



Published in final edited form as:

J Marriage Fam. 2016 April 1; 78(2): 482–497. doi:10.1111/jomf.12267.

Parent–Child Relationships in Stepfather Families and Adolescent Adjustment: A Latent Class Analysis

Paul R. Amato,

Valarie King, and

Maggie L. Thorsen

Abstract

In the current study the authors drew on Waves I and III from Add Health to examine the closeness of parent–adolescent relationships in married mother–stepfather families ($N = 1,934$). They used latent class analysis to identify family constellations defined by adolescents' relationships with all of their parents: mothers, stepfathers, and biological nonresident fathers. In particular, the authors (a) identified the most common underlying patterns of adolescent–parent relationships in stepfamilies; (b) determined the background characteristics that predict membership in these groups; and (c) examined how adolescents in these groups fare with respect to depressive symptoms, delinquency, and substance use. The results indicate that adolescents' relationships can be represented with 4 latent classes. Adolescents in these classes differ on measures of adjustment, and many of these differences persist into the early adult years.

Keywords

development/outcomes; National Longitudinal Study of Adolescent Health; parent–adolescent relations; stepfamilies

Because of high rates of divorce, nonmarital childbearing, cohabitation, and remarriage, an increasing number of children are growing up apart from their biological fathers and living with stepfathers. The transition to stepfamily living presents a number of risks for children, and children in stepfamilies exhibit more internalizing and externalizing problems than do children in two-biological-parent households, on average (Bray, 1999). And despite improvements in children's standard of living when custodial mothers remarry, children in stepfather families are no better off on most emotional and behavioral indicators than are children in single-mother households (Amato, 2010; Sweeney, 2010).

A focus on average differences in children's adjustment, however, obscures the heterogeneity in outcomes among children living in stepfamilies (Coleman, Ganong, & Russell, 2013). Why do some children in stepfamilies thrive while others flounder? Although a variety of factors contribute to children's adjustment in stepfamilies, almost all observers agree that the role of parents is central (Bornstein, 2002). Close and supportive

relationships with parents foster children's healthy development in all types of families, including stepfamilies, yet establishing and maintaining strong parent–child ties in stepfamilies is challenging, especially for adolescents (Bray & Easling, 2005; Hetherington & Clingempeel, 1992; Hetherington & Stanley-Hagan, 2000).

In this study we drew on Waves I and III from the National Longitudinal Study of Adolescent to Adult Health (Add Health; <http://www.cpc.unc.edu/projects/addhealth>) to examine the closeness of parent–adolescent relationships in married mother–stepfather families and the implications of these relationships for adolescent adjustment. We focused on stepfather families because the number of children in stepmother households is comparatively small (Stewart, 2007), and their representation in Add Health is too limited to conduct a detailed analysis. The current study also was limited to *married* stepfathers because adolescents in the Add Health study who lived with their mothers and cohabiting partners were not asked questions about their relationships with stepfather figures. Stepfamilies that began as cohabiting partnerships and transitioned into marriage prior to the Wave I interview, however, were included in the sample. Despite some sample limitations, the Add Health data set is appropriate for the current topic because it is large, is nationally representative, and provides detailed information on parent–child relationships in stepfamilies. Moreover, Add Health makes it possible to study the associations between stepfamily relationships and multiple aspects of adolescent adjustment.

Previous stepfamily research has focused on children's relationships with each parent separately (e.g., Buchanan, Maccoby, & Dornbusch, 2000; King, 2006). In contrast, we identified family constellations defined by adolescents' relationships with mothers, stepfathers, and biological nonresident fathers—an approach broadly consistent with family systems theory. In particular, we (a) identified the most common underlying patterns of adolescent–parent relationships in stepfamilies; (b) determined the background characteristics that predict these patterns; and (c) examined how different patterns of relationships are associated with symptoms of depression, delinquency, and substance use in adolescence (using cross-sectional data) and young adulthood (using longitudinal data).

Background

Many researchers have studied stepfamily dyads, with a particular focus on the stepfather–stepchild relationship. This research has revealed a striking degree of variability, with some stepfathers developing close emotional ties with their stepchildren and others remaining disengaged and emotionally distant (King, 2006). Despite the usefulness of this research, few studies of stepfamilies have studied systems larger than dyads. In one exceptional study, Baxter, Braithwaite, and Bryant (2006) examined triadic relationships among college students living with a biological parent and a stepparent. The most common pattern to emerge from their qualitative analysis was one in which young adults related to the stepparent (to whom they were moderately close) primarily through the resident biological parent (to whom they were very close). Other patterns involved youth who were close to the resident biological parent but not the stepparent, youth who were not close to either parent, and youth were very close to both parents, with the last group being the least common.

Family systems theory provides a general framework for our research. This perspective focuses on patterns of closeness and communication between family members, how these patterns are maintained over time, and the implications of these patterns for individual and family development (Broderick, 1993; Kerr & Bowen, 1988; Minuchin, 1974). The assumption that all parts of a family system are interrelated shifts the focus away from particular dyadic relationships and toward more general patterns that characterize family relationships. In the present study we considered adolescents' relationships with three parental figures: (a) stepfathers, (b) mothers, and (c) nonresident biological fathers. Although most studies of stepfamilies have not incorporated information on nonresident fathers, bringing nonresident fathers into the picture makes it possible to study systems larger than those defined by the household. Moreover, children's contact with nonresident fathers has increased in recent decades (Amato, Meyers, & Emery, 2009), and the quality of these relationships is related to multiple aspects of children's adjustment (Adamsons & Johnson, 2013; Amato & Gilbreth, 1999). For these reasons, including nonresident fathers provides a more comprehensive picture of parent-child relationships in stepfamilies and how these relationships are related to adolescent adjustment. (Adolescents in Add Health were not asked about nonresidential stepmothers, so we were unable to incorporate information on these relationships.)

Family systems theory, like virtually all family theories, assumes that parent-child relationships are central to children's development and adjustment. Of course, as children grow into adolescence, parent-child conflict increases and engagement in shared activities declines (Smetana, Campione-Barr, & Metzger, 2006). When these relationships remain emotionally close, however, parents continue to be valuable resources for their adolescent children. Indeed, a large research literature shows positive associations between the quality of parent-child relationships and multiple aspects of adolescent adjustment across a variety of family structures (Buchanan, Maccoby, & Dornbusch, 2000; Gray & Steinberg, 1999; Steinberg, 2001).

Family transitions like divorce and remarriage pose challenges for children's relationships with parents. Parental divorce (or union disruption) tends to weaken children's ties to nonresident fathers (Amato, 2010), and maternal repartnering often creates tension between children and mothers (Cavanagh, Schiller, & Riegle-Crumb, 2006; Day & Acock, 2004). Moreover, many children reject their stepfathers, especially when remarriages occur during early adolescence (Hetherington & Jodl, 1994; Hetherington & Stanley-Hagan, 2000). Nevertheless, a great deal of variability exists in adolescents' ties with parents in stepfamilies (King, 2006), and these relationships continue to be important contexts for understanding adolescent adjustment (Hetherington, Henderson, & Reiss, 1999; Pryor & Rodgers, 2001).

