Published in final edited form as:

Am J Orthopsychiatry. 2009 January ; 79(1): 39–50. doi:10.1037/a0015411.

Paternal and Maternal Influences on Problem Behaviors Among Homeless and Runaway Youth

Judith A. Stein, PhD,

Department of Psychology, University of California, Los Angeles

Norweeta G. Milburn, PhD,

Department of Psychiatry, University of California, Los Angeles

Jazmin I. Zane, MSW, and

School of Social Welfare, University of California, Los Angeles

Mary-Jane Rotheram-Borus, PhD

Department of Psychiatry, University of California, Los Angeles

Abstract

Using an Attachment Theory conceptual framework, associations were investigated among positive paternal and maternal relationships, and recent problem behaviors among 501 currently homeless and runaway adolescents (253 males, 248 females). Homeless and runaway youth commonly exhibit problem behaviors such as substance use, various forms of delinquency and risky sex behaviors, and report more emotional distress than typical adolescents. Furthermore, attachments to their families are often strained. In structural equation models, positive paternal relationships significantly predicted less substance use and less criminal behavior, whereas maternal relationships did not have a significant effect on or association with either behavior. Positive maternal relationships predicted less survival sex behavior. Separate gender analyses indicated that among the females, a longer time away from home was significantly associated with a poorer paternal relationship, and more substance use and criminal behavior. Paternal relations, a neglected area of research and often not addressed in attachment theory, should be investigated further. Attachments, particularly to fathers, were protective against many deleterious behaviors. Building on relatively positive relations and attachments may foster family reunifications and beneficial outcomes for at-risk youth.

Keywords

paternal relationships; maternal relationships; attachment theory; runaway adolescents; problem behaviors

The current study assesses the protective role of positive relations with fathers and mothers on mitigating externalizing and internalizing problem behaviors among homeless and runaway adolescents, a subpopulation that is at risk for a variety of physical, mental health, and behavioral problems. These youth typically exhibit elevated problem behaviors such as substance use, delinquency, risky sex behaviors, and also report emotional distress (Darling, Palmer, & Kipke, 2005; Whitbeck, Hoyt, Yoder, Cauce, & Paradise, 2001). These problems may be associated in part with relations that these youth have with their parents. It has been demonstrated that among homeless and runaway adolescents, family relations may be

particularly dysfunctional and reflect early abuse and neglect as well as disorganization within the home (Paradise & Cauce, 2002; Paradise, Cauce, Ginzler, Wert, Wruck, & Brooker, 2001; Tyler, 2006; Whitbeck, Hoyt, & Yoder, 1999). Runaway and homeless youth often have inadequate caregiver protective relationships and impaired attachment security that can foster problem behaviors and difficulties in psychosocial development (Golder, Gillmore, Spieker, & Morrison, 2005; Paradise et al., 2001). An insecure attachment climate is considered an important antecedent of various problem behaviors including running away from home (Tavecchio, Thomeer, & Meeus, 1999).

Among normative populations of adolescents, positive parent–child connectedness is generally protective against emotional distress, violence, substance use, and sexual behavior (Resnick et al., 1997). Although homeless and runaway adolescents are often studied in isolation from their families of origin, some researchers have examined the protective role of family relationships and attachments among homeless and runaway youth (e.g., Milburn, Rotheram-Borus, Batterham, Brumback, Rosenthal, & Mallett, 2005; Paradise et al., 2001; Slesnick, Bartle-Haring, & Gangamma, 2006; Tavecchio et al., 1999). The current study expands these inquiries to assess whether there is a differential protective effect of attachment to mothers and fathers.

Attachment Theory

Attachment theory is widely recognized for its importance in conceptual issues in child development (Ainsworth & Bowlby, 1991; Bretherton, 1997). This theory stresses the importance of developing a positive attachment with a parent or caregiver, which normally stems from physiological needs being met as an infant and as a young child (Cassidy, 1999; Stefanidis, Pennbridge, MacKenzie, & Pottharst, 1992). The mother is usually conceptualized as the primary attachment figure. Bowlby (1982) contends that children who are seriously deprived of primary care (especially care associated with the mother) have difficulties developing relationships as they become older, and that the parent–child bond is vital to the development of young children. Disruptions in this bond can have negative ramifications, such as hostility, antisocial tendencies, and emotional problems (Koback, 1999). Primary attachment relationships provide a protective foundation for the child (and later adult) to explore his or her environment and to meet developmental challenges (Antonucci, 1994; Bretherton, 1997). Two important aspects of this theory apply to the current study. First, having at least one significant positive attachment (that does not have to be with the mother) can have profound effects on a child's self-esteem and ability to overcome adversity (Stefanidis et al., 1992). A significant positive attachment can aid in greater resiliency for youth, even among those who have run away or are separated from their families. For example, Stefanidis et al. (1992) found that among homeless and runaway youth, those with more secure attachment histories were able to reintegrate into society more readily. Second, homeless and runaway youths exhibiting negative and antisocial behaviors may not have had “secure base” in which they felt safe to explore their environment, and thus have developed problem behaviors as a result (e.g. Golder et al., 2005). Furthermore, a child can develop a “secure base” with one caregiver or an alternate caregiver, which is relevant to the current population being investigated, in which interactions with both parents may not be occurring although both parents or alternates have been available to them in the past.

In the current homeless/runaway sample being used in this study, less than a third of the adolescents live in a two-parent household (and only one of the parents may be their biological parent) whereas the majority of children in the United States under the age of 18 are in households with their two biological parents (Phares, Fields, Kamboukos, & Lopez, 2005). The homeless adolescents of this study were more likely to be living with a mother before they left home. However, all within this study are able to report on the quality of their

relationship with both a father (or father figure) and a mother (or mother figure). Hence, building on the findings of Stefanidis et al. (1992) the current study can assess differential effects of relations with fathers and mothers in terms of parental impact on antisocial behaviors and emotional health among homeless youth.

