

Home Sweet Home(s): Parental Separations, Residential Moves, and Adjustment Problems in Low-Income Adolescent Girls

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Associations between histories of family disruption (residential moves and separations from parent figures) and adolescent adjustment (including educational, internalizing, externalizing, and sexual behavior outcomes) were examined in a random sample of 267 African American girls from 3 urban poverty neighborhoods. Higher numbers of residential moves and parental separations significantly predicted greater adolescent adjustment problems after household demographic characteristics were controlled. Adolescents' perceptions of their current relationships and neighborhoods were significantly associated with adolescent adjustment but did not mediate the effects of family disruption. Associations between parental separations and adolescent outcomes were strongest for externalizing problems and were found for both male and female caregivers, for long-standing and more temporary caregivers, and for separations in early childhood, middle childhood, and adolescence.

Home is where the heart is. For young children, the home or family environment is a central influence on emotional as well as cognitive and behavioral development (Bradley, Caldwell, & Rock, 1988; Bradley et al., 1989), and it remains an important influence into adolescence (Maccoby, 1992). Although the effects of many aspects of the home environment have been studied, such as family structure, family economic resources, and parenting style, only recently have researchers focused on indices of instability, disruption, or chaos in the home environment as potential influences on child well-being (Ackerman, Kogos, Youngstrom, Schoff, & Izard, 1999). In studying family instability, researchers have examined a variety of aspects of family life, including changes in marital status or family structure, changes in residences, and the occurrence of major illnesses and other life events in the family (Ackerman et al., 1999; Capaldi & Patterson, 1991). Instability in the family environment causes acute stress to a child and may challenge a child's sense of security and ability to cope with later life changes. Given that normative adolescent development is characterized by dramatic changes in physical development, social relations, identity, sexuality and behavior, high levels

of family instability might be related to increased difficulty negotiating these normative transitions and to poorer adolescent outcomes across a variety of developmental domains (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). An examination of the effects of family instability on low-income adolescents may be of particular interest, because increased family instability has been proposed as one mechanism explaining the associations between poverty and negative child outcomes (Ackerman et al., 1999).

In the current study we examined the association between a history of family instability and adolescent adjustment in a sample of low-income adolescent girls. We focused on two indices of family instability—parental separations (number of separations from or losses of important adult caregivers in the child's life) and residential mobility (number of changes in physical residence). These two aspects of instability or disruption were chosen for several reasons. First, who one's parents are and where one lives are central to our conceptions of home. Second, changes in parental figures and changes in physical residence both imply major disruptions in children's daily relationships and routines. Given the central role of parents as attachment figures, coping resources, and agents in child socialization (Maccoby, 1992; Maccoby & Martin, 1983; Sroufe, 1996) and the distress that accompanies even short-term separations from important caregivers (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982; Kobak, 1999), a history of frequent separations from important parent figures may be particularly detrimental to child well-being. However, the loss of familiar physical environments, activities, and extended social networks frequently associated with residential moves may also be a substantial source of stress and disruption in a child's life (Brown & Orthner, 1990). Third, both of these aspects of family instability are relatively memorable (even in retrospective reports) and easily quantifiable. Prior research comparing retrospective with longitudinal reporting suggests that reporting of concrete events such as moves is superior to reporting of more psychological variables (Henry, Moffit, Caspi, & Langley, 1994). Finally, there is some evidence in prior research that both parental separations and residential mobility are related to negative child outcomes, although

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rarely have these two aspects of family instability been examined in the context of the same study.

Parental Separations

Interest in the effects of parental separations (children's separations from their parents and parent figures) on child development has arisen out of the literature on divorce. In attempting to explain associations between parental divorce and negative child outcomes, researchers have suggested that children may suffer because of the loss of income associated with the father leaving the home, the reduction of paternal involvement in their lives, and the effects of family conflict preceding or following divorce (Amato & Keith, 1991; Hetherington, Bridges, & Insabella, 1998; McLanahan & Sandefur, 1994). Other researchers (Capaldi & Patterson, 1991) have noted that divorce is frequently associated with not just one but multiple changes in family structure, including the loss of the father from the home as well as subsequent remarriages and divorces on the part of the mother. Several studies have demonstrated a cumulative negative effect of multiple changes in maternal partners on children's and adolescents' social, emotional, educational, and behavioral outcomes (Brooks-Gunn, Guo, & Furstenberg, 1993; Capaldi & Patterson, 1991; Kurdek, Fine, & Sinclair, 1994; Patterson, Forgatch, Yoerger, & Stoolmiller, 1998; Pianta, Egeland, & Hyatt, 1986; Pierce, 2000). These effects are thought to be due to the stress associated with repeated changes in the family environment (Wu & Martinson, 1993), although some evidence exists that children of families who later divorce already exhibit problematic behavior prior to divorce (Block, Block, & Gjerde, 1986; Cherlin, Chase-Lansdale, & McRae, 1998; Cherlin et al., 1991) and that preexisting attributes of the mother may be responsible for greater partner instability and poor child outcomes (Capaldi & Patterson, 1991).

Prior research has focused on changes in fathers' residence and contact with children, assuming that children's maternal relationships are constant. Yet it is not uncommon for children, especially those from low-income families, to experience separations from mothers as well (Furstenberg, Brooks-Gunn, & Morgan, 1987). One study examined the effects of separations from maternal caregivers in a composite index of family instability that predicted preschool and first-grade behavior problems (Ackerman et al., 1999), and several other studies have demonstrated associations between changes in family structure (including maternal separations) and increased risk of premarital birth (Wu, 1996; Wu & Martinson, 1993). No prior studies, however, have examined associations between parental separations (including both mothers and fathers) and adolescent outcomes across a variety of developmental domains, and no studies we are aware of have compared the effects of maternal and paternal separations. Moreover, adults other than biological parents and stepparents may serve as important parent figures to children (Furstenberg et al., 1987); prior research has not examined separations from such parent figures.

In examining the effect of parental separations on children, it may be important to consider the developmental time period in which the separations occurred. It could be argued that parental separations during the early childhood years might be most detrimental because of a high degree of contact with and dependence on caregivers during this time period. Even in middle childhood and adolescence, however, children's feelings of security are

strongly determined by their perceptions of the availability of their attachment figures, and threats to the availability of attachment figures still provoke profound feelings of anxiety, anger, and despair (Kobak, 1999). Kobak (1999) suggested that distress stemming from attachment disruptions in older children and adolescents may be a strong contributor to maladaptive behavior and psychopathology. It follows that separations from parent figures may be detrimental for adolescent adjustment not only during early childhood but also during middle childhood and adolescence and that an accumulation of separations across these periods will be increasingly associated with poor adolescent outcomes.