The Present Study

The current study extends prior research by using latent class analysis (LCA) to study patterns of relationships in stepfamilies. LCA is a statistical method for identifying *unobserved* subgroups within populations based on observed indicators (Collins & Lanza, 2010; McCutcheon, 1987). LCA is also a person-centered rather than a variable-centered

approach. In a person-centered approach like LCA, people are placed into groups on the basis of the similarity of their responses (in the present case, adolescents' reports of closeness to parents). A person-centered approach shifts out attention away from the differences between variables and toward the differences between relatively homogeneous subgroups of adolescents.

LCA has several advantages over earlier methods, such as cluster analysis. Unlike cluster analysis, LCA does not require researchers to specify the number of classes in advance, and empirical indicators are available to determine the optimal number. Moreover, whereas cluster analysis assigns individuals to clusters absolutely, LCA calculates each individual's probability of membership in each class. (Probabilities of less than 1 are assumed to be due to measurement error.) Studies based on LCA (or latent transition analysis, its close cousin) have appeared in the research literature on family relationships in recent years. For example, LCA has been used to study patterns of interaction between adult children and their parents in the Netherlands (van Gaalen & Dykstra, 2006), the structure of intergenerational relations in rural China (Guo, Chi, & Silverstein, 2012), and patterns of father–infant interaction in two-parent families (Goodman, Crouter, Lanza, Cox, & Vernon-Feagans, 2011). We know of no studies that have used LCA to study stepfamily relationships.

Following systems theory, we assume that family relationships tend to “crystallize” into particular configurations, based on an underlying logic. Because LCA is an exploratory rather than a confirmatory method, it is difficult to predict what these configurations will be. One possibility is that adolescents tend to provide similar ratings of closeness to mothers, stepfathers, and nonresident fathers. This would happen if positivity (or negativity) in one relationship spills over and influences other relationships. Correspondingly, well-adjusted and socially skilled adolescents may build positive connections with family members, whereas troubled adolescents may withdraw emotionally from their families. With respect to the last possibility, Dunn, Cheng, O'Connor, and Bridges (2004) found that children's reports of conflict with mothers, stepfathers, and nonresident fathers were positively correlated. They reasoned that “easy” or “difficult” children tend to have similar relationships with all three parents because they elicit similar responses in different people. If children are similarly close to everyone in their families, then the latent classes would reflect adolescents with either close or distant ties with parents, with perhaps an intermediate group also emerging. With respect to adolescent adjustment, a great deal of research suggests that adolescents have the most positive outcomes when family relationships are close and supportive (Buchanan, Maccoby, & Dornbusch, 2000; Gray & Steinberg, 1999; Steinberg, 2001). A straightforward hypothesis, therefore, is that adolescents report fewer symptoms of depression, less delinquency, and less substance use when stepfamily relationships are generally close and more symptoms of depression, more delinquency, and more substance use when stepfamily relationships are generally distant.

Family systems theory allows for other relationship configurations, however, given the tendency of family members to form coalitions and alliances. Some adolescents may be close to both resident parents but distant from nonresident fathers—a pattern that may occur when nonresident fathers withdraw from their children's lives or when resident parents establish strong boundaries around themselves and their children. Some adolescents may be

close to mothers and distant from stepfathers as well as biological fathers, particularly in cases where mothers act as gatekeepers or form coalitions with their children. Yet other adolescents may be close to both biological parents and distant from stepfathers, or close to nonresident fathers but distant from mothers and stepfathers. Given the exploratory nature of the current study, we cannot frame specific hypotheses about the number, nature, and frequency of these patterns. Nevertheless, we hypothesized that adolescents in mixed configurations experience moderate levels of adjustment: less positive than when all relationships are close but more positive than when all relationships are distant.

The first step in the current analysis identified latent classes and provided population-level estimates of the proportion of adolescents in each class. After determining the number and size of the latent classes, we examined family and individual characteristics that predict membership in these classes. We drew on prior theory and research on parent–child relationships in stepfamilies for this purpose. These variables include adolescent gender, adolescent age, adolescent race, whether the adolescent was U.S. born, adolescent religiosity, mother and stepfather education, household income, years in a stepfamily, and the number of siblings in the household (Hetherington & Clingempeel, 1992; Pryor, 2014; Stewart, 2007; Sweeney, 2010). To capture aspects of family history, we also included whether the adolescent was born in marriage and the total number of father figures to whom the adolescent had been exposed since birth. Finally, because recent work on family complexity suggests the importance of looking at different types of siblings (e.g., Brown, Manning, & Stykes, 2015), we included variables that reflect the presence of half- and stepsiblings in the household.

We then determined whether forms of adolescent adjustment at Wave I—symptoms of depression, delinquency, and substance use—vary with latent class membership. Given the existence of feedback loops in family systems, we assumed that the links between youth adjustment and patterns of stepfamily closeness are bidirectional; that is, that troubled parent–child relationships increase the risk of problems such as delinquency and substance use, and these problems, in turn, create further tension in parent–child relationships. (For theoretical and empirical work on bidirectional and child effects, see Crouter & Booth, 2003, and Hawkins, Amato, & King, 2007). Although we could not test for bidirectionality with our data, we used the family and individual characteristics listed above as controls to ensure that the links between family configurations and adolescent adjustment were not due to their mutual correlations with other variables. We could not control for unobserved factors that may be producing spurious associations between family configurations and adolescent adjustment.

Finally, to determine whether the differences in adjustment between latent classes are stable over time, we examined class differences in adjustment at Wave III, approximately 6–7 years later, when respondents were in emerging adulthood (Arnett, 2000). During the transition to adulthood youth have many developmental tasks to accomplish. The process is not always smooth, however, and the prevalence of several types of risky behavior, including substance use, peaks during emerging adulthood, not adolescence (Arnett, 2000). But despite the fact that establishing independence from parents is a defining feature of adulthood, parents continue to serve as crucial sources of support for youth as they make

this transition (Stewart, 2007). Our goal in this final analysis was to see whether relationships with parents in adolescence have implications that persist beyond the teen years.

Method

Sample

We used data from Waves I and III of the Add Health study. When weighted, these data are nationally representative of adolescents in Grades 7 through 12 in their United States during the 1994–1995 school year (Harris et al., 2009). We drew on the subset of adolescents in Add Health who participated in the in-home interviews at Wave I ($N = 20,745$). The analytic sample for the cross-sectional analysis was restricted to adolescents with valid sample weights who were living with a biological mother and a stepfather at Wave I, excluding those whose nonresident biological father was known to be deceased ($n = 1,934$). Daughters made up about half (51%) of the sample, and the mean age was 15.4 years. The sample was mostly non-Hispanic White (70%), with 13% non-Hispanic Black, 11% Hispanic, and 6% other. The typical adolescent had been in a stepfamily for 7.6 years. Additional details on the sample are available in the first column of Table 2.

For the longitudinal analysis, we drew on Wave III data collected in 2001–2002, when youth were in their early adult years (ages 18–26). The Wave III sample size was 1,408, or 73% of the original Wave I sample. Attrition between waves was more common among men than women, among youth without stepsiblings than with stepsiblings, and among youth who did not know their nonresident fathers. Attrition was not related to any of the other variables used in the analysis.

