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Adolescents Exiting Homelessness Over Two Years: The Risk Amplification and Abatement Model

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Abstract

The Risk Amplification and Abatement Model (RAAM), demonstrates that negative contact with socializing agents amplify risk, while positive contact abates risk for homeless adolescents. To test this model, the likelihood of exiting homelessness and returning to familial housing at 2 years and stably exiting over time are examined with longitudinal data collected from 183 newly homeless adolescents followed over 2 years in Los Angeles, CA. In support of RAAM, unadjusted odds of exiting at 2 years and stably exiting over2 years revealed that engagement with pro-social peers, maternal social support, and continued school attendance all promoted exiting behaviors. Simultaneously, exposure to family violence and reliance on shelter services discouraged stably exiting behaviors. Implications for family-based interventions are proposed.

Keywords

homeless; homelessness; resilience; adolescent

In Western developed nations, the normal developmental trajectory for adolescents has been well documented. From early to late adolescence, young people increasingly move toward independence and autonomy with the relationship and/or the relative influence of families, friends, and social institutions as socializing agents shifting over time (Arnett, 2000). By early adolescence, the role of family has changed while the importance of peers and friends, as well as that of teachers and others in institutional settings increases (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001).

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We know relatively less about developmental processes for adolescents with unusual life experiences, such as homeless adolescents. To date, the best model describing adolescent homelessness is the Risk Amplification Model (RAM) (Paradise et al., 2001; Whitbeck & Hoyt, 1999). RAM seeks to explain the impact of negative life events and negative developmental trajectories of homeless adolescents, arguing that most homeless adolescents come from disorganized family environments, filled with conflict, neglect, violence, and parental substance abuse. When adolescents runaway or are thrown out, they enter street life, which is filled with other adolescents from similar backgrounds, and become embedded in deviant social networks which amplify their chances of engaging in anti-social and high risk behaviors, such as prostitution, drug abuse, theft, squatting, and panhandling (e.g. Tyler, Hoyt, & Whitbeck, 2000; Kipke et al., 1997; Rice et al, 2005; Unger et al., 1998; Whitbeck et al., 1999; Cauce et al., 2000; DeRosa, Montgomery, Hyde, Iverson, & Kipke, 2001; Ennett, Federman, Bailey, Ringwalt, & Hubbard, 1999). The limitation of this perspective is that it focuses almost exclusively on negative outcomes and consequently negative developmental and socialization processes that contribute to these outcomes, leaving little or no room for explanations of how some adolescents may successfully emerge from street life to re-engage mainstream society.

The focus of this paper is on the development and testing of an extension of RAM, we refer to as the Risk Amplification and Abatement Model (RAAM). RAM has been empirically supported with cross-sectional data in numerous studies (e.g. McMorris et al., 2002; Whitbeck et al., 1999; Whitbeck et al., 2001; Tyler et al., 2000; Whitbeck & Hoyt, 1999; Whitbeck, Hoyt, & Bao, 2000; Tyler, Whitbeck, Hoyt, & Yoder, 2000) and successfully explains many of the negative outcomes, experiences, and relationships so prevalent among homeless adolescents. Recent work, however, has demonstrated that some homeless adolescents continue to maintain supportive relationships with their families (Milburn et al., 2006), continue to interact with positive peers from home (Johnson et al., 2005), and many have pro-social peers (Rice et al., 2007; Rice et al., in press; Tyler, in press). This recent work begs the question: are there positive socialization experiences which can impact outcomes for homeless adolescents? Moreover, longitudinal data on newly homeless adolescents (away from home less than six months) revealed that most newly homeless adolescents returned home at some point within two years (Milburn, et al., 2007), begging the question: can positive socialization experiences help to explain positive outcomes for homeless adolescents?

RAAM builds on the logic of RAM by supporting the argument that negative contact with socializing agents amplifies risk, while positive contact with socializing agents abates risk for homeless adolescents. RAAM also extends the work of RAM by incorporating an ecological perspective of adolescent homelessness (Haber & Toro, 2004). Using an ecological perspective, we see dynamics which occur at a family systems level are linked to levels of higher social organizations (such as support networks). From this perspective, RAAM suggests that positive and negative contact with socializing agents are encountered by homeless adolescents in at least four levels of social organization: family, peers, social services, and formal institutions.

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This paper has two distinct goals. First, we explore the logic of RAAM in each of these four levels of social organization. Second, we test the implications of RAAM with longitudinal data on newly homeless adolescents (away from home less than six months) in Los Angeles, CA. We hypothesize and test how positive and negative experiences across these four levels of social organization amplify or abate the chances that newly homeless adolescents exit homelessness and return to family housing over a two years period of observation. There has been increased interest in longitudinal data on adolescent homelessness (e.g. Lombardo & Toro, 2004; Tyler & Johnson, 2006), and to our knowledge this longitudinal data set on newly homeless adolescents is unique in its capacity to assess the trajectories of a group of relatively inexperienced homeless adolescents in and out of homelessness over time.

