

Family Instability and Young Adolescent Maladjustment: The Mediating Effects of Parenting Quality and Adolescent Appraisals of Family Security

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Examined relations among family instability and adolescent's psychological functioning using family models of children's emotional security in a sample of 220 young adolescents and their primary caregivers. Primary caregiver reports of family instability were associated with multiple informant measures of adolescent internalizing and externalizing symptoms. Findings from structural equation models supported the hypothesis that family instability increases adolescent risk for psychological problems by directly undermining their insecure appraisals of the family. Results also supported a pathway whereby family instability predicted parenting difficulties and parenting difficulties, in turn, indirectly predicted adolescents' internalizing and externalizing symptoms through its association with lower levels of perceived insecurity in the family. Results are discussed in relation to how they advance process-oriented conceptualizations of family instability.

Various forms of family instability, which reflect disruptive events that undermine the continuity, cohesiveness, and predictability of family life from the child's perspective, have been shown to increase children's vulnerability to psychological problems (Ackerman, Kogos, Youngstrom, Schoff, & Izard, 1999). For example, residential changes, parental illness, parental romantic relationship transitions, and changes in caregivers are specific disruptive events that have been associated with a wide range of maladjustment among both children (e.g., Cohen, Johnson, Struening, & Brook, 1989; Compas, Worsham, Ey, & Howell, 1996; Eckenrode, Rowe, Laird, & Brathwaite, 1995; Nelson, Simoni, & Adelman, 1996) and adolescents (e.g., Amato & Keith, 1991; Cohen et al., 1989; Compas et al., 1996; Eckenrode et al., 1995; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987).

From an organizational perspective, children's adaptation is best understood in the context of the accumulation of multiple forms of disruptive events in the family (Bergman & Magnusson, 1997; Cicchetti, 1984; Cicchetti & Cohen, 1995; Sroufe & Rutter, 1984). Thus, any single disruptive event, such as di-

vorce, is part of a larger constellation of family instability characterized by parental marital transitions, frequent moving, income and occupational changes, and disruptions in family routines (Hetherington, Bridges, & Insabella, 1998). Studies designed to capture multiple or recurring disruptive family events have shown that broader assessments of family instability increase children's risk for adjustment problems in a way that a single disruption (e.g., divorce) does not. For example, the number of marital transitions (e.g., divorce, remarriage) is linearly related to child (Capaldi & Patterson, 1991) and adolescent psychological problems (Kurdek, Fine, & Sinclair, 1995; also see Sandler, Wolchik, & Braver, 1988; Simmons et al., 1987).

In extending this research, a conceptualization of family instability was developed from the assumption that a critical function of the family is to serve as a source of stability, cohesiveness, and predictability (Bretherton, Walsh, Lependorf, & Georgeson, 1997; Cummings, Davies, & Campbell, 2000). Ackerman and colleagues (1999) specifically furthered this work by defining family instability as a cumulative aggregation of disruptive family events that undermines the continuity, cohesiveness, and predictability of family life from the child's perspective. Family instability was defined as the frequency of residential mobility, intimate relationships involving the primary caregiver, family units in which the child lived, child illness, and other stressful family events during the child's life. The family instability index, in turn, was shown to be a robust predictor of children's concurrent externalizing

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symptoms and increases in children's internalizing symptoms 2 years later. Notably, family instability continued to predict child adjustment problems even after controlling for other dimensions of family functioning (e.g., family conflict and cohesion, parental negative emotionality). Thus, family instability appears to play a critical role in socialization from the child's perspective.

The first aim of this study was to replicate and extend these findings in three primary ways. First, the study by Ackerman and colleagues (1999) examined family instability in a sample that was economically disadvantaged and predominantly African American. Thus, we sought to replicate the findings in a sample of middle-class, predominantly Caucasian families. The conceptual framework developed by Ackerman and colleagues postulates that family instability is a robust risk factor across multiple contexts. However, it is possible that the effects may be weaker or stronger across samples that differ in the experiences with unstable family events (e.g., low base rates) or the other ecological characteristics (e.g., community adversity, psychosocial support; Cummings et al., 2000).

Second, our study was also designed to extend the study of the effects of family instability to the developmental period of early adolescence. The emphasis on the vulnerability of adolescents to family difficulties in many models of developmental psychopathology suggests that family instability may continue to be a significant risk factor during early adolescence (e.g., Cummings & Davies, 1994; Gelfand & Teti, 1990; Sim & Vucchnich, 1996; Windle, 1992). There is some evidence that young adolescents, relative to younger children and late adolescents, are particularly vulnerable to a broad spectrum of negative family events and processes (Amato & Keith, 1991; Hetherington et al., 1998; Hetherington, Stanley-Hagan, & Anderson, 1989; Mednick, Baker, & Carothers, 1990; Grych & Fincham, 1990; LaRoche, 1989). Although perhaps especially sensitive to family processes, young adolescents are developmentally advanced enough to allow investigations of complex intrapsychic mediating mechanisms, given their relatively advanced (versus younger children) sociocognitive abilities (e.g., the abilities to make causal connections between events, to interpret the psychological and affective meaning of social events, and to coordinate intrapsychic and interpersonal perspectives; Davies, Myers, & Cummings, 1996; Kurdek & Rodgon, 1975; Selman, 1981; Selman, Schorin, Stone, & Phelps, 1983; Shantz, 1983).

Third, this study aims to further refine the construct of family instability by removing from the operationalization items that do not directly contribute to a child's perceptions of the family as unstable. In particular, parental stressful life events are excluded from our measure of family instability because they reflect parental, rather than adolescent, experiences with dis-

ruptive events that may or may not occur within, or be directly associated with, the family.

Although a growing corpus of studies have demonstrated links between forms of family instability and child and adolescent maladjustment, little is known about the processes by which family instability affects children's socioemotional functioning. Thus, the primary aim of this study was to identify the mediating mechanisms of family instability's elevation of risk for maladjustment. According to our conceptual model, outlined in Figure 1, family instability is posited to affect adolescent psychological maladjustment through both direct and indirect pathways of effect.