Paternal Relationships

The body of research on fathers is far less extensive than research on the effects of mothers (e.g., Bowlby, 1982), and arguably has been relatively neglected (Phares, Fields, et al. 2005). The underrepresentation of fathers in much pediatric and adolescent developmental and clinical research was noted in the 1990s and has continued to the present (e.g., Costigan & Cox, 2001; Phares, 1992; Phares, Lopez, Fields, Kamboukos, & Duhig, 2005).

Recently, however, there has been a heightened interest in the roles of fathers in child development, even if they are not present in the principal household of the child (Flouri, 2006; Guterman & Lee, 2005; King & Sobolewski, 2006). Several studies have documented significant effects of paternal factors on child development (e.g., Bronte-Tinkew, Moore, & Carrano, 2006; Flouri & Buchanan, 2003; Kosterman, Haggerty, Spoth, & Redmond, 2004; Ohannessian et al., 2005; Phares & Compas, 1992). For instance, paternal drug and alcohol problems have been associated with many negative outcomes for adolescents, including alcoholism and drug use, aggression, and depression (Ohannessian et al., 2005; Phares & Compas, 1992).

On the other hand, positive paternal involvement and connectedness has been found to be protective for adolescent well-being in normative populations, which is congruent with attachment theory. Flouri and Buchanan (2003) found that the effect of paternal involvement was stronger than that of the mother and there was no differential effect for sons and daughters. Kosterman et al. (2004) investigated parental effects in a normative sample of sixth-grade children, and found some unique effects of mothers and fathers on antisocial behaviors in their children, depending on the child's gender. They found a cross-gender influence for fathers' control of their daughters' antisocial behavior. Bronte-Tinkew et al. (2006) found that a positive father-child relationship predicted a reduced risk of delinquency and substance use. They also found a stronger effect for the male adolescents than that of the female adolescents.

Fathers may have an impact on mental health and behavioral outcomes even if they are not present full-time in the lives of their children (Dunn, Cheng, O'Connor, & Bridges, 2004; Simons, Whitbeck, Beaman, & Conger, 1994). King and Sobolewski (2006) examined nonresident fathers' contributions to adolescent well-being in an epidemiological sample and reported that a positive father-child relationship and responsive parenting by the father had associations with fewer externalizing and internalizing problems among adolescents even though the quality of the relationship with mothers had stronger effects on their well-being. Their results, although significant, were relatively modest. In a rural sample, Simons et al. (1994) found that a supportive relationship with a nonresident father predicted fewer externalizing behavior problems and was unrelated to internalizing problems.

Furthermore, because many biological fathers are nonresident, many youth live in step-families. The quality of the relationship with the step-father may be as important as or more important than the relationship with the biological father (Dunn, O'Connor, & Cheng, 2005; Schwartz & Finley, 2006). A close, nonconflictual stepfather-stepchild relationship is predictive of adolescent well-being especially when the relationship with the mother is also close and nonconflictual (Vogt Yuan & Hamilton, 2006).

Hypotheses: Internalizing and Externalizing Outcomes

It is hypothesized that more positive attachment to fathers and to mothers will be associated with fewer dysfunctional outcomes commonly found among runaway/homeless youth including substance use, criminal behaviors, “survival sex” behaviors, and emotional distress. Survival sex is usually not voluntary but rather indicates victimization and is a last resort turned to in desperation as a survival strategy (Greene, Ennett, & Ringwalt, 1999; Tyler & Johnson, 2006). Tyler, Whitbeck, Hoyt, and Cauce (2004) found that 35% of their sample of homeless and runaway youth had been sexually victimized and that running away at an earlier age was associated with more sexual victimization among females. Darling et al. (2005) investigated the impact of street youths’ perceptions of caregivers on their HIV-risk behaviors. Although Darling et al. found that problems with caregivers were associated with high-risk drug use and more sexual partners, they did not distinguish caregivers by gender. The current study addresses this issue by assessing the separate impact of fathers and mothers. We hypothesize that positive attachments and relations with both mothers and fathers will be important in mitigating adverse behaviors.

Hypotheses Regarding Other Predictor Variables

In addition to assessing the relative impact of positive attachments to fathers and mothers, this study also investigated reports a violent or abusive home environment as a predictor of externalizing and internalizing problem behaviors. It is hypothesized that leaving home because of physical abuse, sexual abuse, and violence will predict more problem behaviors and emotional distress. There is a large body of evidence suggesting that harsh physical discipline leads to antisocial behavior (Nobes & Smith, 2000) and homeless youth are highly likely to report histories of abuse and neglect (Darling et al., 2005; McMorris, Tyler, Whitbeck, & Hoyt, 2002). Homeless adolescents who report neglect and sexual abuse are also more likely to engage in deviant behaviors and be victimized on the street (Thrane, Hoyt, Whitbeck, & Yoder, 2006).

The impact of a length of time away from home on externalizing and internalizing behaviors is also assessed. We hypothesize that longer time away from home will be associated with more problem behaviors including criminal behaviors, substance use, and survival sex behaviors. Gender is included as a covariate and predictor in the model that uses the entire sample. Numerous studies indicate that males engage in more externalizing problem behaviors and the same is expected in this current sample (e.g., Laird, Pettit, Dodge, & Bates, 2005). In further analyses, differential cross-gender paternal and maternal effects on the adolescent females and males were assessed by dividing the sample by gender. The hypothesis based on attachment theory is the same as that the entire sample, that is, that positive attachments will be associated with fewer problem behaviors and psychological distress. In addition, some gender-specific relations may not be apparent from the combined sample. Age is also an important variable related engagement in externalizing behaviors and was also included as further control.

Method

Participants

Homeless and runaway adolescents were selected in Los Angeles County through a three-step process of: (a) sampling; screening for eligibility and recruitment; and (c) assessment. Homeless or runaway adolescent was defined as: (a) one whose age ranged from 12 to 21 years; and (b) having spent at least two consecutive nights away from home either without their guardian’s permission or after having been told to leave home.