Risk Amplification and Abatement Model

Assuming newly homeless adolescents are substantially influenced by socializing agents across multiple levels of social organization, similar to their non-homeless peers, we examine how contact with families, peers, social services, and formal institutions may have a positive impact on adolescents by enabling them to be resilient (e.g., Bronfenbrenner, 1986; Kurtz, Lindsey, Jarvis, & Nackerud, 2000; Masten & Coatsworth, 1998; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001). For this paper, we focus on how socialization experiences across these four levels of social organization affect the chances that an adolescent will exit homelessness and return to familial housing, a key outcome on which there is surprisingly little research. Most studies of homeless adolescents target those who have been out of home for extended periods of time or have multiple episodes of leaving home (e.g., Kipke, O'Connor, Palmer, & MacKenzie, 1995; Ringwalt, Greene, Robertson, & McPheeters, 1998; Robertson & Toro, 1999). Cross-sectional data also do not enable useful projections on the trajectory of homeless adolescents, specifically, their pathways into and out of homelessness. Existing work suggests that homeless adolescents who have been out of home for a short period of time (Shaffer & Caton, 1984), those who are older when they first leave home, or those that have experienced less abuse are more successful at exiting homelessness (Smart, 1991). Researchers have demonstrated that returning to a home with parents leads to positive outcomes, including staying in school, not being in trouble with the police, and not running away (Thompson, Pollio, & Bitner, 2000). Moreover, data from a study on newly homeless adolescents in both the United States and Australia, show that a minority of newly homeless adolescents have left home to escape physical or sexual abuse (Milburn et al., 2006), suggesting that for newly homeless adolescents (perhaps more so than chronically homeless adolescents) returning to familial housing is a positive outcome.

Levels of Social Organization

Family—Family processes are central to the negative outcomes experienced by homeless adolescents. The focus of RAM has repeatedly demonstrated that adolescents leave home because of family abuse, with abuse often starting early because of a child's biological predisposition to risky behavior patterns (e.g., neurological deficits, temperament, learning problems) making him or her difficult to parent (Whitbeck & Hoyt, 1999; Whitbeck, Hoyt, & Bao, 2000; Tyler, Whitbeck, Hoyt, & Yoder, 2000). Parents of adolescents who become homeless often have a history of substance use and physical abuse that lessen their ability to

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parent effectively and increase the propensity for parent-child conflict. In keeping with RAM, RAAM suggest that exposure to family violence, sexual abuse, physical abuse, and parental substance abuse would discourage adolescents from exiting homelessness and returning to familial housing.

Family, however, can play a positive role in the lives of homeless adolescents (e.g., Boesky, Toro, & Bukowski, 1997; Kipke, Unger, O'Connor, Palmer, & LaFrance, 1997; Thompson, Pollio, & Bitner, 2000), especially newly homeless adolescents who have the potential to exit homelessness. Relationships with their family may be problematic, but being on the streets may be worse (Adlaf & Zdanowicz, 1999; Raffaelli et al., 2000; Rew, 2002). Contact with and support from family has been shown to increase newly homeless adolescents's perception of positive family bonds (Milburn et al., 2006) and may contribute to adolescents exiting homelessness. RAAM suggests that having a supportive relationship with a family member, especially a parent, will increase the chances that a young person will exit homelessness and return to familial housing.

Peers—Along with families, peers are most associated with in the negative outcomes experienced by homeless adolescents. Adolescents who become homeless more often experience exclusion from supportive peer networks because of their conflict-oriented interaction styles (Adams, Gullotta, & Clancy, 1985; MacLean, Embry, & Cauce, 1999; Ringwalt, Greene, & Robertson, 1998; Slesnick & Meade, 2001; Whitbeck, Hoyt, & Ackley, 1997; Wolfe, Toro, & McCaskill, 1999). These young people are then attracted to troubled peers who lead them to more problems, including delinquent activities, substance use, and school truancy or dropping out (McMorris, Tyler, Whitbeck, & Hoyt, 2002). In keeping with RAM, RAAM argues that engagement with high risk peers, especially anti-social and deviant peers (Rice, et al., in press) will decrease an adolescent's chances of exiting homelessness.

Peers, have also been shown to have a protective influence on homeless adolescents (Rice et al., 2007; Rice et al., in press). In particular, the more pro-social peers (peers that are still in school, have jobs, or have positive relationships with their families) that a homeless adolescent has the less likely that adolescent is to engage in unprotected sex and hard drug use (Rice et al., 2007). While homeless adolescents may have a disproportionate number of high-risk peers in their social networks (Rice et al., 2007), many newly homeless adolescents have pro-social peers who can provide a countervailing positive influence on their behaviors (Rice et al., in press). RAAM thus argues that engagement with pro-social peers will increase an adolescent's chances of exiting homelessness.

Social Services—Like the roles of family and peers, social services may also have both a negative impact as well as a positive impact on behavioral outcomes. In the United States, social services that target homeless adolescents (e.g., drop-in centers or shelters) largely focus on their subsistence needs while not focusing on integrating them back into their home communities (e.g., Milburn, Rosenthal, & Rotheram-Borus, 2005). This reflects a perspective that homeless adolescents have none or limited resources in their home communities. Home communities are perceived by service providers to be lacking in resources, and contributing to the negative contextual environment that leads to adolescents

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leaving home (Raleigh-DuRoff, 2004). Additionally, these social services are not provided for adolescents close to their neighborhoods of origin (Brooks, Milburn, Rotheram-Borus, & Witkin, 2004). Services instead are provided where homeless adolescents run to or congregate (Witkin, Milburn, May, Brooks, & Rotheram-Borus, 2005). While providing subsistence services, these institutions contribute to further separation of homeless adolescents from a trajectory of normal development, especially for newly homeless adolescent. An over-reliance on social services for newly homeless adolescents, while providing temporary relief, may serve to cut adolescents off from their families and home-based peers, discouraging exiting homelessness. RAAM suggests that for newly homeless adolescents who are more dependent upon social services for basic needs such as shelter and financial resources are less likely to exit homelessness and return to familial housing.