Analysis

Data analysis was conducted using Mplus version 6 (Muthén & Muthén, 2010) with full-information maximum-likelihood estimation to handle missing data. This approach uses all available data when estimating parameters, thereby reducing missing data biases (Enders & Bandalos, 2001). Results are based on weighted data, with standard errors adjusted for clustering and stratification in the Add Health sampling design.

Measures

Parent–child relationship measures—*Closeness to mother* was measured with a single item asking adolescents how close they felt to their resident biological mothers (range: 1 = *not at all close* to 5 = *very close*). Identical questions were used to measure *closeness to stepfather* and *closeness to nonresident father*. Adolescents who stated that they never saw or did not know their biological fathers (21%) were not asked the question about closeness. Because our goal was to examine relationship patterns among *all* adolescents, it was necessary to include these cases in the analysis. Consequently, we included a binary indicator in the analysis (0 = does not know nonresident biological father, 1 = knows nonresident biological father) and assigned a value of 1 (the lowest possible value) on the closeness variable to adolescents who did not know their nonresident biological father.

Predictors of adolescent–parent relationship classes—We examined several individual- and family-level characteristics that may predict membership in the latent classes. These variables also served as controls when we examined associations between latent class membership and youth adjustment. Adolescent variables included whether the adolescent was a daughter (0 = son, 1 = daughter), the adolescent's age at Wave I (in years), and if the adolescent was not a citizen (0 = a U.S. citizen, 1 = not a U.S. citizen). Adolescent race/ethnicity was captured with four dummy variables: (a) non-Hispanic White (reference group), (b) non-Hispanic Black, (c) Hispanic, and (d) other. Ordered measures of mother's education and stepfather's education were used to measure social class (range: 1 = *less than high school education* to 4 = *college education or more*), along with family income in logged dollars. The number of years in a stepfamily involved the length of time the adolescent had lived in the same household with the stepfather, regardless of whether the union had begun with cohabitation or marriage.

Information about siblings was drawn from the household roster and included a count variable for the number of full siblings and two binary indicators indicating whether the respondent lived with any stepsiblings (0 = no stepsiblings, 1 = stepsiblings) or any half-siblings (0 = no half-siblings, 1 = half-siblings). To measure the of number of father figures, we drew on questions about the mother's relationship history and the number of coresidential relationships (cohabitations and marriages) to which the adolescent had been exposed since birth. A binary variable indicated whether the adolescent was born in marriage (0 = not born in marriage, 1 = born in marriage). Finally, *religiosity* was based on the mean of three standardized items dealing with how often the adolescent attended religious services, the importance of religion, and participation in religious activities ($\alpha = .82$). Information on the mother's education, stepfather's education, family income, the number of father figures, and whether the adolescent had been born in marriage was obtained from the mother interview; all other variables were derived from the adolescent interview.

Measures of adjustment—We examined three aspects of adjustment during adolescence and young adulthood: (a) depressive symptoms, (b) delinquency, and (c) substance use. Scales were constructed from items drawn from the Wave I in-home interview for the cross-sectional analysis and from the Wave III in-home interview for the longitudinal analysis. Fewer items were available for some constructs in Wave III than in Wave I.

We measured depressive symptoms with items from the Center for Epidemiological Studies Depression Scale (Radloff, 1977). The Wave I scale asked how often during the previous week adolescents had the following feelings or experiences: felt sad, were depressed, felt lonely, felt fearful, felt disliked by others, could not shake off the blues, were too tired to do things, felt that their lives were not worth living, were bothered by things more than usual, had trouble focusing, had a poor appetite, talked less than usual, did not enjoy life, felt happy, felt hopeful, and felt that they were as good as other people ($\alpha = .88$). Responses ranged from 0 (*rarely or never*) to 3 (*most or all of the time*). The corresponding Wave III young adult score was based on a subset of nine items from the adolescent interview ($\alpha = .81$). The Wave I and Wave III symptoms scales were standardized to have means of 0 and standard deviations of 1 within each wave.

Delinquency was based on 15 different delinquent activities during adolescence and eight different delinquent (or criminal) activities during young adulthood. The adolescent delinquency variable was drawn from a series of Wave I questions that asked whether respondents had engaged in the following activities during the past year: painted graffiti on someone else's property, deliberately damaged someone else's property, lied to their parents about where they were or who they were with, shoplifted, took someone's car without permission, stole something with a value under \$50, stole something with a value over \$50, entered onto someone else's property with the intention of stealing, sold drugs, got rowdy in a public place, got into a serious physical fight, used or threatened to use a weapon, took part in a fight with a group of their friends against another group of people, shot or stabbed someone, and got into a fight in which the other person was seriously injured. These items were dichotomized (0 = never, 1 = at least once) and summed to create an index of adolescent delinquency (range: 0–15, $M = 2.26$, $SD = 2.53$).

The corresponding variable for young adults was derived from Wave III questions asking respondents whether (in the past year) they deliberately damaged someone else's property, stole something with a value under \$50, stole something with a value over \$50, entered onto someone else's property with the intention of stealing, sold drugs, used or threatened to use a weapon, took part in a fight with a group of their friends against another group of people, or got into a fight in which the other person was seriously injured. These items were dichotomized (0 = never, 1 = at least once) and summed to create a scale of young adult antisocial activity (range: 0–8, $M = 0.49$, $SD = 1.20$).

We also assessed adolescents' and young adults' use of three substances: (a) cigarettes (tobacco), (b) alcohol, and (c) marijuana. Questions were identical at Wave I and Wave III. To measure *smoking*, respondents were asked about the number of days in the past month on which they had smoked any cigarettes. We created a dichotomous item (0 = no smoking, 1 = smoking on 1 or more days) to indicate whether respondents had used cigarettes (or had been cigarette free) during the past month. Nearly one third of adolescents (31%) and nearly one half of young adults (49%) reported smoking in the previous month. Frequent binge drinking was captured with a question asking how often during the past year respondents had been "drunk" or "very high" on alcohol (0 = drunk once per month or less, 1 = drunk more than once a month). Scores of 1 on this item were assigned to 18% of adolescents and 24% of young adults. Finally, a question asked whether respondents had smoked marijuana in the past month (0 = no, 1 = yes). Positive responses to this question were provided by 15% of adolescents and 24% of young adults.

Results

The Latent Classes

We estimated solutions with two, three, four, five, and six latent classes and relied on three measures to determine the best solution. *Entropy* is a measure of how well individual cases can be classified unambiguously and ranges from 0 to 1, with larger values indicating a clearer delineation of classes. The Bayesian Information Criterion is a measure of model fit, with lower values indicating that a given model is more likely to be the true model. Finally,

the Lo–Mendell–Rubin test indicates whether a solution with K classes provides a significantly better fit to the data than a solution with $K - 1$ classes.