In the indirect effects pathways of the model, parenting difficulties are conceptualized as mechanisms that account, in part, for the risk of family instability. Empirical findings from multiple lines of research provide support for the mediational role of parenting. Parents of young children and of adolescents who experience high levels of stressful family events or specific indicators of family instability (e.g., parental divorce, death) are less likely to express warmth toward their children and exercise effective ways of managing and regulating their children's behavior (e.g., monitoring, consistent discipline; Hetherington, 1989; Roberts, 1989; Taylor, Roberts, & Jacobson, 1997). Mediational analyses have supported a model in which various forms of family stress (e.g., parental stressful life events, parental conflict, unemployment) increase adolescents' risk for developing symptomatology by undermining parenting practices (Conger, Patterson, & Ge, 1995; Fauber, Forehand, Thomas, & Wierson, 1990; Ge, Conger, Lorenz, & Simons, 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994). Moreover, the strength of associations between family instability and forms of child maladjustment in the study by Ackerman and colleagues (1999) was substantially reduced (33% to 75%) after statistically controlling for family cohesion, family conflict, and caregiver emotionality. Thus, although the treatment of these family process variables as third variables or covariates in the analyses does not provide a direct test of the mediational model, these findings suggest that parenting difficulties play a key role as mediators of family instability.

Reflecting the direct pathway in Figure 1, exposure to family instability may directly undermine adolescents' psychological adjustment by affecting their appraisals and coping in the family. Empirical support for the direct effects of family instability is evidenced by findings that family instability continues to predict children's maladjustment even after taking into account family process measures. In attempting to explain this direct effect, Ackerman and colleagues (1999) theorized that experiencing high levels of family instability directly threatens children's sense of security in the family and compromises their ability to regulate arousal and affect. Although children's ap-

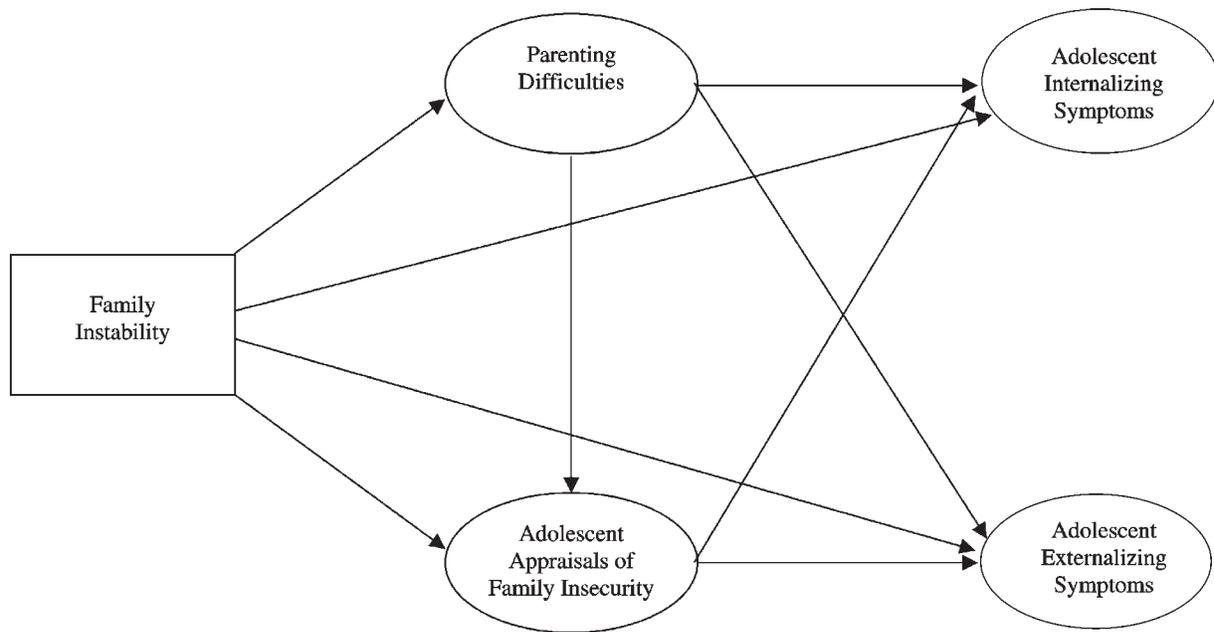


Figure 1 A conceptual model of the mediated paths from instability to adjustment through parenting difficulties and adolescent insecure appraisals in the family.

appraisals and coping have not been empirically examined in relation to family instability, studies have identified links between specific types of disruptive family events (e.g., divorce) and adolescents' negative appraisals of the self and family (Fogas, Wolchik, Braver, Freedom, & Bay, 1992; Newcomb & Harlow, 1986; Wolchik et al., 1993). In drawing on this body of work, we specifically hypothesized that family instability would also directly affect adolescents' functioning by undermining their confidence in the family as a source of support and security.

Our conceptualization of adolescent appraisals as a mediator is rooted in family-wide expansions of emotional security. Whereas attachment theory places primary emphasis on understanding how children organize dyadic relations with an attachment figure to preserve their sense of security (Waters & Cummings, 2000; p. 166), family-wide conceptualizations of security underscore that broader family contexts can also serve to directly undermine or enhance children's goal of preserving their sense of security (Cummings & Davies, 1996; Davies & Cummings, 1998; Owen & Cox, 1997).