Residential Mobility

Another potentially important source of instability in children's home lives involves frequent residential moves. Approximately 16% of the U.S. population moved during the year the data were collected for this study, with rates being even higher among African Americans (20%; Faber, 1998). A high rate of residential mobility has been related to a wide range of negative outcomes for children and adolescents, including problems with social, emotional, and educational functioning (Brown & Orthner, 1990; Haveman & Wolfe, 1995; Humke & Schaefer, 1995). Researchers interested in understanding the generally negative effects of residential moves on children have proposed potential mediators such as the loss of familiar physical environments, activities, and routines, the loss of social support networks, and decreases in parent well-being and in the quality of parent-child relationships (Cohen, Johnson, Struening & Brook, 1989; Hagan, MacMillan, & Wheaton, 1996; Hendershott, 1989; Pittman & Bowen, 1994). There are significant negative effects of residential mobility on child and adolescent outcomes above and beyond preexisting family characteristics that may contribute to residential mobility (Cohen et al., 1989; Pribesh & Downey, 1999; Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993). In some cases, characteristics of the child or family, such as the age or sex of the child, family structure, and level of parental support, may moderate the effects of residential moves (Simmons et al., 1987; Swanson & Schneider, 1999; Tucker, Marx, & Long, 1998). Clearly, residential moves may occur in response to parental transitions such as divorce or changes in employment (McLanahan, 1983; McLanahan & Sandefur, 1994; South, Crowder, & Trent, 1998). It is, however, reasonable to expect that a residential move may be a source of strain in and of itself, beyond the strain associated with the events leading to the move.

Controlling for Family Demographic Characteristics

Much of the research on parental separations, residential mobility, and child outcomes is subject to the same critique: that family or parent characteristics may contribute both to the family instability and to the poor child outcomes. Such characteristics may include household income or level of economic strain and parent employment status, age, or education level. Although recent studies on residential mobility have consistently controlled for at least some of these factors, studies on parental separations have not been so systematic. In the current study we examined the effects of parental separations and residential mobility on adolescent out-

comes while controlling for a variety of family demographic characteristics.

Current Environment as a Potential Mediator of Family Instability

One pathway by which both parental separations and residential moves might affect adolescent well-being is through their effects on the quality of adolescents' current environments. Adolescents who have experienced separations from parents may have less positive current relationships with these figures and fewer supportive adults in their lives than adolescents who have had stable parenting relationships. Frequent residential moves may also be detrimental for adolescents' current social support networks, because residential moves may cut important existing ties to relatives, neighbors, teachers, community members, and peers. In addition, relocation is often associated with moves to less desirable neighborhood environments (South et al., 1998).¹ Thus it is possible that any associations found between parental separations and residential moves and adolescent outcomes may occur through the effects of these transitions on the quality of adolescents' current environments, rather than as a result of the stress of these disruptions themselves. For this reason, adolescents' perceptions of the quality of their current relationships with parents, the availability of support from adults and peers in their lives, and the quality of their current neighborhoods were examined as potential mediators of parental and residential instability. We hypothesized that current environments would be related to adolescent outcomes but would not fully mediate the effects of a history of parental and residential instability.

Adolescents' Perspective on Parental and Residential Disruptions

Most prior studies have relied on caregiver reports of parental separations or residential mobility, which may not provide the best representation of child or adolescent experiences. In the case of residential mobility, use of parent report of family moves assumes that the child or adolescent always moves with the family, which may not be the case. Use of adolescents' reports of moves may provide a more accurate depiction of their personal residential mobility histories. Another important use of adolescent report involves allowing adolescents to identify all adults who have been important parent figures in their lives; this ensures that separations from all their important caregivers, not just their biological parents and step-parents, are examined.

In the current study we examined the associations among residential mobility, separations from parent figures, and adolescent adjustment in a variety of domains in a random sample of African American girls currently living in low-income families with female caregivers. Analyses controlled for the effects of family demographic characteristics and tested the mediating role of the quality of adolescents' current relationships and neighborhoods. Total parental separations, as well as separations from mother and father figures, from long-standing and temporary caregivers, and during early childhood, middle childhood, and adolescence were examined. We expected that a history of family instability or disruption, indexed by higher numbers of residential moves and separations from parent figures, would predict adolescent adjust-

ment problems above and beyond the effects of family background characteristics and current environments.

Method

Sample

Participants were 267 African American female adolescents and their female caregivers (hereafter referred to as "caregiver") living in one of three high-poverty neighborhoods in a large Midwestern city. Data were collected as part of the Families in Communities (FIC) study, which was designed to explore stresses and coping strategies in families of adolescent females living in extreme poverty and to identify factors associated with more and less positive outcomes under these circumstances. The focus on female adolescents in the FIC study was theoretically motivated by an interest in understanding factors contributing to the intergenerational cycle of teen pregnancy, teen parenthood, and welfare use among young women in poverty. Clearly, the results of this study are not generalizable to male adolescents or nonpoverty populations.

Households were targeted for participation if they met the screening criterion of having an adolescent female 15 to 18 years of age living with an adult female caregiver. Although most caregivers were biological mothers of adolescents, any related or nonrelated female adult serving the role of primary caregiver was accepted. A randomized block quota technique was used to select a random sample of adolescent African American girls living in the targeted neighborhoods. Utilizing 1990 census figures, we randomly selected 18 census blocks within the study area with a probability proportional to the size of the African American female population aged 15–18 years. A door-to-door enumeration of households within these census blocks was conducted. Eighty-three percent of the households in the designated census blocks were screened to identify their eligibility for the study, with 0.5% refusing to be screened and 16% of housing units presumed vacant. A total of 491 eligible households were identified. Interviews were completed with 62% of the eligible families ($N = 302$). For 4% of eligible families, either the mother or the adolescent refused participation; 35% of eligible families were not asked to participate prior to the completion of data collection.

For the current study, 6 adolescents were excluded because they were no longer living with their identified primary female caregiver by the time of their interview, and 29 adolescents were excluded because of missing data on key study variables, leaving a total of 267 adolescents and their co-resident caregivers. Characteristics of the full sample, the included participants, and the excluded participants are presented in Table 1. *T* tests comparing the included and excluded groups revealed that the excluded adolescents had experienced more moves and had caregivers who were slightly older, less educated, and less likely to be cohabiting with a romantic partner. The included and excluded groups were comparable on all other study variables.

The mean age of the participating adolescent girls was 16.3 years, and the mean age of their caregivers was 41 years. The mean yearly household income was \$19,823 ($SD = \$13,553$; range = \$3,168 to \$112,008). The average number of people per household was 4.8 (range = 2 to 12), with an average of 1.8 adults (range = 1 to 5) and 3 children (range = 0 to 3). Most (63%) of the households were single-parent households; in 16% of the households the caregiver was married, and in 21% the caregiver was cohabiting. To break down the adult household configuration another way, 47.5% of adolescents lived with a biological mother only, 14% lived with both biological parents, 5% lived with a mother and step-father, 14%

¹ A separate literature examining the effects of housing programs involving the relocation of families to improved neighborhood environments found improved outcomes for families and children as a result of relocation (Ludwig, Duncan, & Hirschfield, 2000; Rubiowitz & Rosenbaum, 2000).