In the current study, the three measures provided inconsistent results. Entropy increased from two to four classes and then declined, which suggested that the four-class solution was optimal. Bayesian Information Criterion values were lowest for the five-class solution, which suggested that this was the optimal solution. And the Lo–Mendell–Rubin test was not significant for solutions with more than three classes, which suggested that the three-class solution was optimal. When fit indices yield contrary conclusions it is necessary to examine all of the best-fitting solutions to see which has the most heuristic value (Collins & Lanza, 2010). Our examination of the three-, four-, and five-class solutions revealed that the four-class solution had the clearest interpretation. The three-class solution largely combined Classes 3 and 4, which masked the important distinction between children with either close or nonexistent relationships with nonresident fathers (see below), whereas the five-class solution essentially divided Class 2 into two subclasses that differed in what appeared to be substantively unimportant ways. The four-class solution not only had a clear interpretation but also had an excellent entropy value (.99), which indicated that the cases could be classified into four groups with a high degree of certainty.

The means of the four variables used to generate the latent classes are shown in Table 1. The first column shows the overall means for the full sample, and subsequent columns show the means for the four latent classes. For the three closeness ratings, we report means based on raw scores (to provide a sense of absolute closeness) as well as Z scores (to provide a sense of relative closeness). Adolescents in Class 1 (9% of the sample) did not report being particularly close to any of their parents. The mean ratings (raw scores) for stepfathers, mothers, and nonresident biological fathers were 2.58, 2.77, and 2.61, respectively. All three means were below 3, the midpoint of the response options. Correspondingly, the mean Z scores for stepfathers and mothers were negative and substantial (-0.99 and -2.35 , respectively), although the mean Z score for nonresident biological fathers (-0.05) was only slightly negative and close to the grand mean of 0. Sixteen percent of adolescents in this group had no contact with their biological fathers. We refer to this class as *not close to resident parents*.

Adolescents in Class 2 (20% of the sample) reported being moderately close to all of their parents, although the mean rating for nonresident fathers (2.49) was below the midpoint of the response scale. All three of the mean Z scores were negative. Nineteen percent of adolescents in this group did not know their biological fathers. We refer to this class as *moderately close to resident parents*.

Adolescents in Class 3 (16% of the sample) reported being close to their stepfathers (4.2) and very close to their mothers (5.0). Both of the corresponding Z scores were positive. No adolescents in this group knew their biological fathers. (The proportion not knowing their fathers was 1.0). By default, these adolescents had been assigned the lowest possible score of 1 on the father closeness rating, as noted earlier. We label this group close to resident parents–don't know nonresident father.

Finally, adolescents in Class 4 (55% of the sample) reported being close to their stepfathers (with a mean score of nearly 4) and very close to their mothers (with a mean score of exactly 5). Moreover, all of these adolescents (100%) knew their nonresident biological fathers. These adolescents also were relatively close to their fathers, as reflected in a mean raw score above the midpoint of the response scale and a positive mean Z score. We refer to this class as *close to all parents*.

Differences Between Latent Classes on Background Variables

The data in Table 2 show the means for all of the background variables by class membership. The first column shows the overall mean for the full sample, and subsequent columns show the means for the four latent classes. To supplement the means shown in Table 2 we used multinomial logistic regression to regress class membership onto the background variables. We conducted three regression analyses and rotated the excluded group to provide contrasts among all four classes. Significant differences between groups (based on the multivariate results) are reported in the final column of Table 2. (The full multinomial results are available on request.)

The analysis was clearest in distinguishing adolescents in the close to resident parents–don't know nonresident father class (Class 3) from other adolescents. Table 2 shows that adolescents in this class were younger than adolescents in the other three classes, and the multivariate analysis indicated that these differences were statistically significant. Adolescents in this class also had been in stepfamilies for the longest time (more than 9 years), and the differences between this class and the other three classes were significant. Adolescents in this class had the lowest mean scores for mother and stepfather education, although most of these differences were not significant. Although adolescents in this class were the most likely to be Hispanic, only one difference between classes was significant. In addition, adolescents in this class were less likely than other adolescents to have been born within marital unions (two of the three differences were significant). Taken together, these results indicate that the close to resident parents–don't know nonresident father class was made up largely of adolescents born to unwed mothers with comparatively little education who had formed new unions (and married their partners) when their children were relatively young. Given this constellation of traits, it is not surprising that these adolescents knew little about their biological fathers (Cheadle, Amato, & King, 2010). It is noteworthy that despite their somewhat disadvantaged circumstances, these families not only stayed together but also maintained close relationships between adolescents and stepfathers.

Adolescents in the *not close to resident parents* class (Class 1) were especially likely to be women, with the differences between this class and two other classes being statistically significant in the multivariate analysis. Other researchers have noted that adolescent daughters are more likely than sons to report friction in stepfamilies (Hetherington & Jodl, 1994). Adolescents in this class also tended to be somewhat older than other adolescents. Other than these differences, adolescents in this class were not notably different from other adolescents on the background variables.

Adolescents in the *moderately close to resident parents* group (Class 2) were comparable to those in Class 1 (*not close to resident parents*) in being older than average. They were the least likely of any class to be non-Hispanic Black, although the differences among classes were modest. They also tended to have the highest family income (significantly higher than Class 4). Otherwise, members of this group did not differ appreciably from the other classes.

Adolescents in the *close to all parents* group (Class 4) had been in stepfamilies for the shortest duration (with one significant difference between classes). Adolescents in this class also were the most likely to have been born within marriage, and two of the three differences between this class and the other classes were statistically significant.

Latent Class Differences in Adjustment

The next step in the analysis compared the four groups of adolescents on the measures of adjustment in adolescence and early adulthood. To accomplish this goal, we conducted a series of regression analyses with dummy variables to represent the latent classes. We relied on linear regression for depressive symptoms, Poisson regression for the count measure of delinquency (or criminality among young adults), and logistic regression for the binary substance use measures. Table 3 shows the results from two regression models with Class 4 (*close to all parents*) serving as the omitted comparison group. We conducted additional regression analyses with the other classes serving as the omitted comparison group. This made it possible to examine all possible contrasts between groups, and the significant differences are summarized in the table. Model 1 is bivariate, whereas Model 2 controls for all of the background variables listed in Tables 2. Results for adolescents (Wave I) are shown on the left side of the table, and results for young adults (Wave III) are shown on the right.

With respect to symptoms of depression, adolescents who were *not close to resident parents* or *moderately close to resident parents* (Classes 1 and 2) reported more symptoms than did adolescents with stronger ties to parents (Classes 3 and 4). The same pattern was apparent in the bivariate and multivariate models. These findings are consistent with the notion that having close ties with parents protects adolescents from experiencing symptoms of depression. There was no difference, however, between adolescents in the *close to resident parents–don't know nonresident father* group (Class 3) and the *close to all parents* group (Class 4). The results for young adults were similar, although only the difference between the *not close to resident parents* group (Class 1) and the *close to all parents* class (Class 4) was statistically significant.