Consistent with these advances, our family-wide assessment of emotional security is designed to more broadly capture children's cognitive-affective representations of their whole family unit as sources of threat and support in the goal of preserving security. To the extent that the provision of security, stability, and protection in the lives of children is a major function of the family (Bowlby, 1969/1982; Popenoe, 1994), disruptive events that challenge the cohesiveness and stability of family life for children may be particularly likely to (a) shake their confidence in the ability of the family to serve as a source of security and (b) foster

their appraisals of the family as a source of threat to their well-being. Family-wide conceptualizations of emotional security further hypothesize that appraisals of insecurity in the family increase children's risk for developing psychological difficulties. For example, negative, pessimistic appraisals of the family may be rigidly used as prototypes for approaching new or challenging social tasks and relationships that typically demand flexibility and openness to emotional experience (e.g., romantic and peer relationships). Difficulties successfully preserving a sense of security are also theorized to increase the probability that children will fail to have adequate resources and skills to successfully resolve other developmental tasks.

Appraisals of insecurity in the family may not only directly mediate the effects of family instability on adolescent adjustment, but they may also indirectly account for some of the mediating effects of parenting difficulties in associations between family instability and adolescent adjustment. Measures of insecurity in the child-parent attachment relationship have been shown to mediate associations between negative child-rearing experiences and children and adolescent's social adjustment (Belsky & Cassidy, 1994; Cummings et al., 2000; Thompson, 2000). Thus, in light of this work and the salience of parents in the socialization of children, it is hypothesized that adolescents' experiences with negative child-rearing practices increase their risk for developing symptomatology by influencing broader representations of the family as a source of support or threat.

In summary, although links between family instability and children's maladjustment have been identified, little is known about the processes that mediate these associations or about whether these associations

continue in adolescence. Thus, this study aims to identify family and child processes that mediate the effects of family instability in a sample of young adolescents. Guided by family-wide models of emotional security (e.g., Davies, Forman, Rasi, & Stevens, 2002), we specifically test the hypothesis that parenting difficulties and adolescents' appraisals of security in the family mediate the effect of family instability on adolescent maladjustment. Figure 1 summarizes the hypothesized pathways among family instability, parenting, appraisals of security, and adolescent adjustment. Indirect paths between family instability and adolescents' maladjustment specifically reflect the operation of three pathways. First, family instability is hypothesized to directly undermine adolescents' appraisals of security in the family and thereby increase their risk for psychological problems. Second, family instability is also hypothesized to be associated with parenting difficulties characterized by low warmth, lax involvement and monitoring, and psychological control that, in turn, increase adolescents' vulnerability to psychological symptoms. Third, adolescents' appraisals of family security are hypothesized to account, in part, for the mediating effects of parenting difficulties in links between family instability and adolescent maladjustment.

Method

Participants

Participants included 220 young adolescents and their primary caregivers from public middle school in a lower-middle and middle-class suburb of a medium-sized city. The vast majority of parent-adolescent dyads were Caucasian (90%), followed by progressively smaller proportions of multiracial (4%), African American (3%), Hispanic (1%), Asian (1%), and Native American (1%) dyads. The sample was relatively evenly distributed by sex (102 boys, 118 girls) and grade (74 sixth graders, 67 seventh graders, and 79 eighth graders). Adolescents ranged in age from 10 to 15 years of age, with a mean age of 13 ($SD = 1.01$). Primary caregiver reports reflected the middle-class background of the sample, with modal family income falling in the \$55,000 to \$75,000 bracket. Most of the primary caregivers were mothers ($n = 195$). The demographics described previously were reflective of the student body as a whole.

Procedure

This study was part of a larger project focusing on family and adolescent functioning (Davies et al., 2002). Participants in the study were recruited from an initial pool of 1,290 sixth-, seventh-, and eighth-grade students from a public middle school. Consistent with previous research (Kurdek & Fine, 1994; Steinberg, Lamborn,

Dornbusch, & Darling, 1992), a two-step procedure was used to obtain consent. In the first step a "passive" parental informed consent procedure was used in which parents were assumed to provide consent for their children to participate unless they returned a refusal form in a postage-free envelope or contacted school or research administrators by phone. In the second step, an "active" child consent procedure was used in which children were given a description of the study and were then free to choose whether or not to participate. (Nonparticipants were given a free period.) Both parents and adolescents were fully informed about the study's purpose and procedures and the fact that participation was voluntary and there were no adverse consequences (e.g., from school personnel) from electing not to participate.

Our decision to use passive consent procedures was primarily guided by two considerations. First, school administrators were concerned that it would be difficult to ensure student safety and maintain school organization if large numbers of students were unable to participate in the project. Therefore, participation in this study from this school system was contingent on the administration of a passive consent procedure. Second, administering passive parental consent forms yields more representative samples of children that evidence more variability in their functioning (Baker, Yardley, & McCaul, 2001; Dent et al., 1993). Thus, because part of the mission of the larger part was to capture relatively rare family (e.g., destructive parental conflict) and adolescent (e.g., substance use) difficulties, the use of passive consent increased range and variability on family and adolescent functioning measures (see Steinberg et al., 1992, for an extended discussion). Adolescents who consented to participate completed the surveys in their classrooms under the guidance of a trained experimenter. The participation rate of students was 80%, yielding a total sample of 1,032 students.

Primary caregivers indicated an interest in participating in the study by returning a postcard in the mail. They were then sent survey forms on family and adolescent functioning to complete and return in a postage-free envelope. Primary caregivers with more than one child in middle school were instructed to complete the survey for only one of their children. After excluding siblings, 23% of the parents with students in the middle school participated in the survey ($n = 269$). Parents and children were included in the study if they completed the primary measures in the study. These criteria yielded a sample of 220 primary caregiver-child dyads who participated in the study. Minimal differences were found between this sample and the sample of participating students who did not meet the screening criteria. Adolescents in this sample were more likely to be Caucasian, $\chi^2(1) = 26.18, p < .01$, experience higher levels of internalizing symptoms (Cohen's $d = .14$), and indicate lower self-esteem (Cohen's $d = .15$). However, no significant sample differences

emerged for the majority of child-report measures of sociodemographic characteristics (e.g., child age, parental marital status, parental employment status), adolescent coping (e.g., security appraisals), and adolescent adjustment (e.g., externalizing).

