dataset with very little missing data; thus, more confidence can be placed in our conclusions.

Despite improving on previous studies, limitations exist. First, the number of participants identifying as an ethnicity other than Caucasian or African-American was small, reducing generalizability to those groups. Second, as is the case for many longitudinal studies, there were missing data. Although our retention efforts and housing data collection methodology were strong, missing information may have shed additional light on the relationships we assessed. However, this is also a considerable strength, as few studies of homeless youth have been able to retain such a high proportion of the original sample over such a long period of time. In addition, no functional definition exists for "stable housing." That is, we are not aware of any studies that have examined "how much housing is enough" to get positive outcomes on several key indicators. Taken together, while our cut-points may be considered arbitrary dividers, we think the robust results will help serve as foundations for future research and intervention.

Youth experiencing homelessness are often able to achieve stable housing quickly and with long-term security, generally in their parents' homes. We were unable to fully assess the quality of these homes upon return. At face value, these settings were disruptive enough to cause an episode of homelessness, but provided enough resilience from which youth could build a significant foundation of stable housing. Our data indicate that families experiencing youth homelessness would very likely benefit from tailored family-based interventions, though this recommendation may be tempered upon considering the level of violence in the home. Given improvements in such approaches (Milburn et al., 2012), agencies may benefit

from investing in unification strategies, all the more important given the impact of previous homelessness on future delays in rehousing. Future research should continue to examine the role of access to housing for ethnic minority youth and individuals from poor neighborhoods. In addition, new methods such as growth mixture modeling could address fluctuations in housing at a finer level.

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**Figure 1.** Time to stable housing for 30, 90, or 365 days.

Multivariate predictors of length of time to consecutive days housed.

	30 da	ys (n =	232)	30 ds	iys (n =	231)	365 d	ays (n =	225)
Variable	ß	SE	Odds ratio	ø	SE	Odds ratio	ø	SE	Odds ratio
Individual									
Sex									
Female	-0.18	0.34	0.84	-0.20	0.32	0.82	-0.27	0.32	0.76
Male	1			-			-		
Race/ethnicity									
Minority	$0.78^{*}$	0.40	2.18	0.60	0.39	1.83	0.47	0.38	1.59
Caucasian	1			1			1		
Age	0.22	0.12	1.25	0.14	0.12	1.14	-0.10	0.12	06.0
Any mental health dx									
Yes	0.09	0.33	1.09	-0.02	0.32	0.98	-0.35	0.31	0.70
No	-			-			-		
Any substance use dx									
Yes	-0.52	0.46	0.59	0.06	0.42	1.06	0.62	0.41	1.85
No	1			Г			I		
Pre-intake Homeless days <sup>a</sup>	0.85**	0.26	2.34	$0.88^{**}$	0.25	2.42	$0.86^{**}$	0.26	2.36
Neighborhood income $^{b}$	$-0.17^{*}$	0.08	0.84	-0.15	0.08	0.86	-0.08	0.08	0.92
Social									
Family cohesion	0.18	0.40	1.20	0.18	0.38	1.20	0.07	0.38	1.08
Family conflict	-0.12	0.36	0.89	-0.14	0.35	0.86	0.03	0.34	1.03
Parental monitoring	-0.02	0.21	0.98	-0.12	0.20	0.88	-0.01	0.20	0.99
Deviant peers	-0.01	0.05	0.99	0.00	0.04	1.00	0.04	0.05	1.05
Currently in school	-0.16	0.50	0.85	-0.01	0.48	0.99	0.43	0.50	1.54
Note. $Dx = diagnosis.$									
$^{a}$ Variable log10 transformed;									

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bOdds ratio reflects a \$5,000 unit change;

p < .05;\*\* p < .01