The relationship of newly homeless adolescents to social services is often positive. A study on the effectiveness of services for homeless adolescents found positive short-term outcomes (6 week time frame) for these adolescents, including greater family contact, fewer days out of home, reduced involvement in sexual behavior, and higher self-esteem (Pollio, Thompson, & North, 2000). Longitudinal data on homeless families in New York City showed that families who were assigned to nonprofit shelters that provided relatively extensive housing services were more likely to receive subsidized housing and subsequently exit homelessness (Shinn et al., 1998). From the RAAM perspective, newly homeless adolescents who use services that reduce family conflict or provide educational assistance would have greater odds of exiting homelessness than their counterparts who use services that provide for subsistence needs alone.

Formal Institutions—The continued role of formal institutions (i.e. school) is the least well theorized of the influences we seek to explore, largely because the typical perception of homeless adolescents assumes disengagement from such institutions. Many street adolescents have had troubled educational histories, with many being held back a year in school (e.g. Clark & Robertson, 1996; Young, Godfery, Mattews, & Adams, 1983) or have been suspended and/or expelled (Toro & Goldstein, 2000). Most research has focused on how street life interrupts the normal educational experiences of adolescence. For example, Whitbeck and Hoyt (1999) point out that although most of their respondents had attended school in the previous 12 months, 42% of boys and 32% of girls in their sample had dropped out, and 1/3 of boys and 17% of girls had been expelled. Likewise, data from both the U.S. and Australia has shown that adolescents who have been away from home for more than 6 months are significantly less likely than newly homeless adolescents to still be attending school (Milburn et al., 2006).

Following the overall logic of RAAM, continued engagement with school is a positive socializing experience. Staying in school is a normalizing experience for adolescents, as high school graduation is necessary step on the path to success in advanced industrialized nations. Remaining connected to school also keeps adolescents connected to other pro-social peers that are in school, who have been shown to be protective for homeless adolescents (Rice et al., 2007). Moreover, homeless adolescents who are still in school have exposure to adults, who can potentially serve as mentors. Research has consistently shown that having a positive adult in one’s life increases the chances for adolescent successes across a wide set

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of behavioral and developmental outcomes (e.g. Grossman, 1999; Rhodes, et al., 2002; Beam, Chen, & Greenberger, 2002; Hamilton & Darling, 1989; Hirsch, Mickus, & Boerger, 2002; Munsch, Laing, & DeSecottier, 1996). RAAM thus argues that engagement in formal institutions such as continued school attendance will increase the likelihood of exiting homelessness.

Methods

Sample

The total sample included 262 adolescents who are a representative sample of newly homeless adolescents in Los Angeles County, California. The sample in this report consists of 183 adolescents (70% retention) on whom 2 year post-baseline follow up data was collected. The recruitment, sites were selected through a systematic process. First, all of the potential recruitment sites for homeless adolescents in Los Angeles County were identified through "snowball sampling" techniques by interviewing line and supervisory staff in agencies that served homeless adolescents throughout the county (Brooks et al., 2004). Thirty sites were identified, including 17 shelters and drop-in centers and 13 street hangout sites. Next, the 30 sites were audited at pre-selected times over three different weeklong time periods to determine the number of homeless adolescents found at each site. All of these locations were included as recruitment sites. Interviewers were sent out in pairs to screen and recruit eligible homeless adolescents.

Interviewers received approximately 40 hours of training, which included lectures, role-playing, mock surveys, ethics training, emergency procedures, and technical training. Interviewers conducted a comprehensive screening of homeless adolescents with a 13-item screening instrument to determine whether they were eligible to participate in the study. Three criteria were used to select newly homeless participants: 1) age ranging from 12 to 20 years; 2) spent at least two consecutive nights away from home without parent's or guardian's permission if under age 18 years or been told to leave home; and 3) had been away from home for 6 months or less.[a] The screening instrument was designed to mask the eligibility criteria, confirm eligibility, and establish the length of time the young person had been away from home. Participants were assured of confidentiality and the informed consent process was reviewed. Participants were also told that interviewers were required to report current physical or sexual abuse (if under 18 years) and serious suicidal or homicidal feelings. The study fulfilled all human subject guidelines and was approved by an Institutional Review Board (IRB).

Procedure

All interviews were conducted face-to-face by trained interviewers using both Computer-Assisted Personal Interview (CAPI) and Audio Computer Assisted Self-Interview (ACASI) modalities, with interviews lasting between 1 and 1 1/2 hours. Paper and pencil surveys

[a]Using 6 months as the cut-off period to define a newly homeless adolescent was determined from conversations with service providers. The number of episodes was not included in the operational definition because time out of home is more critical than the number of times out of home, and these adolescents often have a pattern of going back and forth between the streets and home before actually leaving home.

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were used at a few street sites out of necessity. Participants received $20 in local currency as compensation for their time for the baseline interview and $25, $30, and $35, respectively at 6 months, 12 months, 18 months, and two year follow-ups. Baseline refusal rates were less than 7%.

Measures

The outcome measure was exiting homelessness at the time of the one year assessment. All of the predictors that were used in the analysis were measured at the time of the baseline assessment.