Measures

Whenever possible, three indicators for each of the key constructs were obtained to form latent constructs of the primary variables of interest.

Family instability. Family instability, which is defined as the degree to which families fail to provide continuity, cohesiveness, and stability for children, was measured using a revised version of the Family Instability Index (Ackerman et al., 1999). Consistent with this index, the measure consists of nine items assessing the number of times the family experienced disruptive life events over the past 5 years in five family domains: (a) changes in residence; (b) changes in the primary or secondary caregiver; (c) transitions in romantic relationships of the primary caregiver (e.g., dissolution, new romantic relationships, initiation of cohabitation); (d) job and income loss; and (e) death or serious illness of a close family member. Parental stressful life events, which were indicators of the original family instability measure, were not included in the assessment because they were “events that may have happened to the caregiver” (Ackerman et al., 1999, p. 260), for example, a close friend moved away or occupational stressors. Therefore, they do not definitively capture family-level (i.e., source of disruption lies outside of the family) events that directly disrupt the continuity of children’s lives. Although the indicators of family instability exhibit conceptual coherence in assessing events that disrupt the cohesiveness and predictability of family life, the instability events, like stressful life events, are not necessarily expected to evidence strong covariation. Thus, internal consistency estimates are not accurate indexes of reliability. However, the psychometric soundness of the original measure of instability is supported by its significant associations with other family characteristics and children’s coping and psychological adjustment (Ackerman et al., 1999). Likewise, the validity of this measure is supported by its significant correlations with adolescent disengagement from the family ($r = .19$), parental conflict ($r = .20$), and adolescent internalizing ($r = .28$) and externalizing ($r = .37$) symptoms (Ackerman et al., 1999; Forman & Davies, 2002).

Parenting difficulties. To more comprehensively assess parenting practices outlined in tripartite classifications of child-rearing practices (e.g., Barber, 1997; Cummings et al., 2000; Herman, Dornbusch, Herron, & Herting, 1997), primary caregivers completed measures designed to assess their own and their

partners’ parental acceptance, behavioral control, and psychological control. First, parental acceptance was measured by a shortened form of the Warmth/Acceptance scale from the Parental Acceptance and Rejection Questionnaire (Rohner, 1990). We specifically selected 10 of the original 20 items that best indexed concrete, objective expressions of parental acceptance (e.g., “I/my partner praises my child when he/she deserves it”). Items are rated on a 4-point scale, ranging from 1 (*almost always true*) to 4 (*almost never true*). Primary caregiver reports of their own and their partners’ acceptance were summed into a 20-item composite ($\alpha = .89$), but items were reverse scored so that higher values reflect reduced warmth/acceptance (i.e., parental rejection). The validity of the original Warmth/Acceptance scale from the Parental Acceptance and Rejection Questionnaire is supported by its strong associations with child depression, behavior problems, and substance abuse (Rohner, 1990).

Second, the Behavioral Control Scale is a commonly used five-item measure in which the parents are asked to rate the extent to which they are privy to activities and friendship networks of their children (e.g., Barber, 1996; Barber, Olsen, & Shagle, 1994; Dornbusch, Ritter, Liederman, Roberts, & Fraleigh, 1987). Items (e.g., “how much do you/your partner know about where your child goes at night?”) are rated from 1 (*don’t know*) to 4 (*know a lot*); however, items were reverse scored so that higher values reflect behavioral control difficulties. Primary caregiver reports of their own and their partner’s behavior were summed to form a more parsimonious, reliable measure of behavioral control. The internal consistency of the composite was satisfactory ($\alpha = .82$) and support for the validity of the measure is supported by its theoretically meaningful associations with family and child functioning, and especially its ability to predict changes in adolescent delinquency (e.g., Barber, 1996; Brown, Mounts, Lamborn, & Steinberg, 1993).

Third, psychological control was measured with an adapted form of the Psychological Control Scale, an eight-item scale tapping the degree to which parents engage in guilt induction, love withdrawal, and excessive pressure for change (Barber, 1996). Items are rated from 1 (*not like me/partner*) to 4 (*a lot like me/my partner*) and included “bring up my child’s past mistakes when disciplining him/her,” “would like to be able to tell my child how to feel or think about most things,” and “avoid talking to my child when s/he hurts my feelings.” The original Psychological Control Scale, which was based on the Children’s Report of Parental Behavior Inventory (Margolies & Weintraub, 1977), has demonstrated good psychometric properties, including its associations with other parenting constructs and its ability to predict increases in adolescent delinquency and depression (Barber, 1996). Consistent with the other parenting measures, primary caregiver reports of themselves and their

partners' psychological control strategies were combined to form a single 16-item composite ($\alpha = .76$).

Family security. Children completed the Security in the Family System scale (Forman & Davies, 2002) to assess their appraisals of insecurity in their family as a whole. The 22-item instrument yields three interrelated scales of security. First, the Preoccupied scale, which consists of eight items, assesses children's worries about the future welfare of themselves and their families (e.g., "I feel like something could go very wrong in my family at any time"). Second, the Security (or Insecurity) scale consists of seven items that tap children's confidence in their family unit as a reliable source of support and protection even during times of family stress (e.g., "I believe that family members will be around to help me in the future"). Third, the seven items on the Disengagement scale reflect children's efforts to disengage from and minimize the significance of the family in their lives (e.g., "When I have disagreements with family members, it's not worth trying to understand their point of view"). In answering items, adolescents responded to the prompt "How much do you agree with each of these statements?" using a 5-point scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). All three subscales were scored such that higher values represent greater insecurity. The factor structure of the Security in the Family System scale was determined through exploratory and confirmatory factor analyses. Internal consistency coefficients for the three scales were good (α s = .83 to .88). Support for the validity of the Security in the Family System scales is indicated by their concurrent and prospective associations with measures of family functioning, children's psychological problems, and insecurity in specific family relationships (Forman & Davies, 2002).