Sampling—Two subgroups of homeless youth were identified: (a) homeless youth who had been living away from home for less than 6 months in total; or (b) homeless youth who had been living away from home for more than 6 months. Sites were selected through a systematic process. First, all of the potential recruitment sites for homeless adolescents in Los Angeles County were identified by interviewing line and supervisory staff in agencies that served homeless adolescents throughout the county (Brooks, Milburn, Witkin, & Rotheram-Borus, 2004). Thirty sites were identified, including 17 shelters and drop-in centers and 13 street hangout sites. Next, the 30 sites were audited at preselected randomized times over three different week-long time periods to determine the number of homeless adolescents that could be 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. The interviewers approached youth at the sites, identifying themselves as researchers, and asked youth if they would take a few minutes for an interview about their homelessness.

Screening and recruitment—Interviewers used a 13-item screener to determine whether adolescents met the eligibility criteria as homeless. Because of their underrepresentation in previous studies of homeless adolescents, homeless adolescents who had been living on the streets for less than 6 months were oversampled. Newly homeless adolescents are often more difficult to find because they have not become connected to shelters and centers where more experienced homeless adolescents tend to congregate. Thus, all homeless adolescents who had been living on the street for less than 6 months were recruited and adolescents who had been living on the streets for more than 6 months were randomly selected for recruitment (Milburn, Ayala, Rice, Batterham, & Rotheram-Borus, 2006). This process was designed to capture a relatively large subset of newly homeless youth for a longitudinal study assessing the trajectory of their homelessness over a longer period of time (e.g., Milburn et al., 2005).

Assessment—Following screening, voluntary informed consent was obtained from each adolescent. Informed consent was obtained directly from all participants 18 years and older. For minors, parental consent was obtained either directly or *en loco parentis*. *En loco parentis* was obtained from a member of the outreach recruitment team and assent was obtained from the minor (Milburn et al., 2005; Milburn, Rotheram-Borus, Rice, Mallett, & Rosenthal, 2006). The study and all consent procedures including *en loco parentis* ramifications were approved by the University of California Los Angeles Institutional Review Board. Interviews were conducted face-to-face in convenient locations using an audio-taped computer assisted interview and were about 1 to 1.5 hours in length. All participants received \$20 as compensation for their time. Content of the interviews and compensation were also approved by the UCLA Institutional Review Board.

Current study participants—A total sample size of 707 was recruited. Baseline refusal rates were less than 7%. For the current study, only those youth providing information on both a father (or father proxy) and a mother (or mother proxy) were retained leaving a sample size of 501 (248 females, 253 males). The retained and deleted youth were contrasted by one-way analyses of variance on variables used in the current study (gender, ethnicity, age, attitudes toward the remaining parent, emotional distress, tobacco use, alcohol use, marijuana use, harder drugs, the criminal and sexual behaviors used in this study, and importance of varied reasons for leaving home). None of the variables were significantly different between the two groups.

About 33% of the final sample of 501 lived with two parents before they were homeless or runaways although both may not have been their biological parents. Mothers or mother-proxies included mothers (86%), grandmothers (6%), foster mothers (2%), or others such as sisters or aunts (6%). Fathers or father-proxies included fathers (77%), grandfathers (5%), foster fathers (3%), or others (15%). The sample was 28% White, 20% African American, 33% Hispanic,

2% Native American, and 1% Asian; 15% identified themselves as mixed. The average, median, and modal age was 17 years ($S.D. = 2.1$). Only one participant was 21 years of age; 56% of the sample was under 18 years of age.

Measures

The analytic method used in this study was structural equation modeling (SEM) using latent variables (Bentler, 2006). Indicators of the latent variables are described below.

Predictors

Demographics—Single-item variables represented their age in years, and gender. The sample was divided about evenly for males and females. Gender was coded 1 for females and 2 for males. In preliminary analyses, whether they lived with two parents when they were home was included but this living situation was not significantly associated with any of the other variables in the model and was dropped from the analyses. Ethnicity had very little relation to the variables in the model, especially parent relationships, and also was not included.

Time away from home—One variable indicated the length of time that they had been away from home. This variable ranged from 1 (less than 1 month) to 7 (more than 12 months). The median time away was 4 to 6 months (scored a 4). Twenty percent of the sample had been away from home less than 1 month; 25% of the sample had been away for more than 12 months.

Parent relationship—We operationalized Attachment Theory with one latent variable representing the quality of their relationship with their mother and one representing the quality of their relationship with their father. Items were selected that reflected affection, warmth, rejection, and indifference (e.g., Tavecchio et al., 1999). Each latent variable was constructed with the same six items that were selected from factor analyses of a larger instrument that assessed a variety of opinions about their male parent and their female parent. Items were developed by an expert panel on family relationships and homeless adolescents to ensure face validity. These items have been used in previous publications (e.g., Milburn et al., 2005). Responses ranged from 1 = *strongly agree*, 2 = *agree*, 3 = *disagree*, to 4 = *strongly disagree*, and items were reversed when appropriate so that higher scores indicated better relationships. Items were: “I fight with her/him all the time,” “I do not respect my mother/father,” “She/he does not respect me,” “My mother/father loves me,” “My mother/father does not care for me,” and “I love my mother/father.” Coefficient α was .85 for the six items for mothers and .90 for the six items for fathers. To avoid too many indicators, the six scores for each parent were randomly combined into parcels of two to obtain three mean relationship indicators. Parceling is acceptable in structural modeling when alpha coefficients are high (Yuan, Bentler, & Kano, 1997).

Reason for leaving home because of abuse and violence—Several possible reasons for leaving home were presented to the homeless youth and rated on their importance. Three items specified leaving home because of (a) physical abuse; (b) sexual abuse; and (c) violence in the home. The three items were worded with the stem “how important was this factor as a reason for you leaving home the last time” (Coefficient $\alpha = .67$ for the total sample, .60 for males, .71 for females). Responses ranged from 1 to 4 with 1 = *not important*, 2 = *somewhat important*, 3 = *important*, and 4 = *very important*. Items were not available that directly asked whether the participant had been abused or had experienced violence; these items only assessed whether these were important reasons for leaving home.