Table 1
Characteristics of Full Sample and of Included and Excluded Participants

Characteristic	Full sample (<i>N</i> = 302)		Included (<i>n</i> = 267)		Excluded (<i>n</i> = 35)		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Current household characteristics							
Caregiver on welfare	.50	.50	.42	.50	.51	.50	-0.99
Caregiver age (in years)	40.96	9.15	40.56	8.45	43.97	13.13	2.08*
Adolescent age (in years)	16.25	1.11	16.26	1.11	16.14	1.14	-0.58
Caregiver education (in years)	11.84	1.97	11.93	1.99	11.21	1.70	-2.02*
Income-to-needs ratio	1.02	0.80	1.03	0.83	0.89	0.54	-0.91
Caregiver financial strain	.01	0.71	.00	0.70	.07	0.82	0.53
Caregiver married	.16	.36	.16	.37	.11	.32	-0.72
Caregiver cohabiting	.19	.40	.21	.41	.06	.24	-2.16*
History of disruption							
Number of moves	1.24	1.49	1.18	1.40	1.85	2.15	2.20*
Number of separations	0.70	0.91	0.67	0.91	0.91	0.85	1.50
Perceptions of current environment							
Maternal relationship quality ^a	.00	1.00	-.01	1.02	.10	.83	0.62
Paternal relationship quality ^a	.00	1.00	.00	1.02	.04	.78	0.21
Kin support	.85	.23	.86	.22	.81	.33	-1.20
Nonkin support	.76	.28	.75	.28	.80	.27	0.98
Peer relationship quality	3.82	1.00	3.81	1.00	3.93	1.09	0.65
Current neighborhood quality	2.82	0.43	2.83	0.42	2.72	0.52	-1.44

Note. *N*s for the excluded group ranged from 21 to 35 because of missing data.

^a Standardized within the full sample.

* $p < .05$.

lived with a mother and the mother's boyfriend, 7% lived with a mother and an adult relative, 1% lived with a father and another adult female, 5% lived with a grandmother either alone or with other adults, 6% lived with an aunt or sister either alone or with other adults, and 0.5% lived with a legal guardian or foster mother.

Procedure

Data were collected by professional survey interviewers between April and November of 1996. Separate 75-min face-to-face interviews were conducted with caregivers and adolescents; \$20 was paid to each participant for her interview. Most adolescents (95%) also completed self-administered paper-and-pencil questionnaires for which they were paid \$10.

Measures

Current Household Demographics

The characteristics of adolescents' current households were determined from a combination of caregiver and teen reports. Based on caregiver reports of marital status, dummy variables were created indicating whether the caregiver was single (excluded group; caregiver married and caregiver cohabiting = 0), married (caregiver married = 1), or cohabiting (caregiver cohabiting = 1). From caregiver and adolescent reports of welfare receipt in the household, a variable was created indicating whether the caregiver was currently receiving welfare payments (caregiver on welfare). The level of economic pressure on the family was reported in several ways. First, a household income-to-needs ratio was computed by dividing the total household income from all sources (including formal and informal jobs, public aid, food stamps, social security, child support, and unemployment) by the 1996 federal poverty line for households of that size (U.S. Department of Health and Human Services, 1996). A value of 1 on this ratio means that the family is at the poverty line, whereas values higher than 1 indicate incomes above the poverty threshold. Second, the level of house-

hold financial strain was determined by caregiver reports of the extent to which the household had had difficulty paying bills over the past year, whether they generally had money left over at the end of the month, how often they had to borrow money to pay bills, how often they had to put off buying something they needed because of lack of money, how often they could afford to do things for fun like going to the movies or eating out, and the extent to which the household could afford the kinds of housing, food, and clothing they should have. The first two items were taken from Conger, Ge, Elder, Lorenz and Simons (1994), the second three items were from McLoyd, Jayaratne, Ceballo and Borquez (1994), and the final item was added for this study. Items were appropriately reverse coded, standardized, and averaged to form a caregiver financial strain scale ($\alpha = .81$), with higher scores reflecting greater strain.

History-of-Disruption Variables

Residential mobility. Adolescents' reports of their number of residential moves in the last 5 years were used as the index of teen residential mobility. Reports of residential moves prior to the last 5 years were not available. A square-root transformation was performed on the teen moves variable in order to reduce skewness and the influence of extreme values. Mothers also reported their number of residential moves in the past 5 years. The correlation between adolescent report and mother report of moves, $r(266) = .56$ ($p < .000$), indicated (a) either some unreliability in the reporting of moves or (b) the presence of some adolescent moves in the absence of maternal moves or vice versa. Evidence for the latter interpretation comes from the fact that the correlation between adolescent and maternal report of moves was higher when adolescents had never experienced a separation from a caregiver ($N = 136$, $r = .74$, $p < .000$) than when adolescents had experienced one or more separations ($N = 130$, $r = .40$, $p < .000$). Although reliance on retrospective reports of residential moves is not ideal, concrete events such as moves are retrospectively reported with greater reliability than are psychological variables (Henry et al., 1994).

Parental separations. The number of parental separations adolescents experienced across their lives was calculated from adolescents' time-line reports of periods they had been co-resident with, or separated from, each important parent figure. Adolescents were asked to identify and discuss all the important adult caregivers in their lives. Specifically, each adolescent was asked to report on (a) her biological mother, (b) anyone else she considered a "mother," (c) someone who acted as a father to her, (d) her biological father (if different from the person previously discussed), (e) an adult male living in the household who acted like a father to her (if not already discussed), and (f) the people "who raised you" (up to 2 people). If the same person was identified in more than one of these categories, his or her data were counted only once. For each parent figure, adolescents were asked to name the caregiver, describe the nature of their relatedness to that person, and report all the start and end dates for when they had lived with or been raised by that person. The number of reported "endings" or separations from identified parent figures were summed to create a parental separations scale. A square-root transformation was performed on this variable to reduce skewness. Prior studies have reported that the use of a time-line or event-history type of approach such as this one yields more reliable retrospective data than does the use of global judgments (Belli, 1999; Belli, Shay, & Stafford, 2001).

The parental separation variable was also broken down into variables representing separations from different types of caregivers: maternal separations (separations from female caregivers) versus paternal separations (separations from male caregivers) and long-standing versus temporary caregiver separations (separations from caregivers living with the child for 3 or more years vs. less than 3 years). In addition, the parental separations variable was broken down, according to the developmental timing of each separation, into early childhood separations (0 to 6 years),² middle childhood separations (6 to 12 years), and adolescent separations (12 years to the present age). To make these latter three variables more comparable, we divided the number of separations during each period by the number of years in that period such that these variables reflect the rate of separations during each period.