Adolescent internalizing symptoms. Three measures were used to assess children's internalizing symptoms. First, children and parents completed the Withdrawn and Anxious/Depressed scales from parallel forms of the Youth Self-Report (Achenbach, 1991c) and Child Behavior Checklist (Achenbach, 1991b). The Youth Self-Report and Child Behavior Checklist are well-established measures of internalizing symptoms and together are thought to provide a substantially more accurate representation of current functioning than a mono-informant approach (Achenbach, 1991a). Items (e.g., "Unhappy, sad and depressed," "Likes to be alone," "Too fearful or anxious") are rated on a 3-point scale as 0 (*not true [as far as you know]*), 1 (*somewhat or sometimes true*), or 2 (*very true or often true*). For each informant, the Withdrawn and Anxious/Depressed scales were summed to form two internalizing symptoms measures (α s = .86). The third measure of internalizing symptoms consisted of adolescent reports on the six-item negative Self-Esteem subscale of the Child

Personality Assessment Questionnaire (Rohner, 1990). Items include "I like myself," and "I feel I am no good and never will be any good" and are rated from 1 (*strongly disagree*) to 5 (*strongly agree*). Alpha for this sample was .79. The validity of the Child Personality Assessment Questionnaire Self-Esteem scale is supported by its robust correlations with related measures of self-esteem and psychological functioning (Rohner, 1990).

Adolescent externalizing symptoms. Three measures were also used to assess children's externalizing symptoms. Children and parents completed the Delinquent Behavior and Aggressive Behavior subscales from comparable versions of the Youth Self-Report and Child Behavior Checklist. For each informant, the two subscales were summed to form adolescent- and parent-report measures of externalizing symptoms. Sample items include "destroys things belonging to others," "hangs around with kids who get in trouble," and "gets in many fights." Alphas for each of the measures were satisfactory for the Youth Self-Report (.89) and Child Behavior Checklist (.87) measures. The third measure of externalizing symptoms consisted of adolescent reports on the Substance Use Measure (Wills & Cleary, 1996; Wills, McNamara, Vaccaro, & Hirky, 1996). Three of the items from the four-item Substance Use Measure assess the frequency of use of cigarettes, alcohol, and marijuana using a 6-point scale ranging from 1 (*never*) to 6 (*usually every day*). The final question asks "How many times *in the past 6 months* have you had three or more drinks of alcohol (beer, wine, liquor) on one occasion?" and the four responses range from 1 (*none*) to 4 (*happened more than twice*). Items were standardized and summed to form an overall measure of substance use. The internal consistency of the Substance Use Measure was satisfactory in this sample ($\alpha = .79$), and prior demonstrations of the measure's significant associations with expected correlates such as parental support, academic competence, and exposure to stressful events (e.g., Wills & Cleary, 1996) support its validity.

Results

Descriptive and Preliminary Analyses

Table 1 presents the means, standard deviations, and intercorrelations for each of the variables used in the structural equation models. The mean (3.03) and standard deviation (2.62) for the Family Instability Index suggests adequate variability of family instability. Proportions of families experiencing each type of unstable event were as follows: job loss of primary caregiver (11%), job loss of secondary caregiver (12%), serious injury/illness (24%), death of a close family member (36%), start of serious romantic relationship involving primary caregiver (11%), romantic partner of primary caregiver moved into household (9%), end of romantic

relationship involving primary caregiver (10%), residence change (19%), change in primary caregiver (6%).

The utility of forming latent constructs was supported by the significant and moderate associations among the manifest indicators of the proposed latent constructs of parenting difficulties (mean $r = .37$), appraisals of insecurity in the family (mean $r = .55$), and adolescents' internalizing (mean $r = .39$) and externalizing (mean $r = .28$) symptoms. To further test the utility of forming latent constructs from the manifest indicators, we examined the fit of the measurement model specifying the four latent constructs and one manifest indicator (i.e., family instability). The latent variables and manifest indicator were free to correlate in the model. Following conventional methods for accounting for common measurement error and improving model fit, 10 pairs of correlated errors were specified between variables with common measurement source (e.g., parent reports of internalizing and parent reports of externalizing symptoms). The measurement model provided a good representation of the data, $\chi^2 = 69.4$, $df = 45$, χ^2/df ratio = 1.54, Goodness-of-Fit Index = .95, comparative fit index = .97, Tucker–Lewis Index = .95, root mean squared error of approximation = .05.

Structural Models

To test the hypothesis that parenting and appraisals of family insecurity mediate the relation between instability and adjustment, we used Hoyle and Smith's (1994) method for testing mediation in structural equation models. Following the guidelines for testing mediation in multiple regression analyses (Baron & Kenny, 1986), Hoyle and Smith noted that four conditions must be met to demonstrate mediation. The first criterion is that the predictor (i.e., family instability) must be significantly associated with the outcome (i.e., adolescent adjustment) outcome variables. To test this

condition, the model in Figure 1 was reevaluated with paths from parenting and family security to adjustment constrained to zero (i.e., only direct paths from instability to outcomes were allowed). The results (depicted in brackets in Figure 2) indicated that family instability was a significant predictor of both internalizing ($\beta = .16$, $p < .05$) and externalizing ($\beta = .20$, $p < .02$) symptoms, although the effects were modest in size ($r^2 = .04$ and $.03$, respectively). As expected, the fit was not good under these constrained conditions: $\chi^2 = 222.16$, $df = 50$, χ^2/df ratio = 4.44, Goodness-of-Fit Index = .87, comparative fit index = .81, Tucker–Lewis Index = .70, root mean squared error of approximation = .13.