Externalizing and Internalizing Outcome Variables

Substance use—Substance use was indicated by five measured items (Coefficient $\alpha = .68$): the amount of daily use of cigarettes and alcohol in the past 3 months, and the number of days they used marijuana, or crack or cocaine in the past 3 months. Use of ecstasy or other “club drugs” (e.g., ketamine) was reported by a dichotomous yes (1), no (0) question. Daily use of cigarettes was assessed on a scale of 0 to 6 with 0 = *none*, 1 = *less than one cigarette a day*, 2 = *1–5 cigarettes a day*, 3 = *about ½ pack a day*, 4 = *about a pack a day*, 5 = *1 ½ packs a day*, and 6 = *2 packs a day or more*. Daily use of alcohol was assessed by the number of drinks they had in a day with a “shot” or a 10 oz. bottle of beer equaling one drink. Responses were scaled 0 to 6 (0 = *no drinks*, 1 = *1 drink*, 2 = *2 drinks*, 3 = *3–6 drinks*, 4 = *7–10 drinks*, 5 = *11–15 drinks*, and 6 = *16 or more drinks*).

Criminal behaviors—Participants were questioned about ways in which they obtained money in the past 3 months. Through factor analysis, three items formed a separate factor that reflected criminal behaviors: selling drugs, gambling deals (e.g., running numbers), and stealing (e.g., cars). These were dichotomous yes (1), no (0) items (Coefficient $\alpha = .65$). Participants were not questioned directly about delinquent behaviors or violent, antisocial behaviors because of community agency concerns about breaches in confidentiality.

Survival sex—Among the questions about ways in which they obtained money in the past 3 months, three items were concerned with sexual behavior for money or other rewards. These items included: having/trading sex for money, participating in pornography, and having/trading sex for a place to stay. These were dichotomous yes (1), no (0) items (Coefficient $\alpha = .73$).

Psychological distress—The Brief Symptom Inventory (BSI) (Derogatis, 1992) was used to assess psychological distress. Ratings range from 0 = *not at all* to 4 = *extremely*; higher scores indicate more distress. Mean scores from each of the nine sub-scales of the BSI were used as indicators of emotional distress (Coefficient $\alpha = .92$). To avoid too many indicators, scores were combined into parcels of three to obtain three mean psychological distress indicators.

Analysis

Total sample confirmatory factor analysis and path analysis—The analyses were performed using the EQS structural equations program (Bentler, 2006). Latent variable analysis allows one to evaluate causal hypotheses with correlational, nonexperimental data. Goodness-of-fit of the models was assessed with the maximum-likelihood χ^2 statistic, the Comparative Fit Index (CFI), the Satorra-Bentler χ^2 (S-B χ^2), the Robust Comparative Fit Index (RCFI), and the root mean squared error of approximation (RMSEA) (Bentler, 2006). The Robust S-B χ^2 was used in addition to the maximum likelihood χ^2 because it is more appropriate when the data depart from multivariate normality. This statistic provides an adjustment for multivariate nonnormality and the multivariate kurtosis estimate was high (z -statistic = 68.21) rejecting multivariate normality. The CFI and RCFI range from 0 to 1 and reflect the improvement in fit of a hypothesized model over a model of complete independence among the measured variables. CFI and RCFI values at .95 or greater are desirable, indicating that the hypothesized model reproduces 95% or more of the covariation in the data. The RMSEA is a measure of lack of fit per degrees of freedom, controlling for sample size, and values should be equal to .05 or less to indicate a relatively good fit between the hypothesized model and the observed data.

An initial confirmatory factor analysis (CFA) assessed the adequacy of the hypothesized measurement model and the associations among the latent variables. Then the hypothesized latent variable path model positioned age and gender, time away from home, Relationship with

Mother, Relationship with Father, and Leaving Home because of Abuse and Violence as predictors of Substance Abuse, Criminal Behavior, Survival Sex, and Psychological Distress. Following the procedure of MacCallum (1986), all possible predictive paths were included and gradually deleted if they were nonsignificant.

To test for the differential impact of paternal and maternal relationships, constrained models were tested. For instance, the correlation between paternal relationship and criminal behavior and the correlation between maternal relationship and criminal behavior were constrained to equality after a baseline model with no constraints was tested. The plausibility of the equality constraints was determined with adjusted chi-square difference tests. A scaled chi-square such as the Satorra-Bentler cannot be used directly for chi-square difference testing of nested models because a difference between two scaled chi-squares is not distributed as chi-square (Satorra & Bentler, 2001). An adjustment developed to counter this problem is reported in Satorra and Bentler (2001). A significant decrement in fit in the model with the equality constraint would indicate that there was a significant difference between the two correlations.

Multisample analyses—The sample was divided by gender. Hypotheses on various degrees of cross-sample equality were tested starting with an unrestricted model in which no assumptions were made about the comparability of various parameters between the groups. Increasingly restrictive equality constraints were gradually introduced including the hypotheses that their factor structures were similar and then that the correlations among the constructs in the model were similar. The plausibility of the equality constraints was determined with goodness-of-fit indexes, chi-square difference tests, and results of the LaGrange Multiplier (LM) test (Bentler, 2006). In the context of a multisample model, the LM test provides univariate and multivariate information concerning which equality constraints provide a significantly worse fit.