With respect to delinquency, only one difference among groups was significant in Model 1. Controlling for the background variables in Model 2 revealed several additional differences, with adolescents in the *not close to resident parents* group (Class 1) reporting more delinquency than adolescents in the *close to resident parents–don't know nonresident father* group (Class 3) and the *close to all parents* group (Class 4). In addition, adolescents in the *moderately close to resident parents* group (Class 2) scored higher than did adolescents in the *close to all parents* group (Class 4). These findings are consistent with the notion that having close ties with parents protects adolescents from drifting into antisocial activities. Once again, however, among adolescents who had close ties with mothers and stepfathers

there was no difference between those who did not know their nonresident biological fathers (Class 3) or were close to their nonresident fathers (Class 4). This pattern was not replicated in early adulthood; instead, the bivariate model indicated a reversal, with individuals who had been in Class 1 as adolescents (not close to resident parents) showing the lowest level of delinquent behavior. No differences between classes were significant in the multivariate model, however, so we do not discuss the results for young adults further.

With respect to substance use, adolescents in the close to resident parents–don't know nonresident father group (Class 3) were less likely to report smoking cigarettes than were adolescents in the other three groups, and the same trend was apparent in the bivariate and multivariate results. To provide an idea of the magnitude of these differences, 20% of adolescents in Class 3 reported smoking cigarettes in the previous month, compared with 34% in Class 1, 37% in Class 2, and 32% in Class 4. The results for young adults were similar, which indicates that the tendency for adolescents who were close to their resident parents (but not their nonresident fathers) to avoid cigarette smoking continued into the early adult years.

With respect to alcohol use, the bivariate results show that adolescents in the close to resident parents–don't know nonresident father (Class 3) group were less likely than adolescents in the *moderately close to resident parents* group (Class 2) and the *close to all parents* group (Class 4) to engage in frequent binge drinking. The unadjusted percentages were 14% for adolescents in Class 3 compared with 19% in Class 1, 27% in Class 2, and 19% in Class 4. The differences between classes no longer were significant in the multivariate analysis, however, and the same pattern of results was apparent among young adults.

Finally, although not all contrasts were statistically significant, adolescents in the *moderately close to resident parents* group (Class 2) were the most likely to have used marijuana in the past month, and adolescents in close to resident parents–don't know nonresident father group (Class 3) were the least likely. The unadjusted percentages were 17% in Class 1, 24% in Class 2, 8% in Class 3, and 16% in Class 4. Similar trends were apparent in the multivariate as well as the bivariate analysis in both waves.

Overall, adolescents who were close to their mothers and stepfathers but not to their biological fathers (Class 3) tended to report the lowest levels of substance use. Moreover, across all five outcomes, adolescents in this class were no worse off than were adolescents who were close to all of their parents, including their nonresident fathers (Class 4). The same trends were apparent in early adulthood, although somewhat attenuated. We return to these unexpected findings in the DISCUSSION section.

Discussion

To understand variation within stepfamilies and how this variation is related to children's adjustment, previous researchers have divided stepfamilies into groups based on structural characteristics, such as the stepparent's gender or the presence of step- or half-siblings in the household (e.g., Fine & Kurdek, 1992; Ganong & Coleman, 1986; Hetherington & Stanley-

Hagan, 2000). Although structural characteristics of stepfamilies are important, few researchers have attempted to distinguish between stepfamilies on the basis of relationship characteristics. This omission is curious, given systems theory's emphasis on emotions and its view of families as networks of interlocking relationships (Broderick, 1993; Kerr & Bowen, 1988; Minuchin, 1974). To explore this approach, we focused on adolescents' reports of closeness to mothers, stepfathers, and nonresident biological fathers. We relied on LCA—an appropriate method when the number and characteristics of groups are not known a priori. To our knowledge, no other study has relied on LCA to understand stepfamily relationships.

Although the number of relationship patterns that characterize stepfamilies is potentially large, parent–adolescent relationships in the present study fell into four general groups. Some adolescents (9%) were distant from their mothers and stepfathers, whereas others (20%) were moderately close to their mothers and stepfathers. Adolescents in both groups generally knew their nonresident fathers but were not particularly close to them. Most adolescents, however, were close to their mothers and stepfathers, and some of these adolescents (55% of the total) also were close to their nonresident biological fathers. So, a pattern of close relationships with *all* parents characterized the majority of stepfamilies with adolescents. The remaining adolescents (16% of the total) were close to both resident parents but had no relationship with their nonresident biological fathers. These groups overlap a good deal with the groups observed by Baxter et al. (2006)—the only other study to our knowledge that attempted to describe broad configurations of relationships in stepfamilies. Their study, however, did not include nonresident fathers, involved university students as respondents, and used qualitative rather than quantitative methods. For these reasons, it is difficult to compare the results of the two studies.

We did not see evidence of household coalitions—relationship patterns often discussed by systems theorists—in our data (e.g., Kerr & Bowen, 1988). For example, no classes emerged in which children were close to resident mothers but excluded their stepfathers. Instead, adolescents' relationships with both resident parents tended to be either distant (Class 1), moderately close (Class 2), or very close (Classes 3 and 4). This finding is consistent with prior research showing that closeness to mothers is positively correlated with closeness to stepfathers (King, Thorsen, & Amato, 2014). Adolescents who were close to both resident parents, however, were either distant (Class 3) or close (Class 4) to their nonresident fathers, so consistency in adolescent–parent relationships did not extend beyond the household. These results suggest that children develop close ties with stepfathers either when (a) their biological fathers continue to be actively involved in their children's lives or (b) their stepfathers “take the place” of completely absent fathers. The presence of both dynamics would account for the absence of a linear correlation between closeness to fathers and closeness to stepfathers (Dunn et al., 2004; Jensen & Shafer, 2013; King et al., 2014).

Adolescents in Class 3 (close to resident mothers and stepfathers but not close to nonresident biological fathers) are of particular interest. Most of these adolescents were born outside of marriage and entered stepfamilies at early ages (age 5, on average). The young age of these children at the time of stepfamily formation, and the many years of residing together, probably contributed to the closeness of adolescent–stepfather ties in this group

(Hetherington & Jodl, 1994). It is noteworthy that these closely knit stepfamilies stayed together (more than 9 years, on average) despite being disadvantaged socioeconomically.

As we anticipated, the latent classes that emerged from the analysis were related to aspects of adolescent adjustment. Consistent with our first general hypothesis, adolescents with weak ties to resident parents (Class 1) reported the most symptoms of depression and the largest number of delinquent activities. Moreover, the longitudinal analysis revealed that these individuals continued to report a high number of depressive symptoms 6–7 years later, although they did not report an elevated number of antisocial behaviors. Controlling for a variety of individual and family characteristics helped ensure that these trends were not spurious, with most of the significant group differences in the bivariate analysis continuing to be significant in the multivariate analysis. These results are broadly consistent with the notion that close parent–child relationships protect adolescents from a broad range of internalizing and externalizing problems (Buchanan, Maccoby, & Dornbusch, 2000; Gray & Steinberg, 1999; Steinberg, 2001)—a principle that applies to stepfamilies as well biological-parent families (Stewart, 2007). These results also are consistent with the notion that parents find it easier to bond with adolescents who are emotionally adjusted and well behaved (Hawkins, Amato, & King, 2007). Parent–adolescent closeness and adolescent behavior are likely to be related in a reciprocal fashion, although demonstrating this point is beyond the scope of the current study.