Exiting homelessness—The outcome variable was defined as currently living in familial housing at the time of the two year assessment. Responses to the 21-choice question, "Where are you currently living?" were categorized as familial housing (1) or non-familial housing (0). Familial housing required a parent or guardian being present; for respondents 18 and older, an apartment also constituted familial housing. Responses that were classified as familial housing were: birth (biological) family home, foster family home, step-family home, grandparent's house, relative's house, family group home, boarding school, adoptive family home, or own apartment (only for respondents 18 and older.) The responses classified as non-familial housing were: shelters (e.g., refuge, single-room occupancy hotel/ motel, early adolescent unit, medium-term accommodation, secure welfare unit, trailer park, juvenile detention center/ jail, psychiatric hospital, street/ squat/ abandoned building, a friend's house, or a Job Corps facility.) Adolescents who were currently living in familial housing were categorized as exiting homelessness, while adolescents who were not currently living in familial housing were categorized as not exiting homelessness. Two outcome variables were created from this measure. Exiting homelessness at two years was coded (1) for those adolescents who had exited at the time of the two year follow up or not (0). Stable exiting over two years was coded (1) for those adolescents who had exited homelessness at the time of the three month interview and maintained this status at the time of the 6, 12, 18, and 24 month follow up interviews or not (0).

Background characteristics—All background characteristics were assessed at baseline only. These measures included age, ethnicity, length of time homeless, gender, and reasons for leaving home. Age at the time of the baseline assessment was based on the reported date of birth. Gender was reported as male (1), female (0), (none of the newly homeless adolescents reported that they were transgender). Race/ethnicity was asked as a single choice item, "Which of these would you say is your main racial or ethnic group? White or Caucasian but not Hispanic or Latino, Black or African-American but not Hispanic or Latino, Hispanic or Latino, American Indian or Alaskan Native, Asian or Pacific Islander, Mixed-race, or Other." For subsequent analyses this variable was coded Latino (1) or other (0). Homelessness experiences were ascertained using measures of homelessness experience at baseline and the reasons that the adolescent left home. Time homeless was assessed by whether the total length of time away from home exceeded one month (1) or not (0). Reasons for leaving home were assessed by multiple items, each rated on a four-point scale of importance as a reason for leaving home, ranging from not important (1) to very

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important (4) for: “physical abuse,” “sexual abuse,” and “violence at home between family members.”

Socializing Agents

Family: Two measures of family relationships were created: support from mother and support from father, each scale is comprised of four items for mothers and fathers separately. First, “if they are available for you to talk to,” coded yes (1) or no (0). Second, “when you go to talk about a personal problem, how helpful is each of these people?” coded not at all (1), somewhat (2), or a great deal (3). Third, “when you need money and other things, how helpful is each of the following people?” coded not at all (1), somewhat (2), or a great deal (3). And fourth, “how much fun do you have with the following people?” coded not at all (1), somewhat (2), or a great deal (3). For each parent type, answers to the four items were summed and scores range from 0 to 10; Cronbach alpha for the mother support was 0.84 and for father support was 0.88.

Peers: Peers were assessed with several measures, adolescents were asked how many of their peers satisfied the following criteria: “go to school regularly,” “get along with their family”, “have jobs”, “are doing sex work”, “are in a gang” and “have been arrested”. For each peer type answers were coded none (1), some (2), most (3) or all (4).

Social Services: These measures included if a adolescents used a variety of different services services. Adolescents were asked if they felt that they needed help and, whether they had used services or not for a variety of problems, including: “help for family problems,” “help for housing/shelter,” “help for school,” “help for income support.” Binary variables were created for each of these service domains, representing whether adolescents used a service (1) or not (0).

Formal Institutions: School attendance was defined as an affirmative response to: “Are you currently attending school?” coded yes (1) or no (0).

Change over time: For each variable used to assess a socializing agent, a variable was created to measure change over time. In each case change, the change over time variable was created by subtracting the value of that variable at baseline from the value at two years. Scores of 0 reflect no change over time, positive values indicate an increase in that measure and negative values a decrease from baseline to two years.

Data Analysis

Descriptive statistics were calculated for background characteristics at baseline, the baseline values for socializing agents, the values for socializing agents at two years, and the outcome measure. Two sets of models were run, one for exiting homelessness at two years and one for stable exiting over two years. The logistic regression procedure was done in two stages. First, unadjusted models were run, examining the association between specific independent variables and the outcome measure (exiting homelessness at the time of the two year follow up) one at a time. For the socializing agents, where there was also a change over time, the models included, both baseline measures of that particular independent variable as well as

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the change over time. Second, a multivariate model was created which retained key demographic variables (age, gender, and race) and those predictors which had a significant effect on exiting homelessness within the context of the unadjusted models. Analyses were conducted using SAS for Windows (Statistical Analysis System, 2000).

Results

Baseline Characteristics of Newly Homeless Adolescents

Exiting homelessness at two years and over time was assessed for the sample of newly homeless adolescents who completed the two year follow-up assessment (n=183). Most adolescents 73% had exited homelessness at the time of the two year interview. Of the 183 adolescents from whom two year follow up data was collected, 87 (48%) of adolescents exited homelessness by 3 months and remained in stable housing for the duration of the study (i.e. stable exiting over two years), while 89 (49%) cycled into and out of homelessness, and only 7 (4%) remained homeless throughout the study.

Table 1 presents the baseline and two year follow up frequencies and percentages (or means and standard deviations). Most (63%) of the adolescents in the sample were female and the average age at the time of the baseline assessment was 15 years. 47% of the adolescents identified as Latino/Hispanic, 21% as African American, 17% as European American, 2% as mixed race/ethnicity, and 2% as another race/ethnicity. Adolescents had left home an average of two times prior to the current homeless episode; however, 59% of the adolescents had been away from home less than one month in total. Nearly half (45%) of the adolescents reported family violence as a reason for leaving home, while 24% reported physical abuse and 9% reported sexual abuse as reasons for leaving.