Results

Confirmatory Factor Analysis

Combined sample—Table 1 reports summary statistics of the measured variables and the factor loadings of the hypothesized factor structure. All factor loadings were significant ($p < .001$). Fit indexes for the CFA model were all excellent: ML χ^2 (257, $N = 501$) 449.39, CFI = .96, RMSEA = .039, $p < .001$; S-B χ^2 (257, $N = 501$) = 396.77, RCFI = .96; RMSEA = .033, $p = .001$. The significant p values for model fit are common in analyses with large samples and numerous degrees of freedom (Byrne, 2006; Marsha, Balla, & McDonald, 1988). Trivial differences between the hypothetical model and set of real data are magnified in these situations that have led to the development of the other fit indexes that are reported in this manuscript (Ullman, 2007). No modifications were added to the CFA model.

Table 2 reports the correlations among the variables in the model for the total sample. Of note, a good relationship with the father was significantly associated with a good relationship with the mother, less likelihood of leaving home because of abuse and - violence, less substance use, less criminal behavior and less psychological distress. A good relationship with the mother was associated with less likelihood of leaving home because of abuse and violence, less survival sex, and less psychological distress. Relationship with the father was not associated with gender of the youth. However, male gender was associated with a better relationship with the mother. Male adolescents reported more criminal behavior, less psychological distress, and were away from home longer. Older youth reported leaving home because of abuse and violence more often, more substance use, criminal behavior, survival sex, and were more likely to be male and away from home longer. Substance use was associated with more criminal behavior, survival sex behaviors, greater psychological distress, and a longer time away from home.

Criminal behavior was associated with - greater psychological distress, and a longer time away from home.

Adjusted chi-square difference tests assessed whether the correlations of the variables in the model with positive relationships with fathers and mothers were significantly different from each other (critical value for $\chi^2_{\text{diff}}=3.94$, 1 *df*, $p \leq .05$). Differences were nonsignificant for time away from home (correlation with Good Relationship with Father, $-.04$, correlation for Mother, $-.03$), Left Home because of Abuse or Violence ($-.23$ vs. $-.28$), Psychological Distress ($-.12$ vs. $-.18$), and Survival Sex ($-.07$ vs. $-.16$) (although for Survival Sex a good relationship with - mother was significant whereas a good relationship with father was not). Significant differences included: Substance Use (Positive Relationship with Father, $-.25$ vs. Positive Relationship with Mother $-.08$, $\chi^2_{\text{diff}}=6.00$, 1 *df*), Criminal Behavior ($-.24$, $-.05$, $\chi^2_{\text{diff}}=9.32$, 1 *df*), gender ($.02$ vs. $.19$, $\chi^2_{\text{diff}}=5.86$, 1 *df*), and age ($-.10$ vs. $.06$, $\chi^2_{\text{diff}}=5.49$, 1 *df*).

Separate gender samples—Table 1 also reports the summary statistics for the male and female adolescents. Each separate CFA model had a good fit (Males: ML χ^2 (241, $N = 253$) = 333.34, CFI = .96, RMSEA = .039, $p < .001$; S-B χ^2 (241, $N = 253$) = 296.56, RCFI = .97, RMSEA = .030, $p < .001$; Females: ML χ^2 (241, $N = 248$) = 370.73, CFI = .95, RMSEA = .047, $p < .001$; S-B χ^2 (241, $N = 248$) = 315.48, RCFI = .95, RMSEA = .035, $p < .001$). Table 3 reports the correlations among the constructs of the model by gender (females above the diagonal). Although some correlations appear substantially different for the males and females, only a few were significantly different as reported in the constrained multisample analyses. The significant differences are discussed below and indicated in the table as well with boldface type.

Predictive Path Model

Total sample—In the path model, demographics, reasons for leaving home, length of homelessness and parental relationships were hypothesized and positioned as influences on the outcome problem behaviors. The final path model is depicted in Figure 1 after nonsignificant paths were deleted. Fit indexes were very good: ML $\chi^2=477.85$, 279 *df*; CFI = .96, RMSEA = .038, $p < .001$; S-B $\chi^2 = 424.13$, 279 *df*; RCFI = .96; RMSEA = .032; $p < .001$.

A good relationship with the father predicted less substance use and less criminal behavior; a good relationship with the mother predicted less survival sex behavior. Leaving home because of abuse and violence predicted more psychological distress. Males reported more criminal behavior and less psychological distress. Being older predicted survival sex, and a longer time away from home predicted more substance use and more criminal behavior.

Separate gender samples—The separate path models for males and females were generally similar to the combined model (see Figures 2 and 3), (Males: ML χ^2 (236, $N = 253$) = 305.17, CFI = .97, RMSEA = .034, $p < .002$; S-B χ^2 (236, $N = 253$) = 269.09, RCFI = .98, RMSEA = .024, $p < .07$; Females: ML χ^2 (234, $N = 248$) = 318.13, CFI = .96, RMSEA = .038, $p < .001$; S-B χ^2 (234, $N = 248$) = 264.87, RCFI = .98, RMSEA = .023, $p < .08$). The Robust models had nonsignificant p values due in large part to the smaller sample sizes.

There were some significant pathways that only appeared within one gender group. In the case of the males, a good maternal relationship predicted less psychological distress. This relationship was not significant for the entire sample. Leaving home because of abuse and violence predicted more criminal behavior in the males. A longer time away from home did not predict more substance use as it did for the entire sample that may be due in part to the smaller sample sizes. In the case of the females, greater age predicted more criminal behavior,

and relationship with father did not predict substance use although it had a significant bivariate relationship.

Multisample Analyses

As described above, before it would be meaningful to contrast the male and female adolescents on the correlations between the variables in the model, we had to ascertain that there was factorial invariance between the two groups (Stein, Lee, & Jones, 2006). A baseline model with no equality constraints between the two samples provided the benchmark for further comparisons. This model had an outstanding fit (ML $\chi^2(N < 501) = 704.06$, 482 *df*; CFI = .95; RMSEA = .043, $p < .001$; S-B $\chi^2 = 612.46$, 482 *df*; RCFI = .96, RMSEA = 0.033, $p < .001$). Adding the invariance constraint of equal factor loadings on the measurement model produced no significant decrement in fit (ML $\chi^2(N = 501) = 760.72$, 505 *df*; CFI = .95; RMSEA = .045, $p = .001$; S-B $\chi^2 = 633.27$, 505 *df*; RCFI = .96, RMSEA = 0.032, $p < .001$, adjusted $\chi^2_{\text{diff}} = 24.80/23$ *df*); fit indexes were excellent.