With respect to substance use, adolescents with weak ties to resident parents (Class 1) or moderately strong ties to resident parents (Class 2) were the mostly likely to report smoking cigarettes, binge drinking, and marijuana use (despite some variation across models and time periods). Adolescents who were close to their resident parents but did not know their nonresident fathers (Class 3) consistently reported the lowest levels of substance use, and this tendency persisted into early adulthood. Indeed, adolescents in Class 3 were significantly less likely to report smoking cigarettes than were adolescents in Class 4 at both waves. These results clash with our hypothesis that adolescents who were close to all of their parents (Class 4) would exhibit the most positive outcome profile and that adolescents with a mixed pattern of closeness (Class 3) would have an intermediate level of adjustment. We suspect that these findings reflect a potential disadvantage of being close to nonresident fathers. Adolescents who spend significant amounts of time with nonresident fathers are likely to travel regularly between two households, and it is possible that splitting time across two households makes it difficult for parents to effectively monitor their adolescents' peer networks and experimentation with substances. Moreover, spending time in two households may increase adolescents' exposure to people (peers and adults) who smoke cigarettes, including, in some cases, nonresident fathers and their new partners.

Our findings also appear to clash with previous research showing that closeness to nonresident fathers is negatively associated with children's emotional and behavioral problems (Adamsons & Johnson, 2013; Amato & Gilbreth, 1999). It may be, however, that many adolescents require only one close father figure in their lives. If this is true, then adolescents with close ties to their stepfathers may not “need” their biological fathers, although they may value continuing contact. This conclusion is consistent with that reached by King (2006), who found that close ties to stepfathers were more important than close ties

to nonresident biological fathers with respect to two out of three adolescent outcomes. Moreover, most adolescents in Class 3 (close to resident parents but not to nonresident fathers) had been born outside of marriage and were relatively disadvantaged socioeconomically. It may be that in disadvantaged populations, close relationships with nonresident fathers involve costs as well as benefits (Thomas, Farrell, & Barnes, 1996). This might be the case when fathers are struggling with problems often associated with poverty, such as unemployment, discrimination, substance abuse, incarceration, and chronic psychological distress. The costs of maintaining close relationships under these circumstances might cancel any benefits and account for why adolescents in Class 3 showed little evidence of impairments despite having no involvement with their biological fathers. Because Add Health contains minimal information on nonresident fathers, testing this explanation was not possible in the current study, although it would make a useful starting point for further research.

Like all studies, the current one involves significant limitations. Because the Add Health interview did not include questions about adolescents' closeness to mothers' cohabiting partners, we were unable to incorporate information on cohabiting stepfamilies. (Stepfamilies that began as cohabiting partnerships and turned into marriages were included in the analysis, however.) We also lacked information on stepfathers' (or other parents') feelings of closeness to adolescents. Although we assume that adolescents' and stepfathers' feelings are positively correlated, a significant minority of cases might exist in which adolescents and stepfathers (or other parents) hold discrepant feelings toward one another. Similarly, we were unable to include questions about closeness to nonresident stepmothers. In addition, we did not have a sufficient number of cases to perform a comparable analysis for resident stepmother families. Moreover, we focused on a single relationship dimension, closeness to parents, and this was measured with a single item. Although emotional closeness is a central relationship feature, broadening the focus to include other relationship dimensions (e.g., the frequency of sharing activities or parental monitoring and supervision) might provide more detailed distinctions between a more nuanced set of latent classes. Finally, nonresident father-child contact has increased in recent decades (Amato, Meyers, & Emery, 2007). Given that the Wave 1 Add Health data were collected in the mid-1990s, our results for nonresident fathers may not apply to current cohorts of adolescents.

In conclusion, family systems theory shifts our attention away from dyads and toward larger patterns of relationships within stepfamilies. The present study indicates that LCA can distinguish among groups of stepfamilies on the basis of relationship closeness in a manner that yields compelling classes. Moreover, the present study demonstrates that these relationship configurations are bound up with multiple forms of adjustment that persist from adolescence into the early adult years. Our analysis also shows that adjustment is not a simple function of the number of positive relationships in the family network. In particular, when adolescents have close relationships with stepfathers they appear to receive little additional benefit from having close relationships with nonresident fathers. Future studies can build on the current findings by using LCA to explore naturally occurring variation within stepfamilies (as well as in other family forms) with more detailed relationships characteristics. A clearer understanding of how stepfamilies differ from one another—especially in ways that are related to youth development—would be useful to counselors,

therapists, and educators who work with stepfamilies (e.g., Lucier-Greer & Adler-Baeder, 2012).

Acknowledgments

This research was supported by funding from the National Science Foundation (NSF) to Valarie King, Principal Investigator (SES-1153189) and by funding from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) to the Population Research Institute at The Pennsylvania State University for Population Research Infrastructure (R24 HD41025) and Family Demography Training (T-32HD007514). This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by Grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>). No direct support was received from Grant P01-HD31921 for this analysis.

References

- Adamsons K, Johnson SK. An updated and expanded meta-analysis of nonresident fathering and child well-being. *Journal of Family Psychology*. 2013; 27:589–599. doi:10.1037/a0033786. [PubMed: 23978321]
- Amato PR. Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*. 2010; 72:650–666. doi:10.1111/j.1741-3737.2010.00723.x.
- Amato PR, Gilbreth J. Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family*. 1999; 61:557–573. doi:10.2307/353560.
- Amato PR, Meyers CE, Emery RE. Changes in nonresident father–child contact from 1976 to 2002. *Family Relations*. 2009; 58:41–53.
- Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*. 2000; 55:469–480. doi:10.1037/0003-066X.55.5.469. [PubMed: 10842426]
- Baxter LA, Braithwaite DO, Bryant LE. Types of communication triads perceived by young-adult stepchildren in established stepfamilies. *Communication Studies*. 2006; 57:381–400. doi:10.1080/10510970600945923.
- Bornstein, M. *Handbook of parenting: Being and becoming a parent*. Erlbaum; Mahwah, NJ: 2002.
- Bray, JH. From marriage to remarriage and beyond: Findings from the developmental issues in stepfamilies research project.. In: Hetherington, EM., editor. *Coping with divorce, single parenting, and remarriage: A risk and resiliency perspective*. Erlbaum; Mahwah, NJ: 1999. p. 253-271.
- Bray, JH.; Easling, I. Remarriage and stepfamilies.. In: Pinsof, WM.; Lebow, JL., editors. *Family psychology: The art of the science*. Oxford University Press; New York: 2005. p. 267-294.
- Broderick, C. *Understanding family process*. Sage; Newbury Park, CA: 1993.
- Brown SL, Manning WD, Stykes JB. Family structure and child well-being: Integrating family complexity. *Journal of Marriage and Family*. 2015; 77:177–190. [PubMed: 25620810]
- Buchanan, CM.; Maccoby, EE.; Dornbusch, SM. *Adolescents after divorce*. Harvard University Press; Cambridge, MA: 2000.
- Cavanagh SE, Schiller KS, Riegler-Crumb C. Marital transitions, parenting, and schooling: Exploring the linkage between family structure history and adolescents' academic success. *Sociology of Education*. 2006; 79:329–354. doi:10.1177/003804070607900403. [PubMed: 20352021]
- Cheadle J, Amato PR, King V. Patterns of nonresident involvement. *Demography*. 2010; 47:205–226. doi:10.1353/dem.0.0084. [PubMed: 20355691]
- Coleman, M.; Ganong, L.; Russell, LT. Resilience in stepfamilies.. In: Becvar, DS., editor. *Handbook of family resilience*. Springer; New York: 2013. p. 85-103.doi:10.1007/978-1-4614-3917-2_6
- Collins, LM.; Lanza, ST. *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. Wiley; Hoboken, NJ: 2010.
- Crouter, AC.; Booth, A. *Children's influence on family dynamics: The neglected side of family relationships*. Erlbaum; Mahwah, NJ: 2003.