Socializing Agents for Newly Homeless Adolescents

Most adolescents (62%) reported that their mother was available to talk to, yet only 26% reported having a father who was available to them. The overall social support scales reflect this, with the average maternal support score being greater than the average paternal support score. Most adolescents had some pro-social peers, with 71% of adolescents reported that either “most” or “all” of their friends were currently attending school. Likewise, nearly half (48%) reported that “most” or “all” of their peers got along with their family. To the contrary, very few newly homeless adolescents reported anti-social peers at baseline, 44% reported “none” of their friends had been arrested and 90% reported “none” of their friends were doing sex work. A minority of newly homeless adolescents reported using the four different types of social services. Shelter/housing services were the most used (39%) and income support was the least often used (6%). The majority of newly homeless adolescents, however, were still attending school (58%). Overall, most adolescents reported a stable engagement with socializing agents across the two year period. Only three of these variables showed a significant change over time; the number of peers attending school declined significantly as did the number of adolescents using shelter/housing and family problem services.

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Unadjusted Odds of Exiting Homelessness at Two Years

The results of the unadjusted odds ratios of being homelessness at two years and predictors are reported on Table 2. Two background characteristics were associated with exiting homelessness. Older adolescents were less likely to exit homelessness; there was a 40% reduction in the likelihood of exiting with each additional year. Adolescents who left home to avoid family violence were associated with a 50% reduction in the likelihood of exiting homelessness at two years.

Three of the socializing agents were significantly associated with exiting homelessness at two years. First, adolescents with more supportive mothers were more likely to exit (OR=1.24, p<.01). Moreover, controlling for baseline levels of support an increase in the level of support over time was associated with an independent increase in the likelihood of exiting homelessness (OR=1.15, p<.05). Second, adolescents who were also using shelters at baseline were associated with a 90% reduction in the likelihood of exiting homelessness at two years. In addition, controlling for baseline use of such services, adolescents who increased their use were less likely to exit homelessness at two years (OR=0.16, p<.01). Third, adolescents who were attending school at baseline were nearly 3 times more likely to have exited homelessness at two years. In addition, controlling for baseline attendance, increases in attendance had an independent association with increased odds of exiting at two years.

Multivariate Analyses of Exiting Homelessness at One Year

Those variables which were significantly associated with exiting homelessness in the unadjusted models were included in the final multivariate model. To ensure that the effects of age, gender, and ethnicity were accounted for in the final model, those variables were also included. The final multivariate logistic regression model for exiting homelessness at one year is displayed in Table 3.

There are several similarities between the multivariate model and the unadjusted models. As before, older adolescents were less likely to exit homelessness at two years (OR=.63, p<.001). Likewise, controlling for other factors, adolescents who left home because of family violence experienced a 67% reduction in the likelihood of exiting homelessness. Baseline maternal support was significantly associated with the odds of exiting homelessness (OR=1.26, p<.01). Moreover, controlling for all other factors, an increase in maternal support over time was associated with an increase in the odds of exiting homelessness at two years (OR=1.18, p<.05). In the presence of these other factors, however, neither the baseline use of shelter services and school attendance nor their change over time were significantly associated with exiting homelessness at two years.

Unadjusted Odds of Stable Exiting over Two Years

The results for the unadjusted odds of stable exiting over two years presented in Table 4 reinforce the results found in the prior set of models. There were three background characteristics associated with stable exiting. Reductions in the odds of stable exiting were associated with male gender (OR=0.41, p<.01), older age (OR=0.65, p<.001), and having been away from home for more than 1 months at baseline (OR=0.54, p<.05).

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Several socializing agents were also significantly associated with stable exiting in the unadjusted models. First, adolescents with more social support from their mothers (OR=1.21, p<.01) or from their fathers (OR=1.14, p<.05) at baseline were more likely to exhibit stable exiting. Moreover, controlling for baseline levels of maternal social support, increases in maternal social support over time were positively associated with the likelihood of stable exiting over two years (OR=1.13, p<.05). Second, several peer variables were associated with stable exiting. Adolescents with more friends in school (OR=1.61, p<.05) or who get along with their family (OR=1.93, p<.01) at baseline were more likely to experience stable exiting. To the contrary, adolescents with more friends who had been arrested experienced a 46% reduction in the likelihood of stable exiting over time. Third, only one social service variable was associated with stable exiting. Adolescents in shelters at baseline experienced an 88% reduction in the likelihood of stable exiting. Fourth, attending school at baseline (OR=2.87, p<.001) and change over time in schooling (OR=4.74, p<.001) were both significantly associated with increased odds of stable exiting over time.

Multivariate Analyses of Exiting Homelessness at One Year

The results of the multivariate logistic regression of stable exiting are presented in Table 5. Controlling for all other factors in the model, male adolescents experienced a 63% reduction in the likelihood of stable exiting over time. Moreover, each additional year of age was associated with an additional 30% reduction in the likelihood of stable exiting. As with the multivariate model for exiting homelessness at two years, controlling for all other confounders, maternal social support at baseline (OR=1.35, p<.001) and increased maternal support over time (OR=1.22, p<.05) were significantly associated with an increased likelihood of stable exiting over two years. Finally, an increased number of peers who get along with their family at baseline (OR=1.98, p<.01) had an independent positive effect on the likelihood of stable exiting over time.