The next two conditions required to support mediation consist of demonstrating that the predictor is significantly associated with the mediator variables and the mediator variables are significantly associated with the outcome variables. To examine whether our model meets these criteria, we evaluated a second model in which all paths in Figure 1 were freely estimated. Figure 2 presents the findings for this model. The model fit the data well: $\chi^2 = 71.31$, $df = 46$, χ^2/df ratio = 1.52, Goodness-of-Fit Index = .95, comparative fit index = .97, Tucker–Lewis Index = .95, root mean squared error of approximation = .05. The model accounted for 57% and 37% of the variance of internalizing and externalizing outcomes, respectively.

In support of the second condition for demonstrating mediation, family instability was associated with the proposed mediators: appraisals of family insecurity ($\beta = .15$, $p < .05$) and parenting difficulties ($\beta = .17$, $p < .01$). Supporting the third condition, appraisals of family insecurity, in turn, were strongly associated with internalizing ($\beta = .74$, $p < .01$) and externalizing ($\beta = .58$, $p < .01$) symptoms. Although direct paths from parenting difficulties to symptoms were not significant, effects decomposition analyses indicated that parenting difficulties were indirectly associated with internalizing (total β

Table 1. Means, Standard Deviations, and Intercorrelations for Variables in the Structural Equation Models

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
(1) Family instability	3.03	2.62												
(2) Parent behavioral control difficulties	13.07	3.67	.14											
(3) Parent rejection	27.89	7.08	.17	.50										
(4) Parent psychological control	25.63	6.10	-.03	.21	.39									
(5) SIFS preoccupation	20.59	6.96	.19	.14	.18	.13								
(6) SIFS disengagement	14.81	5.71	.18	.15	.22	.12	.68							
(7) SIFS insecurity	14.12	5.15	.14	.19	.28	.13	.37	.60						
(8) YSR internalizing	9.64	6.99	.06	.03	.22	.13	.52	.53	.36					
(9) CBCL internalizing	6.61	5.76	.12	.15	.28	.32	.20	.27	.22	.31				
(10) CPAQ negative self-esteem	6.50	3.87	.09	.03	.17	.16	.38	.56	.55	.59	.27			
(11) YSR externalizing	11.37	8.11	.06	.16	.22	.05	.35	.48	.41	.48	.10	.35		
(12) CBCL externalizing	8.35	6.40	.10	.24	.35	.25	.13	.27	.22	.10	.49	.11	.32	
(13) SUM	-0.02	3.01	.22	.17	.02	.00	.20	.26	.22	-.01	.01	.06	.36	.15

Note: Correlations among indicators within latent constructs are denoted in bold; significance levels are $rs \geq .13$, $p < .05$; $rs \geq .18$, $p < .01$; SIFS = Security in the Family System; YSR = Youth Self-Report; CBCL = Child Behavior Checklist; CPAQ = Child Personality Assessment Questionnaire; SUM = Substance Abuse Measure.

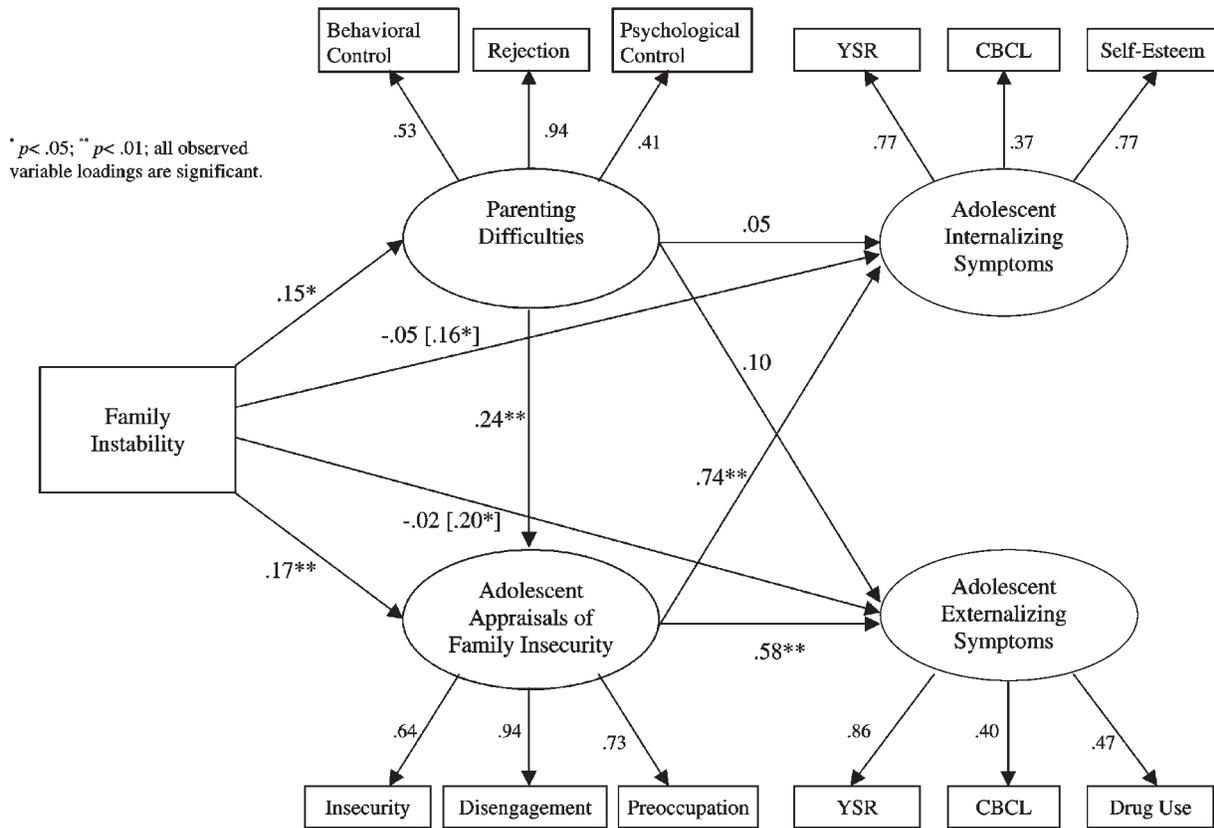


Figure 2. A structural equations model testing parenting difficulties and adolescent insecure appraisals in the family as mediators in the links between family instability and adolescent forms of psychological difficulties. Path model strengths in brackets are derived from the analysis of an unmediated model, in which only direct paths from family instability to internalizing and externalizing symptoms were allowed. (Note: For the sake of clarity, errors terms and correlations allowed between them are not shown.)