Adolescent Perceptions of Current Relationships and Neighborhood

Quality of maternal and paternal relationships. Summary indices of the quality of adolescents' current relationships with their identified mother figures and father figures were constructed from several sources. For their primary mother and father figures (the people most considered to be "mother" and "father"), adolescents completed Armsden and Greenberg's (1987) Index of Parent and Peer Acceptance (IPPA). The IPPA includes questions regarding trust, communication, and anger with parents and peers. Twelve of the original 25 parent items of the IPPA were used, and two additional communication items were added. Sample items include "My (parent) accepts me as I am," "My (parent) helps me talk about my feelings," and "I feel angry with my (parent)". The internal consistency (alpha) of this measure for both primary mother figures and primary father figures was .85. No information was gathered on mother figures other than the adolescents' primary mother figure; thus the IPPA score for the primary mother figure serves as the index for current maternal relationship quality.

A short set of questions was asked regarding relationships with biological fathers and other father figures beyond the primary father figure. For each of these figures, adolescents reported on (a) whether they could count on him for emotional support or help with problems, (b) how close they felt to him, and (c) whether they wanted to be like the kind of person he is when they become an adult ($\alpha = .85$ for biological fathers; $\alpha = .81$ for other father figures). Relationship quality scores for primary father figures on the IPPA and for other reported father figures were standardized and averaged to create a paternal relationship quality scale. For both maternal and paternal relationship quality, higher scores reflect higher relationship quality.

Kin and nonkin support. In order to assess their nonkin support networks, adolescents were asked whether there was an adult outside their immediate family or household who they could trust if they had a problem or needed someone to talk to, who they could ask for information or advice, with whom they did special things or went places, who watched out for teenagers, and who they looked up to or would like to be like. To assess the availability of kin support, we asked adolescents the same set of questions (minus the question about watching out for teenagers) with regard to adults in their immediate family and household. Items were averaged to form nonkin support ($\alpha = .63$) and kin support ($\alpha = .67$) scales (higher scores = greater support).

Quality of peer relationships. Four items from the peer section of the IPPA were averaged to create a positive peer relationships scale ($\alpha = .81$). Items included "I wish I had different friends," "My friends care about how I am," "I trust my friends," and "I can tell my friends about my problems and troubles."

Neighborhood problems. Adolescents' perceptions of the quality of their neighborhoods were measured using the 10-item Perceived Quality of Neighborhood Scale (Korbin & Coulton, 1994). The scale includes items such as "There's a lot of crime in this neighborhood," "Gangs are a problem in this neighborhood," and "This neighborhood is a good place to raise children." The alpha for the 12-item scale was .80.

Adolescent Outcomes

A range of adolescent outcomes was assessed through adolescent report, including educational outcomes (grades and drop-out status), internalizing problems (depression and anxiety), externalizing problems (minor and major delinquency), and sexual behavior (whether or not the teen had ever been sexually active).

Educational outcomes. To assess educational achievement, we had each adolescent report her performance on her most recent report card, with a higher value reflecting higher average grades. Previous research has shown adolescents to be reliable reporters of their own grades (Gonzales, Cauce, Friedman, & Mason, 1996). A dummy variable was created to indicate which adolescents had dropped out of school, with dropouts defined as those who were not currently in school and who had not graduated or earned a general education diploma (GED).

Internalizing problems. Depression was assessed with the Center for Epidemiologic Studies—Depression Scale (CES-D; Radloff, 1977), which includes 20 items assessing the frequency of occurrence of a range of depressive symptoms over the past week ($\alpha = .80$). Adolescent anxiety symptoms were assessed with McLoyd's Cognitive Distress Scale (McLoyd et al., 1994), which consists of four questions about difficulties with concentration, memory, and decision making ($\alpha = .66$).

Externalizing problems. Adolescent externalizing problems were assessed with a set of items derived from the National Longitudinal Survey of Youth (NLSY; Borus et al., 1982) and the Youth Deviance Scale (Gold, 1970). The 20-item index from the NLSY asks respondents how frequently they engaged in a wide range of delinquent activities in the past 12 months. Seven of the 15 items from the Youth Deviance Scale (Gold, 1970; Steinberg, Mounts, Lamborn, & Dornbusch, 1991) were used to supplement the NLSY items. Two subscales were created, one that reflects minor delinquent activities such as cheating on tests or drinking alcohol ($\alpha = .80$) and another reflecting more major delinquent or criminal behaviors such as carrying a weapon or damaging property ($\alpha = .80$). The natural log of each scale was taken in order to correct for nonnormality in the scale distributions.

Sexual behavior. Adolescent sexual activity was assessed by adolescents' reports of whether or not they had ever had sex. Clearly, sexual

² Clearly, adolescents' reports of separations that occurred in the first few years of life do not reflect actual memories but reports or reconstructions of what they were told about their early relationship histories.

Table 2
Correlations Among Adolescent Outcome Variables

Variable	1	2	3	4	5	6	7
1. Depression	—						
2. Anxiety	.44***	—					
3. Poor grades	.19**	.21***	—				
4. Dropout	.16*	.01	.07	—			
5. Minor delinquency	.21***	.21***	.35***	.08	—		
6. Major delinquency	.31***	.07	.23***	.09	.55***	—	
7. Sexually active	.26***	.05	.22***	.24***	.31***	.23***	—

Note. $N = 267$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

activity is strongly related to teen age. Teen age and other basic demographic characteristics were controlled in later regression analyses.

The correlations between these various aspects of adolescent adjustment are presented in Table 2. Given that all of the outcomes are at least moderately intercorrelated and because we wanted to construct a broad-based index of adolescent functioning, outcomes were standardized (with appropriate reverse scoring) and summed to create a total adjustment index, with higher levels indicating worse adjustment. The associations were weakest for school dropout, which is a binary variable with a low frequency, but it nonetheless seemed conceptually important to include this variable. Similar total adjustment indices have been used in prior studies examining the effects of parental transitions on development (Capaldi & Patterson, 1991; Kurdek et al., 1994). In addition, items within each domain were standardized and averaged to create educational, internalizing, externalizing, and sexual behavior outcome variables. Because we anticipated that the effects of disruption might be expressed by different adolescents in different ways, we hypothesized that the disruption variables would relate most robustly to the average adjustment index but would also predict adjustment in each of the separate outcome domains.