Discussion

Focusing on homeless adolescents' pathways out of homelessness is long overdue. As Tyler and Johnson (2006) used longitudinal data to assess factors that contributed to the likelihood of housed high-risk adolescents running away, in this analysis we used longitudinal data on newly homeless adolescents to assess what factors were associated with exiting homelessness over time. Examining longitudinal data on newly homeless adolescents (away from home less than 6 months) enables us to see the variation that exists in adolescent pathways in and out of homelessness. The results of this study reveal that by two year follow up, 93% of newly homeless adolescents had exited homelessness at some point. Moreover, 48% of the adolescents for whom data was available over two years exited homelessness by the time of their three month interview and remained stably housed throughout the remainder of the two years. Given the negative experiences that adolescents can have on the streets (e.g., Cauce et al., 2000; DeRosa et al., 2001; Ennett et al., 1999), it is promising from an intervention perspective that most adolescents were able to exit at some point and such a large number manifested stable exiting. Recent research suggests that returning to familial housing can lead to more positive behavioral outcomes for homeless adolescents

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(Thompson et al., 2000). Nonetheless, 49% of these adolescents cycled in and out of homelessness.

RAAM as an extension of RAM is supported by these longitudinal data from newly homeless adolescents. This model rests on the premise that behavioral outcomes for homeless adolescents are influenced differentially by their simultaneous engagement in positive and negative socialization experiences across a variety of levels of social organization, in particular family, peers, social services, and formal institutions. In keeping with most prior work on adolescent homelessness, there are many negative socialization experiences for the newly homeless adolescents reported on here, including exposure to family violence, abuse, and anti-social peers (e.g. Tyler et al., 2000; Kipke et al., 1997; Unger et al., 1998; Whitbeck et al., 1999; Cauce et al., 2000; DeRosa et al., 2001; Ennett et al., 1999). The results of this study, however, revealed several important connections to positive socializing agents. Most newly homeless adolescents reported having a mother with whom they could discuss their problems and most adolescents of the newly homeless adolescents were still attending school at baseline. Contrary to the negative image of peer culture typically depicted in the literature on homeless adolescents (e.g. Kipke et al., 1997; McMorris et al., 2002; Rice et al., 2005; Tyler et al., 2000; Unger et al., 1998; Whitbeck & Hoyt, 1999), many of these adolescents were embedded in networks of peers that were supportive of engagement with school and family life. Moreover, few of the newly homeless adolescents had peers who were engaged in sex work or who had been arrested. Finally, a minority of the newly homeless adolescents were heavily engaged in the use of social services at the time of their baseline interview.

The results from the unadjusted models of exiting at two years and stable exiting over time both support the multi-dimensional view of RAAM. Adolescents with more maternal social support at baseline and increasing support over time were more likely to exit at two years and to exhibit stable exiting over two years. Likewise, adolescents attending school at baseline or who changed to attend were more likely to exit at two years and to stably exit over two years. In addition, dependence on shelter services was associated with a decrease in the likelihood of exiting and stably exiting. Finally, as predicted by RAAM, adolescents with more pro-social peers (e.g. in school and get along with their family) were more likely to stably exit, whereas adolescents with more anti-social peers (been arrested) were less likely to stably exit.

Although RAAM does not privilege one socializing agent or level of social organization over another, the data collected from newly homeless adolescents analyzed in the multivariate models revealed that maternal social support was consistently associated with exiting and stable exiting, controlling for all other covariates. Both multivariate models showed the significant, independent effect of maternal support and increases over time in maternal support on the propensity to exit homelessness at two years and to stably exit homelessness over time. While age, gender, family violence, and peers who got along with their families were also significant predictors in at least one model, the robustness of maternal social support is striking, especially as other socializing agents such as engagement with school or use of shelter services were no longer significant in the multivariate models. The importance of a supportive mother is striking because it contradicts the typical image of

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family life for homeless adolescents which is usually depicted as filled with maltreatment, substance abuse, disorganization, conflict, and violence (e.g. Whitbeck & Hoyt, 1999; Whitbeck et al., 2000; Tyler et al., 2000; Tyler, 2006; Tyler & Johnson, 2006). Our data do not discredit these findings, since exposure to family violence decreased the likelihood of exiting. Having a supportive maternal relationship, however, is protective for newly homeless adolescents and a majority of the newly homeless adolescents in this sample reported having a mother from whom they could receive support.

There are two unique features to this data, that it is longitudinal and that it focuses on tracking the experiences of newly homeless youth. By looking at newly homeless youth, we can study homelessness among adolescents from a life course perspective. The data can thus inform what factors lead youth to become part of the chronic adolescent homeless population, and conversely what protective factors may serve to abate the risks associated with chronic homelessness. It is important to note, however, that newly homeless youth are quite different from chronic homeless youth. In a previous paper, we examined in detail the differences in risk behaviors between this sample of newly homeless youth and a sample of chronic homeless youth collected simultaneously: newly homeless youth were associated with a 90% reduction in the odds of engaging in injection drug use and exchange sex, a 43% reduction in the odds of engaging in recent unprotected sex, and a 64% reduction in recent pregnancies (Milburn et al., 2006). These findings are no surprise, as one of the most consistent findings in the literature on adolescent homelessness is that as time on the streets increases, risk behaviors likewise increase (e.g. Tyler et al., 2000; Kipke et al., 1997; Whitbeck & Hoyt, 1999). Moreover, our data showed that the reasons for leaving home differed between newly homeless youth and chronic homeless youth. 50% of newly homeless youth report having been thrown out, relative to 65% of chronic homeless youth. Likewise, sexual abuse led to only 9% of newly homeless youth leaving home, relative to 16% of chronic homeless youth. Cumulatively, these differences clearly show that newly homeless youth are less troubled and less risk taking, and have less problematic relationships with their families. These cross sectional comparisons are in keeping with the longitudinal results reported here which demonstrate that better relationships with mothers and more pro-social peers abate the risk of becoming chronically homeless. Moreover, these differences strongly support the need for early interventions, before family relationships deteriorate and negative peer influences take hold.