When, as a next step, the correlations among all of the latent variables and the measured demographic variables of age and time away from home were constrained to equality, again there was no significant decrement in overall fit (ML $\chi^2(N = 501) = 814.07$, 540 *df*; CFI = .94; RMSEA = .045, $p = .001$; S-B $\chi^2 = 682.83$, 540 *df*; RCFI = .96, RMSEA = 0.033, $p < .001$, adjusted $\chi^2_{\text{diff}} = 71.13/58$ *df*).

However, according to the LM test, there were correlations that were significantly different in the two groups. These significant differences are highlighted in Table 3 in boldface type. Differences included the correlation between time away from home and a good relationship with father (.03, $-.13$ for male and female youth respectively), time away from home and substance use (.10, .41 for males and females), time away from home and criminal behavior (.15, .32 for males and females), criminal behavior and survival sex ($-.02$, .38 for males and females), and substance use and survival sex (.06, and .31 for males and females). These significant differences, especially among the latter four items, strongly suggest that a lengthier time on the streets makes homeless young females considerably and particularly more vulnerable to problem behaviors than the males and that females are more likely to become enmeshed in survival sex behaviors as a concomitant of other deviant behaviors such as drug use and criminal behaviors.

Discussion

In support of Attachment Theory, among the homeless and runaway youth of this study who may be presumed to have tenuous, fragile, or troubled relationships with their families, positive attachments to parents nonetheless had protective influences on problem behaviors and emotional distress. Interestingly, although we had hypothesized that positive relationships or attachments with either parent would be protective and that mothers had generally been found to be the primary attachment figures, we found significant differential effects of positive attachments to fathers on externalizing problem behaviors. In particular, a positive relationship with fathers was significantly more protective than the relationship with the mother against the externalizing problem behaviors of substance use and criminal behaviors, even within this vulnerable subgroup of adolescents. In addition, the maternal relationship was not predictive or associated significantly with substance use or criminal behaviors. This finding suggests that Attachment Theory, which generally focuses on the maternal - relationship could benefit from expansion to consideration of paternal relations, especially as children transition to adolescence and beyond. A “secure base” provided by either parent can have lasting effects on a child even if the current relationship is tenuous or fractured.

Although it appeared from the size and significance of the correlation coefficients that positive maternal relationships were more protective against survival sex behaviors and psychological distress than those for the paternal relationship, analyses contrasting the correlations indicated that the parameters were not significantly different from each other as indicated by the chi-square difference test. In addition, in the bivariate analyses, positive - relationships with either parent were significantly associated with - less psychological distress. However, in the total sample path model, once other relationships were accounted for, neither relationship was predictive of psychological distress. However, leaving home because of abuse and violence predicted more emotional distress in the combined sample. Among the males only, a poorer relationship with the mother predicted more emotional distress.

Associations found in the current study are, in many ways, similar to those reported among typical youth. For instance, Simons et al. (1994) found that a supportive relationship with the father predicted fewer externalizing behavior problems and was unrelated to internalizing problems; Flouri and Buchanan (2003) found in a normative sample that paternal involvement was stronger than maternal involvement and that there were no differential gender effects. These findings regarding fathers are also more robust than those of King and Sobolewski (2006).

Many homeless adolescents find themselves enmeshed in deviant subculture when they take up a life on the streets away from family; hence, a history of a good relationship and connectedness with a parent can help moderate the extremes of externalizing problem behaviors found on the streets. Homeless adolescents with a more positive relationship with their fathers important father substitutes were less likely to engage in drug use and criminal behaviors, when compared to those with poor relationships with their fathers. The criminal behaviors as assessed this study were related to street survival tactics that to some extent are engaged in by many homeless youth especially as they are the streets longer. However, engagement in these activities was much more likely among those with poor relations with their fathers or father-figures even after the contribution of time on the streets was accounted for indicating that there is a protective relatively long-term effect of better paternal relations.

Furthermore, results suggest that a positive relationship between homeless adolescents and their mothers may help shield them from the dangerous survival sex practices that some homeless youth engage in to make their way on the streets. Findings from this more vulnerable subgroup mirror results of a larger epidemiological study in which a positive maternal relationship was associated with less sexual behavior (Fingerson, 2005). Dittus and Jaccard (2000) also found that adolescents reporting a satisfactory relationship with their mother were less likely to initiate sexual behavior or become pregnant. Results concerning sexual behaviors also support the findings of Darling et al. (2005) that positive caretaker relationships are associated with less risky sexual behavior. It should be noted, however, that relatively few of these youth of either gender engaged in the survival sex behaviors assessed in this study.

The longer the adolescent had been away from home, the more externalized and internalized problems were reported. This result supports findings from other studies concerned with homeless adolescents (e.g., Whitbeck et al., 2001) and further underscores findings on differences between newly and chronically homeless adolescents in high risk behaviors and the dangers inherent in life on the streets (Milburn et al., 2005). Further, the separate gender analysis demonstrated that a longer time away from home was especially deleterious and dangerous for the females as it was associated with greater substance use and criminal behavior. Clearly, the females are in jeopardy of becoming deeply involved in high-risk behaviors as they become enmeshed in street culture over time.

As is found in more normative samples (e.g., King & Sobolewski, 2006), the males reported more externalizing problems and the females reported more internalizing problems. The male youth reported better relationships with their mothers than the female adolescents; however, there was no difference in relations with fathers. The female adolescents were significantly more likely to report leaving home because of a violent and physically abusive home environment and were more likely to stay away from home if paternal relationships were poor. In turn, staying away from home for a longer time was associated with more externalizing problem behaviors and a more dangerous and delinquent lifestyle for the females.