Results

Analyses

After a brief examination of descriptive statistics and bivariate relationships, hierarchical linear multiple regression analyses were conducted to examine the associations between adolescents' histories of family disruption (as indexed by parental separations and residential mobility) and their scores on the average adjustment problems index. Household demographic characteristics were controlled by entering them in the model prior to the disruption variables. To test whether parental separations and residential moves were associated with adolescent outcomes through their effects on the quality of adolescents' current social support networks and neighborhood environments, we tested the possible mediational role of these variables by entering them in the regression after the demographic controls and disruption variables. If the current environment variables were significant predictors, and caused a significant reduction in the coefficients for the disruption variables, it could be taken as evidence of at least partial mediation (Baron & Kenny, 1986).³

Next, a set of regressions was conducted to examine associations between number of moves and parental separations and adolescent adjustment in each of the four outcome domains (educational, externalizing, internalizing, and sexual) while controlling for household demographic characteristics and the quality of the

current environment. Finally, we examined the effect of parental separations in more detail by entering each of the following subdivisions of the parental separations variable into regressions predicting the adolescent adjustment index and the four outcome domains while controlling for household demographic characteristics and the quality of the current environment: maternal versus paternal separations, long-standing versus temporary caregiver separations, and early childhood, middle childhood, and adolescent separations.

Descriptive Analyses

The number of residential moves experienced by adolescents in the last 5 years ranged from 0 to 10 ($M = 1.2$). The total number of parent figures lived with ranged from 1 to 5 ($M = 2.1$). The number of mother figures identified by participants ranged from 0 to 3 ($M = 1.2$), and the number of father figures identified ranged from 0 to 2 ($M = 0.9$). The total number of separations from parent figures ranged from 0 to 6 ($M = 0.67$). The number of separations from mother figures ranged from 0 to 4 ($M = 0.23$), and the number of separations from father figures ranged from 0 to 2 ($M = 0.44$). The number of separations from long-standing caregivers ranged from 0 to 4 ($M = 0.78$), and the number from more temporary caregivers ranged from 0 to 2 ($M = 0.11$). The rates of parental separations during early childhood, middle childhood, and adolescence were identical, averaging 0.04 parental separations per year during each of these periods (range = 0 to 0.5 for early childhood and 0 to 0.75 for middle childhood and adolescence).

Correlations among the household characteristics, the number of moves and separations variables, the current environment variables, and average adjustment are presented in Table 3. Correlations among the control variables and among the current environment variables are also presented, but these are discussed only insofar as they inform the questions of the present study.

Low to moderate correlations among the history-of-disruption variables should be noted; the number of residential moves in the

³ In addition to the additive and mediator models tested in this study, a variety of moderator models were also examined. For example, we examined the interaction between number of moves and number of separations in the prediction of adolescent outcomes and whether high-quality current relationships buffered adolescents from the negative effects of frequent moves. We did not find significant evidence of moderator effects. To conserve space, we do not present details of these analyses.

Table 3
Correlations Among Current Household Characteristics, History-of-Disruption Variables, Perceptions of Current Environment, and Adolescent Adjustment Problems

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Caregiver on welfare	—																
2. Caregiver age	-.26***	—															
3. Caregiver education	-.22***	-.20***	—														
4. Income-to-needs ratio	-.46***	.10	.30***	—													
5. Caregiver financial strain	.12*	.12†	-.15*	-.26***	—												
6. Adolescent age	.05	.05	-.12†	-.06	.19**	—											
7. Caregiver married	-.19**	.09	.07	.13*	-.10†	-.08	—										
8. Caregiver cohabiting	.10	-.15*	.01	.20***	-.11†	-.06	-.23***	—									
9. No. of moves	.11†	-.06	-.08	-.07	.04	-.05	-.14*	.10†	—								
10. No. of separations	.02	.15*	.06	-.06	.00	.00	-.22***	-.05	.21***	—							
11. Maternal relationship quality	.04	-.06	.05	.02	-.11†	.01	.00	-.02	-.27***	-.09	—						
12. Paternal relationship quality	.01	-.01	.08	.09	-.08	.03	-.03	.07	-.08	-.02	.28***	—					
13. Kin support	.03	-.07	.06	.00	-.08	.00	-.02	-.02	-.14*	-.03	.50***	.22***	—				
14. Nonkin support	-.02	-.00	.05	.03	.09	.05	.04	-.07	-.01	-.01	.24***	.15*	.42***	—			
15. Peer relationship quality	-.15*	.02	.12†	.12*	-.10	-.21***	.09	.04	-.09	-.02	.14*	.05	.08	.16**	—		
16. Neighborhood problems	.03	.00	-.11†	-.12†	.14*	.19**	.02	-.04	.10†	-.03	-.13*	-.16*	-.06	-.13*	-.19***	—	
17. Adjustment problems	-.00	-.02	-.09	-.10	.25***	.25***	-.10	.04	.32***	.23***	-.39***	-.15*	-.33***	-.13*	-.11†	.25***	—

Note. *N* = 267.
 † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

past 5 years correlated .21 ($p < .01$) with the number of parental separations. There were also significant correlations between the disruption variables and several of the household demographic characteristics. Residential moves and parental separations were significantly lower if the caregiver was married. Residential moves were marginally higher when the caregiver was cohabiting and when the caregiver received welfare. More parental separations occurred when the caregiver was older (likely an artifact of adolescents separated from biological mothers but living with grandmothers). To ensure that the effects of the disruption variables were not due to these associations with current household characteristics, we used the household demographic variables as control variables in later analyses.

Significant correlations also were found between the disruption variables and adolescents' perceptions of their current environments. Adolescents who experienced more residential moves reported significantly lower quality relationships with their primary mother figures, reported significantly lower levels of kin support, and reported living in marginally worse current neighborhoods (neighborhoods with greater problems). There were no significant associations between number of parental separations and current relationship and neighborhood quality, although adolescents who experienced more maternal separations did report marginally poorer relationships with the person they thought of as mother ($r = -.11, p < .10$). These associations between disruption and adolescents' perceptions of their current environments justify our examination of current environmental factors as possible mediators of the effects of disruption.

As expected, significant positive associations were found between the history-of-disruption variables and adolescent adjustment problems, with residential mobility correlating .32 ($p < .001$) and paternal separations correlating .23 ($p < .001$) with adolescent adjustment problems. Table 4 presents the results of a series of hierarchical regression analyses testing whether these associations would remain after we controlled for household demographic characteristics and testing the mediating role of the quality of adolescents' current relationships and neighborhoods.

Regression Analyses Predicting Adjustment Problem Index

In Model 1 (control variables only) of Table 4, several household demographic characteristics are significant predictors of adolescent adjustment, with greater adolescent age and greater caregiver financial strain significantly predicting greater adolescent adjustment problems. The control variables alone accounted for 12% of the variance in adolescent adjustment problems. When the disruption variables were added in Model 2, both parental separations and number of residential moves were significant independent predictors of adjustment, above and beyond the effects of the control variables (and each other). Together, the disruption variables explain an additional 13% of the variance in adolescent adjustment, for a total Model 2 R^2 of .25.

In Model 3, the potential mediating role of the perceived quality of current relationships and neighborhoods was examined. Several of these aspects of adolescents' current environments were strong independent predictors of adolescent adjustment. Most notably, higher maternal relationship quality, a greater availability of adult kin support, and a higher perceived neighborhood quality were all significantly related to fewer adolescent adjustment problems.