There are a few limitations to the present study. First, not all readers may agree with how exiting homelessness is operationalized. We decided that living in a familial housing situation with an adult (or own apartment if over 18) constituted exiting. Broader definitions are possible, such as definitions that would include living in residential placements or medium term accommodations. Second, our data were collected at five different time points, allowing for an analysis of housing situation at the time of those interviews, but more detailed information on the exact date of exiting homelessness was not collected. Consequently, we are able to observe that housing status by the time of the three month interview is critical, but we do not know what the exact timing is. For example, is one month or 10 weeks the critical timeframe for exiting homelessness or not? Finally, we chose to assess exiting at two years and stable exiting from 6 months through 2 years. Obviously, other time points or periods of stability could have been selected, but other analyses not

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presented here revealed results consistent with these findings for the associations with exiting at 6 months, 12 months and 18 months. Third, the age range in this study, as in most studies of adolescent homelessness, is quite large (12 to 20), spanning several important developmental periods. Focusing more closely on a more narrow age range may provide additional insights into the details of how homelessness impacts development beyond gross outcome measures such as HIV risk or chronic homelessness. Finally, this sample is largely Latino. It is possible that Latino youth have different and perhaps stronger family networks of social support which may facilitate exiting homelessness.

We believe that the support found here for the Risk Amplification and Abatement Model suggests several key directions for future research. First, more attention must be paid to the ongoing relationships homeless youth have with their families, especially their mothers. Understanding how these relationships are maintained and how these relationships promote positive outcomes is critical. Likewise, more attention must be paid to pro-social peers. The literature is inundated with work on negative peer influence. As a field we do not understand which street youth are pro-social, what enables them to be pro-social, or what social status pro-social youth occupy in the lives of other homeless youth. In addition, more work needs to be done on how engagement with formal institutions impact positive outcomes. It seems quite likely that returning to school, getting a general equivalency diploma (GED), or going to a trade school would provide homeless youth not only with positive socialization experiences but needed job and educational credentials, which should help youth to engage positive outcomes. Much more research is needed on how social services affect these youth, especially since these agencies will become the hub of any intervention activity. Engaging social services could have an enabling as and an empowering impact on homeless youth. Moreover, we examined only one outcome, exiting homelessness over two years, yet many other positive and negative outcomes need to be explored within the context of this model, including sexual risk, drug-taking risk, returning to school, and securing/maintaining employment. Finally, a key avenue for future study should to collect longitudinal data on chronic homeless youth to examine how well this model fits youth who have become more deeply embedded in street life and more alienated from home life.

The Risk Amplification and Abatement Model stresses the idea that while newly homeless adolescents are exposed to risk amplifying socializing agents, they also maintain an engagement with a variety of positive socializing agents that can be mobilized to abate negative outcomes and promote positive outcomes. This model and the results presented here highlight the potential for early interventions with homeless youth. When adolescents first leave home they are not yet committed to a pathway of chronic homelessness. Although most newly homeless adolescents exit homelessness to return to familial housing within two years, nearly half cycle in and out of homelessness. Fueled by the strength of the maternal support findings, we believe that a family-based intervention for newly homeless adolescents is a promising strategy to deter adolescents from becoming chronically homeless. The positive aspects of family life need to be augmented while simultaneously conflict resolution and communication skills need to be taught to both adolescents and parents. In addition, the multi-dimensional nature of the model demands that connections to socializing agents at other levels of social organization also be strengthened. In particular, we believe that promoting continued school attendance and promoting the engagement with

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pro-social peers are additional avenues to social support that compliment a family-based intervention. For abused adolescents, who have more difficulty exiting homelessness, returning to their origin families may not be appropriate, but for the majority of newly homeless adolescents who have not experienced abuse, families seem a logical focus for early intervention activities.

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Table 1

Descriptive Statistics.

	Baseline		24 Months		
	n mean	% sd	n mean	% sd	McNemar/ Paired t-test
Background Characteristics					
Male	68	37.16 %			
Age	15.35	1.76			
Race					
White (non-Hispanic)	32	17.49 %			
African American	39	21.31 %			
Hispanic or Latino	86	46.99 %			
American Indian/ Alaskan Native	3	1.64 %			
Asian or Pacific Islander	1	0.55 %			
Mixed Race	22	12.02 %			
Away From Home > 1 Month	75	41.44 %			
Reasons for Leaving Home					
Sexual Abuse	17	9.29 %			
Physical Abuse	43	23.50 %			
Family Violence	83	45.36 %			
Socializing Agents					
Family					
Support from Mother	6.44	2.80	6.62	3.07	−1.28
Support from Father	4.28	2.85	4.23	2.94	−0.24
Peers					
In School	3.06	1.00	2.60	1.00	4.83 *
Get Along with Family	2.72	0.99	2.78	0.91	−0.58
Doing Sex Work	1.12	0.42	1.12	0.38	0.00
Have Been Arrested	1.85	0.93	1.97	0.85	−1.61
Social Services					
Shelter	72	39.34 %	10	5.46 %	54.91 *
Family Problems	63	34.43 %	9	4.92 %	48.60 *
School	28	15.3 %	17	9.29 %	3.46
Income Support	11	6.01 %	6	3.28 %	1.67
Formal Institutions					
Currently Attending School	106	57.92 %	92	50.27 %	2.45

*** p<.001;

** p<.01;

* p<.05

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Table 2

Unadjusted Odds Ratios of Exiting Homelessness at Two Years.