- Day, RD.; Acock, A. Youth ratings of family processes and father role performance of resident and nonresident fathers.. In: Day, RD.; Lamb, ME., editors. *Conceptualizing and measuring father involvement*. Erlbaum; Mahwah, NJ: 2004. p. 273-292.
- Dunn J, Cheng H, O'Connor TG, Bridges L. Children's perspectives on their relationships with their nonresident fathers: Influences, outcomes and implications. *Journal of Child Psychology and Psychiatry*. 2004; 45:553–566. doi:10.1111/j.1469-7610.2004.00245.x. [PubMed: 15055374]
- Enders CK, Bandalos DL. The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling*. 2001; 8:430–457. doi:10.1207/S15328007SEM0803_5.
- Fine MA, Kurdek LA. The adjustment of adolescents in stepfather and stepmother families. *Journal of Marriage and the Family*. 1992; 54:725–736. doi:10.2307/353156.
- Ganong LH, Coleman M. A comparison of clinical and empirical literature on children in stepfamilies. *Journal of Marriage and the Family*. 1986; 48:309–318. doi:10.2307/352398.
- Goodman WB, Crouter AC, Lanza S, Cox M, Vernon-Feagans L. Paternal work stress and latent profiles of father–infant parenting quality. *Journal of Marriage and Family*. 2011; 73:588–604. doi:10.1111/j.1741-3737.2011.00826.x. [PubMed: 23152644]
- Gray MR, Steinberg L. Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and the Family*. 1999; 61:574–587. doi:10.2307/353561.
- Guo M, Chi I, Silverstein M. The structure of intergenerational relations in rural China: A latent class analysis. *Journal of Marriage and Family*. 2012; 74:1114–1128. doi:10.1111/j.1741-3737.2012.01014.x.
- Harris, KM.; Halpern, CT.; Whitsel, E.; Hussey, J.; Tabor, J.; Entzel, P.; Udry, JR. *The National Longitudinal Study of Adolescent Health: Research design*. 2009. Retrieved from <http://www.cpc.unc.edu/projects/addhealth/design>
- Hawkins D, Amato PR, King V. The relationship between nonresident father involvement and adolescent well-being: Parent effects or child effects? *American Sociological Review*. 2007; 72:990–1010. doi:10.1177/000312240707200607.
- Hetherington EM, Clingempeel WG. Coping with marital transitions. *Monographs of the Society for Research in Child Development*. 1992; 57(2–3) Serial No. 227. doi:10.2307/1166050.
- Hetherington EM, Henderson SH, Reiss D. Adolescent siblings in stepfamilies: Family functioning and adolescent adjustment. *Monographs of the Society for Research in Child Development*. 1999; 64(4) Serial No. 259. doi:10.1111/1540-5834.00045.
- Hetherington, EM.; Jodl, KM. Stepfamilies as settings for child development.. In: Booth, A.; Dunn, J., editors. *Stepfamilies: Who benefits? Who does not*. Erlbaum; Hillsdale, NJ: 1994. p. 55-79.
- Hetherington, EM.; Stanley-Hagan, M. Diversity among stepfamilies.. In: Demo, DH.; Allen, KR.; Fine, MA., editors. *Handbook of family diversity*. Oxford University Press; New York: 2000. p. 173-196.
- Jensen TM, Shafer K. Stepfamily functioning and closeness: Children's views on second marriages and stepfather relationships. *Social Work*. 2013; 58:127–136. doi:10.1093/sw/swt007. [PubMed: 23724576]
- Kerr, ME.; Bowen, M. *Family evaluation: The role of the family as an emotional unit that governs individual behavior and development*. Norton; New York: 1988.
- King V. The antecedents and consequences of adolescents' relationships with stepfathers and nonresident fathers. *Journal of Marriage and Family*. 2006; 68:910–928. doi:10.1111/j.1741-3737.2006.00304.x. [PubMed: 18270551]
- King V, Thorsen ML, Amato PR. Factors associated with positive relationships between stepfathers and adolescent stepchildren. *Social Science Research*. 2014; 47:16–29. doi:10.1016/j.ssresearch.2014.03.010. [PubMed: 24913942]
- Lucier-Greer M, Adler-Baeder F. Does couple and relationship education work for individuals in stepfamilies? A meta-analytic study. *Family Relations*. 2012; 61:756–769. doi:10.1111/j.1741-3729.2012.00728.x.
- McCutcheon, AL. *Latent class analysis*. Sage; Newbury Park, CA: 1987.
- Minuchin, P. *Families and family therapy*. Harvard University Press; Cambridge, MA: 1974.
- Muthén, LK.; Muthén, BO. *Mplus user's guide*. 6th ed.. Muthén & Muthén; Los Angeles: 2010.

- Pryor, J. *Stepfamilies: A global perspective on research, policy, and practice*. Routledge; New York: 2014.
- Pryor, J.; Rodgers, B. *Children in changing families: Life after parental separation*. Blackwell; Malden, MA: 2001.
- Radloff LS. The CES–D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1:385–401. doi:10.1177/014662167700100306.
- Smetana JG, Campione-Barr N, Metzger A. Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*. 2006; 57:255–284. doi:10.1146/annurev.psych.57.102904.190124.
- Steinberg L. We know some things: Parent–adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence*. 2001; 11:1–19. doi:10.1111/1532-7795.00001.
- Stewart, SD. *Brave new stepfamilies: Diverse paths toward stepfamily living*. Sage; Thousand Oaks, CA: 2007.
- Sweeney MM. Remarriage and stepfamilies: Strategic sites for family scholarship in the 21st century. *Journal of Marriage and Family*. 2010; 72:667–684. doi:10.1111/j.1741-3737.2010.00724.x.
- Thomas G, Farrell MP, Barnes GM. The effects of single-mother families and nonresident fathers on delinquency and substance abuse in Black and White adolescents. *Journal of Marriage and the Family*. 1996; 58:884–894. doi:10.2307/353977.
- van Gaalen RI, Dykstra PA. Solidarity and conflict between adult children and parents: A latent class analysis. *Journal of Marriage and Family*. 2006; 68:947–960. doi:10.1111/j.1741-3737.2006.00306.x.