Table 4
Hierarchical Linear Regression of Household Demographic Characteristics, History-of-Disruption Variables, and Current Environment on Adolescent Adjustment Problems

Variable	Model 1 β	Model 2 β	Model 3 β	Model 3 R^2 unique
Household characteristics				
Caregiver on welfare	-.114	-.135*	-.101†	.005
Caregiver age	-.064	-.088	-.103†	.008
Caregiver education	-.044	-.052	-.035	.001
Income-to-needs ratio	-.074	-.058	-.041	.001
Caregiver financial strain	.208***	.191***	.147**	.019
Adolescent age	.212***	.236***	.223***	.036
Caregiver married	-.042	.032	.006	.000
Caregiver cohabiting	.084	.074	.059	.001
History of disruption				
Number of moves		.288***	.196***	.027
Number of separations		.183**	.184***	.025
Perceived current environment				
Maternal relationship quality			-.193**	.031
Paternal relationship quality			-.011	.000
Kin support			-.184**	.013
Nonkin support			-.007	.000
Peer relationship quality			.032	.001
Neighborhood problems			.134*	.019
Full model R^2	.12	.25	.38	
Adjusted R^2	.10	.23	.34	

Note. $N = 267$.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

These effects do not, however, substantially reduce the strength of the associations between the disruption variables and adolescent outcomes. Several additional control variables now obtained a marginal level of significance in the full model; caregiver welfare use and higher caregiver age were both associated with lower levels of adolescent adjustment. The full model (Model 3), including the control variables, disruption variables, and current relationship and neighborhood quality, accounts for 38% of the variance in adolescent adjustment problems.⁴

The associations between the disruption variables and adolescent adjustment, with demographic characteristics and current environment quality controlled, are depicted in Figure 1, which illustrates an increase in adjustment problems as additional moves or separations are experienced.

Regression Analyses Predicting Separate Outcome Domains

Associations between adolescent history of separations and residential moves and scores in the four separate outcome domains (educational, internalizing, externalizing and sexual), with household demographic characteristics and perceived current environment controlled, are presented in Table 5.⁵ In these models, a greater number of past moves significantly predicted worse outcomes in each of the educational, externalizing, and sexual domains. There was also a trend ($\beta = .104, p = .11$) for more moves to predict greater internalizing problems. This latter effect was significant ($\beta = .155, p < .01$) without the current environment variables in the model, suggesting that aspects of the current environment may play a role in mediating

⁴ One could argue that the variance accounted for in Models 2 and 3 is inflated by the fact that adolescents served as reporters of both the predictor variables in these steps as well as the outcome variables. Although for reasons outlined in the introduction we found it preferable to use adolescents as reporters of their own residential moves and parental separations, we also tested a model utilizing only caregiver report of family instability. When household demographic characteristics and perceived current environment were controlled, caregiver report of the number of romantic partners she had during the adolescent's lifetime also significantly predicted adolescent report of adjustment problems ($\beta = .147, p < .01$), and caregiver report of number of family moves in the past 5 years was marginally associated with greater adolescent report of adjustment problems ($\beta = .174, p < .10$).

⁵ To conserve space, we do not present tests for the mediational role of the current environment for the separate outcome domains. Coefficients for the history-of-disruption variables predicting the separate outcomes are not significantly altered by the presence of the current environment variables except in the case of internalizing problems. The coefficient for number of moves predicting internalizing problems changes from a significant ($\beta = .193, p < .01$) to a nonsignificant value ($\beta = .104, p > .10$) with the addition of the current environment variables after the control and disruption variables. The strong effect for maternal relationship quality in the full model ($\beta = -.242, p < .001$) and the fact that the addition of this variable on its own after the disruption variables reduces the coefficient for number of moves (to $\beta = .113, p < .10$) suggest that the effect of number of moves on adolescent internalizing symptoms is mediated in part by the quality of adolescents' current relationships with their primary mother figures.

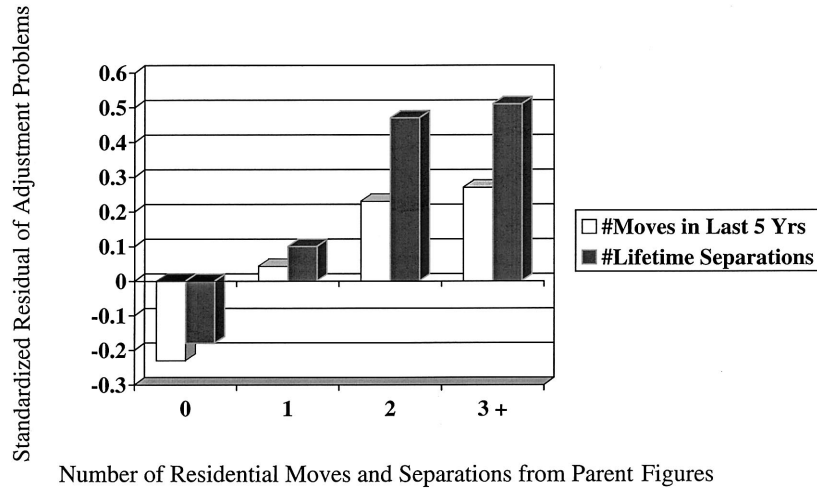


Figure 1. Associations between adolescent report of number of residential moves and separations from parent figures and adolescent adjustment problems with household demographics and quality of current environment controlled.

the association between history of moves and adolescent internalizing problems. The number of parental separations was significantly associated with greater externalizing problems and greater teen sexual

activity and marginally related to worse educational outcomes. The association between separations and adolescent internalizing problems was not significant.

Table 5
Association Between Number of Moves and Number of Separations and Adolescent Adjustment in the Four Outcome Domains, With Household Demographic Characteristics and Current Environment Controlled

Variable	Adjustment type			
	Educational (β)	Internalizing (β)	Externalizing (β)	Sexual ^a (β)
Household characteristics				
Caregiver on welfare	-.156*	-.078	-.025	.020
Caregiver age	-.080	-.085	-.076	-.020
Caregiver education	-.088	-.033	.020	-.018
Income-to-needs ratio	-.027	-.054	-.091	-.055
Caregiver financial strain	.070	.184**	.101	.075
Adolescent age	.190**	.066	.206***	.380***
Caregiver married	.058	.060	-.058	-.099†
Caregiver cohabiting	.047	.016	.086	.067
Perceived current environment				
Maternal relationship quality	-.083	-.242***	-.119†	-.127*
Paternal relationship quality	.028	-.032	-.010	.007
Kin support	-.187**	-.011	-.199**	-.076
Nonkin support	-.023	-.006	.016	-.072
Peer relationship quality	-.021	-.057	.081	-.019
Neighborhood problems	.057	.053	.132*	.039
History of disruption				
Number of moves	.172**	.104 ^b	.162**	.121*
Number of separations	.110†	.055	.210***	.116*
Full model R ²	.21	.18	.31	.32
R ² change	.04***	.01	.07***	.03**

Note. N = 267.