Reporting that they left home because of abuse and violence in the home was associated with more psychological distress for both the males and females. In addition, not surprisingly, it also was associated bivariate with poorer parental relationships. Furthermore, abuse and violence predicted more criminal behavior among the males. Before encouraging youth to return home, dysfunctional family relations and behaviors need examination to determine if family reunification is in the best interests of the youth or if alternative solutions need implementation.

Limitations

Only 71% of the original sample of homeless or runaway youth were used in this study because only those youth who could assess their relations with a father and a mother, whether they were living with them or not before they left home, were included. However, even if the homeless adolescent was living with only one parent before leaving home, the selected youth was able to report on the relationship with the other parent. Additionally, as reported earlier, those youth who were not selected for this study did not differ from those selected on any of the variables used in the current study. Furthermore, although most were reporting on their parents, it is not clear whether the homeless adolescents are reporting on a biological parent, a step-parent, or a proxy. However, our results show that whoever it is and no matter how often they see that person, relations with a paternal figure are extremely important in predicting problem externalizing behaviors in this sample of homeless/runaway youth.

This study is cross-sectional; thus, influences may be mutually interacting over time, or even opposite from the way in which they were positioned in the present study. For instance, Simons et al. (1994) reported that adolescent externalizing problems were shown to reduce the quality of maternal parenting and to diminish father involvement. The current sample of homeless adolescents may have previously alienated their parents because of problem behaviors and consequently had negative relationships with their parents, especially their fathers.

In addition, several of the items used as indicators of the dependent variables were of necessity dichotomous rather than continuous because of their yes/no structure. Using the dichotomous variables as interrelated indicators of a more abstract latent variable allowed us to assume an underlying continuous structure. In addition, supplementary analyses not reported here used poly-choric and polyserial correlations to examine the same models. Results were essentially the same, especially among the major findings.

Adolescents who were homeless for less than 6 months are perhaps overrepresented in this sample compared with their prevalence among homeless youth. However, there was a concerted effort to find and include these individuals in this study because they have been underrepresented in past studies conducted among homeless youth. Newly homeless youth are more difficult to find and include in studies such as this one so this population may actually be a better representation of current homeless youth.

Some of the measures may not completely represent the hypothesized constructs of the study. For instance, we used indicators of the quality of paternal and maternal relations to represent

attachment. The individual items that we had available are reasonable proxies and tap into conflict, respect, and love that are arguably consequences and indicators of earlier attachment quality. They mirror the items that were used by Tavecchio et al. (1999) who also examined attachment theory as a framework for explaining homelessness in young people. Furthermore, delinquency was not assessed directly, and violence, assaults, and other antisocial behaviors are not included. We had to infer delinquent behaviors through the available items that assessed whether they were making money by participating in criminal behaviors such as stealing.

Implications for Policy and Intervention

This study offers direction for future research on and interventions for homeless and runaway adolescents. There should be more recognition of the influential role that prior family dynamics, attachments, and relations have on homeless adolescents even when the adolescents are not currently residing in their homes and, rather, may be joining or coming under the influence of a deviant peer subculture. The unique protective role that fathers or father-figures can play needs to be recognized and considered. More attention needs to be given to understanding the significant socializing and protective role that families play in the behavior of youth who often are studied in isolation from their families. Examining the externalizing and internalizing behaviors of homeless adolescents within in the context of positive parental relationships enables us to recognize the importance of the understudied role of positive family factors among homeless youth more fully.

Parental relationships may be more tenuous and strained among these youth but where relatively positive relationships exist, outcomes, included eventual family reunification, can be better or more promising for homeless adolescents. Clearly, more attention needs to be given strengthening paternal relationships or providing positive male role models in the development of therapeutic interventions among homeless adolescents. Our findings also suggest that greater attention should be given to identifying substantive differences in family backgrounds among homeless adolescents that may lead to more targeted interventions for this underserved population. Homeless and runaway adolescents with more positive parental relationships may have more opportunity to develop a healthy identity and to achieve optimal adult functioning despite their current runaway or homeless status. Newly homeless youth should be encouraged to return home or placed in supportive environments before losing themselves in the homeless subculture with the caveat that abuse in the home must be acknowledged. Attention must be paid to reports of abuse and violence in the home and the impact of these events on emotional distress. Reunification may be unwise or premature and alternative suggestions for housing arrangements can be pursued in these cases. However, in most cases, adolescents may benefit from timely family reunification interventions that target both the parent and the adolescent to deter chronic homelessness (e.g., Slesnick et al., 2006). In summary, this investigation suggests that parental factors and further consideration of the role of the family and father in particular in adolescent development may be a promising area for future research on homeless adolescents to deter a negative spiral of developmental outcomes such as greater delinquency, longer participation in deviant subcultures, and chronic homelessness.

Acknowledgments

This research was supported by the National Institute of Mental Health Grants R01 MH49958-04, P30MH58107, and R01 MH61185, and the National Institute on Drug Abuse Grant P01-DA01070-35.

We thank Gisele Pham for secretarial and production assistance.

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Total Sample

Figure 1.

Significant regression paths among latent and measured variables in the structural equation model for the total sample ($N = 501$). Regression coefficients (represented as *one-way arrows*) and correlations among the predictors (represented by *double-headed arrows*) are standardized ($*p < .05$; $**p < .01$; $***p < .001$). Correlations among predictors not depicted for readability.

Males

Figure 2.

Significant regression paths among latent and measured variables in the structural equation model for the males ($N = 253$). Regression coefficients (represented as *one-way arrows*) and correlations among the predictors (represented by *double-headed arrows*) are standardized (* $p < .05$; ** $p < .01$; *** $p < .001$).

Females

Figure 3.

Significant regression paths among latent and measured variables in the structural equation model for the females ($N = 248$). Regression coefficients (represented as *one-way arrows*) and correlations among the predictors (represented by *double-headed arrows*) are standardized (* $p < .05$; ** $p < .01$; *** $p < .001$).