$= .23, p < .05$, indirect $= .24 \times .74 = .18$) and externalizing (total $\beta = .24, p < .05$, indirect $= .24 \times .58 = .14$) symptoms through their relation with appraisals of family insecurity. Thus, these results supported a model whereby family instability predicted parenting difficulties and parenting difficulties, in turn, predicted adolescents' internalizing and externalizing symptoms through its association with lower levels of perceived insecurity in the family.

Satisfying the final criterion for mediation requires demonstrating that the magnitude of direct paths between the predictor (i.e., family instability) and outcome (i.e., adolescent symptoms) variables are substantially reduced after the paths of proposed mediators are estimated in the model. In support of this criterion, the direct paths between family instability and adolescents' symptoms, which were significant when the proposed mediational paths in the model were constrained to zero (i.e., values in the brackets in Figure 2), were negligible once the mediational paths were estimated ($\beta s = -.05$ and $-.02$ for internalizing and externalizing symptoms, respectively). The attenuation of direct paths to a size that is close to zero suggests that the mediators "fully (but not necessarily exclusively) account for the relation between the predictor and the outcome" (Hoyle & Smith, 1994, p. 438). Moreover, effects decomposition analyses indicated that the direct paths from family instability to adolescent symptoms

were negligible relative to the indirect paths from family instability to internalizing (indirect $\beta = .17, p < .05$) and externalizing (indirect $\beta = .14, p < .05$) symptoms through appraisals of family insecurity.

Discussion

Although conceptual models have presumed that unstable family events undermine children's adaptation and adjustment (Bretherton et al., 1997; Hetherington et al., 1998; Sandler et al., 1988), little is known about the empirical linkages between family instability and child, particularly adolescent, maladjustment. In the most definitive test of the risk of family instability to date, Ackerman and colleagues (1999) reported that family instability was associated with child internalizing and externalizing symptoms in a sample of young children from urban, disadvantaged families. To provide a conservative test of the generalizability of these findings, this study attempted to incorporate a purer index of unstable events that directly contribute to children's appraisals of the family as unstable. Furthermore, it examined whether family instability continued to predict internalizing and externalizing symptoms despite differences in sample characteristics (i.e., middle-class families), developmental characteristics of

the children (i.e., early adolescence), and analytic models (i.e., structural equation models). Attesting to the significance of family instability in the lives of adolescents, these results indicated that even relatively modest levels of family instability in our middle-class sample were associated with adolescent internalizing and externalizing symptoms.

The primary objective of this study was to delineate the processes that account for the link between family instability and children's maladjustment. According to family-wide conceptualizations of emotional security (Bretherton et al., 1997; Cummings & Davies, 1996; Davies & Cummings, 1994), cumulative experiences with frequent unstable family events directly affect adolescent adjustment by undermining their confidence in the family as sources of security and support. Consistent with this hypothesis, our results indicated that adolescent appraisals of insecurity in the family system mediated the link between family instability and adolescent internalizing and externalizing symptoms. Moreover, mediational paths among family instability, appraisals of family security, and psychological adjustment were robust even while simultaneously specifying the mediating effects of parenting difficulties. These results are consistent with previous empirical findings indicating that family instability continued to predict child adjustment even after statistically controlling for proximal family characteristics such as parenting difficulties (Ackerman et al., 1999). In the aggregate, these findings argue against the proposition that family instability is a distal marker for other family characteristics that have more proximal effects on child adjustment. This study advances earlier research by identifying adolescent appraisals of family security as a key mechanism that accounts for the direct effects of family instability.

By the same token, direct pathways operating through appraisals of security were not proposed to be the sole mechanism that accounts for the risk of family instability. Rather, in our multiple mediator model (see Figure 1), family instability was theorized to also indirectly affect adolescents' psychological functioning through its association with parenting difficulties, characterized by low levels of warmth, lax monitoring and involvement, and psychological control. Findings from the structural equation model provided partial support for the mediational role of parenting difficulties. In examining the first part of the link in the mediational chain, family instability was related to parenting difficulties. Several explanations may be proffered to account for this association. For example, the fatigue, preoccupation, frustration, and distress generated by the challenges of facing unstable family events may directly undermine parental abilities to provide substantial support, guidance, and warmth to their children. Alternatively, it is possible that "third" variables like parental psychopathology, psychosocial immaturity, or poor psychosocial competence may simultaneously precipi-

tate greater parenting difficulties and more unstable family events (e.g., residential mobility, changes in romantic relationships of primary caregivers, job loss) and thus account for the association between family instability and parenting. Given our cross-sectional design, it is also possible that unstable family events are symptoms and products of parenting difficulties.

In addressing the second part of the mediational chain, the correlational results indicated that parenting difficulties were consistently associated with both externalizing and internalizing symptoms. These results support earlier conclusions that parenting is a primary predictor of child adjustment (Barber, 1996; Baumrind, 1966; Dishion, French, & Patterson, 1995; Goodman, Adamson, Riniti, & Cole, 1994; Steinberg, Elmer, & Mounts, 1989). However, in the mediational model, the direct paths from parenting difficulties to internalizing and externalizing symptoms were negligible; only the indirect paths from parenting difficulties to family insecurity appraisals to adolescent adjustment were significant. Thus, the role of parenting difficulties in accounting for family instability appeared to be complex, as the findings suggest that paths between parenting difficulties that accompany family instability and adolescent maladjustment are mediated by children's appraisals of security in the family. Accordingly, the results lend support to the hypothesis that parenting difficulties may affect children's adjustment by undermining children's confidence in the family to provide a safe, predictable, and cohesive context for living. Therefore, our findings addressing emotional security as a mediator of parenting contributes to recent advances in understanding the role of internal representations and security in models of parenting.