^a Linear regressions were used here for greater comparability with the other models; use of logistic regression for this variable yielded very similar results. ^b Without the current environment variables in the equation, this coefficient is significant (β = .193, p < .05).

† p < .10. * p < .05. ** p < .01. *** p < .001.

Effects of Type and Developmental Timing of Separations

Table 6 presents the parental separation effect on adolescent adjustment in more detail by breaking down the total number of separations according to their type (maternal vs. paternal, long-standing vs. temporary caregiver) and developmental timing (early childhood, middle childhood, and adolescent). In this table, each of the three main panels represents a separate regression that was run using a different breakdown of the parental separations variable, with household demographic characteristic and current environment variables controlled. Coefficients for control variables are not presented in order to conserve space but are available from the authors upon request.

In predicting the adolescent adjustment index, a higher number of separations was associated with worse functioning regardless of whether the separations were from mother figures or father figures, were from long-standing or temporary caregivers, or occurred in early childhood, middle childhood, or adolescence. The effects for temporary caregivers and middle childhood were only at the trend level. In examining effects for the separate outcome domains, greater maternal separations were associated with worse outcomes in each of the educational, externalizing problem, and sexual behavior domains, whereas the number of paternal separations was significantly associated only with externalizing problems. Separations from long-standing caregivers predicted outcomes in the educational, externalizing, and sexual behavior domains, whereas temporary caregiver separations were associated only with externalizing problems. Separations that took place in early childhood were significantly associated with educational, externalizing, and sexual behavior outcomes, whereas school-age separations predicted only externalizing and sexual behavior outcomes, and adolescent separations were associated only with externalizing prob-

lems. Thus, although all types and timings of separations were in some way related to adolescent well-being, effects were most robust for the prediction of total adjustment and externalizing problems and for maternal separations, separations from long-standing caregivers, and early childhood separations.

Discussion

This study demonstrated strong associations between adolescent adjustment problems and a history of family instability or disruption as defined by residential moves and separations from parent figures. These effects were found after controlling for the demographic characteristics of adolescents' current households and were significant above and beyond the effects of adolescents' perceptions of the quality of their current relationships with mother figures, father figures, adult and peer support networks, and current neighborhood environments. Effects were present for separations from both mother and father figures, from long-standing and more temporary parent figures, and during each developmental period examined.

Clearly, because the data are correlational, it cannot decisively be concluded that family instability was the cause of increased adolescent adjustment problems. It is possible that some unexamined characteristic of adolescent family background was the cause of both increased family instability and adolescent adjustment problems, that the adolescent adjustment problems themselves were the cause of increased family instability, or that having adolescents report on both family instability and outcomes increased the associations between these variables.

The fact that some of the caregiver and current household characteristics were related to both the disruption variables and to adolescent outcomes suggests the importance of controlling for

Table 6
Effect of Number of Separations on Adolescent Adjustment, Controlling for Current Household Demographics and Current Environment, According to Type of Caregiving Figure, Timing of Separation, and Type of Outcome

Type and timing of separation ^a	Adjustment type				
	Summary index (β)	Educational (β)	Internalizing (β)	Externalizing (β)	Sexual ^b (β)
Maternal separations	.150**	.112†	.017	.176**	.142**
Paternal separations	.122*	.088	.056	.122*	.048
Long-standing caregiver (>3 yrs)	.175**	.123*	.074	.183**	.127*
Temporary caregiver (<3 yrs)	.090†	.076	-.022	.116*	.064
Early childhood (0–6 yr)	.123*	.159**	.029	.108*	.114*
Middle childhood (6–12 yr)	.097†	.065	.003	.133*	.091†
Adolescent (over 12 yr)	.130*	.013	.072	.154**	.031
Full model R^2	.34	.19	.17	.29	.31
R^2 change	.04***	.02*	.01	.05***	.02*

Note. $N = 267$. Coefficients for control variables are available from the authors upon request.

^a Each of the three main panels in this table represents a different subdivision of the parental separations variable, entered as the last stage of a separate hierarchical regression model already containing the control and mediating variables. The full model R^2 and R^2 change variables are identical in each of these three regression runs because the same total number of separations is entered in each case. ^b Linear regressions were used here for greater comparability with the other models; use of logistic regression for this variable yielded very similar results.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

these characteristics. Although we did control for some important caregiver and household characteristics, other potentially important background variables were not examined in the current study, such as parent antisocial behavior (see Capaldi & Patterson, 1991). Future research should include more detailed measurement of caregiver psychological characteristics and their potential role in explaining the association between family instability and adolescent adjustment. A full analysis of the effects of caregiver characteristics should focus attention not only on the current caregiver but also on the characteristics of each caregiving environment the child has experienced.

The possibility that adolescent adjustment problems are the cause rather than the effect of family instability also cannot be fully ruled out in the current study. For example, antisocial adolescents could move more frequently in order to avoid the law or may be forced to leave their homes if their caregivers refuse to tolerate their behavior. Although we did not have information on the reason for each move or parental separation experienced, detailed information was obtained on participants' reasons for leaving the homes of the persons who raised them. Even among the adolescents with the highest rates of residential mobility and relationship instability, the reasons given for leaving the homes of the persons who raised them were most often factors out of the adolescents' direct control, such as "caregiver couldn't care for me anymore" or "abuse and neglect and too much fighting in the home." In addition, it is worth noting that separations occurring during early childhood (before 6 years of age) were also significantly associated with adolescent adjustment. It seems unlikely that child behavior would be the primary contributor to residential relocations or separations from parent figures during these early years.

A final alternative explanation for the results is that using adolescent report of both family instability and adolescent outcomes may have inflated associations between these variables. We cited prior evidence that adolescents do accurately report academic grades, that reporting of concrete events such as moves is more reliable than reporting of psychological events, and that use of time-line or event-history types of reports such as that used for parental separations also improves data quality. Because some adolescents had not always lived with their current caregivers, we felt it was important to use adolescent reports of their own histories. We did, however, conduct an additional analysis in which maternal report of family instability was used. The caregiver's report of her number of romantic partners since the birth of the adolescent and the caregiver's report of her number of residential moves in the past 5 years also predicted (at $p < .05$ and $p < .10$, respectively) adolescent reports of adjustment when household demographic characteristics and current environment were controlled.