Table 1

Means of Relationship Indicators by Latent Class Membership

Variable	Full sample	Class 1 ^a	Class 2 ^b	Class 3 ^c	Class 4 ^d
Closeness to stepfather					
Mean raw score	3.70	2.58	3.10	4.20	3.95
SE		0.15	0.08	0.11	0.05
Mean Z score	0.00	-0.99	-0.54	0.42	0.21
Closeness to mother					
Mean raw score	4.61	2.77	4.00	5.00	5.00
SE		0.05	0.00	0.00	0.00
Mean Z score	0.00	-2.35	-0.74	0.57	0.57
Closeness to nonresident father					
Mean raw score	2.63	2.61	2.49	1.00	3.16
SE		0.14	0.09	0.00	0.07
Mean Z score	0.00	-0.05	-0.12	-1.01	0.33
Don't know nonresident father					
Mean raw score	0.21	0.16	0.19	1.00	0.00
SE		0.04	0.03	0.00	0.00
N (unweighted)		197	383	301	1,053
Proportion (weighted)		.09	.20	.16	.55

Note. Means are based on weighted data. Standard errors are adjusted for weighting, clustering, and stratification.

^a Not close to resident parents (9%).

^b Moderately close to resident parents (20%).

^c Close to resident parents-don't know nonresident father (16%).

^d Close to all parents (55%).

Table 2

Means (and Standard Errors, in Parentheses) of Background Variables by Latent Classes

Variable	Total	Class 1 ^a	Class 2 ^b	Class 3 ^c	Class 4 ^d	Differences, $p < .05$
Daughter	.51 (.02)	.66 (.06)	.54 (.03)	.48 (.03)	.48 (.02)	1 > 3, 4
Age	15.39 (0.13)	15.78 (0.18)	15.64 (0.14)	15.00 (0.15)	15.35 (0.15)	1, 2, 4 > 3; 1 >
Years stepfamily	7.58 (0.17)	7.36 (0.53)	7.42 (0.29)	9.21 (0.34)	7.07 (0.22)	3 > 1, 2, 4
Number full sibs	0.70 (0.04)	0.71 (0.09)	0.65 (0.09)	0.69 (0.07)	0.72 (0.05)	
Any half-sibs	.41 (.02)	.42 (.05)	.38 (.03)	.54 (.04)	.38 (.02)	
Any stepsibs	.11 (.01)	.06 (.02)	.09 (.02)	.10 (.02)	.12 (.02)	
Mother education	2.52 (0.04)	2.49 (0.13)	2.64 (0.07)	2.24 (0.09)	2.57 (0.04)	
Stepfather education	2.55 (0.05)	2.60 (0.12)	2.53 (0.08)	2.23 (0.09)	2.63 (0.06)	4 > 3
Log income	3.50 (0.05)	3.54 (0.12)	3.71 (0.05)	3.36 (0.07)	3.45 (0.08)	2 > 4
Hispanic	.11 (.02)	.13 (.03)	.08 (.02)	.19 (.04)	.10 (.02)	3 > 2
Black	.13 (.02)	.14 (.03)	.09 (.02)	.16 (.03)	.13 (.02)	4 > 2
Other race	.06 (.01)	.04 (.02)	.09 (.02)	.06 (.02)	.06 (.01)	
Child not citizen	.04 (.01)	.07 (.02)	.03 (.01)	.06 (.02)	.02 (.01)	
Number of father figures	1.94 (0.03)	1.86 (0.07)	2.01 (0.04)	1.84 (0.07)	1.97 (0.03)	
Marital birth	.76 (.02)	.71 (.07)	.76 (.03)	.56 (.05)	.82 (.02)	4 > 2, 3; 2 > 3
Religiosity Z	-.03 (0.04)	-0.01 (0.07)	-0.08 (0.07)	0.01 (0.07)	0.00 (0.04)	

Note. Total $N = 1,934$. Means are based on weighted data. Standard errors are adjusted for weighting, survey clustering, and stratification. Significance tests for group differences are based on multinomial logistic regression.

^a Not close to resident parents (9%).

^b Moderately close to resident parents (20%).

^c Close to resident parents—don't know nonresident father (16%).

^d Close to all parents (55%).

Table 3

Regression Analysis of Adjustment Measures on Latent Classes, Waves I and III

Predictor	Adolescence (Wave I)		Adulthood (Wave III)	
	Model 1	Model 2	Model 1	Model 2
Depressive symptoms				
Class 1 ^a	.31 (.07)	.27 (.07)	.24 (.09)	.24 (.08)
Class 2 ^b	.18 (.05)	.16 (.05)	.10 (.06)	.09 (.06)
Class 3 ^c	-.02 (.05)	-.04 (.05)	.08 (.08)	.04 (.08)
Class 4 ^d	.00	.00	.00	.00
Differences, $p < .05$	1, 2 > 3, 4	1, 2 > 3, 4	1 > 4	1 > 4
Delinquency				
Class 1 ^a	.22 (.09)	.30 (.10)	-.25 (.09)	-.04 (.09)
Class 2 ^b	.14 (.08)	.15 (.08)	.03 (.12)	.11 (.11)
Class 3 ^c	.08 (.09)	.03 (.09)	-.07 (.12)	-.11 (.13)
Class 4 ^d	.00	.00	.00	.00
Differences, $p < .05$	1 > 4	1 > 3, 4; 2 > 4	1 < 2, 4	None
Smoking				
Class 1 ^a	.14 (.25)	.02 (.24)	.07 (.25)	.24 (.25)
Class 2 ^b	.24 (.18)	.10 (.20)	.05 (.17)	.03 (.19)
Class 3 ^c	-.60 (.21)	-.58 (.21)	-.49 (.25)	-.48 (.24)
Class 4 ^d	.00	.00	.00	.00
Differences $p < .05$	1, 2, 4 > 3	1, 2, 4 > 3	2, 4 > 3	1, 2, 4 > 3
Binge drinking				
Class 1 ^a	.07 (.30)	-.04 (.33)	-.17 (.20)	.03 (.22)
Class 2	.44 (.17)	.35 (.19)	.15 (.20)	.21 (.20)
Class 3 ^c	-.38 (.26)	-.17 (.29)	-.54 (.22)	-.32 (.25)
Class 4 ^d	.00	.00	.00	.00
Differences, $p < .05$	2, 4 > 3	None	2, 4 > 3	None
Marijuana				
Class 1 ^a	.10 (.29)	.12 (.34)	-.03 (.28)	.16 (.28)
Class 2 ^b	.56 (.20)	.56 (.20)	.29 (.18)	.40 (.19)
Class 3 ^c	-.74 (.38)	-.58 (.40)	-.31 (.24)	-.18 (.25)
Class 4 ^d	.00	.00	.00	.00
Differences, $p < .05$	2 > 3, 4; 4 > 3	2 > 3, 4	2 > 3	2 > 3, 4

Note. Numbers in parentheses are standard errors. Total $N = 1,934$. Table values are linear regression coefficients for depression; Poisson regression coefficients for delinquency; and logistic regression coefficients for smoking, binge drinking, and marijuana. Coefficients in Model 1 are from bivariate analyses. Model 2 includes controls for all background variables. Class 4 serves as the omitted comparison group, although the comparison group was rotated to provide group comparisons for significance testing. Results are weighted, and standard errors are adjusted for weighting, survey clustering, and stratification.

^a Not close to resident parents (9%).

^b Moderately close to resident parents (20%).

^c Close to resident parents-don't know nonresident father (16%).

^d Close to all parents (55%).