Addressing the question of why children's insecure appraisals of the family mediate links between family instability and parenting difficulties and children's psychological adjustment remains a key conceptual and empirical question. In many conceptual frameworks (e.g., Ackerman et al., 1999; Bowlby, 1969/1982; Bretherton et al., 1997; Cummings & Davies, 2002; Popenoe, 1994), the primary assumption is that indicators of family instability and parenting difficulties both signify caregiver difficulties in providing a secure, cohesive, and predictable context for socializing children. As children are repeatedly exposed to these challenging events, they appear to become prone to developing insecure representations collectively characterized by a lack of confidence in their family as a reliable source of support and protection, worries about their future well-being in their families, and emotional disengagement from the family.

Insecure family representations may actually serve an adaptive function in the context of family discord. For example, representations that are primed to identify family difficulties may alert children to potential harmful events in discordant homes that may pose a

threat to their well-being. Alternatively, representations that defensively downplay the significance of the family decrease the subjective aversiveness and threat of various stressors. However, these representations are proposed to lay the foundation for psychological difficulties by serving as a blueprint for hostile appraisals, use of maladaptive coping strategies, and patterns of emotion dysregulation in novel or challenging developmental contexts or tasks (Davies et al., 2002; Finnegan, Hodges, & Perry, 1996; Shields, Ryan, & Cicchetti, 2001). Consistent with these conceptualizations, our findings indicate that adolescents' insecure family representations are predictors of their psychological symptoms. However, an important task for future research is to identify the processes that mediate associations between representations of the family and psychological maladjustment (see Shields et al., 2001).

Several limitations of this study should be considered in evaluating the findings. First, although the mediational tests were guided by an a priori conceptualization, the cross-sectional design precludes any definitive conclusions about causality. Thus, it is plausible that alternative conceptual explanations and statistical models (e.g., pathways running from adolescent effects to family characteristics) may provide equally or more compelling accounts of the data. Given the earlier stage of the research on family instability, testing our process model within a cross-sectional design was regarded as a necessary first step before embarking on more comprehensive and expensive longitudinal designs.

Second, concerns about generalizability arise from the use of a primarily Caucasian, middle-class sample of young adolescents and their parents. Although earlier findings indicate that family instability is a robust risk factor for young minority children from economically disadvantaged backgrounds (Ackerman et al., 1999), it is unclear whether the same intrapsychic (i.e., appraisals of family security) and family (i.e., parenting difficulties) mechanisms mediate the effects of family instability. On the one hand, the greater variability in unstable events experienced by families in adverse sociodemographic conditions (e.g., poverty) may serve to amplify parenting difficulties and children's concerns about the family as a source of security. On the other hand, factors that accompany the experience of more adverse conditions (e.g., maltreatment) may assume more prominent roles as mediating processes of family instability. In light of the potential moderating role of sociodemographic characteristics in mediational paths of family instability, researchers would do well to examine the specificity and generalizability of our findings. Despite this limitation, this study builds on the family instability research conducted with disadvantaged, young children and serves as an additional basis of comparison for future research with other samples.

Third, care should be taken in interpreting the magnitude of findings, which are modest even at face value.

Although considerable care was taken to reduce mono-informant bias by utilizing multiple informants (i.e., parent, adolescent) in structural equation models, the possibility remains that interrelations among the family and adolescent characteristics may have been inflated by reliance on a single method of assessment (i.e., questionnaires). Moreover, some of the findings may still be attributable to common informant variance. For example, Table 1 shows that associations between measures collected from the same informant tend to be stronger in magnitude than comparable measures collected from different informants (e.g., parent reports of parenting difficulties and parent and adolescent reports of psychological symptoms). Furthermore, measurement of appraisals of family insecurity and adolescent symptoms were predominantly derived from adolescent reports. Therefore, associations between appraisals of family insecurity and adolescent symptoms may be due in part to common method variance across the two constructs. By extension, the negligible direct paths between parenting difficulties and adolescent symptoms reflect the fact that parenting measures were derived solely from parent reports, whereas the latent variables of adjustment were heavily derived from adolescent reports. Thus, measurement models that rely on different configurations of reports from multiple informants may yield different patterns of findings, especially in explicating the significant role of parenting in models of family instability.

Moreover, it is also possible that direct paths identified in the structural equation model are artifacts of our specific selection and assessment of variables for the model. For example, there is a possibility that family instability does not directly affect children's functioning but is merely a marker variable for the more proximal effects of factors (e.g., marital conflict) that were not included in the structural equation model. Likewise, incorporating measures of children's appraisals, affect, and coping in the family from other theories (e.g., social learning, information-processing, functionalist emotion theories) will likely reveal that multiple intrachild processes account for links between family instability, parenting difficulties, and adolescent maladjustment. Thus, utilizing greater diversity in methods (e.g., multiple methods) and broader assessments of other mediators may provide more precision and power in testing process models of family instability.

Despite these limitations, this current study illustrates the significance of examining family instability from a child's perspective. Toward the goal of achieving greater conceptual clarity of family instability, the study precisely defines and assesses disruptive events in the family context that children were likely to perceive as being particularly stressful. The results demonstrate that even relatively modest to moderate levels of family instability are consistent predictors of adolescent internalizing and externalizing symptoms in working and middle-class families. Highlighting the utility of testing

process models of family instability, the findings further indicate that both parenting difficulties and adolescents' insecure appraisals of family life mediate, in part, the link between family instability and adolescent adjustment. Interpreted in family models of emotional security, the implication is that cumulative experiences with family instability and accompanying parenting difficulties increase children's risk for adjustment problems by affecting how children evaluate and interpret the family to serve as sources of both security and threat.

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