Attachment relationships with primary caregivers are of fundamental importance to emotional development (Sroufe, 1996), and the distress associated with separations from such figures is extreme and experienced by children as "a fundamental threat to their well-being" (Kobak, 1999, p. 21). Even in older children and adolescents, "threats to the availability and responsiveness of an attachment figure can produce dysfunctional emotional reactions" (Kobak, 1999, p. 22). Physical moves often involve the loss of familiar relationships, environments, and routines and are also subjectively experienced as major stressors (Newcomb, Huba, &

Bentler, 1981). For these reasons, we favor the interpretation that at least some portion of the associations between parental separations, residential moves, and adolescent adjustment problems found in this study are due to the stress associated with these transitions. With this interpretation in mind, it is worth considering the findings for residential moves and parental separations in more detail.

Residential Moves

The fact that residential moves were significantly associated with the adolescent adjustment index and three out of the four outcome domains (and with the fourth domain prior to the inclusion of the mediator variables) is of interest, because this variable is not frequently examined in developmental research. Residential moves affect adolescents' lives both inside and outside the home and affect multiple spheres of functioning including relationships, physical settings, activities, and routines. Because of increasing links during adolescence to the community outside of the home and the challenges associated with normative adolescent transitions, residential changes during these years may be especially disruptive. Simmons et al. (1987) noted that early adolescents who were forced to cope with several life changes concurrently were most at risk for problematic outcomes. These authors suggested that adolescents need an "arena of comfort" involving continuity in at least some spheres of their lives. Continuity in one's physical home may provide one such "arena of comfort," and disruptions in the physical home may be especially problematic when they occur in conjunction with the normative developmental changes and challenges of adolescence.

Parental Separations

The associations between number of parental separations and the adolescent adjustment index were quite robust, being present either significantly or marginally regardless of the type of caregiver (maternal vs. paternal, long-standing vs. more temporary) or the developmental timing of the separation. The associations between maternal separations and the adjustment index as well as educational, externalizing, and sexual behavior outcomes is of particular interest because maternal separations have received limited attention in prior research on parental transitions. Paternal separations associated with divorce and remarriage have perhaps received more attention because separations from father figures are more frequent. In the current study, paternal separations were indeed more common—42% of adolescents experienced at least one paternal separation, whereas only 15% experienced at least one maternal transition. Paternal transitions were, however, significantly associated with only one outcome—externalizing disorders. Maternal separations may have a broader impact on adolescent girls' functioning because they are a less normative event or because mothers are more likely than fathers to be acting as the primary caregiver. As a result, separations from mother figures may result in profound disruptions in daily routines as well as serving as strong activators of attachment-related anxiety and distress. It is also possible that separations from same-sex parents are particularly salient to adolescents.

Clearly, maternal separations are an important contributor to instability in the lives of African American girls and should

receive more attention in future research. This said, the role of fathers in children's lives, especially in low-income populations, is often underestimated and understudied (Coley & Chase-Lansdale, 1999). Thus, future research should continue to examine the effects of paternal separations as well. It may be particularly interesting to examine whether separations from father figures are more strongly related to outcomes for adolescent males.

In this study, adolescents identified many individuals as important parent figures who would have been missed if we had chosen to define "parents" according to biological relatedness or focused on a single mother or father figure. The fact that separations from more short-term as well as from long-term caregivers showed relations to adolescent outcomes suggests that adolescents did identify adults who were important to them. Not surprisingly, however, the effects for long-standing caregivers were typically stronger and present across more outcome domains than were the effects for more temporary caregivers. Future research should continue to allow adolescents to identify the important parent figures to be examined and should measure the quality as well as the duration of each parental relationship in more detail.

The presence of separation effects in each of the three developmental periods helps alleviate concerns that adolescent adjustment problems may have caused parental separations. Interestingly, early separations are related to the most outcome domains (educational, externalizing, and sexual). This could be due to the central importance of attachment figures in children's lives during these early years or to the fact that basic developmental skills underlying a broad range of competencies are typically developed (or disrupted) during this period. It is also possible that early disruptions are an indicator of increased likelihood of continued family instability. Separations in later developmental periods do, however, continue to predict adolescent adjustment, above and beyond the effects of early separations, and the cumulative number of separations experienced across all developmental periods is the strongest predictor of adolescent adjustment.

Current Environment as Mediator of Past Disruption?

The importance of current interpersonal relationships in adolescents' lives is indicated by the fact that the qualities of current relationships with parents, adult kin, adult nonkin, and peers were all related to adolescent adjustment, with more positive or supportive relationships predicting decreased adjustment problems. The quality of adolescents' current neighborhood environments was also significantly associated with adolescent adjustment problems. It is important to note, however, that the associations between family instability and adolescent adjustment problems were largely independent of the effects of current relationships and neighborhood environments. The only exception to this independence was the association between adolescent number of moves and internalizing problems, which appeared to be partially mediated by current maternal relationship quality. Thus, although the quality of adolescents' current relationships and the quality of their neighborhoods were related to adolescent adjustment, these relationships do not fully explain the effects of a history of disruptions on adolescent outcomes. This suggests that the stress associated with the experience of disruptions may have negative effects on adolescent well-being independent of the implications of those disruptions for the quality of adolescents' later environments.

Summary and Implications

The current study adds to our understanding of family instability in several ways. First, it used random sampling within a low-income population. Second, it examined both residential moves and parental transitions in the context of the same study. Third, it examined parental transitions in more detail than in any prior study by including the effects of maternal separations as well as paternal separations, separations from long-standing as well as more temporary parent figures, and separations during three different developmental periods. Fourth, it allowed adolescents to identify multiple male and female parent figures so that separations from all adults they considered "parental" in their lives could be examined. Fifth, it examined a broader range of outcome variables than was investigated in prior studies of family instability. Sixth, it controlled for family demographic characteristics. Seventh, it examined the extent to which current relationships and current neighborhood quality mediated the effects of residential and parental disruptions. The primary limitations of the study include its correlational design and use of retrospective reports, the different time frames used for measurement of residential mobility and parental transitions, and the use of adolescents as reporters for both family instability and outcome variables in the majority of analyses.

Caveats aside, this study adds to a growing body of evidence suggesting that researchers need to examine children's family or home environments in a dynamic rather than in a static or snapshot fashion. It is not only the quality of children's home environments at any one time, or even the average quality of their home environments across time, but the degree of change or discontinuity in those environments that deserves attention. Repeated disruptions in the relationships and physical surroundings that define a child's "home" may be important contributors to adolescent adjustment problems. At the least, they are important markers of increased risk for adjustment problems. Given relatively high rates of such disruptions among low-income families, instability or disruption in the relationships and physical settings of children's home environments should be entertained as one possible mechanism for the intergenerational continuity of poverty. Ensuring high quality in children's relationships and physical care environments has been a frequent recommendation of developmental psychologists to policymakers. If further evidence for the detrimental effects of family instability is gathered, the encouragement and support of stability in children's relationships and physical care settings may be an important additional policy recommendation, with implications for housing, child custody, child-care, child protection, and foster-care policies. If home is where the heart is, disruptions of home may be near the heart of increased adjustment problems expressed by African American adolescent girls living in poverty.

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