Table 1
Summary Statistics and Factor Loadings of Measured Variables in the Confirmatory Factor Analyses

Variables (range)	Combined sample		Males (N = 253)		Females (N = 248)	
	Mean (SD) or percentage	FL ^a	Mean (SD) or percentage	FL	Mean (SD) or percentage	FL
Good relationship with father (1–4)						
Father 1	2.7 (0.9)	.89	2.7 (0.9)	.93	2.7 (0.8)	.85
Father 2	2.8 (0.9)	.89	2.8 (1.0)	.87	2.8 (0.9)	.92
Father 3	2.8 (0.9)	.87	2.8 (1.0)	.85	2.7 (0.9)	.89
Good relationship with mother (1–4)						
Mother 1	2.8 (.8)	.86	2.9 (.8)	.84	2.7 (.8)	.88
Mother 2	3.2 (.7)	.80	3.3 (.7)	.82	3.1 (.7)	.79
Mother 3	2.9 (.8)	.83	3.0 (.8)	.80	2.8 (.8)	.85
Reasons for leaving home (1–4)						
Physical abuse	1.7 (1.1)	.75	1.6 (1.0)	.78	1.8 (1.1)	.76
Sexual abuse	1.3 (0.8)	.49	1.1 (0.5)	.38	1.4 (1.0)	.54
Violence	2.1 (1.2)	.69	2.0 (1.2)	.62	2.3 (1.3)	.71
Male	50%	—	—	—	—	—
Age (years; 12–21)	17.1 (2.1)	—	17.5 (2.0)	—	16.6 (2.1)	—
Time away (1–7)	4.1 (2.1)	—	4.4 (2.0)	—	3.7 (2.2)	—
Substance use						
Daily cigarette use (0–6)	1.9 (1.6)	.63	2.1 (1.6)	.60	1.7 (1.5)	.56
Alcohol drinks/day (0–6)	2.2 (2.1)	.59	2.2 (2.1)	.60	2.3 (2.1)	.59
Marijuana days (0–90)	26.9 (34.7)	.70	31.2 (37.2)	.62	22.7 (31.6)	.71
Cocaine or crack days (0–90)	3.2 (11.6)	.46	3.6 (13.9)	.36	2.9 (8.6)	.42
Ecstasy or other club drugs (0–1)	22%	.57	23%	.61	20%	.47
Criminal behavior (no/yes, 0–1)						
Selling drugs	21%	.74	26%	.72	15%	.71
Gambling deals	8%	.60	12%	.47	4%	.53
Stealing	14%	.53	16%	.69	11%	.60
Survival sex (no/yes, 0–1)						
Sex for money	5%	.81	6%	.84	5%	.78
Pornography	2%	.54	3%	.54	2%	.53

Variables (range)	Combined sample		Males (N = 253)		Females (N = 248)	
	Mean (SD) or percentage	FL ^a	Mean (SD) or percentage	FL	Mean (SD) or percentage	FL
Trading sex	4%	.72	4%	.83	4%	.59
Psychological distress (0–4)						
BSI 1	0.9 (0.6)	.84	0.9 (0.6)	.85	0.9 (0.7)	.84
BSI 2	0.6 (0.6)	.91	0.5 (0.5)	.90	0.8 (0.6)	.92
BSI 3	0.7 (0.6)	.92	0.7 (0.6)	.92	0.8 (0.6)	.92

^aFL = Factor loading, all factor loadings significant, $p < .001$.

Table 2

Correlations Among Latent and Measured Variables for Combined Sample of Homeless Youth (N = 501)

Variables	1	2	3	4	5	6	7	8	9	10
1. Good relationship with father	—									
2. Good relationship with mother	.25***	—								
3. Left home because of abuse, violence	-.23***	-.28***	—							
4. Substance use	-.25***	-.08	.03	—						
5 Criminal behavior	-.24***	-.05	.12*	.67***	—					
6. Survival sex	-.07	-.16**	.08	.17**	.14*	—				
7. Psychological distress	-.12*	-.18***	.30***	.22***	.17**	.12*	—			
8. Age	-.10*	.06	.16***	.23***	.18***	.18***	.08	—		
9. Youth gender ^a	.02	.19***	-.17***	.12*	.19***	.02	-.14**	.21***	—	
10. Time away from home	-.04	-.03	.11*	.26***	.25***	.11*	.09	.49***	.17***	—

^aYouth gender: 1 = female, 2 = male.* $p < .05$.** $p < .01$.*** $p < .001$.

Table 3

Correlations Among Latent and Measured Variables for Adolescent Males and Females^{a,b}

Variables	1	2	3	4	5	6	7	8	9
1. Good relationship with father	—	.18**	-.18*	-.17*	-.23**	-.07	-.05	-.15*	-.13*
2. Good relationship with mother	.32***	—	-.21**	-.01	-.01	-.18*	-.06	.04	-.01
3. Left home because of abuse, violence	-.29***	-.32***	—	.04	.10	.05	.25***	.21**	.17*
4. Substance use	-.31***	-.19**	.08	—	.60***	.31***	.19**	.32***	.41***
5. Criminal behavior	-.27***	-.18*	.23***	.69***	—	.38***	.12	.28***	.32***
6. Survival sex	-.06	-.16*	.14*	.06	-.02 ^b	—	.08	.23***	.16*
7. Psychological distress	-.18**	-.27***	.33***	.28***	.29***	.15*	—	.12	.11
8. Age	-.07	-.01	.19**	.12	.03	.15*	.11	—	.49***
9. Time away from home	.03	-.12*	.11	.10	.15*	.08	.12	.45***	—

^aFemales ($N = 248$) above diagonal; males ($N = 253$) below diagonal.^bSignificant differences between the two groups in multisample model in boldface type ($p = .05$).*
 $p < .05$.**
 $p < .01$.***
 $p < .001$.