	Odds Ratio	95 % Confidence Interval
Background Characteristics		
Male	0.60	0.31 , 1.16
Age	0.62 ***	0.50 , 0.78
Race		
Hispanic or Latino	0.85	0.44, 1.62
Away From Home > 1 Month	0.77	0.40 , 1.49
Reasons for Leaving Home		
Sexual Abuse	0.66	0.23 , 1.89
Physical Abuse	0.83	0.39 , 1.76
Family Violence	0.50 *	0.26 , 0.96
Socializing Agents		
Family		
Support from Mother	1.24 **	1.08 , 1.43
Change over time	1.15 *	1.02 , 1.29
Support from Father	1.01	0.87 , 1.16
Change over time	0.97	0.85 , 1.12
Peers		
In School	1.34	0.87 , 2.06
Change over time	1.22	0.86 , 1.72
Get Along with Family	1.07	0.68 , 1.68
Change over time	0.92	0.63 , 1.35
Doing Sex Work	0.76	0.26 , 2.19
Change over time	1.04	0.43 , 2.56
Have Been Arrested	0.74	0.46 , 1.18
Change over time	1.23	0.80 , 1.87
Social Services		
Shelter	0.09 **	0.02 , 0.42
Change over time	0.16 **	0.04 , 0.63
Family Problems	1.71	0.83 , 3.53
Change over time	0.82	0.42 , 1.60
School	1.15	0.29 , 4.63
Change over time	1.27	0.39 , 4.12
Income Support	0.26	0.03 , 1.91
Change over time	0.38	0.07 , 1.95
Formal Institutions		
Currently Attending School	2.76 **	1.39 , 5.51
Change over time	3.43 **	1.38 , 8.56

*** p<.001;

** p<.01;

* p7lt;.05

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Table 3

Multivariate Logistic Regression Model of Exiting Homelessness Years.

	Odds Ratio	95 % Confidence Interval
Background Characteristics		
Male	0.70	0.30 , 1.63
Age	0.63 ***	0.48 0.83
Latino	0.59	0.27 , 1.31
Reasons for Leaving Home		
Family Violence	0.43 *	0.19 , 0.94
Socializing Agents		
Family		
Support from Mother	1.26 **	1.07 , 1.49
Change over time	1.18 *	1.03 , 1.35
Social Services		
Shelter	0.27	0.05 , 1.49
Change over time	0.28	0.06 , 1.38
Formal Institutions		
Currently Attending School	1.40	0.62 , 3.16
Change over time	1.33	0.44 , 4.03
−2 Log Likelihood	165.97	

*** p<001;

** p<.01;

* p<.05

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Table 4

Unadjusted Odds Ratios of Stable Exiting Over Two Years.

	Odds Ratio	95 % Confidence Interval
Background Characteristics		
Male	0.41 **	0.22 , 0.76
Age	0.65 ***	0.53 , 0.78
Race		
Hispanic or Latino	1.21	0.67 , 2.16
Away From Home > 1 Month	0.54 *	0.30 , 0.99
Reasons for Leaving Home		
Sexual Abuse	0.98	0.36 , 2.66
Physical Abuse	0.84	0.42 , 1.67
Family Violence	0.62	0.34 , 1.11
Socializing Agents		
Family		
Support from Mother	1.21 **	1.07 , 1.38
Change over time	1.13 *	1.01 , 1.27
Support from Father	1.14 *	1.00 , 1.29
Change over time	1.10	0.98 , 1.24
Peers		
In School	1.61 *	1.08 , 2.40
Change over time	1.27	0.93 , 1.74
Get Along with Family	1.93 **	1.26 , 2.96
Change over time	1.36	0.96 , 1.93
Doing Sex Work	0.30	0.08 , 1.10
Change over time	0.84	0.36 , 1.96
Have Been Arrested	0.64 *	0.42 , 0.99
Change over time	0.92	0.63 , 1.32
Social Services		
Shelter	0.12 *	0.02 , 0.65
Change over time	0.30	0.06 , 1.50
Family Problems	1.58	0.39 , 6.48
Change over time	1.32	0.34 , 5.17
School	1.03	0.30 , 3.46
Change over time	1.32	0.48 , 3.63
Income Support	0.36	0.05 , 2.87
Change over time	0.57	0.10 , 3.20
Formal Institutions		
Currently Attending School	2.87 ***	1.56 5.28
Change over time	4.74 ***	2.05 10.97

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*** p<001;

** p<.01;

* p<.05

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Table 5

Multivariate Logistic Regression Model of Stable Exiting Over Two Years.

	Odds Ratio	95% Confidence Interval
Background Characteristics		
Male	0.37 *	0.15 , 0.89
Age	0.70 **	0.54 , 0.91
Race		
Hispanic or Latino	0.83	0.38 , 1.81
Away From Home > 1 Month	1.18	0.51 , 2.73
Socializing Agents		
Family		
Support from Mother	1.35 *	1.13 , 1.61
Change over time	1.22 *	1.05 , 1.42
Support from Father	0.99	0.86 , 1.14
Peers		
In School	0.87	0.56 , 1.35
Get Along with Family	1.89 **	1.24 , 2.87
Have Been Arrested	0.72	0.46 , 1.13
Social Services		
Shelter	0.76	0.33 , 1.75
Formal Institutions		
Currently Attending School	1.64	0.74 , 3.67
Change over time	2.55	0.85 , 7.69
−2 Log Likelihood	214.87	

*** p<001;

** p<.01;

* p<.05